A G E N D A

IMPERIAL BEACH CITY COUNCIL
REDEVELOPMENT AGENCY
PLANNING COMMISSION
PUBLIC FINANCING AUTHORITY

FEBRUARY 3, 2010

Council Chambers
825 Imperial Beach Boulevard
Imperial Beach, CA 91932

CLOSED SESSION MEETING – 5:30 P.M.
REGULAR MEETING – 6:00 P.M.

THE CITY COUNCIL ALSO SITS AS THE CITY OF IMPERIAL BEACH REDEVELOPMENT AGENCY, PLANNING COMMISSION, AND PUBLIC FINANCING AUTHORITY

The City of Imperial Beach is endeavoring to be in total compliance with the Americans with Disabilities Act (ADA). If you require assistance or auxiliary aids in order to participate at City Council meetings, please contact the City Clerk's Office at (619) 423-8301, as far in advance of the meeting as possible.

CLOSED SESSION CALL TO ORDER BY MAYOR

ROLL CALL BY CITY CLERK

CLOSED SESSION

PUBLIC EMPLOYEE PERFORMANCE EVALUATION/APPOINTMENT
Pursuant to Government Code Section 54957
Title: City Attorney

CONFERENCE WITH REAL PROPERTY NEGOTIATORS
Pursuant to Government Code Section 54956.8:
Property: 771 Palm Ave., Imperial Beach, CA 91932, APN: 626-250-05
Agency Negotiator: City Manager
Negotiating Parties: Wylde Sydes Boutique c/o James Sides
Under Negotiation: Instruction to Negotiator will concern price and/or terms of payment

RECONVENE AND ANNOUNCE ACTION (IF APPROPRIATE)

REGULAR MEETING CALL TO ORDER BY MAYOR

ROLL CALL BY CITY CLERK

PLEDGE OF ALLEGIANCE

AGENDA CHANGES

MAYOR/COUNCIL REIMBURSEMENT DISCLOSURE/COMMUNITY ANNOUNCEMENTS/ REPORTS ON ASSIGNMENTS AND COMMITTEES

COMMUNICATIONS FROM CITY STAFF

PUBLIC COMMENT - *Each person wishing to address the City Council regarding items not on the posted agenda may do so at this time. In accordance with State law, Council may not take action on an item not scheduled on the agenda. If appropriate, the item will be referred to the City Manager or placed on a future agenda.*

Any writings or documents provided to a majority of the City Council/RDA/Planning Commission/Public Financing Authority regarding any item on this agenda will be made available for public inspection in the office of the City Clerk located at 825 Imperial Beach Blvd., Imperial Beach, CA 91932 during normal business hours.

PRESENTATIONS (1.1)

1.1* NAVY PRESENTATION ON DRAFT ENVIRONMENTAL IMPACT STATEMENT FOR SILVER STRAND TRAINING COMPLEX. (0620-80)

* No Staff Report.

CONSENT CALENDAR (2.1 - 2.5) - *All matters listed under Consent Calendar are considered to be routine by the City Council and will be enacted by one motion. There will be no separate discussion of these items, unless a Councilmember or member of the public requests that particular item(s) be removed from the Consent Calendar and considered separately. Those items removed from the Consent Calendar will be discussed at the end of the Agenda.*

2.1 MINUTES.
City Manager's Recommendation: Approve the minutes of the Regular City Council Meeting of December 16, 2009.

2.2 RATIFICATION OF WARRANT REGISTER. (0300-25)
City Manager's Recommendation: Ratify the following registers: Accounts Payable Numbers 70218 through 70317 with the subtotal amount of $417,330.40 and Payroll Checks 42179 through 42227 with the subtotal amount of $144,998.39, for a total amount of $562,328.79.

2.3 RESOLUTION NOS. 2010-6848 AND R-10-208 – AUTHORIZING AN AMENDMENT TO THE AGREEMENT WITH MCDOUGAL, LOVE, ECKIS, BOEHMER & FOLEY TO REDESIGNATE THE CITY ATTORNEY/GENERAL COUNSEL. (0440-30)
City Manager's Recommendation: Adopt resolutions.

2.4 RESOLUTION NO. 2010-6844 – AMENDING JOB DESCRIPTION FOR MAINTENANCE WORKER II. (0510-20)
City Manager's Recommendation: Adopt resolution.

2.5 RESOLUTION NO. 2010-6849 – SALE OF SURPLUS PROPERTY. (0380-45)
City Manager's Recommendation: Adopt resolution.

ORDINANCES – INTRODUCTION/FIRST READING/PUBLIC HEARING (3.1)

3.1 ORDINANCE NO. 2010-1097 – AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF IMPERIAL BEACH, CALIFORNIA, AMENDING SECTION 15.50 OF THE IMPERIAL BEACH MUNICIPAL CODE PERTAINING TO FLOOD DAMAGE PREVENTION. (0770-95)
City Manager's Recommendation:
1. Open the public hearing;
2. Receive report and entertain public testimony;
3. Mayor calls for the reading of the title of Ordinance No. 2009-1097, "An Ordinance of the City Council of the City of Imperial Beach, California, AMENDING SECTION 15.50 OF THE IMPERIAL BEACH MUNICIPAL CODE PERTAINING TO FLOOD DAMAGE PREVENTION";
4. Close the public hearing;
5. City Clerk to read Ordinance No. 2009-1097; and
6. Motion to waive further reading and dispense introduction by title only, and set the matter for adoption at the next regularly scheduled City Council meeting of February 17, 2010.

ORDINANCES – SECOND READING & ADOPTION (4.1)

4.1 ORDINANCE NO. 2010-1096 – AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF IMPERIAL BEACH, CALIFORNIA, AMENDING SECTION 8.30.030 (DEFINITION OF "PRIORITY DEVELOPMENT PROJECT CATEGORY") AND CHAPTER 8.32 (STANDARD URBAN STORMWATER MITIGATION PLAN (SUSMP)) OF THE IMPERIAL BEACH MUNICIPAL CODE. (0770-85)

City Manager's Recommendation:

1. Receive report;
2. Mayor calls for the reading of the title of Ordinance No. 2010-1096, "An Ordinance of the City Council of the City of Imperial Beach, California, AMENDING SECTION 8.30.030 (DEFINITION OF "PRIORITY DEVELOPMENT PROJECT CATEGORY") and CHAPTER 8.32 (STANDARD URBAN STORMWATER MITIGATION PLAN (SUSMP)) OF THE IMPERIAL BEACH MUNICIPAL CODE";
3. City Clerk to read Ordinance No. 2010-1096; and
4. Motion to dispense second reading and adopt Ordinance No. 2010-1096 by title only.

PUBLIC HEARINGS (5.1 - 5.2)

5.1 JOHN HAUPT (APPLICANT/OWNER); A REGULAR COASTAL PERMIT (CP 080061), DESIGN REVIEW CASE (DRC 080062), AND SITE PLAN REVIEW (SPR 080063) FOR THE CONSTRUCTION OF A ROOF OVER AN EXISTING SECOND FLOOR DECK OF A COMMERCIAL UNIT (BEACH CLUB GRILLE DBA SAM'S HAPPY CHEF) OF A MIXED-USE CONDOMINIUM COMPLEX LOCATED AT 710 SEACOAST DRIVE #F (APN 625-182-10-51) IN THE C-2 (SEACOAST COMMERCIAL) ZONE. MF 1000. (0600-20)

City Manager's Recommendation:

1. Open the public hearing;
2. Receive report and public comments;
3. Close the public hearing; and
4. Adopt Resolution No. 2010-6845, approving Regular Coastal Permit (CP 080061), Design Review Case (DRC 080062), and Site Plan Review (SPR 080063), which makes the necessary findings and provides conditions of approval in compliance with local and state requirements. (If skylights are required, amend the resolution.)

5.2 FIVE-YEAR IMPLEMENTATION PLAN. (0640-80)

City Manager's Recommendation:

1. Open the public hearing; and
2. Continue the public hearing to the next regular meeting of February 17, 2010 at 6:00 p.m.

REPORTS (6.1 - 6.3)

6.1 UPDATE ON THE RELOCATION OF THE IMPERIAL BEACH CERTIFIED FARMERS MARKET. (0130-30 & 0600-20)

City Manager's Recommendation: Receive staff's update on the Farmer's Market.

6.2 RESOLUTION NO. 2010-6847 – ACCEPTING THE PALM AVENUE LOW FLOW URBAN RUNOFF DIVERSION PROJECT FINAL REPORT. (0770-10)

City Manager's Recommendation: Receive report and adopt resolution.

6.3 RESOLUTION NO. 2010-6846 – APPROVING FY 2008-09 ANNUAL REPORTS FOR THE SAN DIEGO BAY AND THE TIJUANA RIVER WATERSHED URBAN RUNOFF MANAGEMENT PROGRAMS. (0770-87)

City Manager's Recommendation: Receive report and adopt resolution.

ITEMS PULLED FROM THE CONSENT CALENDAR (IF ANY)

ADJOURNMENT

The Imperial Beach City Council welcomes you and encourages your continued interest and involvement in the City's decision-making process.

FOR YOUR CONVENIENCE, A COPY OF THE AGENDA AND COUNCIL MEETING PACKET MAY BE VIEWED IN THE OFFICE OF THE CITY CLERK AT CITY HALL OR ON OUR WEBSITE AT www.cityofib.com**.**

Copies of this notice were provided on January 28, 2010 to the City Council, San Diego Union-Tribune, I.B. Eagle & Times.

STATE OF CALIFORNIA) *AFFIDAVIT OF POSTING*
COUNTY OF SAN DIEGO) *ss.*
CITY OF IMPERIAL BEACH)

I, Jacqueline M. Hald, City Clerk of the City of Imperial Beach, hereby certify that the Agenda for the Regular Meeting as called by the City Council, Redevelopment Agency, Planning Commission, and Public Financing Authority of Imperial Beach was provided and posted on January 28, 2010. Said meeting to be held at 5:30 p.m. February 3, 2010, in the Council Chambers, 825 Imperial Beach Boulevard, Imperial Beach, California. Said notice was posted at the entrance to the City Council Chambers on January 28, 2010 at 4:00 p.m.

_____
Jacqueline M. Hald, CMC
City Clerk

DRAFT **MINUTES** **Item No. 2.1**

IMPERIAL BEACH CITY COUNCIL
REDEVELOPMENT AGENCY
PLANNING COMMISSION
PUBLIC FINANCING AUTHORITY

DECEMBER 16, 2009

Council Chambers
825 Imperial Beach Boulevard
Imperial Beach, CA 91932

CLOSED SESSION MEETING – 5:30 P.M.
REGULAR MEETING & SPECIAL MEETING – 6:00 P.M.

CLOSED SESSION

MAYOR JANNEY called the Closed Session Meeting to order at 5:30 p.m.

ROLL CALL BY CITY CLERK

Councilmembers present:	McCoy, King, Rose
Councilmembers absent:	None
Mayor present	Janney
Mayor Pro Tem present:	Bragg
Staff present:	City Manager Brown; City Attorney Lough; City Clerk Hald

CLOSED SESSION

COUNCILMEMBER KING announced he would not participate in the discussion of the Closed Session items relating to Palm Ave. as he has a business interest of over $500 involving the neighbor across the street.

MOTION BY MCCOY, SECOND BY BRAGG, TO ADJOURN TO CLOSED SESSION UNDER: CONFERENCE WITH REAL PROPERTY NEGOTIATORS

Pursuant to Government Code Section 54956.8:

Property: Unimproved site of 1.15 acres with a paved Class I bike path, Imperial Beach, CA 91932, APN 616-021-10
Agency Negotiator: City Manager and City Attorney
Negotiating Parties: San Diego County Regional Airport Authority
Under Negotiation: Instruction to Negotiators will concern price and terms of payment

Property: 735 Palm Ave., Imperial Beach, CA 91932, APN 626-250-03
Agency Negotiator: City Manager and City Attorney
Negotiating Parties: Sudberry Properties, Inc.
Under Negotiation: Instruction to Negotiator will concern price and terms of payment

Property: 741 Palm Ave., Imperial Beach, CA 91932, APN 626-250-04
Agency Negotiator: City Manager and City Attorney
Negotiating Parties: Sudberry Properties, Inc.
Under Negotiation: Instruction to Negotiator will concern price and terms of payment

Property: 761-779 Palm Ave., Imperial Beach, CA 91932, APN 626-250-05
Agency Negotiator: City Manager and City Attorney
Negotiating Parties: Sudberry Properties, Inc.
Under Negotiation: Instruction to Negotiator will concern price and terms of payment

Property: 743-849 Palm Ave., Imperial Beach, CA 91932, APN 626-250-06
Agency Negotiator: City Manager and City Attorney
Negotiating Parties: Sudberry Properties, Inc.
Under Negotiation: Instruction to Negotiator will concern price and terms of payment

Property: 775 Palm Ave., Imperial Beach, CA 91932, APN: 626-250-05
Agency Negotiator: City Manager and City Attorney
Negotiating Parties: Priced Rite Pets c/o Robert Lokey
Under Negotiation: Instruction to Negotiator will concern price and terms of payment

MOTION CARRIED UNANIMOUSLY.

MAYOR JANNEY adjourned the meeting to Closed Session at 5:31 p.m. and he reconvened the meeting to Open Session at 6:00 p.m. Reporting out of Closed Session, MAYOR JANNEY announced Council met earlier in Closed Session, received information from staff, gave direction and had no reportable action.

REGULAR MEETING CALL TO ORDER

MAYOR JANNEY called the Regular Meeting to order at 6:01 p.m.

ROLL CALL

Councilmembers present:	McCoy, King, Rose
Mayor present:	Janney
Mayor Pro Tem present:	Bragg
Staff present:	City Manager Brown; City Attorney Lough; City Clerk Hald

PLEDGE OF ALLEGIANCE

MAYOR JANNEY led everyone in the Pledge of Allegiance.

AGENDA CHANGES

None.

MAYOR/COUNCIL REIMBURSEMENT DISCLOSURE/COMMUNITY ANNOUNCEMENTS/ REPORTS ON ASSIGNMENTS AND COMMITTEES

COUNCILMEMBER MCCOY requested presentations on climate change and sea level rise on a future agenda and she spoke of the need to have a plan in place to address sea level rise.

COUNCILMEMBER KING announced MTS would hold public hearings on potential service reductions due to budget constraints.

COUNCILMEMBER ROSE thanked the Chamber of Commerce for a nice Holiday Mixer on Friday.

MAYOR PRO TEM BRAGG reported on the Shoreline Preservation Working Group meeting; the group sent a letter to the California Department of Fish and Game restating their position on the MLPA to ensure that beach communities can continue with sand nourishment projects.

COMMUNICATIONS FROM CITY STAFF

COMMUNITY DEVELOPMENT DIRECTOR WADE introduced Rafael Adame, the City's new Building Official.

PUBLIC COMMENT

Written correspondence regarding an off-leash dog park from PAULA BANKS was submitted as Last Minute Agenda Information.

PAULA BANKS spoke in support of off-leash dog parks in Imperial Beach; she stated that the Navy would be willing to consider opening a fenced off area for use as a dog park if the City is willing to accept responsibility for maintenance and liability; other locations she suggested were the Skate Park, Veterans Park, and on the beach by Carnation Ave. (she submitted additional information for the record).

DON BANKS spoke in support of an off-leash dog park in Imperial Beach.

PRESENTATIONS (1.1)

1.1 RECYCLE ALL-STAR AWARD PRESENTATION. (0270-30)

MAYOR JANNEY presented the Recycle All-Star Award Certificate and other premiums to Chris Medina.

MARCO TOPETE, of EDCO Disposal Corporation, presented the $100.00 check to Mr. Medina.

MAYOR JANNEY recognized EDCO for partnering with the City and promoting recycling in the community.

CONSENT CALENDAR (2.1 - 2.6)

MAYOR PRO TEM BRAGG announced she had a potential conflict of interest on Item No. 2.6 due to the location of her place of employment.

MOTION BY ROSE, SECOND BY MCCOY, TO APPROVE CONSENT CALENDAR ITEM NOS. 2.1 THRU 2.5. MOTION CARRIED UNANIMOUSLY.

WITH REGARD TO ITEM NO. 2.6, MOTION CARRIED BY THE FOLLOWING VOTE:

AYES:	**COUNCILMEMBERS:**	**MCCOY, KING, ROSE, JANNEY**
NOES:	**COUNCILMEMBERS:**	**NONE**
ABSENT:	**COUNCILMEMBERS:**	**NONE**
DISQUALIFIED:	**COUNCILMEMBERS:**	**BRAGG (DUE TO A POTENTIAL CONFLICT OF INTEREST)**

2.1 MINUTES.
Approved the minutes of the Regular City Council Meeting of December 2, 2009.

2.2 RATIFICATION OF WARRANT REGISTER. (0300-25)
Ratified the following registers: Accounts Payable Numbers 69991 through 70052 with the total amount of $107,229.16.

2.3 RESOLUTION NO. 2009-6833 – REVISING AN AGREEMENT FOR PROFESSIONAL SERVICES BETWEEN THE CITY OF IMPERIAL BEACH AND BDS ENGINEERING, INC. FOR CITY ENGINEERING SERVICES. (0700-05)
Adopted resolution.

2.4 REGIONAL NON-POTABLE RECYCLED WATER DEMAND STUDY. (0230-70)
Confirmed staff's response to the City of San Diego regarding the City's future plan for the future use of regional non-potable recycled water.

2.5 RESOLUTION NO. 2009-6832 – APPROVING THE FIRST AMENDMENT TO AGREEMENT FOR PROFESSIONAL SERVICES BY WESTON SOLUTIONS, INC. FOR TIJUANA RIVER WATER QUALITY STUDY. (0230-70)
Adopted resolution.

2.6 RESOLUTION NO. R-09-202 – APPROVING STREET IMPROVEMENTS, RDA PHASE 3 (CIP S04-108) CHANGE ORDER NO. 7 WITH NASLAND ENGINEERING AND RESCINDING RESOLUTION NO. R-09-200. (0720-25)
Adopted resolution.

ORDINANCES – INTRODUCTION/FIRST READING (3)

None.

ORDINANCES – SECOND READING & ADOPTION (4.1)

4.1 ORDINANCE NO. 2009-1095 – AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF IMPERIAL BEACH, CALIFORNIA ADDING CHAPTER 16.12 (WATER EFFICIENT LANDSCAPE REGULATIONS) TO THE IMPERIAL BEACH MUNICIPAL CODE. (0940-95)

CITY MANAGER BROWN introduced the item.

CITY ATTORNEY LOUGH clarified for the record that all applicants for a new single family residence are subject to the new regulations requiring the maximum applied water use authorization and best landscape design practices.

MAYOR JANNEY called for the reading of the title of Ordinance No. 2009-1095.

CITY CLERK HALD read the title of Ordinance No. 2009-1095, "An Ordinance of the City Council of the City of Imperial Beach, California Adding Chapter 16.12 (Water Efficient Landscape Regulations) to the Imperial Beach Municipal Code."

In response to questions regarding the Landscape Design Manual, CITY ATTORNEY LOUGH stated that most cities adopt the County's manual.

MOTION BY BRAGG , SECOND BY MCCOY, TO DISPENSE WITH THE SECOND READING AND ADOPT ORDINANCE NO. 2009-1095 BY TITLE ONLY. MOTION CARRIED UNANIMOUSLY.

PUBLIC HEARINGS (5)

None.

REPORTS (6.1 - 6.9)

6.1 RESOLUTION NO. R-09-201 – SPORTS PARK SKATE PARK CIP (P07-101) BUDGET AMENDMENT ACCEPTING THE COMMUNITY DONATIONS, THE NON-PROFIT GRANTS AND ADDING $200,000 RDA TAX INCREMENT (NON-HOUSING) TO THE PROJECT. (0920-40)

Correspondence in support of the item from Dee McLean was submitted as Last Minute Agenda Information.

CITY MANAGER BROWN introduced the item.

PUBLIC WORKS DIRECTOR LEVIEN gave a status update on the project and reviewed the proposed schedule.

HEIDI QUIROZ, on behalf of IB 4 a Skatepark, spoke in support of the project.

MICHAEL CAREY expressed appreciation for staff's and City Council's efforts on the item.

CITY COUNCIL spoke about the dedicated efforts of the community and staff; Supervisor Cox was recognized for contributing $100,000 towards the project.

MOTION BY KING, SECOND BY ROSE, TO ADOPT RESOLUTION NO. R-09-201 – AMENDING THE SPORTS PARK SKATE PARK CIP (P07-101) BUDGET BY ACCEPTING THE COMMUNITY DONATIONS AND THE NON-PROFIT GRANTS AND BY ADDING $200,000 RDA TAX INCREMENT (NON-HOUSING) TO THE PROJECT. MOTION CARRIED UNANIMOUSLY.

6.2 MTS SERVICES CHANGES. (0680-85)

CITY MANAGER BROWN introduced and gave background on the item.

MICHAEL DANEY, of MTS, gave a PowerPoint presentation on the item; he reviewed the funding shortfall and the resulting cuts which would not impact weekday ridership; and he reported routes 933 and 934 would essentially remain the same.

Item No. 6.9 will be discussed at 7:00 p.m. – TIME SPECIFIC

6.9 COMMERCIAL ZONING REVIEW. (0610-95)

CITY MANAGER BROWN introduced the item.

STEVE FUTTERMAN stated that with recent advances in technology and architecture, density and height can be accomplished without sacrificing quality of life; he spoke of the need to attract young and educated people to Imperial Beach; he suggested that an economy be built around a private university, research facility or unique attraction; he suggested the following: addressing future transportation needs, innovative partnerships with universities, and giving staff the opportunity to gain the skills needed to tackle future development issues, and avoid the use of consultants.

COMMUNITY DEVELOPMENT DIRECTOR WADE reported on the item.

CHRISTINE BABLA, of EDAW AECOM, gave a PowerPoint presentation on potential development under the existing zoning compared to development under proposed zoning amendments, maximum density standards, building envelope standards (Floor Area Ratio (FAR), setbacks and stepbacks), performance-based incentives; and she responded to questions and concerns of City Council.

BRIAN JONES expressed concern about additional residential density; he spoke about the negative effects the adult education building (that has a FAR of 2.0) has on neighboring properties; he claimed that the businesses at the Imperial Beach Club, a mixed-use project with 48 residential units, are struggling and not viable; he also stated the density was not appropriate for the community and residents on Donax Ave. from Seacoast Dr. to 4th St. gave up their view and ocean breeze for the project.

Consensus of City Council to bring back this item on January 20, 2010 for City Council's recommendations.

MAYOR JANNEY called a recess at 8:29 p.m. and reconvened the meeting to Open Session at 8:34 p.m.

6.3 FIRST STATUS REPORT ON INTERIM ORDINANCE NO. 2009-1091 ENACTING AN URGENCY MEASURE PROHIBITING COOPERATIVE, COLLECTIVE, OR OTHER FORMS OF MARIJUANA DISPENSARIES DURING A SPECIAL STUDY PERIOD OF ONE YEAR. (0610-95)

CITY MANAGER BROWN introduced the item.

CITY ATTORNEY LOUGH gave a status report on the item; he noted that the current Interim Moratorium expires on August 19, 2010 and can be extended up to one additional year; unless directed otherwise.

MARCUS BOYD submitted a rebuttal to the staff report, an outline of four appellate court cases not mentioned in the staff report and a proposed ordinance; he noted that he is not interested in being a primary caregiver but having a collective or cooperative; he expressed concern about a community meeting that he believed to be an anti-marijuana rally; he requested that City Attorney Lough stop adding emphasis of objecting the law; he expressed interest in having a

debate on marijuana law with City Attorney Lough; and he asked legal counsel to offer specific legal issues with his proposed ordinance.

In response to Mr. Boyd, MAYOR JANNEY noted that the City Council will do what they feel is best for the community within legal guidelines; and he appreciated the City Attorney's update.

CITY ATTORNEY LOUGH stated that the City of San Diego issued an interim report and will provide Council a summary of the report after his review; he is investigating all possible options until he receives direction from Council.

City Council expressed their support of the course of action taken; discussion ensued regarding the importance of taking a responsible approach by awaiting court decisions on pending cases, and reviewing all available options.

6.4 RESOLUTION NO. 2009-6834 – AUTHORIZING THE PURCHASE OF REPLACEMENT GRAFFITI ABATEMENT VEHICLE (VEHICLE NO. 652). (1130-05)

A revised staff report and resolution to reflect Vehicle No. 625 were submitted as Last Minute Agenda Information.

CITY MANAGER BROWN introduced the item.

MOTION BY ROSE, SECOND BY MCCOY, TO ADOPT REVISED RESOLUTION NO. 2009-6834 – AUTHORIZING THE PURCHASE OF REPLACEMENT GRAFFITI ABATEMENT VEHICLE (VEHICLE NUMBER 625). MOTION CARRIED UNANIMOUSLY.

6.5 REPORT TO CITY COUNCIL ADVISING CHANGES IN SHERIFF STAFFING LEVELS. (0260-10)

CITY MANAGER BROWN reported on the item.

MOTION BY KING, SECOND BY BRAGG, TO NOT FILL THE SPECIAL PURPOSE OFFICER (SPO) VACANCY AND DELETE THE SPO FROM THE CURRENT STAFFING LEVELS AND THE SUCCEEDING FISCAL YEAR BUDGETS. MOTION CARRIED UNANIMOUSLY.

6.6 ANNUAL CITY COUNCIL REPRESENTATION ASSIGNMENTS. (0410-50)

CITY MANAGER BROWN introduced the item.

CITY ATTORNEY LOUGH stated due to regulations of the FPPC, Councilmembers appointed to positions that receive stipends are to disqualify themselves from the vote for that particular position.

MAYOR JANNEY nominated the following for City Council representation assignments:

SOUTH BAY MAYORS AND CITY MANAGERS COMMITTEE:
Primary - Mayor Janney
1st Alternate – Councilmember Bragg

SD DIVISION, LEAGUE OF CALIFORNIA CITIES:
Primary – Councilmember Bragg
1st Alternate – Mayor Janney

SD DIVISION, LEAGUE OF CALIFORNIA CITIES – LEGISLATIVE SUBCOMMITTEE:
Primary – Councilmember Bragg
1st Alternate – Mayor Janney

LEAGUE OF CALIFORNIA CITIES – COASTAL CITIES INTEREST GROUP:
Primary – Mayor Janney
1st Alternate – Councilmember McCoy

METROPOLITAN TRANSIT SYSTEMS BOARD:
Primary – Mayor Janney
1st Alternate – Councilmember Bragg

SAN DIEGO ASSOCIATION OF GOVERNMENTS (SANDAG) BOARD:
Primary – Mayor Janney
1st Alternate – Councilmember McCoy
2nd Alternate – Mayor Pro Tem King

SANDAG – SHORELINE PRESERVATION WORKING GROUP:
Primary – Mayor Janney
1st Alternate – Councilmember Bragg

CHAMBER OF COMMERCE LIAISON:
Primary – Mayor Pro Tem King
1st Alternate – Councilmember Rose

METRO WASTEWATER COMMISSION/JPA:
Primary – Councilmember McCoy
Alternate – Mayor Janney

BAYSHORE BIKEWAY WORKING GROUP:
Primary – Mayor Pro Tem King
Alternate – Mayor Janney

JOB CORPS LIAISON:
Primary – Councilmember Bragg
Alternate – Mayor Janney

SOUTH COUNTY ECONOMIC DEVELOPMENT COUNCIL:
Primary – Councilmember King
1st Alternate – Councilmember Rose

HEARTLAND COMMUNICATIONS FACILITY AUTHORITY JPA BOARD:
Primary – Councilmember Bragg
1st Alternate – Mayor Janney

MILITARY AFFAIRS SUBCOMMITTEE:
Mayor Janney
Councilmember McCoy

MOTION BY KING, SECOND BY MCCOY, TO APPROVE MAYOR JANNEY'S APPOINTMENTS AND CHANGES TO THE CITY COUNCIL REPRESENTATION ASSIGNMENTS. MOTION CARRIED UNANIMOUSLY EXCEPT FOR THE FOLLOWING REPRESENTATION ASSIGNMENTS:

FOR PRIMARY REPRESENTATION ON THE METROPOLITAN TRANSIT SYSTEMS BOARD, MOTION CARRIED BY THE FOLLOWING VOTE:

AYES:	**COUNCILMEMBERS:**	**MCCOY, KING, ROSE, BRAGG**
NOES:	**COUNCILMEMBERS:**	**NONE**
ABSENT:	**COUNCILMEMBERS:**	**NONE**
ABSTAIN:	**COUNCILMEMBERS:**	**JANNEY**

FOR 1ST ALTERNATE REPRESENTATION ON THE METROPOLITAN TRANSIT SYSTEMS BOARD, MOTION CARRIED BY THE FOLLOWING VOTE:

AYES:	**COUNCILMEMBERS:**	**MCCOY, KING, ROSE, JANNEY**
NOES:	**COUNCILMEMBERS:**	**NONE**
ABSENT:	**COUNCILMEMBERS:**	**NONE**
ABSTAIN:	**COUNCILMEMBERS:**	**BRAGG**

FOR PRIMARY REPRESENTATION ON THE SAN DIEGO ASSOCIATION OF GOVERNMENT (SANDAG) BOARD, MOTION CARRIED BY THE FOLLOWING VOTE:

AYES:	**COUNCILMEMBERS:**	**MCCOY, KING, ROSE, BRAGG**
NOES:	**COUNCILMEMBERS:**	**NONE**
ABSENT:	**COUNCILMEMBERS:**	**NONE**
ABSTAIN:	**COUNCILMEMBERS:**	**JANNEY**

FOR 1ST ALTERNATE REPRESENTATION ON THE SAN DIEGO ASSOCIATION OF GOVERNMENT (SANDAG) BOARD, MOTION CARRIED BY THE FOLLOWING VOTE:

AYES:	**COUNCILMEMBERS:**	**KING, ROSE, BRAGG, JANNEY**
NOES:	**COUNCILMEMBERS:**	**NONE**
ABSENT:	**COUNCILMEMBERS:**	**NONE**
ABSTAIN:	**COUNCILMEMBERS:**	**MCCOY**

FOR 2ND ALTERNATE REPRESENTATION ON THE SAN DIEGO ASSOCIATION OF GOVERNMENT (SANDAG) BOARD, MOTION CARRIED BY THE FOLLOWING VOTE:

AYES:	**COUNCILMEMBERS:**	**MCCOY, ROSE, BRAGG, JANNEY**
NOES:	**COUNCILMEMBERS:**	**NONE**
ABSENT:	**COUNCILMEMBERS:**	**NONE**
ABSTAIN:	**COUNCILMEMBERS:**	**KING**

FOR PRIMARY REPRESENTATION ON THE METRO WASTEWATER COMMISSION/JPA, MOTION CARRIED BY THE FOLLOWING VOTE:

AYES:	**COUNCILMEMBERS:**	**KING, ROSE, BRAGG, JANNEY**
NOES:	**COUNCILMEMBERS:**	**NONE**
ABSENT:	**COUNCILMEMBERS:**	**NONE**
ABSTAIN:	**COUNCILMEMBERS:**	**MCCOY**

FOR ALTERNATE REPRESENTATION ON THE METRO WASTEWATER COMMISSION/JPA, MOTION CARRIED BY THE FOLLOWING VOTE:

AYES:	**COUNCILMEMBERS:**	**MCCOY, KING, ROSE, BRAGG**
NOES:	**COUNCILMEMBERS:**	**NONE**
ABSENT:	**COUNCILMEMBERS:**	**NONE**
ABSTAIN:	**COUNCILMEMBERS:**	**JANNEY**

FOR PRIMARY REPRESENTATION ON THE HEARTLAND COMMUNICATIONS FACILITY AUTHORITY/JPA BOARD, MOTION CARRIED BY THE FOLLOWING VOTE:

AYES:	**COUNCILMEMBERS:**	**MCCOY, KING, ROSE, JANNEY**
NOES:	**COUNCILMEMBERS:**	**NONE**
ABSENT:	**COUNCILMEMBERS:**	**NONE**
ABSTAIN:	**COUNCILMEMBERS:**	**BRAGG**

FOR 1ST ALTERNATE REPRESENTATION ON THE HEARTLAND COMMUNICATIONS FACILITY AUTHORITY/JPA BOARD, MOTION CARRIED BY THE FOLLOWING VOTE:

AYES:	**COUNCILMEMBERS:**	**MCCOY, KING, ROSE, BRAGG**
NOES:	**COUNCILMEMBERS:**	**NONE**
ABSENT:	**COUNCILMEMBERS:**	**NONE**
ABSTAIN:	**COUNCILMEMBERS:**	**JANNEY**

6.7 ROTATION OF MAYOR PRO TEMPORE DUTIES. (0410-13)

CITY MANAGER BROWN reported the item.

MOTION BY JANNEY, SECOND BY ROSE, TO APPOINT COUNCILMEMBER KING AS MAYOR PRO TEMPORE FOR A ONE-YEAR PERIOD PURSUANT TO ROTATIONAL REQUIREMENTS AND BE SEATED AT THE FIRST MEETING IN JANUARY PURSUANT TO REQUIREMENTS AS STATED UNDER COUNCIL POLICY NO. 112. MOTION CARRIED UNANIMOUSLY.

6.8 2010 CITY COUNCIL CALENDAR MEETING AND WORKSHOP CALENDAR. (0410-05)

CITY MANAGER BROWN reported on the item.

MOTION BY MCCOY, SECOND BY KING, TO APPROVE THE 2010 CITY COUNCIL CALENDAR WHICH INCLUDES CITY COUNCIL QUARTERLY WORKSHOPS ON JANUARY 12, APRIL 13, JULY 13, AND OCTOBER 12, 2010. STAFF FURTHER RECOMMENDS RESCHEDULING OF THE MAY 5, 2010 CITY COUNCIL MEETING TO MAY 4, 2010 AND THE SEPTEMBER 15, 2010 CITY COUNCIL MEETING TO SEPTEMBER 22, 2010, AND CANCELING THE JANUARY 5, 2011 CITY COUNCIL MEETING. MOTION CARRIED UNANIMOUSLY.

<u>ITEMS PULLED FROM THE CONSENT CALENDAR (IF ANY)</u>

None.

ADJOURNMENT

MAYOR JANNEY adjourned the meeting at 9:11 p.m.

James C. Janney, Mayor

Jacqueline M. Hald, CMC
City Clerk

AGENDA ITEM NO. 2.2

STAFF REPORT
CITY OF IMPERIAL BEACH

TO: HONORABLE MAYOR AND CITY COUNCIL
FROM: GARY R. BROWN, CITY MANAGER

MEETING DATE: **February 3, 2010**

ORIGINATING DEPT.: **Michael McGrane**
Finance Director

SUBJECT: RATIFICATION OF WARRANT REGISTER

BACKGROUND:
None

DISCUSSION:
As of April 7, 2004, all large warrants above $100,000 will be separately highlighted and explained on the staff report.

Vendor	Check	Amount	Explanation
Sim J. Harris, Inc	70260	$101,570.65	Retention-Street Phase No. 3
Robert B. Lokey	70309	$116,500.00	Lease Settlement-775 Palm

ENVIRONMENTAL IMPACT
Not a project as defined by CEQA.

The following registers are submitted for Council ratification.

WARRANT #	DATE	AMOUNT
Accounts Payable		
70218-70270	01/14/10	$ 225,421.04
70271-70317	01/22/10	191,909.36
	Sub-Total	**$ 417,330.40**

Payroll Checks:

42179-42227	P.P.E. 01/14/10		144,998.39
	Sub-Total	**$**	**144,998.39**
	TOTAL	**$**	**562,328.79**

FISCAL IMPACT:

Warrants are issued from budgeted funds.

DEPARTMENT RECOMMENDATION:

It is respectfully requested that the City Council ratify the warrant register.

CITY MANAGER'S RECOMMENDATION:

Approve Department recommendation

Gary Brown

Gary Brown, City Manager

Attachments:

1. Warrant Registers

ATTACHMENT 1

CHECK DATE	CHECK NUMBER	VENDOR NAME / VENDOR #	CHECK AMOUNT
ACCOUNT #	TRN DATE	DESCRIPTION / INVOICE / PO # / PER/YEAR	TRN AMOUNT
01/14/2010	70218	AIRGAS WEST 129	193.76
501-1921-419.30-02	12/17/2009	FIRST AID SUPPLIES / 103798570 / 010058 / 06/2010	193.76
01/14/2010	70219	AMERICAN MESSAGING 1759	64.23
601-5060-436.27-04	01/01/2010	01/01/10-03/31/10 / L1252241KA / 010023 / 07/2010	64.23
01/14/2010	70220	ARROWHEAD MOUNTAIN SPRING WATE 1340	86.02
101-1010-411.30-02	12/23/2009	DECEMBER 2009 / 09L0025324922 / 010037 / 06/2010	86.02
01/14/2010	70221	AT&T / SBC DATACOMM 1854	1,520.00
503-1923-519.21-04	12/18/2009	INSTALLATION PROD CORD / 319-004791 / 010543 / 06/2010	1,520.00
01/14/2010	70222	BOYCE INDUSTRIES INC 486	322.58
405-5030-433.30-02	12/18/2009	NOZZLE/SWIVEL/FILTER / 52325 / 010060 / 06/2010	224.76
501-1921-419.28-16	12/15/2009	THERMOSTAT #625X / 52264 / 010060 / 06/2010	97.82
01/14/2010	70223	CALIFORNIA COMMERCIAL ASPHALT 590	1,396.57
101-5010-431.30-02	12/03/2009	CONCRETE / 89400 / 010085 / 06/2010	767.67
101-5010-431.30-02	11/05/2009	CONCRETE / 88721 / 010085 / 05/2010	628.90
01/14/2010	70224	CA BUILDING STANDARDS COMMISSI 2127	26.10
101-0000-221.01-07	01/05/2010	OCT-DEC 2009 STATE GREEN / 01-04-2010 / 07/2010	26.10
01/14/2010	70225	COUNTY RECORDER 1818	2,060.25
405-1260-513.20-06	01/06/2010	FISH&GAME FEE / 01-06-2010 / 07/2010	2,060.25
01/14/2010	70226	COUNTY RECORDER 1818	50.00
405-1260-413.20-06	01/06/2010	LOUDEN LANE PEDSESTRAIN / RESO 2009-6824 / 07/2010	50.00
01/14/2010	70227	COX COMMUNICATIONS 1073	779.00
601-5050-436.21-04	12/31/2009	JAN 10 CODAR PROJECT / 01-25-2010 / 010139 / 06/2010	179.00
503-1923-419.21-04	12/22/2009	JAN 2010 INTERNET SVCS / 01-15-2010 / 010309 / 06/2010	600.00
01/14/2010	70228	DATAQUICK 1134	87.75
101-1210-413.20-06	01/04/2010	DECEMBER 2009 / B1-1683144 / 010230 / 07/2010	28.00
101-3020-422.20-06	01/04/2010	DECEMBER 2009 / B1-1683144 / 010230 / 07/2010	5.00
101-3070-427.20-06	01/04/2010	DECEMBER 2009 / B1-1683144 / 010230 / 07/2010	54.75
01/14/2010	70229	DAVID R. TAYLOR CONSTRUCTION 2153	1,760.00
248-1920-519.20-06	01/07/2010	CLEAN&GREEN-260 DONAX AVE / 01-07-2010 / 010451 / 07/2010	1,760.00
01/14/2010	70230	DEPT. OF INDUSTRIAL REL. 1163	2,401.61
502-1922-419.28-17	12/10/2009	09/10 W/C ASSESSMENT / 53580 / 07/2010	2,401.61
01/14/2010	70231	DG LANDSCAPE 1167	4,853.19
101-5010-431.21-04	01/06/2010	IRRIGATION MATERIALS / 1108 / 010048 / 07/2010	702.56
101-5010-431.21-04	01/06/2010	ITTIGATION MATERIALS / 1109 / 010048 / 07/2010	462.95
101-5010-431.21-04	01/06/2010	PLANT MATERIALS / 1110 / 010048 / 07/2010	626.99
101-5010-431.21-04	01/06/2010	IRRIGATION MATERIALS / 1113 / 010048 / 07/2010	206.43

CHECK DATE / ACCOUNT #	CHECK NUMBER	VENDOR NAME / TRN DATE	VENDOR # / DESCRIPTION	INVOICE	PO #	PER/YEAR	CHECK AMOUNT / TRN AMOUNT
101-5010-431.21-04		12/22/2009	GRAVEL	1106	010048	06/2010	979.26
101-5010-431.21-04		01/06/2010	DECEMBER 2009 MAINT	1107	010048	04/2010	1,875.00
01/14/2010	70232	EDCO DISPOSAL CORPORATION	1205				128.96
408-1920-519.20-06		12/31/2009	DECEMBER 2009	12-31-2009	010330	06/2010	128.96
01/14/2010	70233	GERALD FARRELLY	2				255.58
601-0000-346.70-03		01/04/2010	REFUND OVERPD SEWER CHG	625-182-10-55		07/2010	255.58
01/14/2010	70234	GO-STAFF, INC.	2031				2,863.50
601-5060-436.21-01		12/15/2009	TRONCOSO, L W/E 12/13/09	67331	010148	06/2010	943.80
601-5060-436.21-01		12/22/2009	TRONCOSC, L W/E 12/20/09	67514	010148	06/2010	772.20
101-3020-422.21-01		12/01/2009	ROCHER, J W/E 11/29/09	67019	010419	06/2010	360.00
101-3020-422.21-01		12/08/2009	ROCHER, J W/E 12/06/09	67166	010419	06/2010	367.50
101-3020-422.21-01		12/15/2009	ROCHER, J W/E 12/13/09	67330	010419	06/2010	420.00
01/14/2010	70235	GRAINGER	1051				525.32
601-5060-436.28-01		12/15/2009	FLOAT SWITCH EXTRA	9142226571	010076	06/2010	127.51
101-1910-419.30-02		12/16/2009	ROPE/BALLASTS	9143902642	010076	06/2010	141.04
101-6040-454.30-02		12/17/2009	FUSE/D HOLDER	9144224558	010076	06/2010	142.57
101-6040-454.30-02		01/05/2010	BARRICADE TAPE	9152588332	010076	07/2010	114.20
01/14/2010	70236	GTC SYSTEMS INC	1910				1,881.00
503-1923-519.50-04		12/22/2009	IT CONSULTING SVC	29657	010521	06/2010	131.00
503-1923-519.50-04		12/31/2009	CONSULTING SVC FEES	29694	010606	06/2010	1,750.00
01/14/2010	70237	LEHIGH HANSON	48				354.96
101-5010-431.30-02		12/15/2009	ROCK USED AS TIRE GRATE	607494	010124	06/2010	354.96
01/14/2010	70238	IPMA/ SAN DIEGO CHAPTER	402				25.00
101-1130-412.28-04		01/11/2010	LEICHTLE,L-IPMA LUNCHEON	01-21-2010	010039	07/2010	25.00
01/14/2010	70239	J. SIMMS AGENCY	1883				1,250.00
101-1920-419.20-06		12/29/2009	JANUARY 2010	2480	010029	06/2010	1,250.00
01/14/2010	70240	J&M KEYSTONE, INC.	2103				1,513.72
101-1910-419.21-01		12/29/2009	CITY WIDE CARPET CLEANING	894077	010624	06/2010	1,513.72
01/14/2010	70241	KAMAN INDUS TECHNOLOGIES	583				133.11
601-5050-436.28-01		08/17/2009	PRESSURE WASHER HOSES	H918714	010064	02/2010	133.11
01/14/2010	70242	KOA CORPORATION	611				16,044.50
405-1260-513.20-06		09/30/2009	08/17-09/13/09 ECO BIKWY	JA64F9XX30	090735	03/2010	16,044.50
01/14/2010	70243	LANCE, SOLL & LUNGHARD LLP	716				15,479.00
101-1210-413.20-06		12/17/2009	2009 YEAR END TESTWORK	10441	010025	06/2010	15,479.00
01/14/2010	70244	LEAGUE OF CALIF CITIES	761				9,534.00
101-1010-411.28-12		12/18/2009	2010 MEMBERSHIP DUES	96097	010694	06/2010	9,534.00
01/14/2010	70245	LEAGUE OF CALIFORNIA CITIES	1495				450.00
101-1010-411.28-04		12/22/2009	2010 MTG DUES/BROWN, BRAG	12-22-2009	010695	06/2010	450.00

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01/14/2010	70246	LLOYD PEST CONTROL	814				45.00
101-1910-419.20-22		11/24/2009	NOV 2009 SPORTS PARK	2496239	010013	05/2010	45.00
01/14/2010	70247	MICHAL PIASECKI CONSULTING	1795				6,075.00
101-1920-532.20-06		01/04/2010	DEC 09 PUBLIC WORKS	125	010074	07/2010	45.00
101-5010-431.20-06		01/04/2010	DEC 09 PUBLIC WORKS	125	010074	07/2010	112.50
101-5020-432.20-06		01/04/2010	DEC 09 PUBLIC WORKS	125	010074	07/2010	22.50
405-1260-513.20-06		01/04/2010	DEC 09 PUBLIC WORKS	125	010074	07/2010	5,715.00
601-5060-436.20-06		01/04/2010	DEC 09 PUBLIC WORKS	125	010074	07/2010	180.00
01/14/2010	70248	MONTIJO BACKHOE INC	1901				900.00
408-5010-531.20-06		11/18/2009	EXCAVATE&BACKFILL POTHOLE	11-18-2009	010547	05/2010	900.00
01/14/2010	70249	NASLAND ENGINEERING	1656				3,303.28
408-5010-531.20-06		11/30/2009	P/E NOVEMBER 30, 2009	88304	071139	05/2010	3,303.28
01/14/2010	70250	OFFICE DEPOT, INC	1262				1,087.13
503-1923-419.30-01		12/16/2009	AIR PURIFIER/STORAGE/TOWE	501476440001	010413	06/2010	294.75
503-1923-419.30-01		12/18/2009	LYSOL WIPES/DUSTER	501934441001	010413	06/2010	310.99
503-1923-419.30-01		12/21/2009	VELCRO STRAPS	501934866001	010413	06/2010	62.44
503-1923-419.30-01		12/22/2009	MAGNETIC COAT HOOK	502218106001	010413	06/2010	36.17
101-1010-411.30-01		12/23/2009	TONERS/SUPPLIES	502328601001	010413	06/2010	45.54
101-1020-411.30-01		12/23/2009	TONERS/SUPPLIES	502328601001	010413	06/2010	45.54
101-1110-412.30-01		12/23/2009	TONERS/SUPPLIES	502328601001	010413	06/2010	53.55
101-1130-412.30-01		12/23/2009	TONERS/SUPPLIES	502328601001	010413	06/2010	50.14
101-5020-432.30-01		12/16/2009	WALLL PLANNER/MARKERS	501569665001	010413	06/2010	24.09
101-1210-413.30-01		01/06/2010	OFFICE SUPPLIES	503454893001	010413	07/2010	96.42
101-1210-413.30-01		01/08/2010	OFFICE ENVELOPES	503920198001	010413	07/2010	67.50
01/14/2010	70251	ONE SOURCE DISTRIBUTORS	1071				59.28
101-6040-454.30-02		12/14/2009	18 W LAMPS	S3226753.001	010066	06/2010	59.28
01/14/2010	70252	PADRE JANITORIAL SUPPLIES	1430				292.75
101-6040-454.30-02		12/21/2009	JANITORIAL SUPPLIES	295998	010080	06/2010	292.75
01/14/2010	70253	PARTNERSHIP WITH INDUSTRY	1302				1,238.15
101-6040-454.21-04		12/16/2009	PERIOD ENDING 12/15/09	GS02554	010050	06/2010	1,238.15
01/14/2010	70254	PERVO PAINT CO.	8				293.63
101-5010-431.21-23		12/16/2009	TRAFFIC BEADS	17531	010083	06/2010	293.63
01/14/2010	70255	RBF CONSULTING	1756				5,300.00
405-1260-513.20-06		10/30/2009	SEPT 09 PW YARD IMPRVMNTS	9090782	070418	04/2010	5,300.00
01/14/2010	70256	RECLAIMED AGGREGATES, INC.	2137				120.00
101-5010-431.29-04		12/15/2009	TRUCKS TO RECYCLE	10322	010087	06/2010	120.00
01/14/2010	70257	RELIABLE TIRES COMPANY	136				124.00
101-5040-434.21-04		12/17/2009	PICK-UP USED TIRES	73351	F01063	06/2010	124.00

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01/14/2010	70258	SAFTEY KLEEN SYSTEMS	246				247.03
501-1921-419.29-04		12/15/2009	5G BRAKE CLEANER	0040413333	010099	06/2010	247.03
01/14/2010	70259	SD COUNTY VECTOR CONTROL PROGR	1802				112.48
101-1110-412.20-06		10/07/2009	MOSQUITO & VECTOR DISEASE	SD10016-09/10	F01065	04/2010	112.48
01/14/2010	70260	SIM J. HARRIS, INC.	2068				101,570.65
201-0000-202.00-00		11/10/2009	STREETS PHASE 3	RETENTION	091005	06/2010	3,402.89
101-0000-202.00-00		11/10/2009	STREETS PHASE 3	RETENTION	091005	06/2010	1,980.00
205-0000-202.00-00		11/10/2009	STREETS PHASE 3	RETENTION	091005	06/2010	44,447.87
405-0000-202.00-00		11/10/2009	STREETS PHASE 3	RETENTION	091005	06/2010	38,717.17
408-0000-202.00-00		11/10/2009	STREETS PHASE 3	RETENTION	091005	06/2010	8,398.83
408-0000-202.00-00		11/10/2009	STREETS PHASE 3	RETENTION	091005	06/2010	462.39
205-5017-531.20-06		09/30/2009	STREETS IMPRVMENTS P3	5	091005	03/2010	1,081.12
408-5010-531.20-06		09/30/2009	STREETS IMPRVMENTS P3	5	091005	03/2010	3,080.38
01/14/2010	70261	SKS INC.	412				11,286.79
501-1921-419.28-15		12/23/2009	75.1 G DIESEL/825 G REG	1230549-IN	010101	06/2010	2,384.17
501-1921-419.28-15		12/30/2009	50 G DIESEL/650 G REGULAR	1230620-IN	010101	06/2010	1,950.99
501-1921-419.28-15		12/17/2009	100 G DIESEL/1166 G REG	1230446-IN	010101	06/2010	3,380.46
501-1921-419.28-15		01/07/2010	1100 G REG/100.9 G DIESEL	1230755-IN	010101	07/2010	3,571.17
01/14/2010	70262	SOUTH WEST SIGNAL	488				361.00
101-5010-431.21-04		11/30/2009	NOVEMBER 09 MAINTENANCE	49635	010086	05/2010	160.00
101-5010-431.21-23		11/30/2009	REPLACED FUSE ON UPS	49643	010086	05/2010	201.00
01/14/2010	70263	SPRINT TELEPHONY PCS L.P.	2				53.00
101-0000-321.72-10		01/08/2010	OL REFUNDS	0003147		05/2010	53.00
01/14/2010	70264	SWRCB FEES	578				1,226.00
601-5060-436.21-04		01/11/2010	INDEX #059254 9/10 FEES	WD-0009029		07/2010	1,226.00
01/14/2010	70265	SWRCB FEES	578				9,000.00
601-5050-436.28-13		01/06/2010	09/10 ANNUAL PERMIT FEE	WD-0008980		07/2010	9,000.00
01/14/2010	70266	TATAL COMPENSATION SYSTEMS, IN	2183				2,600.00
101-1210-413.20-06		11/13/2009	RETIREE HEALTH VALUATION	2980	010691	05/2010	2,600.00
01/14/2010	70267	TRAFFIC CONTROL SERVICE INC.	684				709.40
101-5010-431.21-23		12/07/2009	PAINT	951802	010077	06/2010	709.40
01/14/2010	70268	WES ALLEN	4				11,560.00
101-0000-221.01-05		01/07/2010	REFUND BOND -739/743/747	TEP 09-35		07/2010	11,560.00
01/14/2010	70269	XEROX CORPORATION	861				1,738.46
101-3030-423.20-06		12/12/2009	NOVEMBER 2009	044904205	010229	06/2010	268.89
101-1920-419.20-17		01/01/2010	DECEMBER 2009	045291466	010229	07/2010	1,469.57
01/14/2010	70270	ZUMAR INDUSTRIED INC.	875				78.30
101-5010-431.21-23		12/15/2009	STREET SIGNS	0118812	010070	06/2010	254.48

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101-5010-431.21-23		12/18/2009	STREET SIGNS "NUMBERS"	0118922	010070	06/2010	78.30
101-5010-431.21-23		12/23/2009	RTD ST SIGNS INV 0118812	0118997	010070	06/2010	254.48-
01/22/2010	70271	AFLAC	120				445.29
101-0000-209.01-13		01/21/2010	PPE 01/14/2010	20100121		07/2010	445.29
01/22/2010	70272	AGRICULTURAL PEST CONTROL	123				95.00
101-1910-419.21-04		12/22/2009	DECEMBER 2009	208194	010126	06/2010	95.00
01/22/2010	70273	AT&T GLOBAL SERVICES, INC.	2098				326.99
101-5020-432.30-02		11/17/2009	REPLACEMENT PHONES	SB565100	010615	05/2010	163.49
503-1923-419.30-02		11/17/2009	REPLACEMENT PHONES	SB565100	010615	05/2010	163.50
01/22/2010	70274	BARBIE KAY WINKLER	1394				600.00
101-3040-424.20-06		01/06/2010	01/06/10 TRNG SESSION-BP	01-06-2010	010697	07/2010	600.00
01/22/2010	70275	BARRETT ENGINEERED PUMPS	356				4,318.46
601-5060-436.28-01		12/17/2009	IMPELLER KIT/STUFFBOX/	069323	010435	06/2010	4,318.46
01/22/2010	70276	BAY CITY ELECTRIC WORKS	369				940.25
101-1910-419.21-04		12/29/2009	DECEMBER 09 MAINTENANCE	W75969	010137	06/2010	456.25
101-1910-419.21-04		12/29/2009	CLEAN & PAINT ROOF TOP	W75970	010137	06/2010	484.00
01/22/2010	70277	CALIFORNIA AMERICAN WATER	612				12,978.37
101-5010-431.27-02		11/17/2009	05-0114717-7 09/14-11/12	12-07-2009		05/2010	12.27
101-5010-431.27-02		11/17/2009	05-0115202-9 09/14-11/12	12-07-2009		05/2010	44.64
101-6020-452.27-02		11/17/2009	05-0115205-2 09/14-11/12	12-07-2009		05/2010	3,466.14
101-1910-419.27-02		11/17/2009	05-0115206-0 09/14-11/12	12-07-2009		05/2010	810.28
101-1910-419.27-02		11/17/2009	05-0115208-6 09/14-11/12	12-07-2009		05/2010	175.68
101-1910-419.27-02		11/17/2009	05-0115210-2 09/14-11/12	12-07-2009		05/2010	35.46
101-5010-431.27-02		11/17/2009	05-0115214-4 09/14-11/12	12-07-2009		05/2010	15.50
601-5060-436.27-02		11/17/2009	05-0115249-0 09/14-11/12	12-07-2009		05/2010	12.27
101-5020-432.27-02		11/17/2009	05-0424056-5 09/14-11/12	12-07-2009		05/2010	88.25
101-6020-452.27-02		11/17/2009	05-0477133-8 09/14-11/12	12-07-2009		05/2010	349.40
101-6020-452.27-02		11/13/2009	05-0109756-2 09/10-11/10	12-02-2009		05/2010	832.95
101-5010-431.27-02		11/16/2009	05-0110529-0 09/11-11/11	12-07-2009		05/2010	12.27
101-6020-452.27-02		11/16/2009	05-0111454-0 09/11-11/11	12-07-2009		05/2010	15.50
101-1910-419.27-02		11/16/2009	05-0111478-9 09/11-11/11	12-07-2009		05/2010	97.97
101-6020-452.27-02		11/16/2009	05-0111479-7 09/11-11/11	12-07-2009		05/2010	4,201.13
101-5010-431.27-02		11/16/2009	05-0111480-5 09/11-11/11	12-07-2009		05/2010	295.47
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601-5060-436.27-02		11/09/2009	05-0101092-0 09/03-11/04	11-30-2009		05/2010	15.50
101-5020-432.27-02		11/09/2009	05-0102217-2 09/03-11/04	11-30-2009		05/2010	310.54
101-6020-452.27-02		11/09/2009	05-0102503-5 09/03-11/04	11-30-2009		05/2010	609.54
101-5010-431.27-02		11/09/2009	05-0102729-6 09/03-11/04	11-30-2009		05/2010	683.04
215-6026-452.27-02		11/06/2009	05-0402959-6 09/02-11/03	11-25-2009		05/2010	74.18
101-3020-422.27-02		11/17/2009	05-0115211-0 09/14-11/12	12-07-2009		05/2010	195.10
405-1260-413.27-02		11/19/2009	05-0536451-3 09/16-11/16	12-08-2009		05/2010	229.82
405-1260-413.27-02		11/19/2009	05-0546597-1 09/16-11/16	12-08-2009		05/2010	35.67
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101-5010-431.27-02		11/18/2009	05-0116368-7 09/15-11/13	12-07-2009		05/2010	28.46
101-6020-452.27-02		11/18/2009	05-0117419-7 09/15-11/13	12-07-2009		05/2010	9.02
01/22/2010	70278	CALIFORNIA AMERICAN WATER	612				2,343.93
101-6040-454.27-02		11/05/2009	05-0092998-9 09/01-11/02	11-24-2009		05/2010	544.78
101-3030-423.27-02		11/05/2009	05-0093917-8 09/01-11/02	11-24-2009		05/2010	145.41
101-5010-431.27-02		11/05/2009	05-0094000-2 09/01-11/02	11-24-2009		05/2010	32.23
101-5010-431.27-02		11/05/2009	05-0094041-6 09/01-11/02	11-24-2009		05/2010	25.76
101-5010-431.27-02		11/05/2009	05-0094076-2 09/01-11/02	11-24-2009		05/2010	71.08
101-5010-431.27-02		11/05/2009	05-0094163-8 09/01-11/02	11-24-2009		05/2010	71.08
101-5010-431.27-02		11/05/2009	05-0094234-7 09/01-11/02	11-24-2009		05/2010	22.53
101-5010-431.27-02		11/05/2009	05-0094268-5 09/01-11/02	11-24-2009		05/2010	35.46
101-5010-431.27-02		11/05/2009	05-0094293-3 09/01-11/24	11-24-2009		05/2010	25.76
101-5010-431.27-02		11/05/2009	05-0094304-8 09/01-11/02	11-24-2009		05/2010	292.22
101-5010-431.27-02		11/05/2009	05-0094973-0 09/01-11/05	11-24-2009		05/2010	576.19
101-6020-452.27-02		11/12/2009	05-0106225-1 09/04-11/09	12-01-2009		05/2010	51.12
101-6020-452.27-02		11/12/2009	05-0106249-1 09/04-11/09	12-01-2009		05/2010	15.50
101-6020-452.27-02		11/12/2009	05-0106336-6 09/04-11/09	12-01-2009		05/2010	21.97
101-6020-452.27-02		11/12/2009	05-0106337-4 09/04-11/09	12-01-2009		05/2010	18.73
101-3030-423.27-02		10/14/2009	05-0155019-8 09/09-10/08	11-02-2009		05/2010	19.91
405-5030-433.27-02		10/14/2009	05-0155037-0 09/10-10/13	11-02-2009		05/2010	14.50
601-5050-436.27-02		10/14/2009	05-0392478-9 09/10-10/13	11-02-2009		05/2010	11.26
601-5060-436.27-02		10/14/2009	05-0505362-9 09/10-10/13	11-02-2009		05/2010	67.57
101-3030-423.27-02		11/11/2009	05-0155019-8 10/08-11/05	11-30-2009		05/2010	19.91
405-5030-433.27-02		11/11/2009	05-0155037-0 10/13-11/09	11-30-2009		05/2010	14.50
601-5050-436.27-02		11/11/2009	05-0392478-9 10/13-11/09	11-30-2009		05/2010	11.26
601-5060-436.27-02		11/11/2009	05-0505362-9 10/13-11/09	11-30-2009		05/2010	235.20
01/22/2010	70279	CALIFORNIA ENV CONTROLS INC	642				2,771.55
601-5060-436.28-01		12/23/2009	CONTROLLER PS #4	2046	010105	06/2010	2,771.55
01/22/2010	70280	CLEAN HARBORS	913				263.26
101-5040-434.21-04		01/05/2010	DECEMBER 2009	6Y0943223	010121	07/2010	263.26
01/22/2010	70281	COLONIAL LIFE & ACCIDENT	941				135.39
101-0000-209.01-13		01/21/2010	PPE 01/14/2010	20100121		07/2010	135.39
01/22/2010	70282	CONNIE AMAYA	2				657.00
101-0000-221.01-05		01/07/2010	RFND MARINA VISTA DEPOSIT	3113		07/2010	657.00
01/22/2010	70283	COPY POST PRINTING	1371				255.69
101-1210-413.30-02		12/10/2009	FINANCE WINDOW ENVELOPES	19296	F01061	06/2010	180.14
101-1230-413.28-11		07/30/2009	T. FOLTZ BUSINESS CARDS	18709	F01069	01/2010	75.55
01/22/2010	70284	DATA FLOW	1902				201.37
101-1210-413.30-01		12/14/2009	2009 FORM W2'S, EVELOPES	54582	F01064	06/2010	201.37
01/22/2010	70285	CREATIVE BENEFITS INC FSA	1108				336.68
101-0000-209.01-11		01/21/2010	PPE 01/14/2010	20100121		07/2010	336.68

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ACCOUNT #	TRN DATE	DESCRIPTION / INVOICE / PO # / PER/YEAR	TRN AMOUNT
01/22/2010	70286	DEPARTMENT OF JUSTICE 1154	32.00
101-1130-412.21-04	01/07/2010	DECEMBER 2009 / 771741 / 010038 / 07/2010	32.00
01/22/2010	70287	ALLIANT INSURANCE SERVICES, IN 1194	333.28
101-0000-221.01-04	01/13/2010	SPECIAL EVENT INSURANCE / 07/2010	333.28
01/22/2010	70288	EDAW, INC 1804	6,171.47
405-1260-513.20-06	12/28/2009	NOV 2009-IB MIXED USE ZON / 1457032 / 080317 / 06/2010	6,171.47
01/22/2010	70289	FASTENAL 909	185.05
101-6040-454.30-02	12/17/2009	PB BLASTER / CACHU21044 / 010062 / 06/2010	7.29
101-5010-431.30-02	12/30/2009	BANDING STRAP / CACHU21071 / 010062 / 06/2010	139.47
101-6040-454.30-02	01/07/2010	SS WASHERS / CACHU21138 / 010062 / 07/2010	38.29
01/22/2010	70290	FEDERAL EXPRESS CORP. 911	25.04
405-1260-413.28-09	01/15/2010	RDA - EECBG GRANT APPLICA / 9-466-99714 / F01073 / 07/2010	25.04
01/22/2010	70291	GO-STAFF, INC. 2031	2,263.80
601-5060-436.21-01	01/12/2010	TRONCOSO, L W/E 01/10/10 / 67963 / 010148 / 07/2010	943.80
101-3040-424.21-01	01/12/2010	ROCHER, J W/E 01/10/10 CD / 67962 / 010705 / 07/2010	255.00
245-1240-413.21-01	01/12/2010	ROCHER, J W/E 01/10/10 CD / 67962 / 010705 / 07/2010	97.50
101-3020-422.21-01	01/12/2010	ROCHER, J W/E 01/10/10 / 67962 / 010419 / 07/2010	90.00
101-3020-422.21-01	12/22/2009	ROCHER, J W/E 12/20/09 / 67513 / 010419 / 06/2010	472.50
101-3020-422.21-01	12/29/2009	ROCHER, J W/E 12/27/09 / 67694 / 010419 / 06/2010	405.00
01/22/2010	70292	I B FIREFIGHTERS ASSOCIATION 214	242.00
101-0000-209.01-08	01/21/2010	PPE 01/14/2010 / 20100121 / 07/2010	242.00
01/22/2010	70293	IB BUSINESS IMPROVEMENT DISTRI 487	12,770.00
101-0000-203.22-00	10/05/2009	BID FEES COLLECTED JULY- / 04/2010	2,660.00
101-0000-203.22-00	01/13/2010	BID FEES OCTOBER 2009- / 07/2010	10,110.00
01/22/2010	70294	ICMA RETIREMENT TRUST 457 242	5,562.93
101-0000-209.01-10	01/21/2010	PPE 01/14/2010 / 20100121 / 07/2010	5,562.93
01/22/2010	70295	KANE, BALLMER & BERKMAN 1828	127.50
101-1920-532.20-06	01/01/2010	9TH & PALM PROF SRVS / 14728 / F01070 / 07/2010	127.50
01/22/2010	70296	KEYSER MARSTON ASSOC INC 620	4,005.12
405-1260-413.20-06	01/04/2010	DEC 2009 / 0021703 / 080320 / 07/2010	4,005.12
01/22/2010	70297	KIM A MIKHAEL 1680	260.00
101-3010-421.20-06	01/01/2010	12/15/09-2ND LEVEL PARKIN / 01-01-2010 / 010135 / 07/2010	125.00
101-3070-427.20-06	01/01/2010	2ND LEVEL ADMIN CITATION / 01/01/2010 / F01067 / 07/2010	135.00
01/22/2010	70298	KOA CORPORATION 611	1,239.85
405-1260-513.20-06	10/30/2009	09/14-10/25/09 AS NEEDED / J99475XX68 / 090735 / 04/2010	591.80
405-1260-513.20-06	07/31/2009	06/22-07/19/09 AS NEEDED / J99475XX67 / 090735 / 01/2010	648.05
01/22/2010	70299	LAND HOLDINGS V 4	1,452.00
101-0000-221.01-05	01/19/2010	BOND REFUND 565 BONITO AV / TEP 09-46 / 07/2010	1,452.00

CHECK DATE / ACCOUNT #	CHECK NUMBER	VENDOR NAME / TRN DATE	VENDOR # / DESCRIPTION	INVOICE	PO #	PER/YEAR	CHECK AMOUNT / TRN AMOUNT
01/22/2010	70300	LLOYD PEST CONTROL	814				286.00
101-1910-419.20-22		12/10/2009	DECEMBER 09-CITY HALL	2519672	010013	06/2010	31.00
101-1910-419.20-22		12/10/2009	DECEMBER 09-FIRE DEPT	2519673	010013	06/2010	31.00
101-1910-419.20-22		12/10/2009	DECEMBER 09-SHERIFF DEPT	2519913	010013	06/2010	31.00
101-1910-419.20-22		12/11/2009	DECEMBER 09-SENIOR CTR	2520005	010013	06/2010	47.00
101-1910-419.20-22		12/22/2009	DECEMBER 09-SPORTS PARK	2504002	010013	06/2010	45.00
101-1910-419.20-22		12/23/2009	DECEMBER 09-PUBLIC WORKS	2506326	010013	06/2010	47.00
101-1910-419.20-22		12/23/2009	DECEMBER 2009-DEMPSEY CTR	2506712	010013	06/2010	54.00
01/22/2010	70301	LUCIA OCHOA	4				1,500.00
101-0000-221.01-05		01/12/2010	RFND BOND-577 BONITO AVE	TEP 10-01		07/2010	1,500.00
01/22/2010	70302	MIRELES LANDSCAPING	2107				900.00
101-1920-532.20-06		12/31/2009	DECEMBER 09 SERVICES	12-31-2009	010701	06/2010	900.00
01/22/2010	70303	NASLAND ENGINEERING	1656				4,746.30
408-1920-519.20-06		12/15/2009	P/E 12/15/09 OLD PALM AVE	88367	010707	06/2010	4,746.30
01/22/2010	70304	ONE SOURCE DISTRIBUTORS	1071				484.54
101-5010-431.21-23		12/10/2009	PALM AVE UPLIGHTS	S3226688.001	010066	06/2010	143.88
101-5010-431.21-23		12/17/2009	PRMOTE SWITCH	S3227021.002	010066	06/2010	340.66
01/22/2010	70305	PMI	23				500.97
101-6040-454.30-02		01/11/2010	PROTECTIVE GLOVES	0210515	010068	07/2010	202.67
101-6040-454.30-02		12/16/2009	PROTECTIVE GLOVES	0207149	010068	06/2010	298.30
01/22/2010	70306	PRAXAIR DISTRIBUTION INC	1652				149.40
101-3020-422.30-02		12/01/2009	BREATHING AIR	35049189	010534	06/2010	149.40
01/22/2010	70307	PRUDENTIAL OVERALL SUPPLY	72				699.66
101-5020-432.25-03		12/23/2009	12/23/09 PW UNIFORMS	30065131	010049	06/2010	163.00
101-5020-432.25-03		01/06/2010	01/06/2010 PW UNIFORMS	30068532	010049	07/2010	160.88
101-5020-432.25-03		12/30/2009	12/30/09 PW UNIFORMS	30066800	010049	06/2010	187.36
101-5020-432.25-03		01/13/2010	01/13/10 PW UNIFORMS	30070151	010049	07/2010	188.42
01/22/2010	70308	RANCHO AUTO & TRUCK PARTS	1685				320.36
501-1921-419.28-16		12/18/2009	OIL/AIR FILTERS -STOCK	7693-11975	010072	06/2010	78.18
501-1921-419.28-16		01/07/2010	BRAKE ROTOR/SEAL/PADS	7693-13920	010072	07/2010	186.52
501-1921-419.28-16		01/07/2010	RETURN DRUMS & ROTORS	7693-13928	010072	07/2010	131.30-
501-1921-419.28-16		01/08/2010	MOTOR OIL/OIL FILTERS-STO	7693-14096	010072	07/2010	115.19
501-1921-419.28-16		01/12/2010	HYD FILTER E-239	7693-14521	010072	07/2010	15.31
501-1921-419.28-16		01/13/2010	CREDIT-RTND BELTS	7693-14626	010072	07/2010	26.42-
501-1921-419.30-02		01/13/2010	STOPLEAK DISP	7693-14628	010072	07/2010	2.06
501-1921-419.28-16		01/13/2010	CREDIT - RTND SEALANT	7693-14629	010072	07/2010	4.85-
501-1921-419.28-16		01/15/2010	COUPLER PLUG	7693-14880	010072	07/2010	15.06
501-1921-419.28-16		01/19/2010	FILTERS/HALOGEN BEAM	7693-15265	010072	07/2010	70.61
01/22/2010	70309	ROBERT B LOKEY	1				116,500.00
101-1920-532.20-06		12/16/2009	LEASE SETTLEMENT 775 PALM	12-17-2009		07/2010	116,500.00

CHECK DATE	CHECK NUMBER	VENDOR NAME / VENDOR #					CHECK AMOUNT
ACCOUNT #		TRN DATE	DESCRIPTION	INVOICE	PO #	PER/YEAR	TRN AMOUNT
01/22/2010	70310	RYAN NEEDLES DBA VAN VON VINYL	1951				213.15
101-6010-451.28-11		12/09/2009	OPEN HOUSE BANNERS	738	010699	06/2010	213.15
01/22/2010	70311	SEIU LOCAL 221	1821				1,245.88
101-0000-209.01-08		01/21/2010	PPE 01/14/2010	20100121		07/2010	1,245.88
01/22/2010	70312	SHARP REES-STEALY MEDICAL CNTR	390				483.00
101-1130-412.21-04		01/09/2010	LARSON, TAHL	220	010041	07/2010	220.00
101-1130-412.21-04		01/09/2010	SPRINGFIELD, ASHLEY	220	010041	07/2010	208.00
101-1130-412.21-04		01/09/2010	ADAME, RAFAEL	220	010041	07/2010	55.00
01/22/2010	70313	SOUTH WEST SIGNAL	488				517.16
101-5010-431.21-23		12/31/2009	PALM LIGHT REPAIR/REPLACE	49670	010086	06/2010	357.16
101-5010-431.21-04		12/31/2009	DECEMBER 2009 MAINTENANCE	49684	010086	06/2010	160.00
01/22/2010	70314	SUNGARD PUBLIC SECTOR USER'S G	2039				50.00
503-1923-419.28-04		12/17/2009	LOPEZ, H-WKSHP NO SHOW	12932	010700	06/2010	50.00
503-1923-419.28-04		01/22/2010	LOPEZ, H-WKSHP NO SHOW	12932		07/2010	50.00-
01/22/2010	70315	THYSSENKRUPP ELEVATOR	663				219.65
101-3030-423.20-06		01/01/2010	JANUARY 2010	1037045026	010043	07/2010	219.65
01/22/2010	70316	UNION BANK OF CALIFORNIA	735				875.00
101-1920-419.29-04		11/16/2009	08/01-10/31/09 BANK FEES	577869	010620	05/2010	875.00
01/22/2010	70317	WAXIE SANITARY SUPPLY	802				879.02
101-6040-454.30-02		12/22/2009	TOILET TISSUE/LINERS	71692761	010069	06/2010	752.87
101-6040-454.30-02		12/23/2009	STEEL LINERS	71696473	010069	06/2010	126.15

DATE RANGE TOTAL * 417,330.40 *

AGENDA ITEM NO. 2.3

STAFF REPORT
CITY OF IMPERIAL BEACH

TO: HONORABLE MAYOR AND CITY COUNCIL

FROM: GARY BROWN, CITY MANAGER

MEETING DATE: FEBRUARY 3, 2010

ORIGINATING DEPT.: CITY ATTORNEY

SUBJECT: ADOPTION OF CITY RESOLUTION NO. 2010-6848 AND REDEVELOPMENT AGENCY RESOLUTION NO. R-10-208 APPROVING AN AMENDED AGREEMENT WITH MCDOUGAL, LOVE, ECKIS, BOEHMER & FOLEY TO REDESIGNATE THE CITY ATTORNEY/GENERAL COUNSEL

BACKGROUND:

The law firm of McDougal, Love, Eckis, Boehmer & Foley has provided legal services to the City for over fifteen years. The current agreement expires as of June 30, 2011. Jim Lough has been serving as the City Attorney/General Counsel since approximately 2004.

DISCUSSION:

Mr. Lough has resigned from the law firm effective February 1, 2010. The proposed amendment will redesignate the City Attorney position to name Jennifer M. Lyon as the City Attorney/General Counsel. The amendment will also add Hilda Mendoza as a Deputy City Attorney. The amendment will add a provision for a ninety day performance evaluation and other performance evaluations as the Council deems appropriate. Finally, revisions to reflect the current firm name will be made.

ENVIRONMENTAL IMPACT:

Not a project as defined by CEQA.

FISCAL IMPACT:

There will be no changes to the fiscal matters within the agreement, and the City's FY 09-11 budget has funds available for this purpose in the City Attorney, Redevelopment Agency, and Risk Management budgets.

DEPARTMENT RECOMMENDATION:

Staff recommends that Council/Agency adopt City Resolution No. 2010-6848 and Redevelopment Agency Resolution No. R-10-208 approving an amended agreement with McDougal, Love, Eckis, Boehmer and Foley for City Attorney and special legal services and further designating Jennifer M. Lyon as the City Attorney/General Counsel.

CITY MANAGER'S RECOMMENDATION:

Approve Department recommendation.

Gary Brown

Gary Brown, City Manager

Attachment:

1. Resolution Nos. 2010-6848 and R-10-208
2. Amended agreement with Exhibits A & B
3. Amended agreement (redline form) with Exhibits A & B

ATTACHMENT 1

RESOLUTION NO 2010-6848
(REDEVELOPMENT RESOLUTION NO. R-10-208)

A RESOLUTION OF THE CITY COUNCIL AND REDEVELOPMENT AGENCY OF THE CITY OF IMPERIAL BEACH AUTHORIZING AN AMENDMENT TO THE AGREEMENT WITH MCDOUGAL, LOVE, ECKIS, BOEHMER & FOLEY TO REDESIGNATE THE CITY ATTORNEY/GENERAL COUNSEL

WHEREAS, the City and Redevelopment Agency desire effective, efficient, and cost effective legal services; and

WHEREAS, the current Agreement with the law firm expires on June 30, 2011; and

WHEREAS, the City wishes to amend the current Agreement to redesignate the City Attorney position and to make other minor revisions to the Agreement; and

WHEREAS, McDougal, Love, Eckis, Boehmer & Foley will perform these services and responsibilities as stated in the Agreement.

NOW, THEREFORE, BE IT RESOLVED, by the City Council and Redevelopment Agency of the City of Imperial Beach as follows:

1. Adopt Resolution 2010-6848 and Resolution R-10-208 approving the amended agreement with McDougal, Love, Eckis, Boehmer & Foley to redesignate the City Attorney/General Counsel; and

2. Authorize and direct the Mayor to execute said amended agreement for and on behalf of the City of Imperial Beach and Redevelopment Agency of Imperial Beach.

PASSED, APPROVED AND ADOPTED by the City Council and Redevelopment Agency of the City of Imperial Beach at its regular meeting held on the 3rd day of February 2010, by the following roll call vote:

AYES: COUNCILMEMBERS:
NOES: COUNCILMEMBERS:
ABSENT: COUNCILMEMBERS:

_____
JAMES C. JANNEY, MAYOR

ATTEST:

_____
JACQUELINE M. HALD
CITY CLERK

AGREEMENT FOR CITY ATTORNEY SERVICES BETWEEN THE CITY OF IMPERIAL BEACH AND THE IMPERIAL BEACH REDEVELOPMENT AGENCY

AND

McDOUGAL, LOVE, ECKIS, BOEHMER & FOLEY
A Professional Corporation

THIS AGREEMENT is made this 1st day of July 2009 and amended as of February 3, 2010, by and between the City of Imperial Beach, a Municipal Corporation, (hereinafter referred to as "City"), the Imperial Beach Redevelopment Agency, (hereinafter referred to as "Agency"), and McDougal, Love, Eckis, Boehmer & Foley, a Professional Corporation, (hereinafter referred to as "Attorneys" or "Firm"). The parties agree that City and Agency shall retain the Attorneys to perform legal services on the terms and conditions set forth herein.

RECITALS

A. The City and Agency require legal services customarily provided by the offices of a city attorney appointed by the City Council.

B. Attorneys are fully qualified to provide the legal services sought by the City and Agency and willing to provide such legal services.

C. Attorneys are willing to devote such time as may be necessary to provide such services in keeping with the highest standards of the legal profession and refrain from any employment that would conflict with representation of the City and Agency.

NOW, THEREFORE, the parties hereby agree as follows:

1. GENERAL RETAINER SERVICES

1.1 Designation of City and Agency Attorney.

The City and Agency shall appoint the following designated members of the law firm of McDougal, Love, Eckis, Boehmer & Foley in the following capacities:

Jennifer M. Lyon	City Attorney, General Counsel (hereinafter "City Attorney")
Hilda R. Mendoza	Deputy City Attorney

David M. Stotland	Deputy City Attorney
Steven E. Boehmer	Special Counsel

The City Attorney may assign other attorneys in the Firm to work on City and Agency matters on an as-needed basis.

Attorneys shall not replace the designated City Attorney without the City Council's prior approval, except as may be necessary from time to time due to illness or vacation scheduling, in which case approval of a substitute attorney shall be obtained from the City Manager.

The City Attorney shall devote such time as necessary to perform those duties set forth on Exhibit "A", including the provision of Political Reform Act conflict of interest assistance (related to the Political Reform Act and other applicable conflict of interest laws) on behalf of the City to City employees and officials upon appropriate request. The Attorneys shall represent the City in all litigation except where the City Council may otherwise direct.

General Counsel shall perform those duties set forth on Exhibit "A" applicable to general counsel, including the provision of conflict of interest assistance (related to the Political Reform Act and other applicable conflict of interest laws) on behalf of the Agency to Agency employees and officials upon appropriate request. General Counsel shall represent the Agency in all litigation except where Agency may otherwise direct.

The Attorneys' duties shall specifically include those set forth in Exhibit "A" attached and shall be performed by such members of the law firm as designated by the City Attorney and under the City Attorney's supervision.

1.2 <u>Independent Contractor.</u>

No employment relationship is created by this Agreement. Attorneys shall, for all purposes, be independent contractors to the City.

Attorneys shall not at any time or in any manner represent that they or any of their employees or agents are in any manner employees of the City. City acknowledges and agrees that the City Attorney, Assistant City Attorney, Deputy City Attorney and special counsel representing the City and the Agency will need to represent to others their capacity and relationship to the City.

Attorneys shall fulfill the professional responsibilities and duties under this Agreement in the manner that in Attorneys' sole discretion is deemed appropriate, subject to customary limitations that exist between an attorney and the client. Attorneys shall maintain independent ethical judgment in the conduct of legal services on behalf of the City and Agency.

1.3 Client is the City

Attorneys have been retained to represent the City and Agency as organizations, and owe a duty of loyalty to the organization. In the event the City's interest becomes adverse to the interest of a Council Member or staff member, Attorneys shall explain to the individual(s) that the organization is the client, that he/she cannot represent the individual(s) due to the conflict or potential conflict of interest, and that the individual(s) may wish to obtain independent counsel. When appropriate, Attorneys shall advise such individual(s) that any discussions with Attorneys may no longer be privileged.

In the event that Attorneys know that an individual intends to act (or refuses to act) in a manner related to the representation that is (1) a violation of a legal duty to the City, or (2) a violation of law which reasonably might be imputed to the City, and the individual's act (or refusal to act) is likely to result in substantial injury to the City, Attorneys shall proceed as is reasonably necessary in the best interest of the City.

1.4 City Attorney Services.

Attorneys shall perform those services as set forth in Exhibit "A" hereto.

2. COMPENSATION

2.1 Basic Retainer for General Services

The City agrees to initially pay to Attorneys a monthly retainer in the amount of Eight Thousand Two Hundred Twenty-seven and No/100 Dollars ($8,227.00) for all services defined as "general services" in Exhibit "A". All services rendered which are not "general services" shall be approved by the City Manager in advance of the services being performed, and are deemed "special services" and shall be compensated at the rates set forth in Exhibit "B" attached hereto.

2.2 Payment Terms

The monthly retainer for City Attorney services and the monthly retainer for General Counsel services shall become due and payable on receipt of invoice no sooner than the first day of the month immediately following the month in which such services were provided. Payment for special services shall be made upon receipt of a detailed and itemized invoice. Payment for special services shall be made within thirty (30) days from the last day of the month in which Attorneys' services were provided.

2.3 Payments for Travel and Meeting Expenses

The City shall reimburse the City Attorney for travel and meeting expenses approved by the City Council that are deemed necessary and reasonable. Meal costs, excluding

alcoholic beverages, will be reimbursed if deemed necessary in connection with the approved travel authorized by the City.

2.4 Invoice Requirements

2.4.1 General Legal Services. Billing for monthly legal services, including those services set forth in Exhibit "A", shall be submitted on separate invoices for each matter being handled.

2.4.2 Billing Increments. All invoices shall be detailed in six (6) minute, or one-tenth (0.1) hour increments.

2.4.3 Description of Work Performed. The invoice must briefly describe each item of work performed, the identity of the attorney, paralegal, or expert who performed the work and the date of the work. For example, if four distinct tasks were done on a file in one day, the tasks shall be separately noted on the bill with an individual time charge for each.

2.5 Prohibition Against Payment for Specified Activities

Absent special circumstances and the prior written approval by the City, the City is not obligated to pay for the following:

2.5.1 New Attorneys. Time spent by new attorneys to become familiar with the matter.

2.5.2 One Attorney. More than one attorney to attend any court hearing, deposition, or a meeting with the City's officers and/or employees.

2.5.3 Paralegals. Paralegals may perform discovery, coordination of witnesses and other support services normally associated with civil litigation. Paralegal time shall include calendaring, issuance of subpoenas and discovery and coordinating offers in criminal matters filed under the Imperial Beach Municipal Code. No more than one paralegal working shall be tasked to work on the same matter or charge for consulting with another paralegal.

2.5.4 Expert Consultants and Witnesses. The need for, identity, and qualifications of experts should be timely reported to the City. The City recognizes the need for well-qualified experts for the successful evaluation of and defense of matters. The City encourages the use of experts not only for defense purposes, but to assist in early evaluation of cases.

2.5.5 Secretarial Time. The City will not pay for secretarial time or secretarial overtime. The City does not pay attorneys or paralegals for secretarial tasks or tasks that should be subsumed into the City Attorney's overhead. For example, the City will

not reimburse its City Attorney for time spent faxing, mailing, arranging for messengers, or calendaring.

2.5.6 Word Processing. The City does not reimburse for the costs of word processing.

2.6 Reimbursable Expenses.

2.6.1 Photocopying Charges. The City will reimburse for photocopying costs only on a per-copy basis. The maximum charge reimbursable is $0.20 per page for the copying of documents less than 25 pages; and $0.10 per page for the copying of documents 25 pages or greater, including any time spent making the copies. Outside copying services will be used when possible, if the cost of doing so is less expensive to the City, or for special copying services that cannot be performed by Attorneys' staff.

2.6.2 Facsimile Charges. Facsimile transmissions may be used when necessary. The City will pay for facsimile transmissions based upon reasonable rates associated with actual cost, excluding secretarial time.

2.6.3 Telephone/Mail/Delivery Charges. Long distance telephone, cellular phone, and postal charges will be reimbursed at actual cost. Federal Express and similar delivery services shall be reimbursed only if Attorneys have obtained the prior approval of the City. Charges associated with delivery of materials, service of subpoenas and other documents, and filing by messenger services will be reimbursed at actual cost. Attorney should use reasonable efforts to accomplish work sufficiently in advance to allow delivery, filing, and service by U.S. Mail when not otherwise prescribed by law. Rush delivery costs will be reimbursed only if Attorneys have obtained the prior approval of the City.

2.6.4 Invoice Review and Discussion. The City will not pay for time used to prepare invoices or for discussion of invoices. If the City has questions about invoices or requires additional information on invoices, Attorneys must provide the information without charge to the City.

2.6.5 Unit Billing Time. The City will not pay unit billing time charges. Attorneys shall charge only for actual time spent.

2.6.6 File Opening and Closing. The City will not pay for time for file opening or file closing. These are not true tasks or adequate descriptions of legal activities.

2.6.7 Prior Work. The City will not pay for products that Attorneys have performed and billed for in other matters. This applies to the use of forms.

2.6.8 Payment. The City agrees to pay reimbursable costs within thirty (30) days from the last day of the month in which Attorneys incurred such costs.

3. INSURANCE

Attorneys shall maintain their own liability, health, worker's compensation, disability and other insurance and the City shall not be responsible therefor. At a minimum, Attorneys shall maintain two million dollars ($2,000,000) in malpractice insurance, or such other amounts as may be required by the State Bar of California.

4. INDEMNIFICATION AND HOLD HARMLESS

Attorneys shall defend, indemnify, and hold the City harmless from any and all claims, liabilities, obligations, and causes of action for injury or death of any person and for injury or damage or destruction of property that directly results from Attorneys' sole and exclusive professional negligence, or sole and exclusive negligence involving the operation of any motor vehicle. This provision shall not be construed to waive or affect the immunities of the parties provided to public agencies, their agents, and employees by law.

5. CONFLICT OF INTEREST

Attorneys shall not knowingly represent any person or entity in any matter that may reasonably result in a contrary position to that of the City. However, upon full disclosure to the City, the City may waive this provision in writing.

6. TERM

The services to be provided by Attorneys under this Agreement shall begin on July 1, 2009 and end on June 30, 2011.

7. TERMINATION

The City may immediately terminate this Agreement for cause at any time. Either the City or Attorneys may terminate this Agreement with or without cause at any time by providing ninety (90) days' notice in writing to the other party.

8. PERFORMANCE EVALUATION

There will be an evaluation of Attorneys' performance on or about May 1, 2010 and thereafter as deemed necessary and appropriate by the City Council.

9. FILES

Attorneys' files for matters involving the City, and works in progress thereof, are the property of the City and upon termination of this Agreement, shall, upon demand, be immediately delivered to the City. Attorneys may retain copies of pertinent documents, unless expressly prohibited or restricted by the City.

Executed on the date and year first indicated above at Imperial Beach, California.

CITY OF IMPERIAL BEACH,
a Municipal Corporation

By_____
JIM JANNEY, Mayor

IMPERIAL BEACH REDEVELOPMENT AGENCY

By_____
Jim Janney, Chair

Concurrence:

_____
Jennifer M. Lyon

McDOUGAL, LOVE, ECKIS, BOEHMER & FOLEY, a Professional Corporation

By_____
STEVEN E. BOEHMER

EXHIBIT "A"

Attorney Services

Except as provided elsewhere in this Agreement, Attorneys shall provide, in a professional manner, all of the usual, customary and necessary services, normally provided by a City Attorney and Redevelopment Agency General Counsel, to City and the Redevelopment Agency, as those services are required. Scope of services to be provided shall include the following:

A. General Services

1. Attendance at City Council/Redevelopment Agency meetings;

2. Regular established office hours at City Hall;

3. Attendance at departmental meetings, staff meetings or committee meetings deemed necessary and appropriate, or as requested by the City Manager or City Council;

4. Review and comment on City Council agenda items referred by the City Manager;

5. Research, preparation or review of routine written opinions, ordinances, resolutions, agreements, leases, public works contracts, and other routine documents of a legal nature necessary or requested by the City Manager, or City Council;

6. Promptly respond to all requests for legal advice from the City Council Members, City Manager, Commissioners, department heads, and other designated personnel as appropriate;

7. Monitoring and advising the City Council and staff of legislation and case law affecting the City;

8. Rendering general advice and assistance in the administration of the City's general liability risk management and insurance programs;

9. Monitoring activities of any special outside counsel retained by the City;

10. Providing conflict of interest assistance to Council/Agency and staff on behalf of the City/Redevelopment Agency, and assisting members and staff in seeking advice from the Fair Political Practices Commission;

11. Providing advice on issues related to the Brown Act (California Government Code section 54950 et seq.) and the California Public Records Act (California Government Code section 6250 et seq.); and

12. Represent the City in non-adversarial administrative proceedings, legislative hearings, and other intergovernmental meetings.

B. Special Services:

Special Services will be performed upon the request of the City Manager or City Council.

1. Provide legal advice and counsel to commissions and boards and attend commission meetings, board meetings, or committee meetings as deemed necessary by the City Manager or City Council;

2. Commence and prosecute all criminal or civil actions necessary and appropriate to enforce municipal ordinances, including enforcement through administrative proceedings, and the representation of the City and Agency, and their officers, agents and employees in matters in state and federal courts, as well as state and federal administrative agencies (such as the Department of Fair Employment and Housing, Equal Employment Opportunity Commission, Worker's Compensation Appeals Board, etc);

3. Represent the Redevelopment Agency as General Counsel, in administrative and civil litigation and in public finance matters such as assessments and tax related matters;

4. Render advice and assistance to City's representatives on labor relations matters, complex public records requests, review memoranda of understanding or other labor agreements, development agreements, advise on complex CEQA matters, draft implementing legislation or other pertinent documents and represent City before mediators or arbitrators on matters arising from memoranda of understanding or the City's personnel rules;

5. Render advice and assistance and represent the City/Agency in the administration of all claims and litigation filed by or against it; provided, however, that special counsel may be retained to defend or prosecute actions requiring special expertise, or in the event of a conflict of interest which disqualifies the Attorneys from such representation; and

6. Real property transactions in which the City/Agency is the seller or purchaser, or is involved in any exchange, or is involved in any sale/leaseback or lease/leaseback arrangement.

EXHIBIT "B"

Hourly Billing Rates

Attorney	$144.50
Deputy City Attorney	$144.50
Special Counsel	$144.50
Paralegal	$ 85.00

AGREEMENT FOR CITY ATTORNEY SERVICES BETWEEN THE CITY OF IMPERIAL BEACH AND THE IMPERIAL BEACH REDEVELOPMENT AGENCY

AND

McDOUGAL, LOVE, ECKIS, ~~SMITH,~~ BOEHMER & FOLEY
A Professional Corporation

THIS AGREEMENT is made this 1st day of July 2009 and amended as of February 3, 2010, by and between the City of Imperial Beach, a Municipal Corporation, (hereinafter referred to as "City"), the Imperial Beach Redevelopment Agency, (hereinafter referred to as "Agency"), and McDougal, Love, Eckis, ~~Smith,~~ Boehmer & Foley, a Professional Corporation, (hereinafter referred to as "Attorneys" or "Firm"). The parties agree that City and Agency shall retain the Attorneys to perform legal services on the terms and conditions set forth herein.

RECITALS

A. The City and Agency require legal services customarily provided by the offices of a city attorney appointed by the City Council.

B. Attorneys are fully qualified to provide the legal services sought by the City and Agency and willing to provide such legal services.

C. Attorneys are willing to devote such time as may be necessary to provide such services in keeping with the highest standards of the legal profession and refrain from any employment that would conflict with representation of the City and Agency.

NOW, THEREFORE, the parties hereby agree as follows:

1. GENERAL RETAINER SERVICES

1.1 Designation of City and Agency Attorney.

The City and Agency shall appoint the following designated members of the law firm of McDougal, Love, Eckis, ~~Smith,~~ Boehmer & Foley in the following capacities:

~~James P. Lough~~Jennifer M. Lyon _City Attorney, General Counsel (hereinafter "City Attorney")

Hilda R. Mendoza __Deputy City Attorney

David M. Stotland	Deputy City Attorney
Steven E. Boehmer	Special Counsel

The City Attorney may assign other attorneys in the Firm to work on City and Agency matters on an as-needed basis.

Attorneys shall not replace the designated City Attorney without the City Council's prior approval, except as may be necessary from time to time due to illness or vacation scheduling, in which case approval of a substitute attorney shall be obtained from the City Manager.

The City Attorney shall devote such time as necessary to perform those duties set forth on Exhibit "A", including the provision of Political Reform Act conflict of interest assistance (related to the Political Reform Act and other applicable conflict of interest laws) on behalf of the City to City employees and officials upon appropriate request. The Attorneys shall represent the City in all litigation except where the City Council may otherwise direct.

General Counsel shall perform those duties set forth on Exhibit "A" applicable to general counsel, including the provision of conflict of interest assistance (related to the Political Reform Act and other applicable conflict of interest laws) on behalf of the Agency to Agency employees and officials upon appropriate request. General Counsel shall represent the Agency in all litigation except where Agency may otherwise direct.

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1.2 Independent Contractor.

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1.3 Client is the City

Attorneys have been retained to represent the City and Agency as organizations, and owe a duty of loyalty to the organization. In the event the City's interest becomes adverse to the interest of a Council Member or staff member, Attorneys shall explain to the individual(s) that the organization is the client, that he/she cannot represent the individual(s) due to the conflict or potential conflict of interest, and that the individual(s) may wish to obtain independent counsel. When appropriate, Attorneys shall advise such individual(s) that any discussions with Attorneys may no longer be privileged.

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1.4 City Attorney Services.

Attorneys shall perform those services as set forth in Exhibit "A" hereto.

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Attorneys shall defend, indemnify, and hold the City harmless from any and all claims, liabilities, obligations, and causes of action for injury or death of any person and for injury or damage or destruction of property that directly results from Attorneys' sole and exclusive professional negligence, or sole and exclusive negligence involving the operation of any motor vehicle. This provision shall not be construed to waive or affect the immunities of the parties provided to public agencies, their agents, and employees by law.

5. CONFLICT OF INTEREST

Attorneys shall not knowingly represent any person or entity in any matter that may reasonably result in a contrary position to that of the City. However, upon full disclosure to the City, the City may waive this provision in writing.

6. TERM

The services to be provided by Attorneys under this Agreement shall begin on July 1, 2009 and end on June 30, 2011.

7. TERMINATION

The City may immediately terminate this Agreement for cause at any time. Either the City or Attorneys may terminate this Agreement with or without cause at any time by providing ninety (90) days' notice in writing to the other party.

8. PERFORMANCE EVALUATION

There will be an evaluation of Attorneys' performance on or about May 1, 2010 and thereafter as deemed necessary and appropriate by the City Council.

9. FILES

Attorneys' files for matters involving the City, and works in progress thereof, are the property of the City and upon termination of this Agreement, shall, upon demand, be immediately delivered to the City. Attorneys may retain copies of pertinent documents, unless expressly prohibited or restricted by the City.

Executed on the date and year first indicated above at Imperial Beach, California.

CITY OF IMPERIAL BEACH,
a Municipal Corporation

By_____
JIM JANNEY, Mayor

IMPERIAL BEACH REDEVELOPMENT AGENCY

By_____
Jim Janney, Chair

Concurrence:

_____
~~James P. Lough~~Jennifer M. Lyon

McDOUGAL, LOVE, ECKIS, ~~SMITH,~~ BOEHMER & FOLEY, a Professional Corporation

By_____
STEVEN E. BOEHMER

EXHIBIT "A"

Attorney Services

Except as provided elsewhere in this Agreement, Attorneys shall provide, in a professional manner, all of the usual, customary and necessary services, normally provided by a City Attorney and Redevelopment Agency General Counsel, to City and the Redevelopment Agency, as those services are required. Scope of services to be provided shall include the following:

A. General Services

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2. Regular established office hours at City Hall;

3. Attendance at departmental meetings, staff meetings or committee meetings deemed necessary and appropriate, or as requested by the City Manager or City Council;

4. Review and comment on City Council agenda items referred by the City Manager;

5. Research, preparation or review of routine written opinions, ordinances, resolutions, agreements, leases, public works contracts, and other routine documents of a legal nature necessary or requested by the City Manager, or City Council;

6. Promptly respond to all requests for legal advice from the City Council Members, City Manager, Commissioners, department heads, and other designated personnel as appropriate;

7. Monitoring and advising the City Council and staff of legislation and case law affecting the City;

8. Rendering general advice and assistance in the administration of the City's general liability risk management and insurance programs;

9. Monitoring activities of any special outside counsel retained by the City;

10. Providing conflict of interest assistance to Council/Agency and staff on behalf of the City/Redevelopment Agency, and assisting members and staff in seeking advice from the Fair Political Practices Commission;

11. Providing advice on issues related to the Brown Act (California Government Code section 54950 et seq.) and the California Public Records Act (California Government Code section 6250 et seq.); and

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1. Provide legal advice and counsel to commissions and boards and attend commission meetings, board meetings, or committee meetings as deemed necessary by the City Manager or City Council;

2. Commence and prosecute all criminal or civil actions necessary and appropriate to enforce municipal ordinances, including enforcement through administrative proceedings, and the representation of the City and Agency, and their officers, agents and employees in matters in state and federal courts, as well as state and federal administrative agencies (such as the Department of Fair Employment and Housing, Equal Employment Opportunity Commission, Worker's Compensation Appeals Board, etc);

3. Represent the Redevelopment Agency as General Counsel, in administrative and civil litigation and in public finance matters such as assessments and tax related matters;

4. Render advice and assistance to City's representatives on labor relations matters, complex public records requests, review memoranda of understanding or other labor agreements, development agreements, advise on complex CEQA matters, draft implementing legislation or other pertinent documents and represent City before mediators or arbitrators on matters arising from memoranda of understanding or the City's personnel rules;

5. Render advice and assistance and represent the City/Agency in the administration of all claims and litigation filed by or against it; provided, however, that special counsel may be retained to defend or prosecute actions requiring special expertise, or in the event of a conflict of interest which disqualifies the Attorneys from such representation; and

6. Real property transactions in which the City/Agency is the seller or purchaser, or is involved in any exchange, or is involved in any sale/leaseback or lease/leaseback arrangement.

EXHIBIT "B"

Hourly Billing Rates

Attorney	$144.50
Deputy City Attorney	$144.50
Special Counsel	$144.50
Paralegal	$ 85.00

AGENDA ITEM NO. 2.4

STAFF REPORT
CITY OF IMPERIAL BEACH

TO:	**HONORABLE MAYOR AND CITY COUNCIL**
FROM:	**GARY BROWN, CITY MANAGER**
MEETING DATE:	**FEBRUARY 3, 2010**
ORIGINATING DEPT.:	**CITY MANAGER**
SUBJECT:	**ADOPT RESOLUTION NO. 2010-6844 AMEDNING JOB DESCRIPTION FOR MAINTENANCE WORKER II**

BACKGROUND:
It is the responsibility of the City Manager to recommend to the Council revisions to the City's Job Descriptions as necessitated for the efficient and effective operation of the City.

DISCUSSION:
In 2003 the City revised the job description for Maintenance Worker II for a generalist position that performed a wide variety of maintenance duties in support of various departments. Overtime the Maintenance Worker II job description has gradually become obsolete in some areas. In section ABILITY TO, All Assignments this is the change to the job description. "Perform a variety of basic electrical troubleshooting, repair and maintenance tasks involving City facilities".

With this change staff believes we should be able to provide a higher level of maintenance work within the City.

ENVIRONMENTAL DETERMINATION:
Not a project as defined by CEQA.

FISCAL IMPACT:
None

DEPARTMENT RECOMMENDATION:
Staff recommends the City Council adopt Resolution No. 2010-6844 amending the Maintenance Worker II Job Description.

CITY MANAGER'S RECOMMENDATION:
Approve Department recommendation.

Gary Brown

Gary Brown, City Manager

Attachments:

1. Resolution No. 2010-6844
2. Maintenance Worker II Job Description

ATTACHMENT 1

RESOLUTION NO. 2010-6844

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF IMPERIAL BEACH, CALIFORNIA, APPROVING THE AMENDED JOB DESCRIPTION FOR MAINTENANCE WORKER II

WHEREAS, the provisions of Ordinance No. 41 of the City of Imperial Beach provides that the position descriptions of the employees of the City of Imperial Beach may be amended by the City Council from time to time by resolution; and

WHEREAS, the position description for the Maintenance Worker II in the Public Works Department no longer appropriately describes the duties of the position; and

WHEREAS, a new job description for Maintenance Worker II was developed based on current duties.

WHEREAS, the City Manager is recommending revisions to the City's job description as necessary for the efficient and effective operation of the City.

NOW, THEREFORE, BE IT RESOLVED by the City Council of the City of Imperial Beach as follows:

1. The above recitations are true and correct
2. Amend the job description for Maintenance Worker II

PASSED, APPROVED, AND ADOPTED by the City Council of the City of Imperial Beach at its meeting held on the 3rd day of February 2010, by the following vote:

AYES: COUNCILMEMBERS:
NOES: COUNCILMEMBERS:
ABSENT: COUNCILMEMBERS:

_____
JAMES C. JANNEY, MAYOR

ATTEST:

_____
JACQUELINE M. HALD, CMC
CITY CLERK

ATTACHMENT 2

City of Imperial Beach
POSITION DESCRIPTION

Title:	**Maintenance Worker II**	**Job Number:**	**7080**
Department	**Public Works**	**Worker's Comp Number::**	**9420**
Division:	**Streets, Sewer, Tidelands, Grounds & Facilities**	**Employee Labor Group:**	**SEIU**
		Location:	**City of Imperial Beach**
Date:	**November 18, 1998**		

GENERAL PURPOSE

Under supervision, to perform a variety of semi-skilled and skilled duties in the repair and maintenance of City streets, sewer, grounds & facilities maintenance, tidelands, beach maintenance parks and related areas.

SUPERVISION RECEIVED

Works under general direction of the street supervisor, sewer supervisor, and grounds & facilities supervisor, and tidelands supervisor.

SUPERVISION EXERCISED

None generally. May serve as a lead worker over lower level maintenance workers.

ESSENTIAL DUTIES AND RESPONSIBILITIES

Positions perform complex and specialized journey-level work in the assigned maintenance area. Positions in this class are usually assigned to an area of maintenance, such as street, sewer, tidelands, parks, or other related public works projects. Incumbents perform skilled and semi-skilled work in the general work of the area assigned. Perform all of the duties listed below; however, any position may perform any of the duties typical of this class on a limited basis. Positions in this class perform work in accordance with established instructions. Incumbents receive thorough instructions when tasks are initially assigned and after training are expected to perform duties without constant supervision. Work is reviewed periodically upon completion and while in progress. Incumbents are expected to refer most variations in work to the lead worker for instructions.

All Assignments

Performs a wide variety of skilled and semi-skilled construction and maintenance work involving the land, facilities and equipment of the City, operates hand and portable power tools pertaining to the assignment, rides, drives tractors, backhoes front end loaders, trucks, vacuums, cutters and other motor driven equipment; maintains and sharpens tools used in the assignment; works independently in the maintenance of an assigned area or project; works with a crew in work projects of moderate size; works at heights using ground ladders and mechanical lifts, works below ground level in trenches and excavations; uses chemicals and other supplies, some of which may be noxious or harmful to the body; wears protective clothing and equipment; maintains simple records; communicates by radio; reads and interprets directions and sketches; reads blueprints; operates vehicles on the public streets.

Tidelands

Inspects tidelands area grounds, pier, facilities, and beachfront for cleanliness, and material and safety deficiencies; performs, or directs as a crew leader, maintenance to correct cleanliness, material and/or safety deficiencies. Performs, or directs as a crew leader, routine inspection, cleaning and preventative maintenance on assigned tidelands area grounds, facilities, and beachfront and refers defects or needed repairs to supervisor; reports safety hazards to supervisor. Communicate efficiently and effectively both verbally and in writing.

Grounds & Facilities

Performs maintenance and improvement projects involving a variety of complex repairs to building facilities including alterations or repairs to tables, counters, doors and window frames, performs minor structural, concrete and masonry repairs; maintains and repairs woodwork of buildings; performs light carpentry work; repairs roofs and ceilings; performs remodeling projects; interprets plans and blueprints; inspects and performs minor electrical and plumbing repairs.

Sewer Operations

Performs repairs, installs, tests, services and maintains a variety of wastewater equipment, including electric motors, impeller and centrifugal pumps, positive displacement pumps, appliances, circuit breakers, relays, water lines and globe, gate and rotary valves and television camera inspection equipment; removes and repairs various electrical components; fabricates parts; presses bearings; dismantles, repairs and replaces pump and compressor parts; replaces lift station pumping equipment to ensure proper operation; repairs clay, galvanized steel, plastic, fiberglass and other types of pipes; operates a Vactor and sewer rodder; takes and logs meter readings; adjusts various flow meters; adjusts automatic valves; evaluates condition of auxiliary equipment; estimates labor and material costs and makes recommendations for jobs; researches catalogs to locate materials and parts required for jobs; assigns and checks the work of maintenance workers assigned to specific projects.

Street Maintenance

Performs maintenance in streets including painting pavement legends, installing traffic markings, painting and installing street signs; installing and maintaining concrete sidewalks, curbs and gutters; operating and instructing in the use of a wide range of construction and maintenance equipment such as trucks, tractors, backhoes, breakers, plainers, sweepers, skip loaders, concrete cutting and breaking equipment, air compressors, pneumatic hammers, saws, sandblasting and spray painting equipment.

Park Assignments

Maintains, constructs and repairs public parks, park play equipment and public facilities located in parks and landscaped areas; plants, water, cultivates, fertilizes and cares for shrubbery, lawns and trees; mows and edges lawns with hand and powered equipment; sprays for pests, weeds and rodent control; cleans and rakes grounds; cleans and maintains buildings and facilities; prepares soil for planting and transplanting; maintains irrigation systems, playground equipment, picnic tables and shade structures; removes leaves from parks and streets; trims trees; empties refuse containers; listens to and responds to complaints of citizens; clean floors, windows and fixtures in public facilities; mows and edges medians in commercial and residential areas, operates a chipper, manipulating and inserting wood debris in the compaction process, using care to minimize flying debris; drives motorized mowers on the public streets; fertilizers planted areas and lawns, mixing dry chemicals and applying prepared chemicals and natural fertilizers

DESIRED MINIMUM QUALIFICATIONS

KNOWLEDGE OF

All Assignments
Proper methods, materials, tools and equipment used in general maintenance work; simple recordkeeping; appropriate safety precautions and procedures; repair and maintenance of facilities, equipment and landscaped areas; general hand and portable power tools; and applicable codes and regulations.

Tidelands Assignments
Appropriate beach sand adjustments to accommodate changing tidal action; operation of chemical applicator for the use of weed control; heavy equipment operations and light maintenance.

Street Assignments
Trenching tools, concrete finishing tools and pneumatic street excavation tools; methods of mixing, pouring and finishing concrete; methods of asphalt applications; and operation and maintenance of construction equipment (jack hammer, backhoe, & skip loader).

Park Assignments
Proper use of mowers, cutters, edgers, chain saws and related tools; basic fertilizers, pesticides, fungicides and herbicides; and basic pruning of shrubs and trees.

Building Maintenance Assignments
Building construction and maintenance methods; electrical systems; installation and repair of plumbing fixtures; and carpentry and cabinet making.

Sewer Assignments
Proper methods, materials, tools and equipment used in the maintenance and repair of pumps and compressors and sewer lines; applicable codes and regulations; basic knowledge of algebra; simple recordkeeping; safety precautions applicable to electricity and pump maintenance; OSHA requirements for confined/enclosed spaces.

ABILITY TO

All Assignments

Operate hand and portable power tools; perform skilled work in a specialized designated maintenance area; plan and layout work; instruct others in the proper, safe and efficient use of materials, tools, equipment and chemicals; perform a variety of basic electrical troubleshooting, repair and maintenance tasks involving City facilities; estimate time and material requirements; maintain accurate records; operate a vehicle, observing legal and defensive driving practices; understand and carry out oral and written instructions; and establish and maintain effective relationships with those contacted in the course of work.

Parks Assignments
Use with skill the tools, equipment and materials used in the repair of irrigation systems, facilities and parks. Apply herbicides, pesticides and fungicides, using proper safety precautions; and plan, install and repair landscaping and irrigation systems.

Tidelands Assignments
Assess and take appropriate action to reduce effect of tidal action and operate heavy equipment used in beach maintenance.

Building Maintenance Assignments
Work from shop drawings, sketches, plans, blueprints, and specifications. Perform minor plumbing and electrical repairs. Perform complex construction and maintenance repairs.

Sewer Assignments
Perform skilled work in the operation, maintenance and repair of small internal pumps. Valves and compressors; use with skill the tools, test equipment and materials used in the repair of pumps, compressors and sewer lines. Plan and lay out work; perform shop mathematics; and work from shop drawings, sketches, plan, specifications, catalogs and technical manuals.

Street Assignments
Work from construction plans and or standard plans and specifications; perform skilled work in concrete forming and finishing of sidewalks, curb, and gutters, alleys, pads, driveways and walls. Perform skilled work in asphalt street repairs/

TOOLS AND EQUIPMENT

All Assignments
Incumbents will drive heavy construction equipment, trucks, forklifts, cranes, aerial manlifts, tractors, mowers, rototilers, hand tools (manual and power).

SPECIAL REQUIREMENTS

Possession of a valid Class B California Driver's License at time of appointment and maintain same during appointment. For Sewer Maintenance, a Collection System Maintenance Grad 3 certification or the acquisition of such grade level with the first year of hire or assignment to Maintenance Worker II position.

Education & Experience
Any combination of training, education and experience which demonstrates an ability to perform the duties of the position. A typical qualifying entrance background is entry-level experience performing varied public land and facility maintenance services in the respective assignments.

Completion of formal or informal training in the respective maintenance assignment.

Experience at or equivalent to the level of Maintenance Worker Trainee in the City of Imperial Beach, from which the incumbent has acquired the knowledge and abilities listed above.

PHYSICAL DEMANDS

All Assignments
Productivity: Incumbents must perform work in an efficient, effective, and timely manner without constant supervision and must react to change productively. Incumbents are expected to be in attendance and prepared to perform the duties of the position.

Heavy Work: Positions in this class perform work which regularly involves lifting, pushing and/or pulling of objects which may weigh 100 pounds or more.

Heavy Work: Positions in this class perform work which regularly involves lifting, pushing and/or pulling of objects which may weigh 100 pounds or more.

Mobility: Positions in this class require the mobility to stand, stoop, reach and bend. Incumbents must have sufficient mobility to drive and operate a variety of vehicles, and construction equipment (crane truck, boom truck, loader backhoe, pumps).

Vision: Incumbents require sufficient vision to work both up close and at a distance from worksite, distinguish colors, possess sufficient peripheral vision to see objects and people to either side, sufficient depth perception to judge distance and spatial relationships.

Communication: Incumbents require the ability to communicate in a clear and concise manner face to face, and over the phone with members of the public and co-workers. Incumbents require the ability to communicate with co-workers via radio terminals.

Environment: Incumbents are exposed to loud noise, dust, debris and/or particles, gas fumes, sunlight, confined spaces, extreme her, change in temperature, and exposure to wind and rain.

Work Schedule: Incumbents may occasionally be required to work hours other than 7:00 a.m. to 3:30 p.m. shifts. Incumbents must be able to work on holidays, weekends and evenings as required. Incumbents may be required to work on an overtime callback basis.

Stress Factory: Incumbents are exposed to traffic hazards, moving parts, pressurized equipment, and may be required to deal with difficult situations.

WORK ENVIRONMENT

Incumbents may be required to work in inclement weather without effective protection from sun, cold and rain. Incumbents may be required to work with gases and harsh or toxic substances. Incumbents may be required to work around foul odors. Incumbents may be required to wear protective apparel including goggles, face protector, noise insulators, apron and shoes. Incumbents work in and around vehicular traffic.

SELECTION GUIDELINES

Formal applications, rating of education and experience, ability to meet the physical demands and work conditions, oral interview and reference check.

The duties listed above are intended only as illustrations of the various types of work that may be performed. The omission of specific statements of duties does not exclude them from the position if the work is similar, related or logical assignment to the position.

The job description does not constitute employment agreement between the employer and employee and is subject to change by the employer as the needs of the employer and requirements of the job change.

Approval:_____
City Manager

Approval:_____
Personnel Administrator

Effective Date: November 18, 1998

Revision History:

Resolution No. 1998-4987	**Approval Date:** November 18, 1998
Resolution No. 1999-5105	**Approval Date:** July 21, 1999
Resolution No. 2000-5298	**Approval Date:** July 19, 2000
Resolution No. 2001-5518	**Approval Date:** November 7, 2001
Resolution No. 2010-6844	**Approval Date:** February 3, 2010

AGENDA ITEM NO. 2.5

STAFF REPORT
CITY OF IMPERIAL BEACH

TO:	**HONORABLE MAYOR AND CITY COUNCIL**
FROM:	**GARY BROWN, CITY MANAGER**
MEETING DATE:	**FEBRUARY 3, 2010**
ORIGINATING DEPT.:	**FINANCE DEPARTMENT**
SUBJECT:	**SALE OF SURPLUS PROPERTY**

BACKGROUND:
From time to time, Staff determines the need to dispose of obsolete and surplus property. I.B.M.C. Chapter 3.04.050 states:

> "The purchasing officer shall have the following powers and duties:
> ...J. To recommend to the city manager the transfer of surplus or unused supplies and equipment between departments as needed and the sale of all supplies and equipment which cannot be used by any agency or which have become unsuitable for city use;"

City of Imperial Beach Resolution 90-3828 authorized the Finance Director to participate in periodic sales of surplus property by the San Diego County Division of Purchasing and Contracting.

DISCUSSION:
At this time, the City of Imperial Beach has accumulated a number of equipment items that are recommended for transfer to a surplus or unused supplies and equipment category. The following supplies and equipment are recommended for this designation:

1. The items listed in Attachment 2, Exhibit "A".

FISCAL ANALYSIS:
Salvage Value

DEPARTMENT RECOMMENDATION:
Staff recommends approval of the attached Resolution authorizing the sale / transfer of surplus property as follows:

1. Items listed in Exhibit A, Equipment Inventory List for County Auction

CITY MANAGER'S RECOMMENDATION:
Approve Department recommendation.

Gary Brown

Gary Brown, City Manager

Attachments:

1. Resolution 2010-6849
2. Exhibit A – Equipment Inventory List for County Auction

ATTACHMENT 1

RESOLUTION NO. 2010-6849

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF IMPERIAL BEACH, CALIFORNIA, AUTHORIZING THE SALE OF CERTAIN SURPLUS CITY EQUIPMENT

The City Council of the City of Imperial Beach does hereby resolve as follows:

WHEREAS, I.B.M.C. Chapter 3.04.050 states: "The purchasing officer shall have the following powers and duties:

...J. To recommend to the city manager the transfer of surplus or unused supplies and equipment between departments as needed and the sale of all supplies and equipment which cannot be used by any agency or which have become unsuitable for city use;" and

WHEREAS, the City Council of the City of Imperial Beach on October 3, 1990, adopted Resolution No. 90-3828 authorizing its Finance Director to participate in periodic sales of surplus property by the San Diego County Division of Purchasing and Contracting; and

WHEREAS, the City Council of the City of Imperial Beach now desires to declare the items of equipment shown on Exhibit "A" attached hereto as surplus or unsuitable for City use.

NOW, THEREFORE, BE IT RESOLVED that the City Council of the City of Imperial Beach that:

1. The above recitals are true and correct.
2. The City Council of the City of Imperial Beach declares the items of equipment shown on Exhibit "A" (attached hereto), surplus and/or unused and hereby directs the Finance Director to dispose of same as follows:
    - Items in Exhibit "A" through the San Diego County Division of Purchasing and Contracting or as otherwise authorized by the City Manager.

PASSED, APPROVED, AND ADOPTED by the City Council of the City of Imperial Beach at its meeting held on the 6th day of February 2010, by the following roll call vote:

AYES: COUNCILMEMBERS:
NOES: COUNCILMEMBERS:
ABSENT: COUNCILMEMBERS:

_____
JAMES C. JANNEY, MAYOR

ATTEST:

_____
JACQUELINE M. HALD, CMC
CITY CLERK

I, City Clerk of the City of Imperial Beach, do hereby certify the foregoing to be an exact copy of Resolution No. 2010-6849– A Resolution of the City Council of the City of Imperial Beach, California, AUTHORIZING THE SALE OF CERTAIN SURPLUS CITY EQUIPMENT.

_____ _____
CITY CLERK DATE

ATTACHMENT 2

Exhibit A

IMPERIAL BEACH
EQUIPMENT INVENTORY LIST
FOR COUNTY AUCTION

ITEM	QTY	DESCRIPTION	PROPERTY TAG #
1.	1	Generator 1991 75KW	15A611023E DE21909
2.	1	Pallet misc items	N/A
3.	1	HP Color Laserjet 4600dn Printer	A0045 (City of IB)
4.	1	1999 SCAT Speed Trailer VIN #1Z9VC510VDO35535	License No. E-1065875
5.	1	BROTHER AX-625 Word Processor/Typewriter	Serial No. L46400212

AGENDA ITEM NO. 3.1

STAFF REPORT
CITY OF IMPERIAL BEACH

TO:	**HONORABLE MAYOR AND CITY COUNCIL**
FROM:	**GARY BROWN, CITY MANAGER**
MEETING DATE:	**FEBRUARY 3, 2010**
ORIGINATING DEPT.:	**COMMUNITY DEVELOPMENT DEPARTMENT** **GREG WADE, COMMUNITY DEVELOPMENT DIRECTOR** GW **RAFAEL ADAME, BUILDING OFFICIAL** RA
SUBJECT:	**FIRST READING / PUBLIC HEARING: FLOODPLAIN MANAGEMENT ORDINANCE AMENDMENT TO THE IBMC CHAPTER 15.50 (FLOOD DAMAGE PREVENTION); PROPOSED ORDINANCE No. 2010- 1097**

BACKGROUND:

On August 4, 2009 the California Department of Water Resources (DWR) conducted an audit of the City's enforcement program of the National Flood Insurance Program (NFIP), on behalf of the Federal Emergency Management Agency (FEMA). The results and recommendations of the audit were received on August 27th, 2009, which are attached. The audit disclosed no significant enforcement issues, but in order to remain in compliance with the NFIP, the City was advised that flood Plain Management Ordinance must be updated. The changes required are primarily to strengthen the ordinance and to provide for use of the latest flood information available.

DISCUSSION:

The City has three areas which are considered part of the special flood hazard area (in the 100 year flood plain or floodway): along the Pacific Ocean, along San Diego Bay and surrounding the Tijuana River Estuary. Of these areas, there are very few properties, which are in a special flood hazard area within the City's jurisdiction. Rarely does the City process an application for development in a special flood hazard area (in the 100 year flood plain or floodway).

The proposed ordinance amendments would update the City's regulations to be in compliance with the Code of Federal Regulations, Title 44. The amendments are grouped in the following categories:

1. **Legal Language Content:**
   - Adds a Statutory Authority for the adoption of this ordinance.
   - Adds a Severability section to ensure remaining sections remain enforceable if one or more sections are found to be invalid.

2. **New Definitions Added:**
    - Existing Manufactured Home Park or Subdivision
    - Expansion to an Existing Manufactured Home Park or Subdivision
    - Historic structure
    - New Manufactured Home Park or Subdivision
    - Recreational Vehicle
    - Substantial Damage

3. **Utilization of New Elevation Data:**
    - Add a requirement to consider other available data as basis for elevating residential structures to or above the base flood plain.

4. **Reporting Requirements to FEMA:**
    - Adds reporting requirements to physical changes of the special flood hazard zone (i.e map revisions and corporate boundary changes); and

5. **Development Permit Requirements:**
    - Adds mobile homes to the development permit requirements.
    - Adds specific minimum plan and data submittal requirements and specifies certification requirements for a development permit.

All the changes serve to clarify, update and strengthen the ordinance requirements.

General Plan/Local Coastal Plan/Zoning Consistency: This project does not constitute an amendment to the Implementation Component of the City's certified Local Coastal Program and, therefore, does not need to be submitted to the California Coastal Commission for review and certification. However, the proposed amendments are consistent with General Plan/Safety Element Policy S-7, which provides the following:

S-7 Flood Control Program

The City should take the necessary action to develop and constantly update an adequate flood control program including:

a. *Construction permits should not be granted in obvious areas of future flooding unless adequate flood protection measures are developed.*

b. *Whenever possible, the minimum finished floor level for structures should be above the known or projected flood plain level.*

c. *The City should adopt policies to prevent encroachment on existing water courses.*

d. *Development shall be restricted to open 100-year floodplain areas that remain uncommitted to development as identified on Figure S- I No permanent structures or filling shall be permitted in the floodplain and only uses compatible with periodic flooding shall be allowed.*

ENVIRONMENTAL DETERMINATION:

The Community Development Department has independently determined that the proposed amendment is exempt pursuant to Section 15061.b.3 of the California Environmental Quality Act (CEQA) entitled Review for Exemption, where it can be seen with certainty that this project

would not have a significant effect on the environment as the proposed amendment would require buildings proposed in areas of special flood hazard to comply with recent amendments to the National Flood Insurance Program requirements and, thereby, provide for public safety.

FISCAL IMPACT:

No increase in cost is projected to make these changes and continue enforcement of the Flood Plain Ordinance.

DEPARTMENT RECOMMENDATION:

Staff recommends that:

1. A public hearing be convened to entertain public testimony on the proposed ordinance;
2. The Mayor call for the introduction of Ordinance No. 2010-1097- An Ordinance of the City Council of the City of Imperial Beach, California Amending Chapter 15.50 of the Imperial Beach Municipal Code Pertaining to Flood Damage Prevention.
3. A motion be considered to dispense First Reading of the entire ordinance;
4. The City Clerk read Ordinance No. 2010-1097 by title only; and
5. Ordinance 2010-1097 be considered for Second Reading and Adoption on February 17, 2010.

CITY MANAGER'S RECOMMENDATION:

Approve Department recommendation.

Gary Brown

Gary Brown, City Manager

Attachments:
1. Letter from the California Department of Water Resources
2. Ordinance No. 2010-1097 with Exhibit "A" (Clean Version)
3. Attachment 3 (Chapter 15.50 with highlighted changes).

ATTACHMENT 1

STATE OF CALIFORNIA – CALIFORNIA NATURAL RESOURCES AGENCY

ARNOLD SCHWARZENEGGER, *Governor*

DEPARTMENT OF WATER RESOURCES
SOUTHERN REGION OFFICE
770 FAIRMONT AVENUE, SUITE 102
GLENDALE, CA 91203-1035

SEP 9 2009

SEP 14 2009

Honorable Jim Janney
Mayor of the City of Imperial Beach
City of Imperial Beach
825 Imperial Beach Boulevard
Imperial Beach, California 91932

Dear Mayor Janney:

Thank you for the cooperation and courtesy extended to Salomon Miranda of my staff during our Community Assistance Visit in your community on Tuesday, August 4, 2009. We hope the meeting was as useful and informative for your community's floodplain management staff as it was for us.

The purpose of the CAV is to provide information and assistance about the National Flood Insurance Program. On behalf of the Federal Emergency Management Agency, I commend your staff for their conscientious efforts in implementing the NFIP. Continued enforcement of the NFIP regulations will ensure your community's good standing in the NFIP and guarantee availability of flood insurance coverage for residences that are in flood hazard areas. A copy of your Community Visit Report is enclosed for your review and action.

Our CAV did reveal a specific action that needs to be taken to bring your community's floodplain management program into compliance with NFIP requirements. We request that, within sixty (60) days of the date of this letter, your community take the following actions:

- Update the City's floodplain management ordinance to meet the minimum NFIP requirements pursuant to *Title 44, Code of Federal Regulations, Sections 59, 60.3-60.6, and 65.3.* **The adoption of an amended floodplain management ordinance is a prerequisite for continued participation in the NFIP**. However, before your ordinance is adopted, please provide our office with a draft of the ordinance for review and comment

If you have questions concerning this letter, the enclosed report, or any aspect of the NFIP, please contact Salomon Miranda of my staff at (818) 500-1645, extension 245 or at salomon@water.ca.gov. I can be reached at (818) 500-1645, extension 222.

Sincerely,

Mark Stuart, Chief
Southern Region

Enclosure

cc + enclosures: Mr. Ed Wilczak, Building Official
City of Imperial Beach
825 Imperial Beach Boulevard
Imperial Beach, California 91932

Mr. Greg Wade, Community Development Director
City of Imperial Beach
825 Imperial Beach Boulevard
Imperial Beach, California 91932

FEDERAL EMERGENCY MANAGEMENT AGENCY

COMMUNITY VISIT REPORT

SECTION I

1. NAME OF COMMUNITY	2. STATE	3. COMMUNITY ID NUMBER	4. COUNTY
City of Imperial Beach	California	060291	San Diego

5. VISIT CONDUCTED BY	6. AGENCY	7. DATE OF VISIT
Salomon Miranda	California Department of Water Resources	August 4, 2009

SECTION II

8. NAME OF LOCAL OFFICIAL	9. TELEPHONE NUMBER
Greg Wade, Community Development Director	(619) 628-1354

10. ADDRESS OF LOCAL OFFICIAL
825 Imperial Beach Boulevard, California 91932

SECTION III - FINDINGS

PART A

QUESTIONS - Select appropriate response	RESPONSE		
	Serious	Minor	None
1. Are there problems with the community's floodplain management regulations?		X	
2. Are there problems with the community's administrative/enforcement procedures?			X
3. Are there any engineering or other problems with the maps or Flood Insurance Study?			X
4. Are there any other problems in the community's floodplain management program?			X
5. Are there problems with the Biennial Report data?	____ YES	X NO	
6. Are there any programmatic issues or problems identified?	____ YES	X NO	

7. Are there any potential violations of the community's floodplain management regulations?

____ A potential violation or violations has/have been identified.

X No violations have been identified.

____ Actions are being taken on the part of the community to remedy the violation(s) identified during the CAV.

NATIONAL FLOOD INSURANCE PROGRAM
COMMUNITY ASSISTANCE VISIT

City of Imperial Beach, California
August 4, 2009

SECTION III – FINDINGS (Continued)

PART B – NARRATIVE

The National Flood Insurance Program (NFIP) is based on an agreement between the federal government and participating communities that have been identified as flood prone. The Federal Emergency Management Agency (FEMA), through the Federal Insurance Administration, makes flood insurance available to the residents of a participating community, provided the community adopts and enforces adequate floodplain management regulations that meet the minimum NFIP requirements. Currently, about 19,000 of the nation's 22,000 cities, towns, counties, and boroughs are members of the NFIP.

A Community Assistance Visit (CAV) is a scheduled visit to a NFIP City for maintaining periodic contact with the community to evaluate the effectiveness of local floodplain management practices and to offer assistance, if needed.

This report describes the findings of the August 4, 2009, CAV for the City of Imperial Beach and asks for corrective actions where deficiencies were identified. Once these deficiencies are corrected, it will enable your City to comply with the NFIP requirements as specified in *Title 44, Code of Federal Regulations*.

BACKGROUND

The City of Imperial Beach is located in San Diego County, approximately thirteen miles south of the City of San Diego and about five miles north of the City of Tijuana, Mexico. Incorporated on July 18, 1956, the City of Imperial Beach covers 4.5 square miles and has a population of approximately 27,700 residents.

Imperial Beach enjoys a pleasant Mediterranean climate with sunny, warm, dry summers and cool, wet winters. The average temperature is about 55 degrees Fahrenheit in January and about 85 degrees in August. The City experiences rainfall most frequently during November to March. The mean annual precipitation is approximately nine inches.

The City of Imperial Beach joined the NFIP on June 1, 1978. According to the Flood Insurance Rate Maps (FIRM), effective June 19, 1997, the City of Imperial Beach has AE (with floodways) and VE (coastal flooding with wave action) flood designation zones. There are 212 insurance policies in force in the City that carry a total value of $36.2 million in coverage with an annual premium of $91,021. Since its incorporation, the amount of $162,727 has been paid towards thirty-one reported losses in the City.

The previous Community Assistance Visit was performed by the Department of Water Resources (DWR) staff on May 26, 2004. At that time the City was asked to update its floodplain management ordinance and to submit the 2001-2002 Biennial Report to FEMA. The City adopted a new floodplain management ordinance on September 21, 2005, but the 2001-2002 Biennial Report was not submitted to FEMA. It was determined that, as part of this CAV, the City has submitted the 2007-2008 Biennial Report to FEMA, as required.

In this CAV, DWR staff has again concluded that the City needs to update its floodplain management ordinance once again as identified herein.

SUPPORT COMMENTS FOR SECTION III – PART A

1. Community's Floodplain Management Regulations

The Floodplain Management Ordinance is found in Chapter 15.50 of the City of Imperial Beach's Municipal Code. After the recent CAV meeting, DWR staff reviewed the ordinance and determined that there is a need for an update to meet the minimum NFIP requirements pursuant to the *Title 44, Code of Federal Regulations, Sections 59, 60.3-60.6, and 65.3 (CFR)*.

To assist the City in drafting amended floodplain management regulations, DWR provided an electronic copy of the current *California Model Floodplain Management Ordinance* dated April 2006 to the City staff for reference.

DWR staff recommends the following updates to the City's floodplain management regulations:

1. Insert a citation of Statutory Authorization (as required by 44 CFR[59.22(a)(2)])
2. Insert definitions (as required by 44CFR[59.1])
    a. Existing Manufactured Home Park or Subdivision
    b. Expansion to an Existing Manufactured Home Park or Subdivision
    c. Historic Structure
    d. New Manufactured Home Park or Subdivision
    e. Recreational Vehicle
    f. Substantial Damage
3. Insert a Severability Section

4. Insert a section to submit new technical data within 6 months. Notify FEMA of changes in the base flood elevation by submitting technical or scientific data so insurance and floodplain management can be based on current data as required by 44CFR[65.3]
5. Insert a section to require permits for all proposed construction and other development within SFHAs on the FHBM or FIRM as required by 44CFR[60.3(b)(1)]
6. Insert a section that in A Zones, in the absence of FEMA BFE data and floodway data, consider other available data as a basis for elevating residential structures to or above base flood level, and for floodproofing or elevating nonresidential structures to or above base flood level as required by 44CFR[60.3(b)(4)]

We recommend that your City update its Floodplain Management Ordinance in its entirety, making use of our California Model Floodplain Management Ordinance.

The California Model Floodplain Management Ordinances can be found at our website address:

http://www.fpm.water.ca.gov/ordinance/ordinance.cfm

2. Community's Administration/Enforcement Procedures

The Director of Community Development is designated as the Floodplain Administrator pursuant to the City's Municipal Code, Section 15.50.110.

The Planning and Building Divisions, as well as the Public Works Department, are in charge of reviewing building permit applications. The Building Official is in charge of reviewing all building permits to see if the proposed structures are located in a Special Flood Hazard Area (SFHA). The as-built lowest floor elevation in the SFHA is required to be at or above the Base Flood Elevation (BFE) for all new residential and non-residential structures and for all substantial improvements. Non-residential structures can also be flood-proofed below the BFE as long as a certification by a registered professional engineer or architect is obtained to demonstrate that the structure is watertight with walls substantially impermeable to water. The Building Division is in charge of inspecting all floodplain development to verify the lowest floor elevation, keeping records of the building permits in the SFHA, and maintaining all elevation documents.

According to City staff, the City is ninety percent built-out and there is little pressure to develop in the SFHA. In the last twelve months there hasn't been any building permits issued in the SFHA for new or substantially improved structures.

3. Engineering or Other Problems with the Maps or Flood Insurance Study

None

4. **Other Problems in the Community's Floodplain Management Program**

None

5. **Problems with the Biennial Report Data**

None

6. **Programmatic Issues or Problems Identified**

None

7. **Potential Violations Identified or Suspected of the Community's Floodplain Management Regulations**

None

OTHER COMMENTS AND INFORMATION

1. **Flood Mitigation Projects, Issues, or Concerns**

None

2. **Executive Order 11988 Floodplain Management**

None

3. **Community Action Needed**

The City must submit to DWR, **within sixty (60) days** of the date of this report, the following:

> A copy of a draft ordinance that amends the City's current floodplain management regulations. **The City should note that adopting an amended floodplain management ordinance is a prerequisite for continued participation in the NFIP.**

4. **DWR Follow-up Needed**

Review and comment on the draft ordinance.

5. **Field Inspection**

Salomon Miranda, DWR, conducted the floodplain field inspection prior to the CAV meeting and concluded that there were no construction violations within the City's SFHA.

6. CAV Meeting Attendee List

1. Edward B. Wilczak, Building Official, City of Imperial Beach
2. Salomon Miranda, Engineer W.R., Department of Water Resources

SECTION IV

COMPLETED BY THE FEMA REGIONAL OFFICE

Date CAV Closed _____ Initials _____

Salomon Miranda, California Department of Water Resources, Southern Region

ORDINANCE NO. 2010-1097

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF IMPERIAL BEACH, CALIFORNIA, AMENDING CHAPTER 15.50 OF THE IMPERIAL BEACH MUNICIPAL CODE PERTAINING TO FLOOD DAMAGE PREVENTION

WHEREAS, the City of Imperial Beach is a participant in the National Flood Insurance Program, which authorizes residents of Imperial Beach to obtain federally-subsidized floodplain insurance; and

WHEREAS, in order to participate in that program, the City has adopted a floodplain ordinance, which, conforming to federal mandates, regulates development in floodplains in order to improve public safety; and

WHEREAS. After an audit of the City's floodplain management program, the California Department of Water Resources has recommended that the City's floodplain ordinance be updated; and

WHEREAS, the City Council for the City of Imperial Beach wishes to adopt the Department of Water Resources' recommendations;

NOW, THEREFORE, the City Council of Imperial Beach hereby ordains as follows:

SECTION 1. Chapter 15.50 of the Imperial Beach Municipal Code (Flood Damage Prevention) is hereby amended to read as shown in Exhibit "A," which is attached hereto and incorporated herein by reference as though fully set forth at this point.

SECTION 2. The City Clerk is directed to prepare and have published a summary of this ordinance no less than five days prior to the consideration of its adoption and again within 15 days following adoption indicating votes cast.

EFFECTIVE DATE: This Ordinance shall be effective thirty (30) days after its adoption. Within fifteen (15) days after its adoption, the City Clerk of the City of Imperial Beach shall cause this Ordinance to be published pursuant to the provisions of Government Code section 36933.

INTRODUCED AND FIRST READ at a regular meeting of the City Council of the City of Imperial Beach, California, on the 3rd day of February, 2010; and **THEREAFTER ADOPTED** at a regular meeting of the City Council of the City of Imperial Beach, California, on the 17th day of February, 2010, by the following vote:

AYES: **COUNCILMEMBERS:**

NOES: **COUNCILMEMBERS:**

ABSENT: **COUNCILMEMBERS:**

_____

JAMES C. JANNEY, MAYOR

ATTEST:

_____

JACQUELINE M. HALD, CMC
CITY CLERK

APPROVED AS TO FORM:

_____

JENNIFER M. LYON

CITY ATTORNEY

I, City Clerk of the City of Imperial Beach, do hereby certify the foregoing to be an exact copy of Ordinance No. 2010-1097 – AN ORDINANCE OF THE CITY COUNCIL OF THE

CITY OF IMPERIAL BEACH, CALIFORNIA, AMENDING CHAPTER 15.50 OF THE IMPERIAL BEACH MUNICIPAL CODE PERTAINING TO FLOOD DAMAGE PREVENTION.

_____ _____

CITY CLERK DATE

EXHIBIT "A" TO ORDINANCE 2010-1097

15.50.010. Findings of fact.

A. Flood hazard areas of the city of Imperial Beach are subject to periodic inundation which results in loss of life and property, health and safety hazards, disruption of commerce and governmental services, extraordinary public expenditures for flood protection and relief, and impairment of the tax base, all of which adversely affect the public health, safety and general welfare.

B. Flood losses are caused by the cumulative effect of obstructions in areas of special flood hazards which increase flood heights and velocities, and when inadequately anchored, damage uses in other areas. Uses that are inadequately flood proofed, elevated or otherwise protected from flood damage also contribute to the flood loss. (Ord. 753 § 7 Ex. B (part), 1988)

15.50.020. Purpose.

It is the purpose of this chapter to promote the public health, safety and general welfare, and to minimize public and private losses due to flood conditions in specific areas by provisions designed:

A. To protect human life and health;

B. To minimize expenditure of public money for costly flood control projects;

C. To minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public;

D. To minimize prolonged business interruptions;

E. To minimize damage to public facilities and utilities such as water and gas mains, electric, telephone and sewer lines, streets and bridges located in areas of special flood hazard;

F. To help maintain a stable tax base by providing for the second use and development of areas of special flood hazard so as the minimize future flood blight areas;

G. To ensure that potential buyers are notified that property is in an area of special flood hazards; and

H. To ensure that those who occupy the areas of special flood hazard assume responsibility for their actions. (Ord. 753 § 7 Ex. B (part), 1988)

15.50.030. Methods of reducing flood losses.

In order to accomplish its purposes, this chapter includes methods and provisions for:

A. Restricting or prohibiting uses which are dangerous to health, safety and property due to water or erosion hazards, or which result in damaging increases in erosion or flood heights or velocities;

B. Requiring that uses vulnerable to floods, including facilities which serve such uses, be protected against flood damage at the time of initial construction;

C. Controlling the alteration of natural floodplains, stream channels and natural protective barriers which help accommodate or channel floodwaters;

D. Controlling filling, grading, dredging, and other development which may increase flood damage; and

E. Preventing or regulating the construction of flood barriers which will unnaturally divert floodwaters or which may increase flood hazards in other areas. (Ord. 753 § 7 Ex. B (part), 1988)

15.50.040. Definitions.

Unless specifically defined below, words or phrases used in this chapter shall be interpreted so as to give them the meaning they have in common usage and to give this chapter its most reasonable application.

"Area of special flood hazard" is the land in the flood plain within a community subject to a one percent or greater chance of flooding in any given year. The area may be designated as Zone A on the Federal Hazard Boundary Map. After detailed rate making has been completed in preparation for the publication of the flood insurance rate map, Zone A usually is refined into Zones A, AO, AH, A1-30, AE, A99, AR, AR/A1-30, AR/AE, AR/AO, AR/AH, AR/A, VO, or V1-30, VE, or V. For purposes of these regulations, the term "special flood hazard are (SFHA)" is synonymous in meaning with the phrase "area of special flood hazard".

"Appeal" means a request for a review of the floodplain administrator's interpretation of any provision of this chapter or a request for a variance.

"Base flood" means the flood having a one-percent chance of being equaled or exceeded in any given year (also called the "one-hundred-year flood").

"Basement" means any area of the building having its floor sub-grade (below ground level) on all sides.

"Breakaway wall" means any type of wall, whether solid or lattice, and whether constructed of concrete, masonry, wood, metal, plastic or any other suitable building material, which is not part of the structural support of the building and which is designed to break away under abnormally high tides or wave action without causing any damage to the structural integrity of the building on which it is used to any buildings to which they might be carried by floodwaters. A breakaway wall shall have a safe design loading resistance of not less than ten and no more than twenty pounds per square foot. Use of breakaway walls must be certified by a registered engineer or architect and shall meet the following conditions:

1. Breakaway wall collapse shall result from a water load less than that which would occur during the base flood; and

2. The elevated portion of the building shall not incur any structural damage due to the effects of wind and water loads acting simultaneously in the event of the base flood.

"Coastal high hazard area" is the area subject to high velocity waters, including coastal and tidal inundation or tsunamis. The area is designated on a Flood Insurance Rate Map (FIRM) as Zone V1 — V30, VE or V.

"Development" means any manmade change to improved or unimproved real estate, including but not limited to buildings or other structures, dredging, filling, grading, paving, excavation or drilling operations.

"Eligible community" or "participating community" means a community for which the Federal Insurance Administrator has authorized the sale of flood insurance under the National Flood Insurance Program.

"Elevated Building" means, for insurance purposes, a non-basement building which has its lowest elevated floor raised above ground level by foundation walls, shear walls, posts, piers, pilings, or columns.

"Emergency Flood Insurance Program" or "Emergency Program" means the National Flood Insurance Program as implemented on an emergency basis in accordance with Section 1336 of the Act. It is intended as a program to provide a first layer amount of insurance on all insurable structures before the effective date of the initial FIRM.

"Erosion" means the process of the gradual wearing away of land masses. This peril is not per se covered under the National Flood Insurance Program.

"Existing construction" means, for the purposes of determining rates, structures for which the "start of construction" commenced before the effective date of the FIRM or before January 1, 1975, for FIRMs effective before that date. "Existing construction" may also be referred to as "existing structures."

"Existing manufactured home park or subdivision" means a manufactured home park or subdivision for which the construction of facilities for servicing the lots on which the manufactured homes are to be affixed (including, at a minimum, the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads) is completed before March 3, 2010.

"Expansion to an existing manufactured home park or subdivision" means the preparation of additional sites by the construction of facilities for servicing the lots on which the manufactured homes are to be affixed (including the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads).

"Flood" or "flooding" means a general and temporary condition of partial or complete inundation of normally dry land areas from (1) the overflow of floodwaters, (2) the unusual and rapid accumulation or runoff of surface waters from any source, (3) the collapse or

subsidence of land along the shore of a lake or other body of water as a result of erosion or undermining caused by waves or currents of water exceeding anticipated cyclical levels or suddenly caused by an unusually high water level in a natural body of water, accompanied by a severe storm, or by an unanticipated force of nature, such as flash flood or an abnormal tidal surge, or by same similarly unusual and unforeseeable event which results in flooding as defined in this definition, and/or (4) mudslides (i.e., mudflows) which are proximately caused by flooding as defined above in (2) of this definition and are akin to a river of liquid and flowing mud on the surfaces or normally dry land areas, as when earth is carried by a current of water and deposited along the path of the current.

"Flood Boundary and Floodway Map" means the official map on which the Federal Emergency Management Agency or Federal Insurance Administration has delineated both the areas of flood hazard and the floodway.

"Flood elevation determination" means a determination by the Federal Insurance Administrator of the water surface elevations of the base flood, that is, the flood level that has a one percent or greater chance of occurrence in any given year.

"Flood elevation study" means an examination, evaluation, and determination of flood hazards and, if appropriate, corresponding water surface elevations, or an examination, evaluation and determination of mudslide and/or flood-related erosion hazards.

"Flood Insurance Rate Map (FIRM)" means the official map on which the Federal Emergency Management Agency or Federal Insurance Administration has delineated both the areas of special flood hazards and the risk of premium zones applicable to the community.

"Flood Insurance Study" means the official report provided by the Federal Insurance Administration that includes flood profiles, the FIRM, the Flood Boundary and Floodway Map, and the water surface elevation of the base flood.

"Floodplain" or "flood-prone area" means any land area susceptible to being inundated by water from any source (see definition of "flooding").

"Floodplain management" means the operation of an overall program of corrective and preventive measures for reducing flood damage, including but not limited to emergency preparedness plans, flood control works and floodplain management regulations.

"Floodplain management regulations" mean zoning ordinances, subdivision regulations, building codes, health regulations, special purpose ordinances (such as floodplain ordinance, grading ordinance and erosion control ordinance) and other applications of police power. The term describes such state or local regulations in any combination thereof, which provide standards for the purpose of flood damage prevention and reduction.

"Floodproofing" means any combination of structural and nonstructural additions, changes or adjustments to structures which reduce or eliminate flood damage to real estate or improved real property, water and sanitary facilities, structure and their contents.

"Flood-related erosion" means that collapse or subsidence of land along the shore of a lake or other body of water as a result of undermining caused by waves or currents of water

exceeding anticipated cyclical levels of suddenly caused by an unusually high water level in a natural body of water, accompanied by a severe storm, or by an unanticipated force of nature, such as a flash flood or an abnormal tidal surge, or by some similarly unusual and unforeseeable event which results in flooding.

"Floodway" means the channel of a river or other watercourse and the adjacent land areas that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than one foot. Also referred to as "regulatory floodway."

"Functionally dependent use" means a use which cannot perform its intended purpose unless it is located or carried out in close proximity to water. The term includes only docking facilities, port facilities that are necessary for the loading and unloading of cargo or passengers, and ship building and ship repair facilities, but does not include long-term storage or related manufacturing facilities.

"Highest adjacent grade" means the highest natural elevation of the ground surface prior to construction next to the proposed walls of a structure.

"Historic structure" means any structure that is:

1. Listed individually in the National Register of Historic Places (a listing maintained by the Department of Interior) or preliminarily determined by the Secretary of the Interior as meeting the requirements for individual listing on the National Register;

2. Certified or preliminarily determined by the Secretary of the Interior as contributing to the historical significance of a registered historic district or a district preliminarily determined by the Secretary to qualify as a registered historic district;

3. Individually listed on a state inventory of historic places in states with historic preservation programs which have been approved by the Secretary of Interior; or

4. Individually listed on a local inventory of historic places in communities with historic preservation programs that have been certified either by an approved state program as determined by the Secretary of the Interior or directly by the Secretary of the Interior in states without approved programs.

"Independent scientific body" means a non-federal technical or scientific organization involved in the study of land use planning, flood plain management, hydrology, geology, geography, or any other related field of study concerned with flooding.

"Lowest floor" means the lowest floor of the lowest enclosed area (including basement). An unfinished or flood-resistant enclosure, usable solely for parking of vehicles, building access or storage in an area other than a basement area is not considered a building's lowest floor; provided, that such enclosure is not built so as to render the structure in violation of the applicable nonelevation design requirements of this chapter. For residential structures, all subgrade enclosed areas are prohibited as they are considered to be

basements (see "Basement" definition). This prohibition includes below-grade garages and storage areas.

"Manufactured home" means a structure, transportable in one or more sections, which is built on a permanent chassis and is designed for use with or without a permanent foundation when connected to the required utilities. For floodplain management purposes the term "manufactured home" also includes park trailers, travel trailers and other similar vehicles placed on a site for greater than one hundred eighty consecutive days. The term manufactured home does not include recreational vehicles.

"Manufactured home park or subdivision" means a parcel (or contiguous parcels) of land divided into two or more manufactured home lots for sale or rent.

"Mean sea level" means, for purposes of the National Flood Insurance Program, the National Geodetic Vertical Datum (NGVD) of 1929 or other datum, to which base flood elevations shown on a community's Flood Insurance Rate Map are referenced.

"New construction" means for floodplain management purposes, structures for which the "start of construction" commenced on or after the effective date of a floodplain management regulation adopted by this community.

"New manufactured home park or subdivision" means a manufactured home park or subdivision for which the construction of facilities for servicing the lots on which the manufactured homes are to be affixed (including at a minimum, the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads) is completed on or after May 2nd 1978.

"One-hundred-year flood" or "100-year flood" means a flood which has a one-percent annual probability of being equaled or exceeded. It is identical to the "base flood," which will be the term used throughout this chapter.

"Person" means an individual or his agent, firm, partnership, association or corporation, or agent of the aforementioned groups, or this state or its agencies or political subdivisions.

"Recreational vehicle" means a vehicle which is:

A. Built on a single chassis;

B. 400 square feet or less when measured at the largest horizontal projection;

C. Designed to be self-propelled or permanently towable by a light-duty truck; and

D. Designed primarily not for use as a permanent dwelling but as temporary living quarters for recreational, camping, travel, or seasonal use.

"Remedy a violation" means to bring the structure or other development into compliance with state or local floodplain management regulations, or if this is not possible, to reduce the impacts of its noncompliance. Ways that impacts may be reduced include protecting the structure or other affected development from flood damages, implementing the enforcement provisions of this chapter or otherwise deterring future similar violations, or reducing federal financial exposure with regard to the structure or other development.

"Riverine" means relating to, formed by, or resembling a river (including tributaries), stream, brook, etc.

"Sand dunes" mean naturally occurring accumulations of sand in ridges or mounds landward of the beach.

"Start of construction" includes substantial improvement, and means the date the building permit was issued, provided the actual start of construction, repair, reconstruction, placement, or other improvement was within one hundred eighty days of the permit date. The actual start means either the first placement of permanent construction of a structure on a site, such as the pouring of slab or footings, the installation of piles, the construction of columns, or any work beyond the stage of excavation; or the placement of a manufactured home on a foundation. Permanent construction does not include land preparation, such as clearing, grading and filling; nor does it include the installation of streets and/or walkways; nor does it include excavation for a basement, footings, piers or foundations or the erection of temporary forms; nor does it include the installation on the property of accessory buildings, such as garages or sheds not occupied as dwelling units or not part of the main structure.

"Structure" means a walled and roofed building, including a gas or liquid storage tank, that is principally above ground, as well as a manufactured home.

"Substantial damage" means damage of any origin sustained by a structure whereby the cost of restoring the structure to its before damaged condition would equal or exceed 50 percent of the market value of the structure before the damage occurred.

"Substantial improvement" means any repair, reconstruction or improvement of a structure, the cost of which equals or exceeds fifty percent of the market value of the structure either:

1. Before the improvement or repair is started; or

2. If the structure has been damaged, and is being restored, before any damage occurred.

For the purposes of this definition "substantial improvement" is considered to occur when the first alteration of any wall, ceiling, floor or other structural part of the building commences, whether or not that alteration affects the external dimensions of the structure. The term does not, however, include either:

1. Any project for improvement of a structure to comply with existing state or local health, sanitary or safety code specifications which are solely necessary to assure safe living conditions; or

2. Any alteration of a structure listed on the National Registration of Historic Places or a State Inventory of Historic Places.

"Variance" means a grant of relief from the requirements of this chapter which permits construction in a manner that would otherwise be prohibited by this chapter.

"Violation" means the failure of a structure or other development to be fully compliant with the community's floodplain management regulations. A structure or other development without the elevation certificate, other certifications, or other evidence of compliance required in this chapter is presumed to be in violation until such time as that documentation is provided. (Ord. 2005-1033 § 1, 2005: Ord. 753 § 7 Ex. B (part), 1988; Ord. 97-913 § 1, 1997)

15.50.050. Applicability.

This chapter applies to all "areas of special flood hazards" within the City of Imperial Beach. (Ord. 753 § 7 Ex. B (part), 1988)

15.50.060. Basis for establishing areas of special flood hazard.

The "areas of special flood hazard" identified by the Federal Emergency Management Agency or the Federal Insurance Administration in a scientific and engineering report entitled "Flood Insurance Study for City of Imperial Beach," dated July 2, 2002, and accompanying Flood Insurance Rate Maps dated June 19, 1997 and all subsequent amendments and revisions, are hereby adopted by reference and declared to be a part of this ordinance. This Flood Insurance Study is on file in the Community Development Department at the City of Imperial Beach. (Ord. 2005-1033 § 2, 2005: Ord. 753 § 7 Ex. B (part), 1988; Ord. 97-913 § 1, 1997)

15.50.070. Compliance.

A. No structure or land shall hereafter be constructed, located, extended, converted or altered without full compliance with the terms of this chapter and other applicable regulations. Violations of the provisions of this chapter by failure to comply with any of its requirements (including violations of conditions and safeguards established in connection with conditions) constitutes a misdemeanor. Nothing herein shall prevent the City of Imperial Beach from taking such lawful action as is necessary to prevent or remedy any violation.

B. This chapter is not intended to repeal, abrogate or impair any existing easements, covenants or deed restrictions. However, where this chapter and another ordinance, easement, covenant or deed restriction conflict or overlap, whichever imposes the more stringent restrictions shall prevail. (Ord. 753 § 7 Ex. B (part), 1988)

15.50.080. Interpretation.

In the interpretation and application of this chapter, all provisions shall be:

A. Considered as minimum requirements;

B. Liberally construed in favor of the governing body; and

C. Deemed neither to limit nor repeal any other powers granted under state statutes. (Ord. 753 § 7 Ex. B (part), 1988)

15.50.090. Degree of flood protection.

The degree of flood protection by this chapter is considered reasonable for regulatory purposes and is based on scientific and engineering considerations. Larger floods can and will occur on rare occasions. Flood heights may be increased by manmade or natural causes. This section does not imply that land outside the areas of special flood hazards or uses permitted within such areas will be free from flooding or flood damages. This chapter shall not create liability on the part of the City of Imperial Beach, any officer or employee thereof, or the Federal Insurance Administration, for any flood damages that result from reliance on this chapter or any administrative decision lawfully made thereunder. (Ord. 753 § 7 Ex. B (part), 1988)

15.50.100. Establishment of development permit.

A development permit shall be obtained before construction or other development, including manufactured homes, within any area of special flood hazard established in Section 15.50.060. Application for a development permit shall be made on forms furnished by the City of Imperial Beach. The applicant shall provide the following minimum information:

A. Plans in duplicate, drawn to scale, showing:

1. Location, dimensions, and elevation of the area in question, existing or proposed structures, storage of materials and equipment and their location;
2. Proposed locations of water supply, sanitary sewer, and other utilities;
3. Grading information showing existing and proposed contours, any proposed fill, and drainage facilities;
4. Location of the regulatory floodway when applicable;
5. Base flood elevation information as specified in Section 15.50.060. or Section 15.50.120. A ;
6. Proposed elevation in relation to mean sea level, of the lowest floor (including basement) of all structures; and
7. Proposed elevation in relation to mean sea level to which any nonresidential structure will be flood proofed, as required in Section 15.50.160. A.3.b of this ordinance and detailed in FEMA Technical Bulletin TB 3-93.

B. Certification from a registered civil engineer or architect that the nonresidential floodproofed building meets the floodproofing criteria in Section 15.50.160. A.3.b

C. For a crawl-space foundation, location and total net area of foundation openings as required in Section 15.50.160. A.3.c of this ordinance and detailed in FEMA Technical Bulletins 1-93 and 7-93.

D. Description of the extent to which any watercourse will be altered or relocated

as a result of proposed development.

E. All appropriate certifications listed in Section 15.50.110. B of this ordinance.

15.50.110. Administration.

The Community Development Director is appointed to administer, implement and enforce this chapter by granting or denying development permits in accordance with its provisions. The duties and responsibilities of the Community Development Director shall include, but not be limited to:

A. Review all flood hazard reports to determine that:

1. The permit requirements of this chapter have been satisfied;

2. All other required state and federal permits have been obtained;

3. The site is reasonably safe from flooding;

4. The proposed development does not adversely affect the carrying capacity of the floodway. For the purpose of this chapter, "adversely affects" means that the cumulative effect of the proposed development when combined with all other existing and anticipated development will not increase the water surface elevation of the base flood more than one foot at any point.

B. Obtain and maintain for public inspection and make available as needed:

1. Obtain and record the actual elevation (in relation to mean sea level) of the lowest habitable floor (including basement) of all new or substantially improved structures;

2. Maintain elevation or floodproofing of nonresidential structures; certifications required in Section 15.50.160(A)(3)(a);

3. Maintain wet floodproofing standard; certifications required in Section 15.50.160(A)(3)(C)(1);

4. Maintain floodway encroachments; certifications as required in Section 15.50.160(E);

5. Maintain coastal construction standards; certifications as required by Section 15.50.160(F)(6);

6. Maintain for public inspection all records pertaining to the provisions of this section.

C. Notify, in riverine situations, adjacent communities and the State Coordinating Office prior to any alteration or relocation of a watercourse, and submit copies of such notifications to the Administrator.

D. Assure that the flood carrying capacity within the altered or relocated portion of any watercourse is maintained. (Ord. 2005-1033 § 3, 2005; Ord. 753 § 7 Ex. B (part), 1988; Ord. 97-913 § 1, 1997)

E. Base Flood Elevation changes due to physical alterations:

1. Within 6 months of information becoming available or project completion, whichever comes first, the floodplain administrator shall submit or assure that the permit applicant submits technical or scientific data to FEMA for a Letter of Map Revision (LOMR).

2. All LOMR's for flood control projects are approved prior to the issuance of building permits. Building Permits must not be issued based on Conditional Letters of Map Revision (CLOMR's). Approved CLOMR's allow construction of the proposed flood control project and land preparation as specified in the "start of construction" definition.

Such submissions are necessary so that upon confirmation of those physical changes affecting flooding conditions, risk premium rates and floodplain management requirements are based on current data.

F. Changes in corporate boundaries:
Notify FEMA in writing whenever the corporate boundaries have been modified by annexation or other means and include a copy of a map of the community clearly delineating the new corporate limits.

15.50.120. Interpretation of FIRM boundaries.

The Director of Community Development shall establish the exact location of the boundaries of the areas of special flood hazards. Any person contesting the location of the boundary shall be given a reasonable opportunity to appeal the interpretation to the City Council. (Ord. 753 § 7 Ex. B (part), 1988)

A. Review, Use and Development of Other Base Flood Data.

When base flood elevation data has not been provided in accordance with Section 15.50.060., the Floodplain Administrator shall obtain, review, and reasonably utilize any base flood elevation and floodway data available from a federal or state agency, or other source, in order to administer Section 15.50.160.

NOTE: A base flood elevation may be obtained using one of two methods from the FEMA publication, FEMA 265, "Managing Floodplain Development in Approximate

Zone A Areas – A Guide for Obtaining and Developing Base (100-year) Flood Elevations" dated July 1995.

15.50.130. Variance.

All requests for variances from the requirements of this chapter shall conform with the variance procedure described in Chapter 19.84 of the City zoning ordinance. In acting upon such applications, the Planning Commission shall consider all technical evaluations, all relevant factors, standards specified in other sections of this section and:

A. The danger that materials may be swept onto other lands to the injury of others;

B. The danger of life and property due to flooding or erosion damage;

C. The susceptibility of the proposed facility and its contents to flood damage and the effect of such damage on the individual owner;

D. The importance of the services provided by the proposed facility to the community;

E. The necessity to the facility of a waterfront location, where applicable;

F. The availability of alternative locations for the proposed use which are not subject to flooding or erosion damage;

G. The compatibility of the proposed use with existing and anticipated development;

H. The relationship of the proposed use to the comprehensive plan and floodplain management program for that area;

I. The safety of access to the property in time of flood for ordinary and emergency vehicles;

J. The expected heights, velocity, duration, rate of rise, and sediment transport of the floodwaters expected at the site; and

K. The costs of providing governmental services during and after flood conditions, including maintenance and repair of public utilities and facilities such as sewer, gas, electrical, and water system, and streets and bridges. (Ord. 753 § 7 Ex. B (part), 1988)

15.50.140. Issuance of variances.

Generally, variances may be issued for new construction and substantial improvements to be erected on a lot of one-half acre or less in size contiguous to and surrounded by lots with existing structures constructed below the base flood level, providing the considerations referred to in Section 15.50.130 have been fully considered. As the lot size increases beyond one-half acre, the technical justification required for issuing the variance increases. The Planning Commission, as an appeal board, may attach such conditions to the granting of variances as it deems necessary to further the purposes of this chapter. The

director of community development shall maintain the records of all appeal actions and report any variances to the Federal Insurance Administration upon request. (Ord. 753 § 7 Ex. B (part), 1988)

15.50.150. Conditions for variances.

A. Variances may be, issued for the reconstruction, rehabilitation or restoration of structures listed in the National Register of Historic Places or the State Inventory of Historic Places, without regard to the procedures set forth in the remainder of this section.

B. Variances shall not be issued within any designated floodway if any increase in flood levels during the base flood discharge would result.

C. Variances shall only be issued upon a determination that the variance is the minimum necessary, considering the flood hazard, to afford relief.

D. Variances shall only be issued upon:

1. A showing of good and sufficient cause;

2. A determination that failure to grant the variance would result in exceptional hardship to the applicant; and

3. A determination that the granting of a variance will not result in increased flood heights, additional threats to public safety, extraordinary public expense, create nuisances, cause fraud on or victimization of the public, or conflict with existing local laws or ordinances.

F. Any applicant to whom a variance is granted shall be given written notice that the structure will be permitted to be built with a lowest flood elevation below the base flood elevation and that the cost of flood insurance will result in increased premium rates for flood insurance up to amounts as high as twenty-five dollars for every one hundred dollars of coverage. A copy of the notice shall be recorded by the Community Development Director in the office of the San Diego County Recorder and shall be recorded in a manner that it appears in the chain of title of the affected parcel of land. (Ord. 2005-1033 § 3, 2005; Ord. 753 § 7 Ex. B (part), 1988)

15.50.160. Flood hazard reduction standards.

In all areas of special flood hazards the following standards are required:

A. Standards of Construction.

1. Anchoring.

a. All new construction and substantial improvements shall be anchored to prevent flotation, collapse or lateral movement of the structure resulting from hydrodynamic and hydrostatic loads, including the effects of buoyancy.

b. All manufactured homes shall meet the anchoring standards of subsection D of this section.

2. Construction Materials and Methods.

a. All new construction and substantial improvements shall be constructed with materials and utility equipment resistant to flood damage.

b. All new construction and substantial improvements shall be constructed using methods and practices that minimize flood damage.

c. All new construction and substantial improvements shall be constructed with electrical, heating, ventilation, plumbing and air conditioning equipment and other service facilities that are designed and/or located so as to prevent water from entering or accumulating within the components during conditions of flooding.

3. Elevation and Floodproofing.

a. New construction and substantial improvement of any structure shall have the lowest floor, including basement, elevated to or above the base flood elevation. Nonresidential structures may meet the standards in subsection (A)(3)(b) of this section. Upon the completion of the structure the elevation of the lowest floor including basement shall be certified by a registered professional engineer or surveyor, or verified by the community building inspector to be properly elevated. Such certification or verification shall be provided to the floodplain administrator.

b. Nonresidential construction shall either be elevated in conformance with subsection (A)(3)(a) of this section or, together with attendant utility and sanitary facilities:

i. Be floodproofed so that below the base flood level the structure is watertight with walls substantially impermeable to the passage of water;

ii. Have structural components capable of resisting hydrostatic and hydrodynamic loads and effects of buoyancy; and

iii. Be developed and/or reviewed for structural design, specifications, and plans for the construction and then certified by a registered professional engineer or architect that the standards of this subsection are satisfied. Such certifications, which includes the specific elevation (in relation to mean sea level) to which such structures are flood proofed, shall be provided to the floodplain administrator.

c. Require, for all new construction and substantial improvements, that fully enclosed areas below the lowest floor that are usable solely for parking of vehicles, building access or storage in an area other than a basement and which are subject to flooding shall be designed to automatically equalize hydrostatic flood forces on exterior walls by allowing for the entry and exit of floodwaters. Designs for meeting this requirement must either be certified by a registered professional engineer or architect or meet or exceed the following minimum criteria:

i. Either a minimum of two openings have a total net area of not less than one square inch for every square foot of enclosed area subject to flooding shall be provided. The bottom of all openings shall be no higher than one foot above grade. Openings may be

equipped with screens, louvers, valves or other coverings or devices provided that they permit the automatic entry and exit of floodwaters; or

ii. Be certified to comply with a local floodproofing standards approved by the Federal Insurance Administration.

d. Manufactured homes shall also meet the standards in subsection D of this section.

e. Require that manufactured homes that are placed or substantially improved on sites:

i. Outside of a manufactured home park or subdivision,

ii. In a new manufactured home park or subdivision,

iii. In an expansion to an existing manufactured home park or subdivision, or

iv. In an existing manufactured home park or subdivision on which a manufactured home has incurred "substantial damage" as the result of a flood, meet the standards in subsection D of this section.

f. Require that manufactured homes to be placed or substantially improved on sites in an existing manufactured home park or subdivision that are not subject to the provision of subsection e, within this section, be elevated so that either:

i. The lowest floor of the manufactured home is at or above the base of flood elevation, or

ii. The manufactured home chassis is supported by reinforced piers or other foundation elements of at least equivalent strength that are no less than 36 inches in height above grade and be securely anchored to an adequately anchored foundation system to resist floatation, collapse and lateral movement.

g. Within areas of special flood hazards having shallow water depths and/or unpredictable flow paths between one and three feet:

i. All new construction and substantial improvements of residential structures have the lowest floor (including basement) elevated above the highest adjacent grade at least as high as the depth number specified in feet on the City's FIRM (at least two feet if no depth number is specified).

ii. All new construction and substantial improvements of nonresidential structures meet standards above for residential structures or together with attendant utility and sanitary facilities be completely floodproofed to that level to meet the floodproofing standard specified in subsection 3a.

h. Require that recreational vehicles placed on sites within areas of having shallow water depths and/or unpredictable flow paths between one and three feet, and with water surface elevations determined be:

i. On the site for fewer than 180 consecutive days,

ii. Fully licensed and ready for highway use, or

iii. Meet the permit requirements of all proposed construction and other developments and the elevation and anchoring requirements for "manufactured homes" in subsection e of this section.

A recreational vehicle is ready for highway use if it is on its wheels or jacking system, is attached to the site only by quick disconnect type utilities and security devices and has no permanently attached additions.

i. Obtain, review and reasonably utilize any base flood elevation and floodway data available from a Federal, State or other source, as criteria for requiring that new construction, substantial developments and other developments meet the standards within this subsection A3.

j. Any development, in an area of having shallow water depths and/or unpredictable flow paths between one and three feet and/or with water surface elevations determined, which increase the water surface elevation of the base flood by more than one foot may be approved, provided the community first applies for a conditional FIRM revision, fulfills the requirements of such a revision as established under the provisions of Section 65.12 of the National Flood Insurance Regulations and receives the approval of the Administrator.

B. Standards for Utilities.

1. All new and replacement water supply and sanitary sewage systems shall be designed to minimize or eliminate infiltration of floodwaters into the system and discharge from systems into floodwaters.

2. On-site waste disposal systems shall be located to avoid impairment to them or contamination from them during flooding.

3. Require adequate drainage paths around structures on slopes, to guide floodwaters around and away from proposed structures within areas of special flood hazards having shallow water depths and/or unpredictable flow paths between one and three feet, and/or with water surface elevations determined.

C. Standards for Subdivisions.

1. All preliminary subdivision proposals shall identify the flood hazard area and the elevation of the base flood.

2. All final subdivision plans will provide the elevation of proposed structure(s) and pads. If the site is filled above the base flood, the final pad elevation shall be certified by a registered professional engineer or surveyor and provided to the floodplain administrator.

3. All subdivision proposals shall be consistent with the need to minimize flood damage.

4. All subdivision proposals shall have public utilities and facilities such as sewer, gas, electrical and water systems located and constructed to minimize flood damage.

5. All subdivisions shall provide adequate drainage to reduce exposure to flood hazards.

D. Standards for Manufactured Homes. All new and replacement manufactured homes and additions to manufactured homes shall:

1. Be elevated so that the lowest floor is at or above the base flood elevation; and

2. Be securely anchored to a permanent foundation system to resist flotation, collapse or lateral movement.

E. Floodways. Located within areas of special flood hazard established in Section 15.50.050 are areas designated as floodways. Since the floodway is an extremely hazardous area due to the velocity of floodwaters which carry debris, potential projectiles, and erosion potential, the following provisions apply:

1. Prohibit encroachments, including fill, new construction, substantial improvements, and other development unless certification by a registered professional engineer or architect is provided demonstrating that encroachments shall not result in any increase in flood levels during the occurrence of the base flood discharge.

a. Encroachments that would result in an increase in base flood elevations, may be permitted, provided that the community first applies for a conditional FIRM and floodway revision, fulfills the requirements for such revisions established under the provisions of Section 65.12 of National Flood Insurance Regulations, and receives the approval of the Administrator.

2. If Section paragraph 1 of this subsection is satisfied, all new construction and substantial improvements shall comply with all other applicable flood hazard reduction provisions of this section.

3. Require until a regulatory floodway is designated, that no new construction, substantial improvements, or other development (including fill) shall be permitted within areas of special flood hazard with water surface elevation determined unless it is demonstrated that the cumulative effect of the proposed development, when combined with all other existing and anticipated development, will not increase the water surface elevation of the base flood more than one foot at any point within the community.

4. The City will select and adopt a regulatory floodway based on the principal that the area chosen for the regulatory floodway must be designed to carry the waters of the base flood, without increasing the water surface elevation of that flood more than one foot at any point.

F. Coastal High Hazard Areas. Within coastal high hazard areas established in Section 15.50.060 the following standards shall apply:

1. All new construction and substantial improvements shall be elevated on pilings or columns so that:

a. "The bottom of the lowest horizontal structural member of the lowest floor (excluding the pilings or columns) is elevated to or above the base flood level; and

b. The pile or column foundation and structure attached thereto is anchored to resist flotation, collapse and lateral movement due to the effects of wind and water loads acting simultaneously on all building components. Water loading values used shall be those associated with the base flood. Wind loading values used shall be those required by applicable State or local building standards. A registered professional engineer or architect shall develop or review the structural design, specifications and plans for the construction.

2. All new construction shall be located on the landward side of the reach of mean high tide.

3. All new construction and substantial improvements shall have the space below the lowest floor free of obstructions or constructed with non-supporting, breakaway walls. Use of breakaway walls which exceed a design safe loading resistance of 20 pounds per square foot (either by design or when so required by local or State codes) may be permitted only if a registered professional engineer or architect certifies that the designs proposed meet the following conditions:

a. Breakaway wall collapse shall result from a water load less than that which would occur during the base flood; and

b. The elevated portion of the building and supporting foundation system shall not be subject to collapse, displacement, or other structural damage due to the effects of wind and water loads acting simultaneously on all building components (structural and non-structural).

Such temporarily enclosed space shall not be used for human habitation, but shall be useable solely for parking of vehicles, building access or storage.

4. Fill shall not be used for structural support of buildings.

5. Manmade alteration of sand dunes which would increase potential flood damage is prohibited.

6. The floodplain administrator shall obtain and maintain the following records:

a. Certification by a registered engineer or architect that a proposed structure complies with paragraph 1 of this subsection;

b. Elevation (in relation to mean sea level) of the bottom of the lowest structural member of the lowest floor (excluding pilings and columns) of all new and substantially improved structures, and whether or not such structures contain a basement.

7. All recreational vehicles placed within coastal high hazard areas shall either:

a. Be on the site for fewer than 180 consecutive days,

b. Be fully licensed and ready for highway use, or

c. Meet the requirements within this subsection F.

A recreational vehicle is ready for highway use if it is on its wheels or jacking system, is attached to the site only by quick disconnect type utilities and security devices, and has no permanently attached additions.

8. Require manufactured homes placed or substantially improved on sites:

a. Outside of a manufactured home park or subdivision,

b. In a new manufactured home park or subdivision,

c. In an expansion to an existing manufactured home park or subdivision, or

d. In an existing manufactured home park or subdivision on which a manufactured home has incurred "substantial damage" as the result of a flood, meet the standards of subsection F and that manufactured homes placed or substantially improved on other sites in an existing manufactured home park or subdivision within the coastal high hazard areas meet the requirements of subsection 3e. of Section A. (Ord. 753 § 7 Ex. B (part), 1988; Ord. 97-913 § 1, 1997)

15.50.170. Severability.

In the same manner as Section 1.01.100 of the Imperial Beach Municipal Code, this Chapter and the various parts thereof are hereby declared to be severable. Should any section of this ordinance be declared by the courts to be unconstitutional or invalid, such decision shall not affect the validity of the ordinance as a whole, or any portion thereof other than the section so declared to be unconstitutional or invalid.

ATTACHMENT "3" (For review purposes only)

15.50.010. Findings of fact.

A. Flood hazard areas of the city of Imperial Beach are subject to periodic inundation which results in loss of life and property, health and safety hazards, disruption of commerce and governmental services, extraordinary public expenditures for flood protection and relief, and impairment of the tax base, all of which adversely affect the public health, safety and general welfare.

B. Flood losses are caused by the cumulative effect of obstructions in areas of special flood hazards which increase flood heights and velocities, and when inadequately anchored, damage uses in other areas. Uses that are inadequately flood proofed, elevated or otherwise protected from flood damage also contribute to the flood loss. (Ord. 753 § 7 Ex. B (part), 1988)

15.50.020. Purpose.

It is the purpose of this chapter to promote the public health, safety and general welfare, and to minimize public and private losses due to flood conditions in specific areas by provisions designed:

A. To protect human life and health;

B. To minimize expenditure of public money for costly flood control projects;

C. To minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public;

D. To minimize prolonged business interruptions;

E. To minimize damage to public facilities and utilities such as water and gas mains, electric, telephone and sewer lines, streets and bridges located in areas of special flood hazard;

F. To help maintain a stable tax base by providing for the second use and development of areas of special flood hazard so as the minimize future flood blight areas;

G. To ensure that potential buyers are notified that property is in an area of special flood hazards; and

H. To ensure that those who occupy the areas of special flood hazard assume responsibility for their actions. (Ord. 753 § 7 Ex. B (part), 1988)

15.50.030. Methods of reducing flood losses.

In order to accomplish its purposes, this chapter includes methods and provisions for:

A. Restricting or prohibiting uses which are dangerous to health, safety and property due to water or erosion hazards, or which result in damaging increases in erosion or flood heights or velocities;

B. Requiring that uses vulnerable to floods, including facilities which serve such uses, be protected against flood damage at the time of initial construction;

C. Controlling the alteration of natural floodplains, stream channels and natural protective barriers which help accommodate or channel floodwaters;

D. Controlling filling, grading, dredging, and other development which may increase flood damage; and

E. Preventing or regulating the construction of flood barriers which will unnaturally divert floodwaters or which may increase flood hazards in other areas. (Ord. 753 § 7 Ex. B (part), 1988)

15.50.040. Definitions.

Unless specifically defined below, words or phrases used in this chapter shall be interpreted so as to give them the meaning they have in common usage and to give this chapter its most reasonable application.

"Area of special flood hazard" is the land in the flood plain within a community subject to a one percent or greater chance of flooding in any given year. The area may be designated as Zone A on the Federal Hazard Boundary Map. After detailed rate making has been completed in preparation for the publication of the flood insurance rate map, Zone A usually is refined into Zones A, AO, AH, A1-30, AE, A99, AR, AR/A1-30, AR/AE, AR/AO, AR/AH, AR/A, VO, or V1-30, VE, or V. For purposes of these regulations, the term "special flood hazard are (SFHA)" is synonymous in meaning with the phrase "area of special flood hazard".

"Appeal" means a request for a review of the floodplain administrator's interpretation of any provision of this chapter or a request for a variance.

"Base flood" means the flood having a one-percent chance of being equaled or exceeded in any given year (also called the "one-hundred-year flood").

"Basement" means any area of the building having its floor sub-grade (below ground level) on all sides.

"Breakaway wall" means any type of wall, whether solid or lattice, and whether constructed of concrete, masonry, wood, metal, plastic or any other suitable building material, which is not part of the structural support of the building and which is designed to break away under abnormally high tides or wave action without causing any damage to the structural integrity of the building on which it is used to any buildings to which they might be carried by floodwaters. A breakaway wall shall have a safe design loading resistance of not less than ten and no more than twenty pounds per square foot. Use of breakaway walls must be certified by a registered engineer or architect and shall meet the following conditions:

1. Breakaway wall collapse shall result from a water load less than that which would occur during the base flood; and

2. The elevated portion of the building shall not incur any structural damage due to the effects of wind and water loads acting simultaneously in the event of the base flood.

"Coastal high hazard area" is the area subject to high velocity waters, including coastal and tidal inundation or tsunamis. The area is designated on a Flood Insurance Rate Map (FIRM) as Zone V1 — V30, VE or V.

"Development" means any manmade change to improved or unimproved real estate, including but not limited to buildings or other structures, dredging, filling, grading, paving, excavation or drilling operations.

"Eligible community" or "participating community" means a community for which the Federal Insurance Administrator has authorized the sale of flood insurance under the National Flood Insurance Program.

"Elevated Building" means, for insurance purposes, a non-basement building which has its lowest elevated floor raised above ground level by foundation walls, shear walls, posts, piers, pilings, or columns.

"Emergency Flood Insurance Program" or "Emergency Program" means the National Flood Insurance Program as implemented on an emergency basis in accordance with Section 1336 of the Act. It is intended as a program to provide a first layer amount of insurance on all insurable structures before the effective date of the initial FIRM.

"Erosion" means the process of the gradual wearing away of land masses. This peril is not per se covered under the National Flood Insurance Program.

"Existing construction" means, for the purposes of determining rates, structures for which the "start of construction" commenced before the effective date of the FIRM or before January 1, 1975, for FIRMs effective before that date. "Existing construction" may also be referred to as "existing structures."

"Existing manufactured home park or subdivision" means a manufactured home park or subdivision for which the construction of facilities for servicing the lots on which the manufactured homes are to be affixed (including, at a minimum, the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads) is completed before March 3, 2010.

"Expansion to an existing manufactured home park or subdivision" means the preparation of additional sites by the construction of facilities for servicing the lots on which the manufactured homes are to be affixed (including the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads).

"Flood" or "flooding" means a general and temporary condition of partial or complete inundation of normally dry land areas from (1) the overflow of floodwaters, (2) the unusual and rapid accumulation or runoff of surface waters from any source, (3) the collapse or

subsidence of land along the shore of a lake or other body of water as a result of erosion or undermining caused by waves or currents of water exceeding anticipated cyclical levels or suddenly caused by an unusually high water level in a natural body of water, accompanied by a severe storm, or by an unanticipated force of nature, such as flash flood or an abnormal tidal surge, or by same similarly unusual and unforeseeable event which results in flooding as defined in this definition, and/or (4) mudslides (i.e., mudflows) which are proximately caused by flooding as defined above in (2) of this definition and are akin to a river of liquid and flowing mud on the surfaces or normally dry land areas, as when earth is carried by a current of water and deposited along the path of the current.

"Flood Boundary and Floodway Map" means the official map on which the Federal Emergency Management Agency or Federal Insurance Administration has delineated both the areas of flood hazard and the floodway.

"Flood elevation determination" means a determination by the Federal Insurance Administrator of the water surface elevations of the base flood, that is, the flood level that has a one percent or greater chance of occurrence in any given year.

"Flood elevation study" means an examination, evaluation, and determination of flood hazards and, if appropriate, corresponding water surface elevations, or an examination, evaluation and determination of mudslide and/or flood-related erosion hazards.

"Flood Insurance Rate Map (FIRM)" means the official map on which the Federal Emergency Management Agency or Federal Insurance Administration has delineated both the areas of special flood hazards and the risk of premium zones applicable to the community.

"Flood Insurance Study" means the official report provided by the Federal Insurance Administration that includes flood profiles, the FIRM, the Flood Boundary and Floodway Map, and the water surface elevation of the base flood.

"Floodplain" or "flood-prone area" means any land area susceptible to being inundated by water from any source (see definition of "flooding").

"Floodplain management" means the operation of an overall program of corrective and preventive measures for reducing flood damage, including but not limited to emergency preparedness plans, flood control works and floodplain management regulations.

"Floodplain management regulations" mean zoning ordinances, subdivision regulations, building codes, health regulations, special purpose ordinances (such as floodplain ordinance, grading ordinance and erosion control ordinance) and other applications of police power. The term describes such state or local regulations in any combination thereof, which provide standards for the purpose of flood damage prevention and reduction.

"Floodproofing" means any combination of structural and nonstructural additions, changes or adjustments to structures which reduce or eliminate flood damage to real estate or improved real property, water and sanitary facilities, structure and their contents.

"Flood-related erosion" means that collapse or subsidence of land along the shore of a lake or other body of water as a result of undermining caused by waves or currents of water

exceeding anticipated cyclical levels of suddenly caused by an unusually high water level in a natural body of water, accompanied by a severe storm, or by an unanticipated force of nature, such as a flash flood or an abnormal tidal surge, or by some similarly unusual and unforeseeable event which results in flooding.

"Floodway" means the channel of a river or other watercourse and the adjacent land areas that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than one foot. Also referred to as "regulatory floodway."

"Functionally dependent use" means a use which cannot perform its intended purpose unless it is located or carried out in close proximity to water. The term includes only docking facilities, port facilities that are necessary for the loading and unloading of cargo or passengers, and ship building and ship repair facilities, but does not include long-term storage or related manufacturing facilities.

"Highest adjacent grade" means the highest natural elevation of the ground surface prior to construction next to the proposed walls of a structure.

"Historic structure" means any structure that is:

1. Listed individually in the National Register of Historic Places (a listing maintained by the Department of Interior) or preliminarily determined by the Secretary of the Interior as meeting the requirements for individual listing on the National Register;

2. Certified or preliminarily determined by the Secretary of the Interior as contributing to the historical significance of a registered historic district or a district preliminarily determined by the Secretary to qualify as a registered historic district;

3. Individually listed on a state inventory of historic places in states with historic preservation programs which have been approved by the Secretary of Interior; or

4. Individually listed on a local inventory of historic places in communities with historic preservation programs that have been certified either by an approved state program as determined by the Secretary of the Interior or directly by the Secretary of the Interior in states without approved programs.

"Independent scientific body" means a non-federal technical or scientific organization involved in the study of land use planning, flood plain management, hydrology, geology, geography, or any other related field of study concerned with flooding.

"Lowest floor" means the lowest floor of the lowest enclosed area (including basement). An unfinished or flood-resistant enclosure, usable solely for parking of vehicles, building access or storage in an area other than a basement area is not considered a building's lowest floor; provided, that such enclosure is not built so as to render the structure in violation of the applicable nonelevation design requirements of this chapter. For residential structures, all subgrade enclosed areas are prohibited as they are considered to be

basements (see "Basement" definition). This prohibition includes below-grade garages and storage areas.

"Manufactured home" means a structure, transportable in one or more sections, which is built on a permanent chassis and is designed for use with or without a permanent foundation when connected to the required utilities. For floodplain management purposes the term "manufactured home" also includes park trailers, travel trailers and other similar vehicles placed on a site for greater than one hundred eighty consecutive days. The term manufactured home does not include recreational vehicles.

"Manufactured home park or subdivision" means a parcel (or contiguous parcels) of land divided into two or more manufactured home lots for sale or rent.

"Mean sea level" means, for purposes of the National Flood Insurance Program, the National Geodetic Vertical Datum (NGVD) of 1929 or other datum, to which base flood elevations shown on a community's Flood Insurance Rate Map are referenced.

"New construction" means for floodplain management purposes, structures for which the "start of construction" commenced on or after the effective date of a floodplain management regulation adopted by this community.

"New manufactured home park or subdivision" means a manufactured home park or subdivision for which the construction of facilities for servicing the lots on which the manufactured homes are to be affixed (including at a minimum, the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads) is completed on or after May 2nd 1978.

"One-hundred-year flood" or "100-year flood" means a flood which has a one-percent annual probability of being equaled or exceeded. It is identical to the "base flood," which will be the term used throughout this chapter.

"Person" means an individual or his agent, firm, partnership, association or corporation, or agent of the aforementioned groups, or this state or its agencies or political subdivisions.

"Recreational vehicle" means a vehicle which is:

A. Built on a single chassis;

B. 400 square feet or less when measured at the largest horizontal projection;

C. Designed to be self-propelled or permanently towable by a light-duty truck; and

D. Designed primarily not for use as a permanent dwelling but as temporary living quarters for recreational, camping, travel, or seasonal use.

"Remedy a violation" means to bring the structure or other development into compliance with state or local floodplain management regulations, or if this is not possible, to reduce the impacts of its noncompliance. Ways that impacts may be reduced include protecting the structure or other affected development from flood damages, implementing the enforcement provisions of this chapter or otherwise deterring future similar violations, or reducing federal financial exposure with regard to the structure or other development.

"Riverine" means relating to, formed by, or resembling a river (including tributaries), stream, brook, etc.

"Sand dunes" mean naturally occurring accumulations of sand in ridges or mounds landward of the beach.

"Start of construction" includes substantial improvement, and means the date the building permit was issued, provided the actual start of construction, repair, reconstruction, placement, or other improvement was within one hundred eighty days of the permit date. The actual start means either the first placement of permanent construction of a structure on a site, such as the pouring of slab or footings, the installation of piles, the construction of columns, or any work beyond the stage of excavation; or the placement of a manufactured home on a foundation. Permanent construction does not include land preparation, such as clearing, grading and filling; nor does it include the installation of streets and/or walkways; nor does it include excavation for a basement, footings, piers or foundations or the erection of temporary forms; nor does it include the installation on the property of accessory buildings, such as garages or sheds not occupied as dwelling units or not part of the main structure.

"Structure" means a walled and roofed building, including a gas or liquid storage tank, that is principally above ground, as well as a manufactured home.

"Substantial damage" means damage of any origin sustained by a structure whereby the cost of restoring the structure to its before damaged condition would equal or exceed 50 percent of the market value of the structure before the damage occurred.

"Substantial improvement" means any repair, reconstruction or improvement of a structure, the cost of which equals or exceeds fifty percent of the market value of the structure either:

1. Before the improvement or repair is started; or

2. If the structure has been damaged, and is being restored, before any damage occurred.

For the purposes of this definition "substantial improvement" is considered to occur when the first alteration of any wall, ceiling, floor or other structural part of the building commences, whether or not that alteration affects the external dimensions of the structure. The term does not, however, include either:

1. Any project for improvement of a structure to comply with existing state or local health, sanitary or safety code specifications which are solely necessary to assure safe living conditions; or

2. Any alteration of a structure listed on the National Registration of Historic Places or a State Inventory of Historic Places.

"Variance" means a grant of relief from the requirements of this chapter which permits construction in a manner that would otherwise be prohibited by this chapter.

"Violation" means the failure of a structure or other development to be fully compliant with the community's floodplain management regulations. A structure or other development without the elevation certificate, other certifications, or other evidence of compliance required in this chapter is presumed to be in violation until such time as that documentation is provided. (Ord. 2005-1033 § 1, 2005: Ord. 753 § 7 Ex. B (part), 1988; Ord. 97-913 § 1, 1997)

15.50.050. Applicability.

This chapter applies to all "areas of special flood hazards" within the City of Imperial Beach. (Ord. 753 § 7 Ex. B (part), 1988)

15.50.060. Basis for establishing areas of special flood hazard.

The "areas of special flood hazard" identified by the Federal Emergency Management Agency or the Federal Insurance Administration in a scientific and engineering report entitled "Flood Insurance Study for City of Imperial Beach," dated July 2, 2002, and accompanying Flood Insurance Rate Maps dated June 19, 1997 and all subsequent amendments and revisions, are hereby adopted by reference and declared to be a part of this ordinance. This Flood Insurance Study is on file in the Community Development Department at the City of Imperial Beach. (Ord. 2005-1033 § 2, 2005: Ord. 753 § 7 Ex. B (part), 1988; Ord. 97-913 § 1, 1997)

15.50.070. Compliance.

A. No structure or land shall hereafter be constructed, located, extended, converted or altered without full compliance with the terms of this chapter and other applicable regulations. Violations of the provisions of this chapter by failure to comply with any of its requirements (including violations of conditions and safeguards established in connection with conditions) constitutes a misdemeanor. Nothing herein shall prevent the City of Imperial Beach from taking such lawful action as is necessary to prevent or remedy any violation.

B. This chapter is not intended to repeal, abrogate or impair any existing easements, covenants or deed restrictions. However, where this chapter and another ordinance, easement, covenant or deed restriction conflict or overlap, whichever imposes the more stringent restrictions shall prevail. (Ord. 753 § 7 Ex. B (part), 1988)

15.50.080. Interpretation.

In the interpretation and application of this chapter, all provisions shall be:

A. Considered as minimum requirements;

B. Liberally construed in favor of the governing body; and

C. Deemed neither to limit nor repeal any other powers granted under state statutes. (Ord. 753 § 7 Ex. B (part), 1988)

15.50.090. Degree of flood protection.

The degree of flood protection by this chapter is considered reasonable for regulatory purposes and is based on scientific and engineering considerations. Larger floods can and will occur on rare occasions. Flood heights may be increased by manmade or natural causes. This section does not imply that land outside the areas of special flood hazards or uses permitted within such areas will be free from flooding or flood damages. This chapter shall not create liability on the part of the City of Imperial Beach, any officer or employee thereof, or the Federal Insurance Administration, for any flood damages that result from reliance on this chapter or any administrative decision lawfully made thereunder. (Ord. 753 § 7 Ex. B (part), 1988)

15.50.100. Establishment of development permit.

A development permit shall be obtained before construction or other development ~~begins~~, including manufactured homes, within any area of special flood hazard established in Section 15.50.060. Application for a development permit shall be made on forms furnished by the City of Imperial Beach. ~~community development department and shall may include, but not be limited to: plans in duplicate drawn to scale showing the nature, location, dimensions and elevation of the area in question; existing or proposed structures, fill, storage of materials, drainage facilities; and the location of the foregoing. Specifically, the following information is required:~~ The applicant shall provide the following minimum information:

~~A. Proposed elevation, in relation to mean sea level, of the lowest floor (including basement) of all structures;~~

~~B. Proposed elevation in relation to mean sea level to which any nonresidential structure will be flood proofed;~~

~~C. All appropriate certifications listed in Section 15.50.110(B) of this chapter; and~~

~~D. Description of the extent to which any watercourse will be altered or relocated as a result of proposed development. (Ord. 753 § 7 Ex. B (part), 1988)~~

A. Plans in duplicate, drawn to scale, showing:

1. Location, dimensions, and elevation of the area in question, existing or proposed structures, storage of materials and equipment and their location;
2. Proposed locations of water supply, sanitary sewer, and other utilities;
3. Grading information showing existing and proposed contours, any proposed fill, and drainage facilities;
4. Location of the regulatory floodway when applicable;
5. Base flood elevation information as specified in Section 15.50.060. or

Section 15.50.120. A ;

6. Proposed elevation in relation to mean sea level, of the lowest floor (including basement) of all structures; and

7. Proposed elevation in relation to mean sea level to which any nonresidential structure will be flood proofed, as required in Section 15.50.160. A.3.b of this ordinance and detailed in FEMA Technical Bulletin TB 3-93.

B. Certification from a registered civil engineer or architect that the nonresidential floodproofed building meets the floodproofing criteria in Section 15.50.160. A.3.b

C. For a crawl-space foundation, location and total net area of foundation openings as required in Section 15.50.160. A.3.c of this ordinance and detailed in FEMA Technical Bulletins 1-93 and 7-93.

D. Description of the extent to which any watercourse will be altered or relocated as a result of proposed development.

E. All appropriate certifications listed in Section 15.50.110. B of this ordinance.

15.50.110. Administration.

The Community Development Director is appointed to administer, implement and enforce this chapter by granting or denying development permits in accordance with its provisions. The duties and responsibilities of the Community Development Director shall include, but not be limited to:

A. Review all flood hazard reports to determine that:

1. The permit requirements of this chapter have been satisfied;

2. All other required state and federal permits have been obtained;

3. The site is reasonably safe from flooding;

4. The proposed development does not adversely affect the carrying capacity of the floodway. For the purpose of this chapter, "adversely affects" means that the cumulative effect of the proposed development when combined with all other existing and anticipated development will not increase the water surface elevation of the base flood more than one foot at any point.

B. Obtain and maintain for public inspection and make available as needed:

1. Obtain and record the actual elevation (in relation to mean sea level) of the lowest habitable floor (including basement) of all new or substantially improved structures;

2. Maintain elevation or floodproofing of nonresidential structures; certifications required in Section 15.50.160(A)(3)(a);

3. Maintain wet floodproofing standard; certifications required in Section 15.50.160(A)(3)(C)(1);

4. Maintain floodway encroachments; certifications as required in Section 15.50.160(E);

5. Maintain coastal construction standards; certifications as required by Section 15.50.160(F)(6);

6. Maintain for public inspection all records pertaining to the provisions of this section.

C. Notify, in riverine situations, adjacent communities and the State Coordinating Office prior to any alteration or relocation of a watercourse, and submit copies of such notifications to the Administrator.

D. Assure that the flood carrying capacity within the altered or relocated portion of any watercourse is maintained. (Ord. 2005-1033 § 3, 2005; Ord. 753 § 7 Ex. B (part), 1988; Ord. 97-913 § 1, 1997)

E. Base Flood Elevation changes due to physical alterations:

1. Within 6 months of information becoming available or project completion, whichever comes first, the floodplain administrator shall submit or assure that the permit applicant submits technical or scientific data to FEMA for a Letter of Map Revision (LOMR).

2. All LOMR's for flood control projects are approved prior to the issuance of building permits. Building Permits must not be issued based on Conditional Letters of Map Revision (CLOMR's). Approved CLOMR's allow construction of the proposed flood control project and land preparation as specified in the "start of construction" definition.

Such submissions are necessary so that upon confirmation of those physical changes affecting flooding conditions, risk premium rates and floodplain management requirements are based on current data.

F. Changes in corporate boundaries:
Notify FEMA in writing whenever the corporate boundaries have been modified by annexation or other means and include a copy of a map of the community clearly delineating the new corporate limits.

15.50.120. Interpretation of FIRM boundaries.

The Director of Community Development shall establish the exact location of the boundaries of the areas of special flood hazards. Any person contesting the location of the boundary

shall be given a reasonable opportunity to appeal the interpretation to the City Council. (Ord. 753 § 7 Ex. B (part), 1988)

A. Review, Use and Development of Other Base Flood Data.

When base flood elevation data has not been provided in accordance with Section 15.50.060., the Floodplain Administrator shall obtain, review, and reasonably utilize any base flood elevation and floodway data available from a federal or state agency, or other source, in order to administer Section 15.50.160.

NOTE: A base flood elevation may be obtained using one of two methods from the FEMA publication, FEMA 265, "Managing Floodplain Development in Approximate Zone A Areas – A Guide for Obtaining and Developing Base (100-year) Flood Elevations" dated July 1995.

15.50.130. Variance.

All requests for variances from the requirements of this chapter shall conform with the variance procedure described in Chapter 19.84 of the City zoning ordinance. In acting upon such applications, the Planning Commission shall consider all technical evaluations, all relevant factors, standards specified in other sections of this section and:

A. The danger that materials may be swept onto other lands to the injury of others;

B. The danger of life and property due to flooding or erosion damage;

C. The susceptibility of the proposed facility and its contents to flood damage and the effect of such damage on the individual owner;

D. The importance of the services provided by the proposed facility to the community;

E. The necessity to the facility of a waterfront location, where applicable;

F. The availability of alternative locations for the proposed use which are not subject to flooding or erosion damage;

G. The compatibility of the proposed use with existing and anticipated development;

H. The relationship of the proposed use to the comprehensive plan and floodplain management program for that area;

I. The safety of access to the property in time of flood for ordinary and emergency vehicles;

J. The expected heights, velocity, duration, rate of rise, and sediment transport of the floodwaters expected at the site; and

K. The costs of providing governmental services during and after flood conditions, including maintenance and repair of public utilities and facilities such as sewer, gas, electrical, and water system, and streets and bridges. (Ord. 753 § 7 Ex. B (part), 1988)

15.50.140. Issuance of variances.

Generally, variances may be issued for new construction and substantial improvements to be erected on a lot of one-half acre or less in size contiguous to and surrounded by lots with existing structures constructed below the base flood level, providing the considerations referred to in Section 15.50.130 have been fully considered. As the lot size increases beyond one-half acre, the technical justification required for issuing the variance increases. The Planning Commission, as an appeal board, may attach such conditions to the granting of variances as it deems necessary to further the purposes of this chapter. The director of community development shall maintain the records of all appeal actions and report any variances to the Federal Insurance Administration upon request. (Ord. 753 § 7 Ex. B (part), 1988)

15.50.150. Conditions for variances.

A. Variances may be, issued for the reconstruction, rehabilitation or restoration of structures listed in the National Register of Historic Places or the State Inventory of Historic Places, without regard to the procedures set forth in the remainder of this section.

B. Variances shall not be issued within any designated floodway if any increase in flood levels during the base flood discharge would result.

C. Variances shall only be issued upon a determination that the variance is the minimum necessary, considering the flood hazard, to afford relief.

D. Variances shall only be issued upon:

1. A showing of good and sufficient cause;

2. A determination that failure to grant the variance would result in exceptional hardship to the applicant; and

3. A determination that the granting of a variance will not result in increased flood heights, additional threats to public safety, extraordinary public expense, create nuisances, cause fraud on or victimization of the public, or conflict with existing local laws or ordinances.

F. Any applicant to whom a variance is granted shall be given written notice that the structure will be permitted to be built with a lowest flood elevation below the base flood elevation and that the cost of flood insurance will result in increased premium rates for flood insurance up to amounts as high as twenty-five dollars for every one hundred dollars of coverage. A copy of the notice shall be recorded by the Community Development Director in the office of the San Diego County Recorder and shall be recorded in a manner that it

appears in the chain of title of the affected parcel of land. (Ord. 2005-1033 § 3, 2005; Ord. 753 § 7 Ex. B (part), 1988)

15.50.160. Flood hazard reduction standards.

In all areas of special flood hazards the following standards are required:

A. Standards of Construction.

1. Anchoring.

a. All new construction and substantial improvements shall be anchored to prevent flotation, collapse or lateral movement of the structure resulting from hydrodynamic and hydrostatic loads, including the effects of buoyancy.

b. All manufactured homes shall meet the anchoring standards of subsection D of this section.

2. Construction Materials and Methods.

a. All new construction and substantial improvements shall be constructed with materials and utility equipment resistant to flood damage.

b. All new construction and substantial improvements shall be constructed using methods and practices that minimize flood damage.

c. All new construction and substantial improvements shall be constructed with electrical, heating, ventilation, plumbing and air conditioning equipment and other service facilities that are designed and/or located so as to prevent water from entering or accumulating within the components during conditions of flooding.

3. Elevation and Floodproofing.

a. New construction and substantial improvement of any structure shall have the lowest floor, including basement, elevated to or above the base flood elevation. Nonresidential structures may meet the standards in subsection (A)(3)(b) of this section. Upon the completion of the structure the elevation of the lowest floor including basement shall be certified by a registered professional engineer or surveyor, or verified by the community building inspector to be properly elevated. Such certification or verification shall be provided to the floodplain administrator.

b. Nonresidential construction shall either be elevated in conformance with subsection (A)(3)(a) of this section or, together with attendant utility and sanitary facilities:

i. Be floodproofed so that below the base flood level the structure is watertight with walls substantially impermeable to the passage of water;

ii. Have structural components capable of resisting hydrostatic and hydrodynamic loads and effects of buoyancy; and

iii. Be developed and/or reviewed for structural design, specifications, and plans for the construction and then certified by a registered professional engineer or architect that the standards of this subsection are satisfied. Such certifications, which includes the specific elevation (in relation to mean sea level) to which such structures are flood proofed, shall be provided to the floodplain administrator.

c. Require, for all new construction and substantial improvements, that fully enclosed areas below the lowest floor that are usable solely for parking of vehicles, building access or storage in an area other than a basement and which are subject to flooding shall be designed to automatically equalize hydrostatic flood forces on exterior walls by allowing for the entry and exit of floodwaters. Designs for meeting this requirement must either be certified by a registered professional engineer or architect or meet or exceed the following minimum criteria:

i. Either a minimum of two openings have a total net area of not less than one square inch for every square foot of enclosed area subject to flooding shall be provided. The bottom of all openings shall be no higher than one foot above grade. Openings may be equipped with screens, louvers, valves or other coverings or devices provided that they permit the automatic entry and exit of floodwaters; or

ii. Be certified to comply with a local floodproofing standards approved by the Federal Insurance Administration.

d. Manufactured homes shall also meet the standards in subsection D of this section.

e. Require that manufactured homes that are placed or substantially improved on sites:

i. Outside of a manufactured home park or subdivision,

ii. In a new manufactured home park or subdivision,

iii. In an expansion to an existing manufactured home park or subdivision, or

iv. In an existing manufactured home park or subdivision on which a manufactured home has incurred "substantial damage" as the result of a flood, meet the standards in subsection D of this section.

f. Require that manufactured homes to be placed or substantially improved on sites in an existing manufactured home park or subdivision that are not subject to the provision of subsection e, within this section, be elevated so that either:

i. The lowest floor of the manufactured home is at or above the base of flood elevation, or

ii. The manufactured home chassis is supported by reinforced piers or other foundation elements of at least equivalent strength that are no less than 36 inches in height above grade and be securely anchored to an adequately anchored foundation system to resist floatation, collapse and lateral movement.

g. Within areas of special flood hazards having shallow water depths and/or unpredictable flow paths between one and three feet:

i. All new construction and substantial improvements of residential structures have the lowest floor (including basement) elevated above the highest adjacent grade at least as high as the depth number specified in feet on the City's FIRM (at least two feet if no depth number is specified).

ii. All new construction and substantial improvements of nonresidential structures meet standards above for residential structures or together with attendant utility and sanitary facilities be completely floodproofed to that level to meet the floodproofing standard specified in subsection 3a.

h. Require that recreational vehicles placed on sites within areas of having shallow water depths and/or unpredictable flow paths between one and three feet, and with water surface elevations determined be:

i. On the site for fewer than 180 consecutive days,

ii. Fully licensed and ready for highway use, or

iii. Meet the permit requirements of all proposed construction and other developments and the elevation and anchoring requirements for "manufactured homes" in subsection e of this section.

A recreational vehicle is ready for highway use if it is on its wheels or jacking system, is attached to the site only by quick disconnect type utilities and security devices and has no permanently attached additions.

i. Obtain, review and reasonably utilize any base flood elevation and floodway data available from a Federal, State or other source, as criteria for requiring that new construction, substantial developments and other developments meet the standards within this subsection A3.

j. Any development, in an area of having shallow water depths and/or unpredictable flow paths between one and three feet and/or with water surface elevations determined, which increase the water surface elevation of the base flood by more than one foot may be approved, provided the community first applies for a conditional FIRM revision, fulfills the requirements of such a revision as established under the provisions of Section 65.12 of the National Flood Insurance Regulations and receives the approval of the Administrator.

B. Standards for Utilities.

1. All new and replacement water supply and sanitary sewage systems shall be designed to minimize or eliminate infiltration of floodwaters into the system and discharge from systems into floodwaters.

2. On-site waste disposal systems shall be located to avoid impairment to them or contamination from them during flooding.

3. Require adequate drainage paths around structures on slopes, to guide floodwaters around and away from proposed structures within areas of special flood hazards having shallow water depths and/or unpredictable flow paths between one and three feet, and/or with water surface elevations determined.

C. Standards for Subdivisions.

1. All preliminary subdivision proposals shall identify the flood hazard area and the elevation of the base flood.

2. All final subdivision plans will provide the elevation of proposed structure(s) and pads. If the site is filled above the base flood, the final pad elevation shall be certified by a registered professional engineer or surveyor and provided to the floodplain administrator.

3. All subdivision proposals shall be consistent with the need to minimize flood damage.

4. All subdivision proposals shall have public utilities and facilities such as sewer, gas, electrical and water systems located and constructed to minimize flood damage.

5. All subdivisions shall provide adequate drainage to reduce exposure to flood hazards.

D. Standards for Manufactured Homes. All new and replacement manufactured homes and additions to manufactured homes shall:

1. Be elevated so that the lowest floor is at or above the base flood elevation; and

2. Be securely anchored to a permanent foundation system to resist flotation, collapse or lateral movement.

E. Floodways. Located within areas of special flood hazard established in Section 15.50.050 are areas designated as floodways. Since the floodway is an extremely hazardous area due to the velocity of floodwaters which carry debris, potential projectiles, and erosion potential, the following provisions apply:

1. Prohibit encroachments, including fill, new construction, substantial improvements, and other development unless certification by a registered professional engineer or architect is provided demonstrating that encroachments shall not result in any increase in flood levels during the occurrence of the base flood discharge.

a. Encroachments that would result in an increase in base flood elevations, may be permitted, provided that the community first applies for a conditional FIRM and floodway revision, fulfills the requirements for such revisions established under the provisions of Section 65.12 of National Flood Insurance Regulations, and receives the approval of the Administrator.

2. If Section paragraph 1 of this subsection is satisfied, all new construction and substantial improvements shall comply with all other applicable flood hazard reduction provisions of this section.

3. Require until a regulatory floodway is designated, that no new construction, substantial improvements, or other development (including fill) shall be permitted within areas of special flood hazard with water surface elevation determined unless it is demonstrated that the cumulative effect of the proposed development, when combined with all other existing and anticipated development, will not increase the water surface elevation of the base flood more than one foot at any point within the community.

4. The City will select and adopt a regulatory floodway based on the principal that the area chosen for the regulatory floodway must be designed to carry the waters of the base flood, without increasing the water surface elevation of that flood more than one foot at any point.

F. Coastal High Hazard Areas. Within coastal high hazard areas established in Section 15.50.060 the following standards shall apply:

1. All new construction and substantial improvements shall be elevated on pilings or columns so that:

a. "The bottom of the lowest horizontal structural member of the lowest floor (excluding the pilings or columns) is elevated to or above the base flood level; and

b. The pile or column foundation and structure attached thereto is anchored to resist flotation, collapse and lateral movement due to the effects of wind and water loads acting simultaneously on all building components. Water loading values used shall be those associated with the base flood. Wind loading values used shall be those required by applicable State or local building standards. A registered professional engineer or architect shall develop or review the structural design, specifications and plans for the construction.

2. All new construction shall be located on the landward side of the reach of mean high tide.

3. All new construction and substantial improvements shall have the space below the lowest floor free of obstructions or constructed with non-supporting, breakaway walls. Use of breakaway walls which exceed a design safe loading resistance of 20 pounds per square foot (either by design or when so required by local or State codes) may be permitted only if a registered professional engineer or architect certifies that the designs proposed meet the following conditions:

a. Breakaway wall collapse shall result from a water load less than that which would occur during the base flood; and

b. The elevated portion of the building and supporting foundation system shall not be subject to collapse, displacement, or other structural damage due to the effects of wind and water loads acting simultaneously on all building components (structural and non-structural).

Such temporarily enclosed space shall not be used for human habitation, but shall be useable solely for parking of vehicles, building access or storage.

4. Fill shall not be used for structural support of buildings.

5. Manmade alteration of sand dunes which would increase potential flood damage is prohibited.

6. The floodplain administrator shall obtain and maintain the following records:

a. Certification by a registered engineer or architect that a proposed structure complies with paragraph 1 of this subsection;

b. Elevation (in relation to mean sea level) of the bottom of the lowest structural member of the lowest floor (excluding pilings and columns) of all new and substantially improved structures, and whether or not such structures contain a basement.

7. All recreational vehicles placed within coastal high hazard areas shall either:

a. Be on the site for fewer than 180 consecutive days,

b. Be fully licensed and ready for highway use, or

c. Meet the requirements within this subsection F.

A recreational vehicle is ready for highway use if it is on its wheels or jacking system, is attached to the site only by quick disconnect type utilities and security devices, and has no permanently attached additions.

8. Require manufactured homes placed or substantially improved on sites:

a. Outside of a manufactured home park or subdivision,

b. In a new manufactured home park or subdivision,

c. In an expansion to an existing manufactured home park or subdivision, or

d. In an existing manufactured home park or subdivision on which a manufactured home has incurred "substantial damage" as the result of a flood, meet the standards of subsection F and that manufactured homes placed or substantially improved on other sites in an existing manufactured home park or subdivision within the coastal high hazard areas meet the requirements of subsection 3e. of Section A. (Ord. 753 § 7 Ex. B (part), 1988; Ord. 97-913 § 1, 1997)

15.50.170. Severability.

<u>In the same manner as Section 1.01.100 of the Imperial Beach Municipal Code, this Chapter and the various parts thereof are hereby declared to be severable. Should any section of this ordinance be declared by the courts to be unconstitutional or invalid, such decision shall not affect the validity of the ordinance as a whole, or any portion thereof other than the section so declared to be unconstitutional or invalid.</u>

AGENDA ITEM NO. 4.1

STAFF REPORT
CITY OF IMPERIAL BEACH

TO:	**HONORABLE MAYOR AND CITY COUNCIL**
FROM:	**GARY BROWN, CITY MANAGER**
MEETING DATE:	**FEBRUARY 3, 2010**
ORIGINATING DEPT.:	**CITY ATTORNEY / PUBLIC WORKS**
SUBJECT:	**ORDINANCE NO. 2010-1096 – UPDATING CHAPTERS 8.30 AND 8.32 AMENDING THE CITY'S STANDARD URBAN STORMWATER MITIGATION PLAN (SUSMP)**

BACKGROUND:

On January 2, 2007, the San Diego Regional Water Quality Control Board adopted Permit No. 2007-0001. This Stormwater Permit imposed new requirements on the City of Imperial Beach and other Co-permittees within San Diego County. As part of this process all jurisdictions within the County were to collaborate on the adoption of a countywide model SUSMP. The staffs for the Co-permittees have accomplished that goal. Each jurisdiction is required to adopt a model SUSMP and apply the new standards and amend all municipal codes.

This step of the process is incorporation of all SUSMP requirements from the 2007 Permit and to incorporate the model SUSMP into the City's regulatory process.

DISCUSSION:

The attached ordinance amends two chapters in the Imperial Beach Municipal Code (IBMC). It amends Chapter 8.30 to change the definition of a "priority development project category". This definition reduces the thresholds for priority development projects that require compliance with the City's SUSMP. Commercial developments granted in a one-acre area and housing with ten or more dwelling units are now subject to the stricter rules.

This definition also applies to Chapter 8.32 (Standard Urban Stormwater Mitigation Plan). The City's SUSMP chapter is also amended to include requirements of the new permit. It puts greater restrictions on redevelopment projects that create, add or replace at least 5,000 square feet of impervious surface on an already developed site. Under Section 8.32.040, the criteria of projects that fall within priority development projects are listed in full.

Another requirement of the new permit is the adoption of the Countywide model SUSMP. This document was finalized on January 2, 2009. Under Section 8.32.080, the provisions of the model SUSMP are incorporated by reference into the City's SUSMP requirements. All developers throughout the county will use the SUSMP that has been developed on a countywide basis for determining what types of Best Management Practices (BMPs) are required for their project. Each project developer now must choose from a list of BMPs that include low impact development and site design BMPs, source control BMPs, and structural treatment BMPs to collect pollutants from run-off water.

Under Section 8.32.160, the minimal requirements for a priority development project are listed. These also include efficient irrigation systems, properly designed trash storage areas, and outdoor material storage area requirements to prevent stormwater runoff from the site.

Under the low impact development standards, the main purpose of many of the new rules is to minimize outflow from impervious areas within a project and to promote infiltration within the project. In other words, prevent water runoff from each development by channeling runoff to landscaped areas and BMPs located on site. (See, 8.32.210(B).)

The permit also requires that the SUSMP be upgraded to a stricter requirement for particular types of BMPs that can be chosen. Finally, waivers for projects that may not be able to meet the standards are more difficult to receive, including specific requirements for notification to the Regional Water Quality Control Board. (8.32.400.)

The first reading of this ordinance was conducted on January 20, 2010.

ENVIRONMENTAL DETERMINATION:

This project is exempt from the California Environmental Quality Act (CEQA) because it is a certified environmental regulatory program as defined in CEQA guidelines section 15308.

FISCAL IMPACT:

This ordinance has an unknown fiscal impact in that it increases activities or requirements under the City's Stormwater Permit. Many of the new requirements of this SUSMP Ordinance are subject to the City's State Mandate Claim currently pending before the State Mandates Commission.

DEPARTMENT RECOMMENDATION:

Staff Recommends the Mayor and City Council:

1. Receive this report;
2. Mayor calls for the reading of the title of Ordinance No. 2010-1096 "AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF IMPERIAL BEACH, CALIFORNIA, UPDATING CHAPTERS 8.30 AND 8.32 AMENDING THE CITY'S STANDARD URBAN STORMWATER MITIGATION PLAN (SUSMP)"
3. City Clerk to read title of Ordinance 2010-1096
4. Motion to dispense with the second reading and adopt Ordinance No. 2010-1096 by title only.

CITY MANAGER'S RECOMMENDATION:

Approve Department recommendation.

Gary Brown

Gary Brown, City Manager

Attachment:

1. Ordinance 2010 – 1096.
2. Attachment "A" to the Ordinance containing Chapter 8.32.

ATTACHMENT 1

ORDINANCE NO. 2010 - 1096

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF IMPERIAL BEACH, CALIFORNIA AMENDING SECTION 8.30.030 (DEFINITION OF "PRIORITY DEVELOPMENT PROJECT CATEGORY") and CHAPTER 8.32 "STANDARD URBAN STORMWATER MITIGATION PLAN (SUSMP)" OF THE IMPERIAL BEACH MUNICIPAL CODE

WHEREAS, the City of Imperial Beach, pursuant to the Water Quality Permit issued on January 24, 2007, is required to develop and implement a program to address urban runoff pollution issues in development planning for public and private projects as mandated by the Regional Water Quality Control Board (San Diego Region).

WHEREAS, the requirement to implement a program for development planning is based on Federal and State Statutes including: Section 402 (p) of the Clean Water Act, Section 6217 of the Coastal Zone Act Reauthorization Amendments of 1990 ("CZARA"), and the California Water Code. The Clean Water Act amendments of 1987 established a framework for regulating urban runoff discharges from municipal, industrial, and construction activities under the NPDES program. The municipal permit requires the implementation of a Jurisdictional Urban Runoff Management Program (JURMP), which has been adopted by the City of Imperial Beach pursuant to Resolution No. 2002-5563, as amended.

WHEREAS, pursuant to the mandates established under the Water Quality Permit, state and federal statutes that ensure discharges from municipal urban runoff conveyance systems do not cause or contribute to a violation of water quality standards; that effectively prohibit non-stormwater discharges in urban runoff; and reduce the discharge of pollutants from urban runoff conveyance systems to the Maximum Extent Practicable (MEP statutory standard).

WHEREAS, the adoption of this Ordinance shall implement policies that address post-construction urban runoff from new development and redevelopment applications that fall under priority project categories to ensure that development does not increase pollutant loads from a project site and that considers urban runoff flow rates and velocities, to the maximum extent practicable.

WHEREAS, policies contained in this Ordinance amendment will incorporate into the Imperial Beach Municipal Code the *Countywide Model SUSUMP (Standard Urban Stormwater Mitigation Plan Requirements for Development Applications*, dated January 2, 2009, and any subsequent amendments as part of the required iterative process mandated under state and federal law.

NOW, THEREFORE, IT IS ORDAINED BY THE CITY COUNCIL OF THE CITY OF IMPERIAL BEACH AS FOLLOWS:

Section 1: Section 8.32.030 (Definitions) is amended to delete the definition of "Priority development project category" and add a new definition of "Priority development project category" to read as follows:

8.30.030. Definitions.

The following definitions shall be applicable when the following words or phrases are used hereafter in this chapter (including use in the City Urban Runoff Standards Manuals), whether or not these words or phrases are capitalized: ...

"Priority development project category" means all categories listed as follows:

(a) Housing subdivisions of 10 or more dwelling units. This category includes single-family homes, multi-family homes, condominiums, and apartments.

(b) Commercial development greater than one acre. This is defined as any development on private land that is not for heavy industrial or single-family residential uses where the land area is greater than one acre.

(c) Automotive repair shops. This category is defined as a facility that is categorized in any State Standard Industrial Classification (SIC) code: 5013, 5014, 5541, 7532-7534, or 7536-7539, as amended.

(d) Restaurants. This category is defined as a facility that sells prepared foods and drinks for consumption, including stationary lunch counters and refreshment stands selling prepared foods and drinks for immediate consumption (SIC code 5812), where the land area for development is greater than 5000 square feet. Under IBMC 8.32.330A, restaurants where land development is less than 5000 square feet shall meet all SUSMP requirements except for structural treatment BMPs and numeric sizing requirement (IBMC 8.32.310 & 8.32.320).

(e) All hillside development greater than 5000 square feet. This category is defined as any development which creates 5000 square feet of impervious surface which is located in an area with known erosive soil conditions, where the development will grade on any natural slope that is twenty-five percent or greater.

(f) Environmentally Sensitive Areas (ESAs). All development located within or directly adjacent to or discharging directly into an ESA (where discharges from the development or redevelopment will enter receiving waters within the ESA), which either creates 2500 square feet of impervious surface on a proposed project site or increases the area of imperviousness of a proposed project site to 10% or more of its naturally occurring condition. "Directly adjacent" means situated within 200 feet of an ESA. "Discharging directly to" means outflow from a drainage conveyance system that is composed entirely of flows from the subject development or redevelopment site, and not commingled with flows from adjacent lands.

(g) Parking lots 5000 square feet or more or with 15 or more parking spaces and potentially exposed to urban runoff. Parking lot is defined as a land area or facility for the temporary parking or storage of motor vehicles used personally, for business or commerce.

(h) Streets, roads, and highways. This category includes any paved surface that is 5000 square feet or greater used for the transportation of motor vehicles.

(i) Retail Gasoline Outlets (RGOs). This category includes RGOs that meet the following criteria:

(1) 5000 square feet or more; or

(2) a projected Average Daily Traffic (ADT) of 100 vehicles per day.

(j) All other pollutant generating Development Projects that result in land disturbance of more than one acre.

Section 2. Chapter 8.32 of the Imperial Beach Municipal Code is hereby amended to read as shown in Attachment "A."

EFFECTIVE DATE: This Ordinance shall be effective thirty (30) days after its adoption. Within fifteen (15) days after its adoption, the City Clerk of the City of Imperial Beach shall cause a summary of this Ordinance to be published pursuant to the provisions of Government Code section 36933.

INTRODUCED AND FIRST READ at a regular meeting of the City Council of the City of Imperial Beach, Califomia, on the 20th day of January 2010;

THEREAFTER ADOPTED at a regular meeting of the City Council of the City of Imperial Beach, California, on the ___ day of _____ 2010, by the following vote:

AYES:
NAYS:
ABSENT:

_____
Jim Janney, Mayor

ATTEST:

_____
Jacqueline Hald, City Clerk

APPROVED AS TO FORM:

_____
James P. Lough, City Attorney

ATTACHMENT "A"

Chapter 8.32. STANDARD URBAN STORM WATER MITIGATION PLAN

8.32.010. Title
8.32.020. Statutory Authority
8.32.030. Purpose
8.32.040. Applicability of Chapter
8.32.050. Applicability of Chapter 8.30
8.32.060. Limited Exclusion (Utility Projects)
8.32.070. Limitations.
8.32.080. Provisions for SUSMP Requirements
8.32.090. Implementation.
8.32.100. Identifying Pollutants and Conditions of Concern
8.32.110. General Categories of Water Pollution
8.32.120. Identifying Pollutants from the Project Area
8.32.130. Identifying Pollutants of Concern
8.32.140. Identifying Conditions of Concern
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Chapter 8.32. STANDARD URBAN STORM WATER MITIGATION PLAN

8.32.010. Title

The ordinance codified in this chapter shall be known as the "standard urban storm water mitigation plan (SUSMP) of the City of Imperial Beach."

8.32.020. Statutory Authority

A. The municipal storm water National Pollutant Discharge Elimination System (NPDES) permit (Order No. R9-2007-0001, NPDES No. CAS0108758, hereinafter referred to as "Municipal Permit") issued to San Diego County, San Diego County Regional Airport Authority, the Port of San Diego, and eighteen cities by the San Diego Regional Water Quality Control Board (Regional Board) on January 24, 2007, requires the development and implementation of a program addressing urban runoff pollution issues in development planning for public and private projects.

B. The requirement to implement a program for development planning is based on Federal and State Statutes including: Section 402 (p) of the Clean Water Act, Section 6217 of the Coastal Zone Act Reauthorization Amendments of 1990 ("CZARA"), and the California Water Code. The Clean Water Act amendments of 1987 established a framework for regulating urban runoff discharges from municipal, industrial, and construction activities under the NPDES program. The municipal permit requires the implementation of a Jurisdictional Urban Runoff Management Program (JURMP) and the adoption of a local SUSMP that incorporates the minimum LID and BMP requirements developed in the Countywide Model SUSMP document.

8.32.030. Purpose.

A. The primary objectives of this chapter are to:

1. Ensure that discharges from municipal urban runoff conveyance systems do not cause or contribute to a violation of water quality standards;

2. Identify potential storm water quality impacts from development and redevelopment projects and develop options to avoid, reduce, or minimize the potential for storm water quality impacts where practical;

3. Provide guidance on effective design criteria for LID, storm water treatment control devices, and hydromodification management

4. Reduce the discharge of pollutants from urban runoff conveyance systems to the Maximum Extent Practicable (MEP statutory standard);

5. Fulfill the state requirement that the City adopt a "Standard Urban Stormwater Management Plan" (SUSMP) for imposing specific additional regulatory requirements on "Priority Development Projects".

B. The regulations of this chapter were developed to address post-construction urban runoff pollution from new development and redevelopment applications that fall under "priority project" categories. The goal of this chapter is to develop and implement practicable policies to ensure to the maximum extent practicable that development does not increase pollutant loads from a project site and considers urban runoff flow rates and velocities. This goal may be achieved through site-specific controls and/or drainage area-based or shared structural treatment controls.

8.32.040. Applicability of Chapter.

The regulations set forth in this chapter shall apply to the development plan approval process for discretionary development applications, and prior to issuing development permits for ministerial projects. All development projects must include control measures to reduce the discharge of storm water pollutants to the MEP (Sections 8.30.150-8.30.210). The NPDES permit requires more specific criteria be applied to "priority development projects'.

A. Projects on previously undeveloped land are priority development projects if they are in one or more of the categories listed in Table 1.

Table 1 Priority Development Projects

Housing subdivisions of 10 or more dwelling units. Examples: single-family homes, multi-family homes, condominiums, and apartments.
Commercial—greater than one acre. Any development other than heavy industry or residential. Examples: hospitals; laboratories and other medical facilities; educational institutions; recreational facilities; municipal facilities; commercial nurseries; multi-apartment buildings; car wash facilities; mini-malls and other business complexes; shopping malls; hotels; office buildings; public warehouses; automotive dealerships; airfields; and other light industrial facilities.
Heavy industry—greater than one acre. Examples: manufacturing plants, food processing plants, metal working facilities, printing plants, and fleet storage areas (bus, truck, etc.).
Automotive repair shops. A facility categorized in any one of Standard Industrial Classification (SIC) codes 5013, 5014, 5541, 7532-7534, or 7536-7539.
Restaurants. Any facility that sells prepared foods and drinks for consumption, including stationary lunch counters and refreshment stands selling prepared foods and drinks for immediate consumption (SIC code 5812), where the land area for development is greater than 5,000 square feet. Restaurants where land development is less than 5,000 square feet shall meet all SUSMP requirements except for structural treatment BMP and numeric sizing criteria requirements and hydromodification requirements.
Hillside development greater than 5,000 square feet. Any development that creates 5,000 square feet of impervious surface and is located in an area with known erosive soil conditions, where the development will grade on any natural slope that is twenty-five percent or greater.
Environmentally Sensitive Areas (ESAs). All development located within or directly adjacent to or discharging directly to an ESA (where discharges from the development or redevelopment will enter receiving waters within the ESA), which either creates 2,500 square feet of impervious surface on a

proposed project site or increases the area of imperviousness of a proposed project site to 10% or more of its naturally occurring condition. "Directly adjacent" means situated within 200 feet of the ESA. "Discharging directly to" means outflow from a drainage conveyance system that is composed entirely of flows from the subject development or redevelopment site, and not commingled with flows from adjacent lands.
Parking lots 5,000 square feet or more or with 15 or more parking spaces and potentially exposed to urban runoff.
Street, roads, highways, and freeways. Any paved surface that is 5,000 square feet or greater used for the transportation of automobiles, trucks, motorcycles, and other vehicles.
Retail Gasoline Outlets (RGOs) that are: (a) 5,000 square feet or more or (b) a projected Average Daily Traffic (ADT) of 100 or more vehicles per day.

B. Redevelopment projects as defined in Section 8.30.030 are priority development projects if they create, add, or replace 5,000 square feet or more of impervious surface and are also in one of the categories listed in Table 1.

C. Redevelopment projects that creating or replacing more than 5,000 square feet of impervious area are subject to the treatment control numeric sizing criteria (Sections 8.32.310 – 8.32.320) on the entire site, if the project results in an increase of, or replacement of, 50% or more of the previously existing impervious surface, and the existing development was not previously subject to SUSMP requirements. If less than 50% of the previously developed area is to be affected, then only that portion must be included in the treatment measure design.

8.32.050. Applicability of Chapter 8.30.

The provisions of chapter 8.30 (Urban Runoff Management and Discharge Control), including the definitions and enforcement provisions, shall be applicable to this chapter as though fully set forth herein.

8.32.060. Limited Exclusion (Utility Projects).

Trenching and resurfacing work associated with utility projects are not considered priority projects. Parking lots, buildings and other structures associated with utility projects are subject to the requirements of this chapter if one or more of the criteria for the above categories are met.

8.32.070. Limitations.

Where requirements of this chapter conflict with other provisions of this Municipal Code, (e.g., specific language of signage used on storm drain stenciling), the more stringent standards shall apply.

8.32.080. Provisions for SUSMP Requirements.

The requirements of this chapter shall be incorporated into the project design and shown on the plans prior to approval of discretionary permits. For projects requiring only Ministerial Permits, the requirements of this chapter shall be incorporated into the project design and shown on the plans prior to the issuance of any Ministerial Permits. City departments carrying out public projects that are not required to obtain permits shall be responsible for ensuring the requirements of this chapter are incorporated into the project design and shown on the plans prior to bidding for construction contracts, or equivalent. For public projects, the requirements of this chapter must be incorporated into the project design and shown on the plans before allowing the project to commence. The Countywide Model SUSMP (Standard Urban Stormwater Mitigation Plan for Development Applications, dated January 2, 2009, as amended, is incorporated herein by reference and made a part of this Chapter's requirements. (www.projectcleanwater.org)

8.32.090. Implementation.

All priority projects shall implement one or a combination of storm water BMPs, including, (1) LID and site design BMPs, (2) source control BMPs and, (3) structural treatment BMPs after the pollutants and conditions of concern have been identified. Storm water BMPs shall be considered and implemented where expressly required by this division and if not so required where determined applicable and feasible by the Director of Public Works. The storm water BMPs shall adhere to the requirements of this Chapter, and shall be correctly designed so as to remove pollutants to the maximum extent practicable. Priority projects must also be designed so that runoff rates and durations are controlled to maintain or reduce downstream erosion conditions and protect stream habitat. Design criteria and procedures for hydromodification management are identified in Section 8.32.140 and further outlined in the San Diego County Interim Hydromodification Plan.
(www.projectcleanwater.org)

8.32.100. Identifying Pollutants and Conditions of Concern.

A. Priority project proponents shall use this guidance to identify pollutants and conditions of concern, for which they need to mitigate or protect against (see Table 2 "Anticipated and Potential Pollutants Generated by Land Use Type" and Table 3 "Grouping of Potential Pollutants of Concern by Fate During Treatment"). Site design LID, source control BMPs, and treatment control BMPs are required and vary in relative effectiveness of treatment based on pollutants commonly associated with the proposed project type (see Table 4, "Groups of Pollutants and relative Effectiveness of Treatment Facilities"). Additional guidance on LID site design BMPs, source control BMPs, and treatment control BMPs are presented in Section 8.32.150 through Section 8.32.350 and in the Countywide Model SUSMP. (www.projectcleanwater.org)

B. For private priority projects, the information shall be provided with the project application prior to being deemed complete.

C. For public priority projects, the information shall be approved by the City Engineer prior to bidding for construction contracts.

8.32.110. General Categories of Water Pollution.

For the purposes of identifying pollutants of concern and associated storm water BMPs, pollutants are grouped in nine general categories as follows:

A. Sediments. Sediments are soils or other surficial materials eroded and then transported or deposited by the action of wind, water, ice, or gravity. Sediments can increase turbidity, clog fish gills, reduce spawning habitat, lower young aquatic organism survival rates, smother bottom dwelling organisms, and suppress aquatic vegetation growth.

B. Nutrients. Nutrients are inorganic substances, such as nitrogen and phosphorus. They commonly exist in the form of mineral salts that are either dissolved or suspended in water. Primary sources of nutrients in urban runoff are fertilizers and eroded soils. Discharge of nutrients to water bodies and streams can cause excessive aquatic algae and plant growth. Such excessive production, referred to as cultural eutrophication, may lead to excessive decay of organic matter in the water body, loss of oxygen in the water, release of toxins in sediment, and the eventual death of aquatic organisms.

C. Metals. Metals are raw material components in non-metal products such as fuels, adhesives, paints, and other coatings. Primary source of metal pollution in storm water are typically commercially available metals and metal products. Metals of concern include cadmium, chromium, copper, lead, mercury, and zinc. Lead and chromium have been used as corrosion inhibitors in primer coatings and cooling tower systems. At low concentrations naturally occurring in soil, metals are not toxic. However, at higher concentrations, certain metals can be toxic to aquatic life. Humans can be impacted from contaminated groundwater resources, and bioaccumulation of metals in fish and shellfish. Environmental concerns, regarding the potential for release of metals to the environment, have already led to restricted metal usage in certain applications.

D. Organic Compounds. Organic compounds are carbon-based. Commercially available or naturally occurring organic compounds are found in pesticides, solvents, and hydrocarbons. Organic compounds can, at certain concentrations, indirectly or directly constitute a hazard to life or health. When rinsing off objects, toxic levels of solvents and cleaning compounds can be discharged to storm drains. Dirt, grease, and grime retained in the cleaning fluid or rinse water may also adsorb levels of organic compounds that are harmful or hazardous to aquatic life.

E. Trash and Debris. Trash (such as paper, plastic, polystyrene packing foam, and aluminum materials) and biodegradable organic matter (such as leaves, grass cuttings,

and food waste) are general waste products on the landscape. The presence of trash and debris may have a significant impact on the recreational value of a water body and aquatic habitat. Excess organic matter can create a high biochemical oxygen demand in a stream and thereby lower its water quality. Also, in areas where stagnant water exists, the presence of excess organic matter can promote septic conditions resulting in the growth of undesirable organisms and the release of odorous and hazardous compounds such as hydrogen sulfides.

F. Oxygen-Demanding Substances. This category includes biodegradable organic material as well as chemicals that react with dissolved oxygen in water to form other compounds. Proteins, carbohydrates, and fats are examples of biodegradable organic compounds. Compounds such as ammonia and hydrogen sulfide are examples of oxygen-demanding compounds. The oxygen demand of a substance can lead to depletion of dissolved oxygen in a water body and possibly the development of septic conditions.

G. Oil and Grease. Oil and grease are characterized as high-molecular weight organic compounds. Primary sources of oil and grease are petroleum hydrocarbon products, motor products from leaking vehicles, esters, oils, fats, waxes, and high molecular-weight fatty acids. Introduction of these pollutants to the water bodies are very possible due to the wide uses and applications of some of these products in municipal, residential, commercial, industrial, and construction areas. Elevated oil and grease content can decrease the aesthetic value of the water body, as well as the water quality.

H. Bacteria and Viruses. Bacteria and viruses are ubiquitous microorganisms that thrive under certain environmental conditions. Their proliferation is typically caused by the transport of animal or human fecal wastes from the watershed. Water, containing excessive bacteria and viruses can alter the aquatic habitat and create a harmful environment for humans and aquatic life. Also, the decomposition of excess organic waste causes increased growth of undesirable organisms in the water.

I. Pesticides. Pesticides (including herbicides) are chemical compounds commonly used to control nuisance growth or prevalence of organisms. Application of a pesticide may result in runoff containing toxic levels of its active component.

8.32.120. Identifying Pollutants From The Project Area.

Using Table 2, pollutants shall be identified that are anticipated to be generated from the proposed priority project categories. Pollutants associated with any hazardous material sites that have been remediated or are not threatened by the proposed project are not considered a pollutant of concern.

Table 2. Anticipated and Potential Pollutants Generated by Land Use Type.

Priority Project Categories	Sediment	Nutrients	Heavy Metals	Organic Compounds	Trash & Debris	Oxygen Demanding Substances	Oil & Grease	Bacteria & Viruses	Pesticides
Detached Residential Development	X	X			X	X	X	X	X
Attached Residential Development	X	X			X	P(1)	P(2)	P	X
Commercial Development >one acre	P(1)	P(1)	X	P(2)	X	P(5)	X	P(3)	P(5)
Heavy Industry	X		X	X	X	X	X		
Automotive Repair Shops			X	X(4)(5)	X		X		
Restaurants					X	X	X	X	P(1)
Hillside Development >5,000 ft2	X	X			X	X	X		X
Parking Lots	P(1)	P(1)	X		X	P(1)	X		P(1)
Retail Gasoline Outlets			X	X	X	X	X		
Streets, Highways & Freeways	X	P(1)	X	X(4)	X	P(5)	X	X	P(1)

X = anticipated
P = potential
(1) A potential pollutant if landscaping exists on-site.
(2) A potential pollutant if the project includes uncovered parking areas.
(3) A potential pollutant if land use involves food or animal waste products.
(4) Including petroleum hydrocarbons.
(5) Including solvents.

8.32.130. Identifying Pollutants Of Concern.

A. Pollutants generated by the proposed priority project that exhibits one or more of the following characteristics are considered primary pollutants of concern:

1. Current loadings or historical deposits of the pollutant are impairing the beneficial uses of a receiving water;

2. Elevated levels of the pollutant are found in water or sediments of a receiving water and/or have the potential to be toxic to or bioaccumulate in organisms therein; and

3. Inputs of the pollutant are at a level high enough to be considered potentially toxic.

4. Discharge directly to an "Area of Biological Significance" as identified by the State Water Resource Control Board's California Ocean Plan.

B. To identify primary pollutants of concern in receiving waters, each priority project shall, at a minimum, do the following:

1. For each of the proposed projects discharge points, identify the receiving water(s) that each discharge point proposes to discharge to, including hydrologic unit basin number(s), as identified in the most recent version of the Water Quality Control Plan for the San Diego Basin, prepared by the San Diego Regional Water Quality Control Board.

2. Identify any receiving waters, into which the developed area would discharge to, listed on the most recent list of Clean Water Act Section 303(d) impaired water bodies. List any and all pollutants for which the receiving waters are impaired.

3. Identify any receiving waters, into which the developed area would discharge to, with established TMDLs. List any pollutants for which receiving waters have established TMDLs.

4. Compare the list of pollutants for which the receiving waters are impaired and for which have established TMDLs with the pollutants anticipated to be generated by the project (as identified in Table 2). Any pollutants identified by Table 2, which are also causing impairment of receiving waters, shall be considered primary pollutants of concern.

For projects where no primary pollutants of concern exist, those pollutants identified through the use of Table 2 shall be considered secondary pollutants of concern.

8.32.140. Identifying Conditions of Concern.

A. Common impacts to the hydrologic regime resulting from development typically include increased runoff volume and velocity; reduced infiltration; increased flow frequency, duration, and peaks; faster time to reach peak flow; and water quality

degradation. These changes have the potential to permanently impact downstream channels and habitat integrity. A change to a priority project site's hydrologic regime would be considered a condition of concern if the change would impact downstream channels and habitat integrity. Because of these potential impacts, a director, or his or her designee, may require that the following steps be followed for priority projects that, in their judgment, may impact the hydrologic regime:

1. Evaluate the project's conditions of concern in a drainage study report prepared by a registered civil engineer in the State of California, with experience in fluvial geomorphology and water resources management. The report shall consider the project area's location (from the larger watershed perspective), topography, soil and vegetation conditions, percent impervious area, natural and infrastructure drainage features, wet season groundwater depth, and any other relevant hydrologic and environmental factors to be protected specific to the project area's watershed;

2. As part of the drainage study, a qualified, licensed professional shall provide a report on proposed infiltration techniques (trenches, basins, dry wells, permeable pavements with underground reservoir for infiltration) regarding any potential adverse geotechnical concerns. Geotechnical conditions (such as slope stability, expansive soils, compressible soils, seepage, groundwater depth, and loss of foundation or pavement subgrade) should be addressed, and mitigation measures provided;

3. As part of the drainage study, the civil engineer shall conduct a field reconnaissance to observe and report on downstream conditions, including undercutting erosion, slope stability, vegetative stress (due to flooding, erosion, water quality degradation, or loss of water supplies) and the area's susceptibility to erosion or habitat alteration as a result of an altered flow regime;

4. The drainage study shall compute rainfall runoff characteristics from the project area including, at a minimum, peak flow rate, flow velocity, runoff volume, time of concentration, and retention volume. These characteristics shall be developed for the two-year and 10-year frequency, Type I storm, of six-hour or 24-hour duration (whichever is the closer approximation of the site's time of concentration), during critical hydrologic conditions for soil and vegetative cover[1]. The drainage study shall report the project's conditions of concern based on the hydrologic and downstream conditions discussed above. Where downstream conditions of concern have been identified, the drainage study shall establish that pre-project hydrologic conditions affecting downstream conditions of concern would be maintained by the proposed project, satisfactory to the Director of Public Works,

[1]. Design storms can be found at http://www.wrcc.dri.edu/pcpnfreq.html. Applicants may calculate the storm events using local rain data. In addition, isopluvial maps contained in the County of San Diego Hydrology Manual may be used to extrapolate rainfall data to areas where insufficient data exists. If isopluvial maps are used interpolations shall be linear.

by incorporating the site design, source control, and treatment control requirements identified in this division.

B. For priority development projects that disturb ("PDP fifty (50) acres or more):

1. PDP post project runoff flow rates and durations shall not exceed pre-project runoff flow rates and durations (interim hydromodification criteria) where the increased discharge flow rates and durations will result in increased potential for erosion or other significant adverse impacts to beneficial uses, attributable to changes in flow rates and durations.

2. PDPs disturbing fifty (50) acres or more shall implement hydrologic controls to manage post-project runoff flow rates and durations as required by the interim hydromodification criteria.

8.32.150. Progression of Storm Water BMPs.

Low impact development (LID) site design BMPs reduce the need for source and/or treatment control BMPs, and source control BMPs may reduce the amount of treatment control BMPs needed. Throughout all the following sections, all priority projects shall consider, and incorporate and implement where expressly required by this chapter and if not so required where determined applicable and feasible by the Director of Community Development, storm water BMPs into the project design, in the following progression:

1. LID Site Design BMPs

2. Source Control BMPs

3. Treatment Control BMPs

8.32.160. Requirements to Implement Storm Water BMPs.

Selection of BMPs from the menus included in this chapter, including the Countywide Model SUSMP, using the rules set out in this chapter, must implement the following storm water BMP requirements.

A. Priority development projects must implement LID site design BMPs to minimize directly connected impervious areas and promote infiltration. Minimum LID site design BMPs are identified in Section 8.32.210.

B. Each priority development project must implement source control BMPs that achieve certain performance standards set out in the SDRWQB municipal permit. The source control BMPs shall be required to:

1. Minimize stormwater pollutants of concern in urban runoff.
2. Include storm drain system stenciling or signage.
3. Include properly designed outdoor material storage areas.
4. Include properly designed trash storage areas.
5. Include efficient irrigation systems.
6. Include water quality requirements applicable to individual priority project categories.
7. Meet the requirements listed in Section 8.32.210 – 8.32.300.
8. Meet the requirements identified in the Countywide Model SUSMP (Appendix – Storm Water Pollutant Sources/Source Control Checklist.

C. Each priority project shall select appropriate LID site design BMPs, source control BMPs, and when applicable the necessary treatment control BMPs that target the primary pollutants of concern generated by the project.

8.32.170. Selection of Storm Water Treatment Facilities

The Countywide Model SUSMP provides guidance on the selection of storm water treatment facilities. (Treatment facilities include both LID and treatment control BMPs) The selection of appropriate treatment facilities depends on the grouping of potential pollutants of concern and how easily they are removed by various treatment processes. Table 3 indentifies the fate of pollutants during storm water treatment and will aid in the selection of appropriate treatment facilities for the project (Table 4).

Table 3. Grouping of Potential Pollutants of Concern by Fate During Storm Water Treatment.

Pollutant	Coarse Sediment and Trash	Pollutants that tend to associate with fine particles during treatment	Pollutants that tend to be dissolved following treatment
Sediment	X	X	
Nutrients		X	X
Heavy Metals		X	
Organic Compounds		X	
Trash & Debris	X		
Oxygen Demanding		X	
Bacteria		X	
Oil & Grease		X	
Pesticides		X	

Table 4 identifies groups of pollutants and relative effectiveness of various types of treatment facilities. Priority projects that are anticipated to generate a primary pollutant

of concern shall meet all applicable requirements of establishing storm water BMPs in Sections 8.32.220 to 8.32.350, inclusive, and shall select a single or combination of storm water treatment facilities from Table 4 which maximizes pollutant removal for the particular primary pollutant(s) of concern.

Table 4. Groups of Pollutants and Relative Effectiveness of Treatment Facilities

Pollutants of Concern	Bioretention Facilities (LID)	Settling Basins (Dry Ponds)	Wet Ponds and Constructed Wetlands	Infiltration Facilities or Practices (LID)	Media Filters	Higher-rate biofilters	Higher-rate media filters	Trash Racks & Hydro -dynamic Devices	Vegetated Swales
Coarse Sediment and Trash	High	High	High	High	High	High	High	High	High
Pollutants that tend to associate with fine particles during treatment	High	High	High	High	High	Medium	Medium	Low	Medium
Pollutants that tend to be dissolved following treatment	Medium	Low	Medium	High	Low	Low	Low	Low	Low

Notes on Treatment Control BMP Categories

To assist the land development community, streamline project reviews, and maximize cost-effective environmental benefits, a unified LID design procedure for San Diego County has been developed in the form of the Countywide Model SUSMP. This design procedure integrates site planning and design measures with engineered, small-scale Integrated Management Practices (IMPs) such as bioretention. By following the procedure, applicants can develop a single integrated design which complies with the complex and overlapping NPDES permit LID requirements, storm water treatment requirements, and flow-control (hydromodification management) requirements.

The following are descriptions on some possible storm water treatment control options as outlined in the above Table 4 "Grouping of Pollutants and Relative Effectiveness of Treatment Facilities". Further Guidance on the selection of appropriate flow control and treatment control facilities is provided in the Countywide Model SUSMP. (www.projectcleanwater.org)

Bioretention Facilities (infiltration planters, flow-through planters, bioretention areas, and bioretention swales). Facilities are designed to capture runoff and infiltrate slowly through soil media, which also supports vegetation. Bioretention facilities, except for flow-through planters, effectively promote infiltration into native soils. In clay soils, facilities may capture excess treated runoff in an underdrain piped to the municipal storm drain system. Typical criteria: an infiltration surface area at least 4% of tributary impervious area, 6-inch average depth of top reservoir, 18-inch soil layer, 12-inch to 18-inch gravel subsurface storage layer.

Settling Basins, Wet Ponds, and Wetlands (settling basins, "dry" ponds, extended detentions basins "wet" ponds, decorative or recreational lakes or water features also used for storm water treatment, constructed wetlands). The required detention volume is based on the 85th percentile 24-hour storm depth. Some wetland designs have proven effective in removing nutrients, but performance varies. For design considerations and details, see the *California Stormwater Best Management Practices Handbooks*.

Infiltration Facilities or Practices (infiltration basins, infiltration trenches, dry wells, dispersal of runoff to landscape, pervious pavements). These facilities and landscape designs capture, retain, and infiltrate runoff to native soils and must be sized to detain and infiltrate a volume equivalent to the 85th percentile 24-hour event. Infiltration facilities are generally only feasible in permeable (Hydrologic Soil Group A or B) soils. Volume and area of infiltration facilities depends on soil permeability and safety factor used. Typical criteria: Infiltration facilities should have pretreatment to remove silt to prolong life of the facility. A 10-foot vertical separation from average seasonal groundwater depth is required. Dispersal to landscape may be accomplished in any soil type and generally requires a maximum 2:1 ratio impervious:pervious and concave topography to ensure the first 1 inch of rainfall is retained.

Media Filters (sand and soil filters). Filters designed to treat runoff produced by a rainfall of 0.2 inches per hour (or 2 × 85th percentile hourly rainfall intensity) by slow infiltration through sand or other media. Typical criteria: Surface loading rate not to exceed 5 inches/hour. Entire surface of the sand must be accessible for maintenance.

High Rate Biofilters (tree wells, high rate bioretention areas, and flow through planter boxes). Biofilters with specially designed media to rapidly filter runoff while removing some pollutants.

High-rate Media Filters (typically proprietary). Vaults with replaceable cartridge filters filled with inorganic media.

Trash Racks and Hydrodynamic Devices have low effectiveness in removing pollutants that tend to associate with fine particles and have high effectiveness in removing coarse sediment and trash. They are sometimes used to augment more effective treatment facilities and are sometimes used alone when more effective facilities have been deemed infeasible.

Vegetated Swales use available on-site soils and typically do not include an under drain system. Treatment occurs as runoff flows through grass or other vegetation before exiting at the downstream end. Recommended detention times are on the order of 10 minutes. Design recommendations for conventional vegetated swales are in the *California Stormwater Best Management Practices Handbooks*.

8.32.180. Storm Water BMPS for Projects not Generating Pollutants.

Priority projects that are not anticipated to generate a pollutant, for which the receiving water is impaired under Clean Water Section 303(d), shall meet applicable standard requirements establishing storm water BMPs in Sections 8.32.220 to 8.32.350, inclusive, and shall select a single or combination of storm water BMPs from Table 4 which are effective for pollutant removal of the identified secondary pollutants of concern, consistent with the "maximum extent practicable" standard defined in Attachment "D" of the San Diego Regional Water Quality Control Board Permit No. R9-2007-0001.

8.32.190. Storm Water BMPS for Projects Generating Primary and Secondary Pollutants.

Where a site generates both primary and secondary pollutants of concern, primary pollutants of concem receive priority for BMP selection. For such sites, selected BMPs must only maximize pollutant removal for the primary pollutants of concem. Where a site generates only secondary pollutants of concern, selected BMPs shall target the secondary pollutant of concern determined to be most significant for the project. Selected BMPs must be effective for the widest range of pollutants of concern anticipated to be generated by a priority project (as identified in Table 2), consistent with the maximum extent practicable standard defined in Attachment "D" of the San Diego Regional Water Quality Control Board Permit No. R9-2007-0001. The Public Works Director or Community Development Director may also require treatment controls to target secondary pollutants of concern.

Storm water treatment facilities with high or medium pollutant removal efficiency for the project's most significant pollutant of concern shall be selected. Treatment facilities with a low removal efficiency ranking shall only be approved by the city when a feasibility analysis has been conducted, which exhibits that implementation of treatment facilities with a high or medium removal efficiency ranking are infeasible. Treatment control BMPs shall not be constructed within a receiving water.

8.32.200. Alternative Storm Water BMPs.

Alternative storm water BMPs not identified in Table 4 may be approved at the discretion of the Director of Community Development, provided the alternative BMP is as effective in removal of pollutants of concern as other feasible BMPs listed in Table 4.

8.32.210. Low Impact Development (LID) and site Design BMPs .

A. Priority projects shall be designed so as to minimize, to the maximum extent practicable, the introduction of pollutants and conditions of concern that may result in significant impacts, generated from site runoff to the storm water conveyance system. Priority projects shall also control post-development peak storm water runoff discharge rates and velocities to maintain or reduce pre-development downstream pollution and to protect the receiving water. Although not mandatory, priority projects can address these objectives through the creation of a hydrologically functional project design that

attempts to mimic the natural hydrologic regime. Mimicking a site's natural hydrologic regime can be pursued by:

1. Reducing imperviousness, conserving natural resources and areas, maintaining and using natural drainage courses in the storm water conveyance system, and minimizing clearing and grading.

2. Providing runoff storage measures dispersed uniformly throughout a site's landscape with the use of a variety of detention, retention, and runoff practices.

3. Implementing on-lot hydrologically functional landscape design and management practices.

B. Each Priority Development Project shall implement LID BMPs which will collectively minimize connected impervious areas and promote infiltration at Priority Development Projects:

1. The Following LID site design BMPs shall be implemented at all Priority Development Projects as required below:

   (a) For Priority Development Projects with landscaped or other pervious areas, drain a portion of impervious areas (rooftops, parking lots, sidewalks, walkways, patios and similar areas of impervious surface) into pervious areas prior to discharge to the MS4. The amount of runoff from impervious areas shall correspond with the total capacity of the project's pervious areas to infiltrate or treat runoff, taking into consideration the pervious area's soil conditions, slope, and other pertinent factors.

   (b) For Priority Development Projects with landscaped or other pervious areas, properly design and construct pervious areas to effectively receive and infiltrate or treat runoff from impervious areas, taking into consideration the pervious areas' soil; conditions, slope, and other pertinent factors.

   (c) For Priority Development Projects with low traffic areas and appropriate soil conditions, construct a portion of walkways, trails, overflow parking lots, alleys, or other low-traffic areas with permeable surfaces, such as previous concrete, porous asphalt, unit pavers, and granular materials.

2. The following LID BMPs listed below shall be implemented at all Priority Development Projects where applicable and feasible.

   a. Conserve natural areas, including existing trees, other vegetation, and soils.

b. Construct streets, sidewalks, or parking lot aisles to the minimum widths necessary, provided that public safety and a walkable environment for pedestrians are not compromised.

c. Minimize the impervious footprint of the project.

d. Minimize soil compaction.

e. Minimize disturbances o natural drainages (*e.g.,* natural swales, topographic depressions and similar land features).

C. Site design BMPs shall offer an innovative approach to urban storm water management that does not rely on the conventional end-of-pipe or in-the-pipe structural methods but instead uniformly or strategically integrates storm water controls throughout the urban landscape. Examples of many of these methods may be found in the County of San Diego's LID Handbook and County of San Diego's Countywide Model SUSMP (Chapter 4, January 2, 2009), *Start at the Source*, and *Low-Impact Development Design Strategies*, in the City of Portland, Oregon's *Stormwater Manual*, and in the Contra Costa (California) Clean Water Program's *Stormwater C.3 Guidebook*.

8.32.220. Maintaining Pre-Development Rainfall Runoff Characteristics.

A. Post-project runoff flow rates and durations shall not exceed pre-project runoff flow rates and durations where the increased discharge flow rates and durations will result in increased potential for erosion or other significant adverse impacts to beneficial uses, attributable to changes in flow rates and durations. Projects should control runoff discharge volumes and durations to the maximum extent practicable using the LID site design, source control, and treatment control requirements, identified in Sections 8.32.220 to 8.32.350, inclusive.

B. Design Concept 1: Minimize Project's Impervious Footprint & Conserve Natural Areas. The following site design options shall be considered and, incorporated and implemented where determined applicable and feasible by the Director of Community Development, during the site planning and approval process, consistent with applicable General Plan policies and other development regulations.

1. Minimize Impervious Footprint. This can be achieved in various ways, including, but not limited to increasing building density (number of stories above or below ground) and developing land use regulations seeking to limit impervious surfaces. Decreasing the project's footprint can substantially reduce the project's impacts to water quality and hydrologic conditions.

2. Conserve Natural Areas Where Feasible. This can be achieved by concentrating or clustering development on the least environmentally sensitive portions of a site while leaving the remaining land in a natural, undisturbed condition. The following list provides a guideline for determining the least sensitive portions of the site, in order of increasing sensitivity.

Jurisdictions should also refer to their Multiple Species Conservation Plans or other biological regulations, as appropriate.

a. Areas devoid of vegetation, including previously graded areas and agricultural fields.

b. Areas of non-native vegetation, disturbed habitats and eucalyptus woodlands.

c. Areas of chamise or mixed chaparral, and non-native grasslands.

d. Areas containing coastal scrub communities.

e. All other upland communities.

f. Occupied habitat of sensitive species and all wetlands.

g. All areas necessary to maintain the viability of wildlife corridors.

h. Within each of the previous categories, areas containing hillsides should be considered more sensitive than the same category without hillsides.

3. Construct walkways, trails, patios, overflow parking lots and alleys and other low-traffic areas with permeable surfaces, such as pervious concrete, porous asphalt, unit pavers, and granular materials.

4. Construct streets, sidewalks and parking lot aisles to the minimum widths necessary, provided that public safety and a walkable environment for pedestrians are not compromised. Maximize canopy interception and water conservation by preserving existing native trees and shrubs, and planting additional native or drought tolerant trees and large shrubs.

5. Maximize canopy interception and water conservation by preserving existing native trees and shrubs and planting additional native or drought tolerant trees and large shrubs.

6. Minimize the use of impervious surfaces, such as decorative concrete, in the landscape design.

7. Use natural drainage systems to the maximum extent practicable.

8. Other site design options that are comparable, and equally effective.

C. Design Concept 2: Minimize Directly Connected Impervious Areas (DCIAs). Priority projects shall consider, and incorporate and implement the following design

characteristics, where determined applicable and feasible by the Director of Public Works.

1. Where landscaping is proposed, drain rooftops into adjacent landscaping prior to discharging to the storm drain.

2. Where landscaping is proposed, drain impervious sidewalks, walkways, trails, and patios into adjacent landscaping.

3. Other design characteristics that are comparable and equally effective.

8.32.230. Protection of Slopes and Channels.

Project plans shall include storm water BMPs to decrease the potential for erosion of slopes and/or channels, consistent with local codes and ordinances and with the approval of all agencies with jurisdiction, e.g., the U.S. Army Corps of Engineers, the San Diego Regional Water Quality Control Board, and the California Department of Fish and Game. The following design principles shall be considered, and incorporated and implemented where determined applicable and feasible by the Director of Community Services:

A. Minimize disturbances to natural drainages.

B. Convey runoff safely from the tops of slopes.

C. Vegetate slopes with native or drought tolerant vegetation.

D. Control and treat flows in landscaping and/or other controls prior to reaching existing natural drainage systems.

E. Stabilize permanent channel crossings.

F. Install energy dissipaters, such as riprap, at the outlets of new storm drains, culverts, conduits, or channels that enter unlined channels in accordance with applicable specifications to minimize erosion. Energy dissipaters shall be installed in such a way as to minimize impacts to receiving waters.

8.32.240. Providing Storm Drain System Stenciling, Signage, and Information.

Storm drain stencils are highly visible source control messages, typically placed directly adjacent to storm drain inlets. The stencils contain a brief statement that prohibits the dumping of improper materials into the urban runoff conveyance system. Graphical icons, either illustrating anti-dumping symbols or images of receiving water fauna, are effective supplements to the anti-dumping message. Priority projects shall include the following requirements in the project design.

A. Provide stenciling or labeling of all storm drain inlets and catch basins within the project area with prohibitive language (such as: "NO DUMPING -- I LIVE IN <<name receiving water>>") and/or graphical icons to discourage illegal dumping.

B. Post signs and prohibitive language and/or graphical icons, which prohibit illegal dumping at public access points along channels and creeks within the project area.

C. Maintain legibility of stencils and signs throughout the life of the project.

D. Provide storm water pollution prevention information to new site owners, lessees, or operators.

E. Include the following in lease agreements: "Tenant shall not allow anyone to discharge anything to storm drains or to store or deposit materials so as to create a potential discharge to storm drains."

8.32.250. Designing outdoor material storage areas to reduce pollution introduction.

Improper storage of materials outdoors may increase the potential for toxic compounds, oil and grease, heavy metals, nutrients, suspended solids, and other pollutants to enter the urban runoff conveyance system. Where the priority project plans include outdoor areas for storage of hazardous materials that may contribute pollutants to the urban runoff conveyance system, the following storm water BMPs are required:

A. Hazardous materials with the potential to contaminate urban runoff shall either be: (1) placed in an enclosure such as, but not limited to, a cabinet, shed, or similar structure that prevents contact with runoff or spillage to the storm water conveyance system; or (2) protected by secondary containment structures such as berms, dikes, or curbs.

B. The storage area shall be paved and sufficiently impervious to contain leaks and spills.

C. The storage area shall have a roof or awning to minimize direct precipitation within the secondary containment area.

8.32.260. Designing Trash Storage Areas to Reduce Pollution Introduction.

All trash storage areas shall meet the following requirements (limited exclusion: detached residential homes):

A. Paved with an impervious surface, designed not to allow run-on from adjoining areas, screened or walled to prevent off-site transport of trash; and

B. Provide trash containers with attached lids that exclude rain, or provide a roof or awning over storage areas to minimize direct precipitation intrusion.

8.32.270. Using Efficient Irrigation Systems and Landscape Design.

Priority projects shall design the timing and application methods of irrigation water to minimize the runoff of excess irrigation water into the storm water conveyance system. The following methods to reduce excessive irrigation runoff shall be considered, and incorporated and implemented where determined applicable and feasible by the Director of Community Services (Detached residential homes may be exempted from these measures by the community development director as long as the project design includes methods to minimize runoff):

A. Employing rain shutoff devices to prevent irrigation after precipitation.

B. Designing irrigation systems to each landscape area's specific water requirements.

C. Using flow reducers or shutoff valves triggered by a pressure drop to control water loss in the event of broken sprinkler heads or lines.

D. Employing other comparable, equally effective, methods to reduce irrigation water runoff.

8.32.280. Incorporate Requirements Applicable to Individual Priority Project Categories.

The following requirements shall be incorporated into applicable priority projects during the storm water BMP selection and design process. Projects shall adhere to each of the individual priority project category requirements that apply to the project (e.g., a restaurant with more than fifteen parking spaces would be required to incorporate the requirements for "g. Equipment Wash Areas" and "h. Parking Areas" into the project design.

A. Private Roads. The design of private roadway drainage shall use at least one of the following:

1. Rural swale system: street sheet flows to vegetated swale or gravel shoulder, curbs at street corners, culverts under driveways and street crossings;

2. Urban curb/swale system: street slopes to curb, periodic swale inlets drain to vegetated swale/biofilter;

3. Dual drainage system: First flush captured in street catch basins and discharged to adjacent vegetated swale or gravel shoulder, high flows connect directly to storm water conveyance system; or

4. Other methods that are comparable and equally effective within the project.

B. Residential Driveways & Guest Parking. The design of driveways and private residential parking areas shall use one at least of the following features.

1. Design driveways with shared access, flared (single lane at street) or wheel strips (paving only under tires); or, drain into landscaping prior to discharging to the storm water conveyance system;

2. Uncovered temporary or guest parking on private residential lots may be: paved with a permeable surface; or, designed to drain into landscaping prior to discharging to the storm water conveyance system; or

3. Other features which are comparable and equally effective.

C. Dock Areas. Loading/unloading dock areas shall include the following:

1. Cover loading dock areas, or design drainage to preclude urban run-on and runoff;

2. Direct connections to storm drains from depressed loading docks (truck wells) are prohibited; or

3. Other features which are comparable and equally effective.

D. Maintenance Bays. Maintenance bays shall include the following:

1. Repair/maintenance bays shall be indoors; or, designed to preclude urban run-on and runoff; and

2. Design a repair/maintenance bay drainage system to capture all wash water, leaks and spills. Connect drains to a sump for collection and disposal. Direct connection of the repair/maintenance bays to the storm drain system is prohibited. If required by local jurisdiction, obtain an industrial waste discharge permit, or

3. Other features which are comparable and equally effective.

E. Vehicle Wash Areas. Priority projects that include areas for washing/steam cleaning of vehicles shall use the following:

1. Self-contained; or covered with a roof or overhang;

2. Equipped with a clarifier or other pretreatment facility;

3. Properly connected to a sanitary sewer; or

4. Other features which are comparable and equally effective.

F. Outdoor Processing Areas. Outdoor process equipment operations, such as rock grinding or crushing, painting or coating, grinding or sanding, degreasing or parts cleaning, landfills, waste piles, and wastewater and solid waste treatment and disposal, and other operations determined to be a potential threat to water quality shall adhere to the following requirements:

1. Cover or enclose areas that would be the most significant source of pollutants; slope the area toward a dead-end sump; or, discharge to the sanitary sewer system following appropriate treatment in accordance with conditions established by the applicable sewer agency;

2. Grade or berm areas to prevent run-on from surrounding areas;

3. Installation of storm drains in areas where equipment repair is prohibited; or

4. Other features which are comparable or equally effective.

G. Equipment Wash Areas. Outdoor equipment/accessory washing and steam cleaning activities at priority projects shall use the following:

1. Be self-contained; or covered with a roof or overhang;

2. Be equipped with a clarifier, grease trap or other pretreatment facility, as appropriate;

3. Properly connected to a sanitary sewer; or

4. Other features which are comparable or equally effective.

H. Parking Areas. To minimize the offsite transport of pollutants from parking areas, the following design concepts shall be considered, and incorporated and implemented where determined applicable and feasible by the Director of Community Development:

1. Where landscaping is proposed in parking areas, incorporate landscape areas into the drainage design;

2. Overflow parking (parking stalls provided in excess of the City's minimum parking requirements) may be constructed with permeable paving;

3. Other design concepts which are comparable and equally effective;

4. Indoor parking garages must be properly connected to the sanitary sewer.

I. Roadways. Priority roadway projects shall select treatment control BMPs following the treatment control selection procedure identified in Sections 8.32.300 to 8.32.350, inclusive, regarding the establishment of Storm Water BMPs.

J. Fueling Area. Non-retail fuel dispensing areas shall contain the following:

1. Overhanging roof structure or canopy. The cover's minimum dimensions must be equal to or greater than the area within the grade break. The cover must not drain onto the fuel dispensing area and the downspouts must be routed to prevent drainage across the fueling area. The fueling area shall drain to the project's treatment control BMP(s) prior to discharging to the storm water conveyance system.

2. Paved with Portland cement concrete (or equivalent smooth impervious surface). The use of asphalt concrete shall be prohibited.

3. Have an appropriate slope to prevent ponding, and must be separated from the rest of the site by a grade break that prevents run-on of urban runoff.

4. At a minimum, the concrete fuel dispensing area must extend six and one-half feet (two meters) from the corner of each fuel dispenser, or the length at which the hose and nozzle assembly may be operated plus one foot (three-tenths meter), whichever is less.

K. Hillside Landscaping. Preserve existing native trees, shrubs, and ground cover to the maximum extent practicable. Hillside areas that are disturbed by project development shall be landscaped with deep-rooted, drought tolerant plant species selected for erosion control, satisfactory to the Director of Community Development. Design landscaping to minimize irrigation and runoff, to promote surface infiltration where appropriate, and to minimize the use of pesticides and fertilizers that can contribute to storm water pollution. Where landscaped areas are used to retain or detain storm water, specify plants that are tolerant of saturated soil conditions. Consider using pest resistant plants, especially adjacent to hardscape. To ensure successful establishment, select plants appropriate to site soils, slopes, climate, sun, wind, rain, land use, air movement, ecological consistency, and plant interactions.

L. Interior Floor Drains and Elevator Shaft Sump Pumps. Interior floor drains and elevator shaft sump pumps need to be properly connected to the sanitary sewer.

M. Fire Sprinkler Test Water. Provide means to drain fire sprinkler test water to the sanitary sewer.

8.32.290. Storm Water Treatment Objectives.

A. Minimizing a development's detrimental effects on water quality can be most effectively achieved through the use of a combination of LID site design, source control and treatment control storm water BMPs. LID treatment controls such as infiltration and bioretention are encouraged on project sites where conditions are appropriate in order to achieve multiple benefits towards water quality and improved flow-control for hydromodification management. When treatment controls are included on projects, provisions must be made to ensure their long-term maintenance.

B. In meeting the requirements in this section, priority projects shall implement a single or combination of storm water BMPs that will remove anticipated pollutants of concern from site runoff to the maximum extent practicable. The guidance from this chapter and the Countywide Model SUSMP will help applicants select appropriate storm water treatment facilities and prepare the necessary documentation for project submittal. Treatment control BMPs must be implemented unless a waiver is granted to the project by the Director of Community Development based on the infeasibility of any treatment control BMP.

C. Multiple Priority Development Projects may use shared treatment facilities as long as construction of any shared treatment control BMP is completed prior to the use or occupation of any Priority Development Project from which the treatment facility will receive runoff.

8.32.300. Design to Treatment Control and LID Site Design BMPs Standards.

All priority projects shall design, construct and implement LID site design and structural treatment control BMPs that meet the design standards of this section, unless specifically exempted by the limited exclusions. LID site design and structural treatment control BMPs required by this section shall be operational prior to the use of any dependent development, and shall be located and designed in accordance with the requirements of this chapter, including the Countywide Model SUSMP requirements.

A. All treatment control BMPs for Priority Development Projects shall, at a minimum:

1. Be ranked with high or medium pollutant removal efficiency for the project's most significant pollutants of concern, as the pollutant removal efficiencies are identified in the Countywide Model SUSMP and the most current updates thereto. Treatment control BMPs with a low removal efficiency ranking shall only be approved by the City when a feasibility analysis has been conducted which exhibits that the implementation of treatment control BMPs with high or medium removal efficiency rankings are infeasible for a Priority Development Project or portion of a Priority Development Project.
2. Be correctly sized and designed so as to remove pollutants to the maximum extent practicable (MEP).
3. Target removal of pollutants of concern from urban runoff.

4. Be implemented close to pollutant sources (where shared BMPs are not proposed), and prior to discharging into the waters of the United States.
5. Not be constructed within receiving water.
6. Include proof of a mechanism, in a form acceptable to the City Attorney, to be provided by the project proponent, which ongoing long-term maintenance will be conducted.

8.32.310. Treatment Control Volume Based BMPs.

1. Volume-based BMPs shall be designed to mitigate (infiltrate, filter, or treat) by the volume of runoff produced from a 24-hour 85th percentile storm event, as determined from isoplovial maps contained in the County of San Diego Hydrology Manual. See County of San Diego's Isoplovial map at http://www.sdcounty.ca.gov/dpw/engineer/flood.htm

8.32.320. Treatment Control Flow Based BMPs.

As an alternative to volume-based BMPs, structural treatment controls may be designed as flow-based BMPs. Flow-based BMPs shall be designed to mitigate (infiltrate, filter, or treat) either:

1. The maximum flow rate of runoff produced from a rainfall intensity of two-tenths inch of rainfall per hour for each hour of a storm event; or

2. The maximum flow rate of runoff produced by the 85th percentile hourly rainfall intensity, as determined from the local historical rainfall record, multiplied by a factor of two, for each hour of a storm event.

8.32.330. Treatment Control BMPs, Limited Exclusions.

A. Proposed restaurants, where the land area for development or redevelopment is less than five thousand square feet, are excluded from the numerical sizing criteria requirements listed for structural treatment control volume-based BMPs.

B. Where significant redevelopment results in an increase of less than fifty percent of the impervious surfaces of a previously existing development, and the existing development was not subject to SUSMP requirements, the numeric sizing criteria discussed for structural treatment control volume-based BMPs apply only to the addition, and not to the entire development.

8.32.340. Locating Treatment Control BMPs Near Pollutant Sources.

Structural treatment control storm water BMPs should be implemented close to pollutant sources to minimize costs and maximize pollutant removal prior to runoff entering receiving waters. Such BMPs may be located on- or off-site, used singly or in combination, or shared by multiple new developments, pursuant to the following requirements:

A. All structural treatment control BMPs shall be located so as to infiltrate, filter, and/or treat the required runoff volume or flow prior to its discharge to any receiving water body supporting beneficial uses;

B. Multiple post-construction structural treatment control BMPs for a single priority development project shall collectively be designed to comply with the design standards for structural treatment control volume-based BMPs;

C. Shared storm water BMPs shall be operational prior to the use of any dependent development or phase of development. The shared BMPs shall only be required to treat the dependent developments or phases of development that are in use;

D. Interim storm water BMPs that provide equivalent or greater treatment than is required by structural treatment control volume-based BMPs may be implemented by a dependent development until each shared BMP is operational. If interim BMPs are selected, the BMPs shall remain in use until permanent BMPs are operational. (Ord. 2003-996 § 3 (part), 2003)

8.32.350. Treatment Control--Restrictions on Use of Infiltration BMPs.

Infiltration devices shall comply with the criteria establish in the Countywide Model SUSMP, as amended, that is incorporated by reference as part of this Chapter. These conditions do not apply to structural treatment BMPs which allow incidental infiltration and are not designed to primarily function as infiltration devices (such as grassy swales, detention basins, vegetated buffer strips, constructed wetlands, etc.) .At a minimum, use of structural treatment BMPs that are designed to primarily function as infiltration devices shall meet the following conditions:

A. Urban runoff from commercial developments shall undergo pretreatment to remove both physical and chemical contaminants, such as sedimentation or filtration, prior to infiltration.

B. All dry weather flows shall be diverted from infiltration devices except for those non-storm water discharges authorized pursuant to 40 Code of Federal Regulations ("CFR") 122.26(d)(2)(iv)(B)(1): diverted stream flows, rising ground waters, uncontaminated ground water infiltration [as defined at 40 CFR 35.2005(20)] to storm water conveyance systems, uncontaminated pumped ground water, foundation drains, springs, water from crawl space pumps, footing drains, air conditioning condensation, flow from riparian habitats and wetlands, water line flushing, landscape irrigation,

discharges from potable water sources other than water main breaks, irrigation water, individual residential car washing, de-chlorinated swimming pool discharges.

C. Pollution prevention and source control BMPs shall be implemented as a level appropriate to protect groundwater quality at sites where infiltration structural treatment BMPs are to be used.

D. The vertical distance from the base of any infiltration structural treatment BMP to the seasonal high groundwater mark shall be at least ten feet or as determined on an individual, site-specific basis by the Director of Community Development. Where groundwater does not support beneficial uses, this vertical distance criterion may be reduced, provided groundwater quality is maintained.

E. The soil through which infiltration is to occur shall have physical and chemical characteristics (such as appropriate cation exchange capacity, organic content, clay content, and infiltration rate) that are adequate for proper infiltration durations and treatment of urban runoff for the protection of groundwater beneficial uses.

F. Infiltration structural treatment BMPs shall not be used for areas of industrial or light industrial activity; areas subject to high vehicular traffic (twenty-five thousand or greater average daily traffic on main roadway or fifteen thousand or more average daily traffic on any intersecting roadway); automotive repair shops; car washes; fleet storage areas (bus, truck, etc.); nurseries; and other high threat to water quality land uses and activities as designated by the Director of Community Development.

G. The horizontal distance between the base of any infiltration structural BMP and any water supply wells shall be one hundred feet or as determined on an individual, site-specific basis by the Director of Community Development.

8.32.360. Maintenance Mechanism to be in Place before Acceptance.

Structural BMPs shall not be considered "effective," and shall not be accepted as meeting the MEP standard, unless a mechanism is in place that will ensure ongoing long-term maintenance of all structural BMPs. As part of project review, if a project proponent is required to include interim or permanent structural BMPs in project plans, and if the Director of Community Development does not provide a mechanism for BMP maintenance, the project proponent shall provide verification of maintenance requirements through such means as may be appropriate, at the discretion of the Director of Community Development, including, but not limited to covenants, legal agreements, maintenance agreements, and/or conditional use permits.

8.32.370. Maintenance Mechanisms.

A. Public Equity Maintenance. The City Council may approve a public or acceptable quasi-public entity (e.g., the County Flood Control District, or annex to an existing assessment district, an existing utility district, a State or Federal resource agency, or a

conservation conservancy) to assume responsibility for maintenance, repair and replacement of the BMP. Unless acceptable to the City Council, public entity maintenance agreements shall ensure estimated costs are front-funded or reliably guaranteed, (e.g., through a trust fund, assessment district fees, bond, letter of credit or similar means). In addition, the City Council may seek protection from liability by appropriate releases and indemnities. The City Council shall have the authority to approve storm water BMPs proposed for transfer to any other public entity within its jurisdiction before installation. The City Council shall be involved in the negotiation of maintenance requirements with any other public entities accepting maintenance responsibilities within their respective jurisdictions; and in negotiations with the resource agencies responsible for issuing permits for the construction and/or maintenance of the facilities. The City Council must be identified as a third party beneficiary empowered to enforce any such maintenance agreement within their respective jurisdictions.

B. Project Proponent Agreement to Maintain Storm Water BMPs: The City Council may enter into a contract with the project proponent obliging the project proponent to maintain, repair and replace the storm water BMP as necessary into perpetuity. Security may be required.

C. Assessment Districts: The City Council may approve an Assessment District or other funding mechanism created by the project proponent to provide funds for storm water BMP maintenance, repair and replacement on an ongoing basis. Any agreement with such a District shall be subject to the Public Entity Maintenance Provisions above.

D. Lease Provisions: In those cases where the City holds title to the land in question, and the land is being leased to another party for private or public use, the City may assure storm water BMP maintenance, repair and replacement through conditions in the lease.

E. Conditional Use Permits: For discretionary projects only, the City Council may assure maintenance of storm water BMPs through the inclusion of maintenance conditions in the conditional use permit. Security may be required.

F. Alternative Mechanisms: The City Council may accept alternative maintenance mechanisms if such mechanisms are as protective as those listed above.

8.32.380. Verification Mechanisms.

For discretionary projects, the City approved method of storm water BMP maintenance shall be incorporated into the project's permit, and shall be consistent with permits issued by resource agencies, before City approval of discretionary permits. For projects requiring only ministerial permits, the approved method of storm water BMP maintenance shall be incorporated into the permit conditions before the issuance of any ministerial permits. In all instances, the project proponent shall provide proof of execution of an approved method of maintenance repair and replacement before the issuance of construction approvals. Public projects that are not required to obtain

permits shall be responsible for ensuring that an approved method of storm water BMP maintenance repair and replacement is executed prior to the commencement of construction. For all properties, the verification mechanism will include the project proponent's signed statement, as part of the project application, accepting responsibility for all structural BMP maintenance, repair and replacement, until a City approved entity agrees to assume responsibility for structural BMP maintenance, repair and replacement.

8.32.390. Maintenance Requirements.

A. Operation & Maintenance (O&M) Plan: A copy of an Operation & Maintenance (O&M) plan, prepared by the project proponent satisfactory to the Director of Community Development shall be attached to the approved maintenance agreement, which describes the designated responsible party to manage the storm water BMP(s), employees' training program and duties, operating schedule, maintenance frequency, routine service schedule, specific maintenance activities, copies of resource agency permits, and any other necessary activities. At a minimum, maintenance agreements shall require the inspection and servicing of all structural BMPs on an annual basis. The project proponent maintenance entity shall complete and maintain O&M forms to document all maintenance requirements. Parties responsible for the O&M plan shall retain records for at least five years. These documents shall be made available to the City for inspection upon request at any time.

B. Access Easement/Agreement: As part of the maintenance mechanism selected above, it shall include a copy of an executed access easement that shall be binding on the land throughout the life of the project, until such time that the storm water BMP requiring access is replaced, satisfactory to the Director of Community Development.

8.32.400. Waiver of Structural Treatment BMP Requirements.

The requirement of implementing structural treatment BMPs may be waived under Section 8.32.300 (""Design to Treatment Control and LID Site Design BMP Standards") if infeasibility can be established. A waiver of infeasibility shall be granted only when all available structural treatment BMPs have been considered and rejected as infeasible.

Waivers may only be granted from structural treatment BMP and structural treatment BMP sizing requirements. Priority development projects, whether or not granted a waiver may not cause or contribute to an exceedance of water quality objectives. Pollutants in runoff from projects granted a waiver must still be reduced to the maximum extent practicable.

The City shall notify the Regional Water Quality Control Board (San Diego Region) within five days of each waiver issued. The notice shall include:

1. Name of the officer(s) who issued the waiver;
2. Name of the Developer receiving each waiver;

3. Site location;
4. Reason for the waiver; and
5. Description of the BMPs required.

To the extent allowed by law, the City shall establish, by Resolution, a stormwater mitigation fund based on fees derived from project proponents who have received waivers to transfer savings in cost, as solely determined by City, to the City fund. Said Stormwater Mitigation Fund shall have established fees based on the avoided costs of developers receiving waivers and be used to fund a Waiver Mitigation Program with minimum Program components as follows:

1. The entity or entities that will manage the stormwater mitigation fund;
2. The range and types of acceptable projects for which mitigation funds may be expended;
3. The entity or entities that will assume full responsibility for each mitigation project including successful completion; and
4. How the dollar amount of fund contributions will be determined.

Return to Agenda

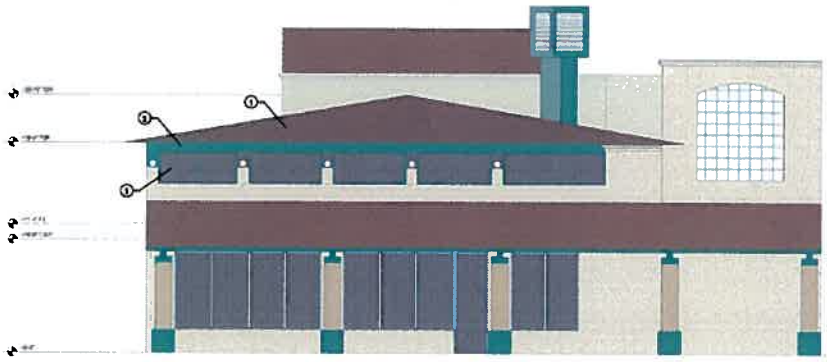
AGENDA ITEM NO. 5.1

STAFF REPORT
CITY OF IMPERIAL BEACH

TO:	**HONORABLE MAYOR AND CITY COUNCIL**
FROM:	**GARY BROWN, CITY MANAGER**
MEETING DATE:	**FEBRUARY 3, 2010**
ORIGINATING DEPT.:	**COMMUNITY DEVELOPMENT DEPARTMENT** **GREG WADE, COMMUNITY DEVELOPMENT DIRECTOR** GW **JIM NAKAGAWA, AICP, CITY PLANNER** **TYLER FOLTZ, ASSOCIATE PLANNER** TF
SUBJECT:	**PUBLIC HEARING: JOHN HAUPT (APPLICANT/OWNER) A REGULAR COASTAL PERMIT (CP 080061), DESIGN REVIEW CASE (DRC 080062), AND SITE PLAN REVIEW (SPR 080063) FOR THE CONSTRUCTION OF A ROOF OVER AN EXISTING SECOND FLOOR DECK OF A COMMERCIAL UNIT (BEACH CLUB GRILLE DBA SAM'S HAPPY CHEF) OF A MIXED-USE CONDOMINIUM COMPLEX LOCATED AT 710 SEACOAST DRIVE #F (APN 625-182-10-51) IN THE C-2 (SEACOAST COMMERCIAL) ZONE. MF 1000.**

PROJECT DESCRIPTION/BACKGROUND:

This is an application (MF 1000) for a Regular Coastal Permit (CP 080061), Design Review Case (DRC 080062), and Site Plan Review (SPR 080063) to construct a roof over an existing second floor deck of a commercial unit (Beach Club Grille dba Sam's Happy Chef) of a mixed-use condominium complex located at 710 Seacoast Drive #F (APN 625-182-10-51) in the C-2 (Seacoast Commercial) Zone.

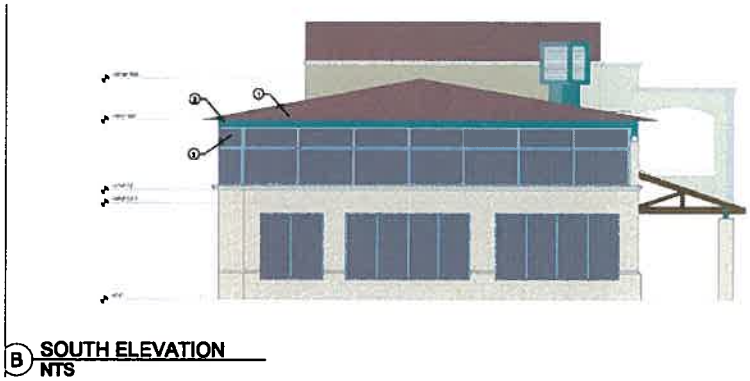


A EAST ELEVATION
NTS

PROJECT EVALUATION/DISCUSSION:

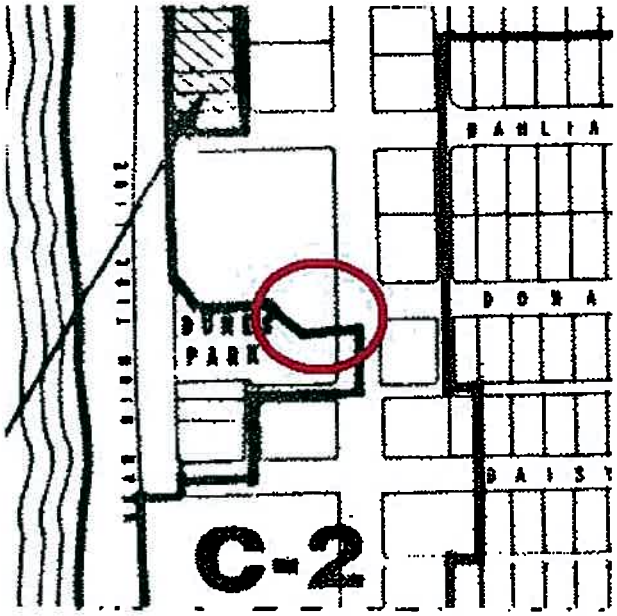
This site fronts along Seacoast Drive. The applicant is proposing a new roof to cover an existing second floor deck and new windows below the roof, and does not propose any changes to the existing building footprint, floor area, or landscaping. The project proposes building materials, windows, and colors that would match the existing building so that the architectural interest of the building is maintained on all elevations. The overall design should contribute positively in making an architectural statement along Seacoast Drive and remaining consistent with the existing design and neighborhood character. It is staff's opinion that the proposed design does conform to the intent and purpose of the design standards outlined in Imperial Beach Municipal Code (IBMC) 19.83.010, Design Review.

The Design Review Board recommended that the applicant consider providing skylights within the roof, though the quantity and design should be decided by staff and the applicant. Staff agrees that the addition of skylights may enhance the aesthetic appeal, but also understands that there would be increased maintenance issues, and thus remains neutral on the subject.



Parking, open space, and landscaping are not reviewed because the project is not increasing the building footprint or floor area. Vehicular ingress and egress for the project site occurs via an existing parking garage off of Dahlia Avenue, and all pedestrian walking paths will remain the same as is currently provided on the site.

Storm Water/Drainage Considerations: The project site is the second floor of an existing commercial unit of a mixed-use condominium complex that fronts on the west side of Seacoast Drive and the north side of Dunes Park. Runoff from the existing deck flows from a downspout in the southeasterly corner of the deck to landscaping south of the building and conveyed to Seacoast Drive curb and gutter through a sidewalk underdrain pipe. The applicant has submitted a Hydrology and Hydraulic Report, which has been approved by the City Engineer, showing that runoff from the proposed roof will drain from a roof gutter that shall convey runoff to a new downspout located at the southwesterly corner of the building, which shall drain easterly approximately 39 feet through a landscaped area to the existing sidewalk underdrain pipe. The increased distance of storm water runoff through the landscaped area will reduce storm water impacts. Prior to receiving building permits, the applicant/owner shall provide a signed document stating that all storm water improvements/alterations are subject to staff approval and may require



future improvements/alterations at the applicant's expense if revisions to the drainage design is necessary. Also, in accordance with the Hydrology and Hydraulic Report, drainage shall be directed away from the building.

General Plan/ Zoning Consistency: The proposed development is subject to C-2 (Seacoast Commercial) zoning requirements. The intent of development within the C-2 Zone is to meet the demand for goods and services required primarily by the tourist population, as well as local residents who use the beach area. It is intended that the dominant type of commercial activity in the C-2 Zone will be visitor-serving retail such as specialty stores, surf shops, restaurant, hotels and motels. The development standards of the C-2 Zone encourage pedestrian activity through the design and location of building frontages and parking provisions. The proposed project will provide a roof over an existing second floor deck, provide new windows below the roof, and will not alter the existing use which currently meets the intent of the land use designation (restaurant).

Standards	Provided
The second floor of properties fronting Seacoast Drive shall be set back five feet (Sect ion 19.27.040). There are no rear or side yard setbacks.	Front (east): 10 feet Side (south): 0 feet Rear (west): 0 feet Side (north): N/A
Minimum lot size of 3,000 square-feet (Section 19.27.050)	N/A
Minimum street frontage of 30 feet (Section 19.27.060).	N/A
Maximum building height of three stories or 30 feet (Section 19.27.070)	23 feet-10 inches (23'-10")
Commercial landscaping: not less than 15% of total site shall be landscaped and maintained (Section 19.50.030).	N/A
Required parking spaces for establishments for the sale and consumption on the premises of food and beverages: One space for each 75 square feet of net floor area, plus one space per two employees at the largest work shift: (Section 19.48.050.E.1).	N/A

Surrounding Zoning and Land Use

North:	C-2	Commercial/Mixed-Use (Shopkeepers)
South:	PF	Public Facilities (Park)
East:	C-2	Residential
West:	PF	Public Facilities (Park)

Signage

No signage is proposed. All future signage shall not surpass one square-foot of signage per lineal foot of building. Signage must obtain separate permits, subject to staff approval. Signage shall comply with Section 19.52.080 of the Imperial Beach Municipal Code (IBMC). Design review by the Design Review Board may be required if deemed necessary by the Community Development Department.

ENVIRONMENTAL IMPACT:

This project may be categorically exempted from the requirements of the California Environmental Quality Act (CEQA) as a Class 1 project pursuant to CEQA Guidelines Section 15301e (Existing Facilities).

COASTAL JURISDICTION:

This project is located in the coastal zone as defined by the California Coastal Act of 1976. The City Council public hearing will serve as the required coastal permit hearing and the City Council will consider the findings under the California Coastal Act. Pursuant to the City of Imperial Beach Zoning Ordinance Section 19.87.050, review of the proposal will consider whether the proposed development satisfies the required findings prior to the approval and issuance of a Coastal Development Permit. The project is located in the Appeal Jurisdiction of the California Coastal Commission, as indicated on the Local Coastal Program Post Certification and Appeal Jurisdiction Map, and, as such, is appealable to the California Coastal Commission under Section 30603(a) of the California Public Resources Code.

FISCAL IMPACT:

The applicant has deposited $3,000.00 in Project Account Number (080061) to fund the processing of this application.

DESIGN REVIEW BOARD RECOMMENDATION:

At the Design Review Board meeting of February 19, 2009, the Board, with a vote of 3-0 (two members were absent), recommended approval of the project in accordance with the plans dated February 10, 2009, with the following additional recommendations: provide skylight(s) in the roof, the quantity and design to be decided by staff and applicant.

DEPARTMENT RECOMMENDATION:

1. Consider public testimony at the advertised public hearing.

2. Consider requiring skylights be added to the design.

3. Consider adoption of Resolution No. 2010-6845, approving Regular Coastal Permit (CP 080061), Design Review Case (DRC 080062), and Site Plan Review (SPR 080063) which makes the necessary findings and provides conditions of approval in compliance with local and state requirements.

4. If skylights are required, amend the resolution.

CITY MANAGER'S RECOMMENDATION:

Approve Department recommendation.

Gary Brown

Gary Brown, City Manager

Attachments:
1. Resolution 2010-6845
2. Plans

c: Project File MF 1000
Carmen Romo, Propuesta Design Group, 466 Broadway 57, Chula Vista, CA 91910
John J. Haupt III, 710 Seacoast Drive, Imperial Beach, CA 91932
Rafael Adame, Building Official

ATTACHMENT 1

RESOLUTION NO. 2010-6845

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF IMPERIAL BEACH, CALIFORNIA, A REGULAR COASTAL PERMIT (CP 080061), DESIGN REVIEW CASE (DRC 080062), AND SITE PLAN REVIEW (SPR 080063) FOR THE CONSTRUCTION OF A ROOF OVER AN EXISTING SECOND FLOOR DECK OF A COMMERCIAL UNIT (BEACH CLUB GRILLE DBA SAM'S HAPPY CHEF) OF A MIXED-USE CONDOMINIUM COMPLEX LOCATED AT 710 SEACOAST DRIVE #F (APN 625-182-10-51) IN THE C-2 (SEACOAST COMMERCIAL) ZONE. MF 1000.

WHEREAS, on February 3, 2010, the City Council of the City of Imperial Beach held a duly advertised and noticed public hearing to consider the merits of approving or denying an application for a Regular Coastal Permit (CP 080061), Design Review Case (DRC 080062), and Site Plan Review (SPR 080063) for the construction of a roof over an existing second floor deck of a commercial unit (Beach Club Grille dba Sam's Happy Chef) of a mixed-use condominium complex located at 710 Seacoast Drive #F in the C-2 (Seacoast Commercial) Zone, a site legally described as follows:

Commercial Area C-6 as shown and defined upon the "Imperial Beach Club Condominiums" plan recorded February 8, 1991 as File No. 91-058128 of Official Records, as more particularly described as a condominium comprised of:

Parcel 1:
An undivided 1/55th interest in and to Lot 1 of Imperial Beach Club, in the City of Imperial Beach, County of San Diego, State of California, according to the Map thereof No. 12555; filed in the Office of the County Recorder of San Diego County, February 8, 1990.

EXCEPTING THEREFROM any portion thereof heretofore or now lying below the mean high tide line of the Pacific Ocean.

And also EXCEPTING THEREFROM THE FOLLOWING:

(a) Units L-101 through L-314, C-1 thru C-6 and RO-1 thru RO-4, as shown and defined upon the "Imperial Beach Club Condominiums" plan recorded February 8, 1991 as File No. 91-058128 of Official Records.

(b) The exclusive right to use all of those areas designated as Balconies, Patios, Parking Spaces, Residential Office Patios, Residential Common Area and Commercial Common Area as shown upon the Condominium Plan referred to above

Parcel 2:
Commercial Area C-6 as shown upon the Condominium Plan above referred to.

Parcel 3:
The exclusive right to use of those portions of Lot 1 described in Parcel 1 above, designated as Commercial Common Area as shown upon the Condominium Plan referred to above.

WHEREAS, pursuant to the requirements of the California Environmental Quality Act (CEQA), it was determined that the project is categorically exempt from the requirements of the CEQA as a Class 1 project pursuant to CEQA Guidelines Section 15301(e); and

WHEREAS, the City Council further offers the following findings in support of its decision to conditionally approve the project:

REGULAR COASTAL PERMIT:

1. **The proposed development conforms to the certified local coastal plan including coastal land use policies.**

   The General Plan/Local Coastal Plan designates the site as Seacoast Commercial (C-2). The intent of development within the C-2 zone is to meet the demand for goods and services required primarily by the tourist population, as well as local residents who use the beach area. It is intended that the dominant type of commercial activity in the C-2 zone will be visitor-serving retail such as specialty stores, surf shops, restaurant, hotels and motels. The development standards of the C-2 zone encourage pedestrian activity through the design and location of building frontages and parking provisions. The proposed project will provide a roof over an existing second floor deck, provide new windows below the roof, and will not alter the existing use which currently meets the intent of the land use designation (restaurant).

2. **The proposed development meets the minimum criteria set forth in the City of Imperial Beach Zoning Ordinance, the City's Minimum Landscape Planting and Irrigation Standards, and the City's Design Guidelines, as applicable.**

   The applicant is proposing a new roof to cover an existing second floor deck and new windows below the roof to a previously approved project, and does not propose any changes to the existing building footprint, floor area, or landscaping.

3. **This project complies with the California Environmental Quality Act.**

   The project consists of the construction of a new roof to cover an existing second floor deck and new windows below the roof. The project may be categorically exempted from California Environmental Quality Act (CEQA) requirements pursuant to Article 19 Sections 15301(e) (existing facilities). The City has prepared a Categorical Exemption per the California Environmental Quality Act (CEQA) requirements for this project and the Notice of Exemption will be filed with the County Clerk in compliance with CEQA.

4. **Public Notice requirements, pursuant to Zoning Ordinance Section 19.87.100, of the Coastal Development Project have been satisfied.**

   The project description and the date of the City Council public hearing were sent to property owners within 300 feet and occupants within 100 feet of the subject site on January 21, 2010, and a public hearing notice was published in the Eagle and Times newspaper on January 21, 2010.

DESIGN REVIEW/SITE PLAN REVIEW:

5. **The proposed use does not have any detrimental effect upon the general health, safety and convenience of persons residing or working in the neighborhood, or is not detrimental or injurious to the value of the property and improvements in the neighborhood.**

   The proposed project will provide a roof over an existing second floor deck, provide new windows below the roof, and will not alter the existing use which currently meets the intent of the land use designation (restaurant), and would provide services to residents

of the City of Imperial Beach. The project would not have a detrimental effect on the general health, welfare, safety and convenience of persons residing or working in the neighborhood because it is consistent with the development standards and zoning designation of the site. The development would not be injurious to the value of the property and improvements in the neighborhood because the proposed building represents an improvement of the existing conditions of the lot.

6. **The proposed use does not adversely affect the General Plan or the Local Coastal Plan.**

   The proposed development is subject to C-2 (Seacoast Commercial) zoning requirements. The intent of development within the C-2 zone is to meet the demand for goods and services required primarily by the tourist population, as well as local residents who use the beach area. It is intended that the dominant type of commercial activity in the C-2 zone will be visitor-serving retail such as specialty stores, surf shops, restaurant, hotels and motels. The proposed project will provide a roof over an existing second floor deck, provide new windows below the roof, and will not alter the existing use which currently meets the intent of the land use designation (restaurant), and would not adversely affect the General Plan or the Local Coastal Plan.

7. **The proposed use is compatible with other existing and proposed uses in the neighborhood.**

   The site is bordered by commercial and tourist oriented zones to the north and east, and public facilities to the south and west (park). The development is compatible with the surrounding uses in the neighborhood.

8. **The location, site layout and design of the proposed use orients the proposed structures to streets, driveways, sunlight, wind and other adjacent structures and uses in a harmonious manner.**

   The applicant is proposing a new roof to cover an existing second floor deck and new windows below the roof, and does not propose any changes to the existing site layout, building footprint, or floor area. The orientation of the proposed roof is consistent and harmonious with adjacent developments.

9. **The combination and relationship of one proposed use to another on the site is properly integrated.**

   The project site is part of a mixed-use condominium complex with other commercial uses with roof structures. The design style and the choice of building materials shall match the existing roof and windows and properly integrates with surrounding uses.

10. **Access to and parking for the proposed use does not create any undue traffic problem.**

    Ingress and egress for the project site occurs via an existing parking garage off of Dahlia Avenue, and all pedestrian walking paths will remain the same as is currently provided on the site.

11. **All other applicable provisions of the Zoning Code are complied with.**

    The project is consistent with the General Plan and the Zoning development standards for the site and no deviations from development standards are requested or granted.

12. Any other considerations as the Community Development Department deem necessary to preserve the health, safety and convenience of the City in general.

Standard and applicable conditions of approval have been included with the Resolution to further ensure that the health, safety, welfare, and convenience of the City in general is preserved.

13. Public Notice requirements, pursuant to Zoning Ordinance Section 19.87.100, have been satisfied.

The project description and the date of the City Council public hearing were sent to property owners within 300 feet and occupants within 100 feet of the subject site on January 21, 2010, and a public hearing notice was published in the Eagle and Times newspaper on January 21, 2010.

NOW, THEREFORE, BE IT RESOLVED by the City Council of the City of Imperial Beach that Regular Coastal Permit (CP 080061), Design Review Case (DRC 080062), and Site Plan Review (SPR 080063) for the construction of a roof over an existing second floor deck of a commercial unit (Beach Club Grille dba Sam's Happy Chef) of a mixed-use condominium complex located at 710 Seacoast Drive #F in the C-2 (Seacoast Commercial) Zone are hereby approved subject to the following:

CONDITIONS OF APPROVAL:

A. PLANNING:

1. The site shall be developed in accordance with the site plan and elevations dated February 10, 2009, and Hydrology and Hydraulic Report dated October 26, 2009, on file at the Community Development Department, or as otherwise amended, and the conditions contained herein.

2. **Approval is valid for one year** from the date of final action by the City Council to **expire February 3, 2011**, unless an appeal is filed to or by the California Coastal Commission. Any such appeal will stay the expiration date until the case is resolved and the permit will expire one year from the date the Commission acts on the appeal. In the event that no appeal is filed, conditions of approval must be satisfied, building permits issues, and substantial construction must have commenced prior to the expiration date, or unless a time extension is granted by the City pursuant to such a request for extension by the applicant. The applicant is responsible for tracking these expiration dates and shall, if necessary, file a written request for a time extension at least 45 days prior to said expiration dates, either the Coastal Commission decision or the City Council of the City of Imperial Beach Notice of Decision(s).

3. Prior to receiving building permits, the applicant/owner shall provide a signed document stating that all storm water improvements/alterations are subject to staff approval and may require future improvements/alterations at the applicant's expense if revisions to the drainage design is necessary.

4. Drainage shall be directed away from the building.

5. Roof must not overhang onto adjacent property. If roof is to overhang, owner must get approval and agreement/easement from adjacent owner.

6. Building, trim, and roof colors and materials shall match the existing building.

7. Scale on all plans must be accurate upon building permit plan check submittal (ex. Elevation plans show "19'" for the bottom of the roof and "23'-10" for the top of the roof. When measured to scale the measurements are 18'-6" and 23', respectively).

8. Correct project address in Project Data section of the site plan upon building permit plan check submittal (710 Seacoast Drive, #F, Imperial Beach, CA 91932).

9. Correct parcel number in Project Data section of the site plan upon building permit plan check submittal (APN 625-182-10-51).

10. Exterior Elevation Key Note #3 is not shown on "Proposed Elevation – East" (Note: two item #5 are listed). Correct upon building permit plan check submittal.

11. Signage must obtain separate permits, subject to staff approval. Signage shall comply with Section 19.52.080 of the Imperial Beach Municipal Code (IBMC). Design review by the Design Review Board may be required if deemed necessary by the Community Development Department.

12. All building permits needed for the construction of the project will need to be obtained from the Imperial Beach Building Department.

13. The applicant or applicant's representative shall read, understand, and accept the conditions listed herein and shall, within 30 days, return a signed statement to the Community Development Department accepting said conditions.

14. The applicant shall pay off any deficits in his project account (0080061) prior to building permit issuance and prior to final inspection.

B. BUILDING:

15. This project is subject to all Model Codes, State Codes and City Ordinances adopted by the City of Imperial Beach. Any building permits needed for the construction of the project will need to be obtained from the Imperial Beach Building Department.

C. PUBLIC WORKS:

16. Ensure that the hot water tank P.T. discharge pipe is piped to discharge to the sanitary sewer system or the landscape area. A design that has the water discharge directly into the storm drain conveyance system (onto an impervious surface that flows to the street) is in violation of the Municipal Storm Water Permit - Order R9-2007-0001.

17. No building roof or landscape water drains may be piped to the street or onto impervious surfaces that lead to the street. A design that has these water discharges directly into the storm drain conveyance system (onto an impervious surface that flows to the street) is in violation of the Municipal Storm Water Permit - Order R9-2007-0001.

18. For alley, sidewalk or curb & gutter replacement ensure compliance with San Diego Regional Standard Drawing G-11 in that, the "Area to be removed [must be] 5' or from joint to joint in panel, whichever is less." The distance between joints or score marks must be a minimum of 5-feet. Where the distance from "Area to be removed", to existing joint, edge or score mark is less than the minimum shown, "Area to be removed" shall be extended to that joint, edge or score mark.

19. For any work to be performed in the street or alley, submit a traffic control plan for approval by Public Works Director a minimum of 5 working days in advance of street work. Traffic control plan is to be per Regional Standard Drawings or CALTRANS Traffic Control Manual.

20. All street work construction requires a Class A contractor to perform the work. Street repairs must achieve 95% sub soil compaction. Asphalt repair must be a minimum of four (4) inches thick asphalt placed in the street trench. Asphalt shall be AR4000 ½ mix (hot). All pavement transitions shall be free of tripping hazards.

21. For any project that proposes work within the public right-of-way (i.e., driveway removal/construction, sidewalk removal/construction, street or alley demolition/reconstruction, landscaping and irrigation, fences, walls within the public right-of-way, etc.), a Temporary Encroachment Permit (TEP) shall be applied for and approved either prior to or concurrent with issuance of the building permit required for the project. Application for a Temporary Encroachment Permit shall be made on forms available at the Community Development Department Counter.

22. Any disposal/transportation of solid waste / construction waste in roll off containers must be contracted through the City's waste removal and recycling provider unless the hauling capability exists integral to the prime contractor performing the work.

23. In accordance with I.B.M.C. 12.32.120, applicant must place and maintain warning lights and barriers at each end of the work, and at no more than 50 feet apart along the side thereof from sunset of each day until sunrise of the following day, until the work is entirely completed. Barriers shall be placed and maintained not less than three feet high.

24. Applicant must provide verification of post construction Best Management Practice (BMP) maintenance provisions through a legal agreement, covenant, CEQA mitigation requirement, and / or Conditional Use Permit. Agreement is provided through the Community Development Department.

25. The property owner must institute "Best Management Practices" to prevent contamination of storm drains, ground water and receiving waters during both construction and post construction. The property owner or applicant BMP practices shall include but are not limited to:

    - Contain all construction water used in conjunction with the construction. Contained construction water is to be properly disposed in accordance with Federal, State, and City statutes, regulations and ordinances.
    - All recyclable construction waste must be properly recycled and not disposed in the landfill.
    - Water used on site must be prevented from entering the storm drain conveyance system (i.e. streets, gutters, alley, storm drain ditches, storm drain pipes).
    - All wastewater resulting from cleaning construction tools and equipment, must be contained on site and properly disposed in accordance with Federal, State, and City statutes, regulations, and ordinances.
    - Erosion control - All sediment on the construction site must be contained on the construction site and not permitted to enter the storm drain conveyance system. Applicant is to cover disturbed and exposed soil areas of the project with plastic–like material (or equivalent product) to prevent sediment removal into the storm drain system.

26. Applicant must underground all utilities in accordance with I.B.M.C. Title 13.08. This project is within the Seacoast Drive Utility Underground District, thus no above ground utilities are permitted therein.

D. PUBLIC SAFETY

27. Project to be in compliance with the California Fire Code (CFC) 2007 edition or CFC in effect at time of permit issuance and the most current National Fire Protection Association (NFPA) Standards.

28. Smoke detectors required in all bedrooms, hallways and areas leading to all sleeping areas.

29. Fully automatic fire sprinkler system is required. Sprinkler system to be in compliance with CFC and NFPA, current codes/standards.

30. Minimum of one 2A:10BC fire extinguisher will be required in the covered second floor patio area.

Appeal Process under the California Code of Civil Procedure (CCP): The time within which judicial review of a City Council decision must be sought is governed by Section 1094.6 of the CCP. A right to appeal a City Council decision is governed by CCP Section 1094.5 and Chapter 1.18 of the Imperial Beach Municipal Code.

PROTEST PROVISION: The 90-day period in which any party may file a protest, pursuant to Government Code Section 66020, of the fees, dedications or exactions imposed on this development project begins on the date of the final decision.

PASSED, APPROVED, AND ADOPTED by the City Council of the City of Imperial Beach at its meeting held on the 3rd day of February 2010, by the following vote:

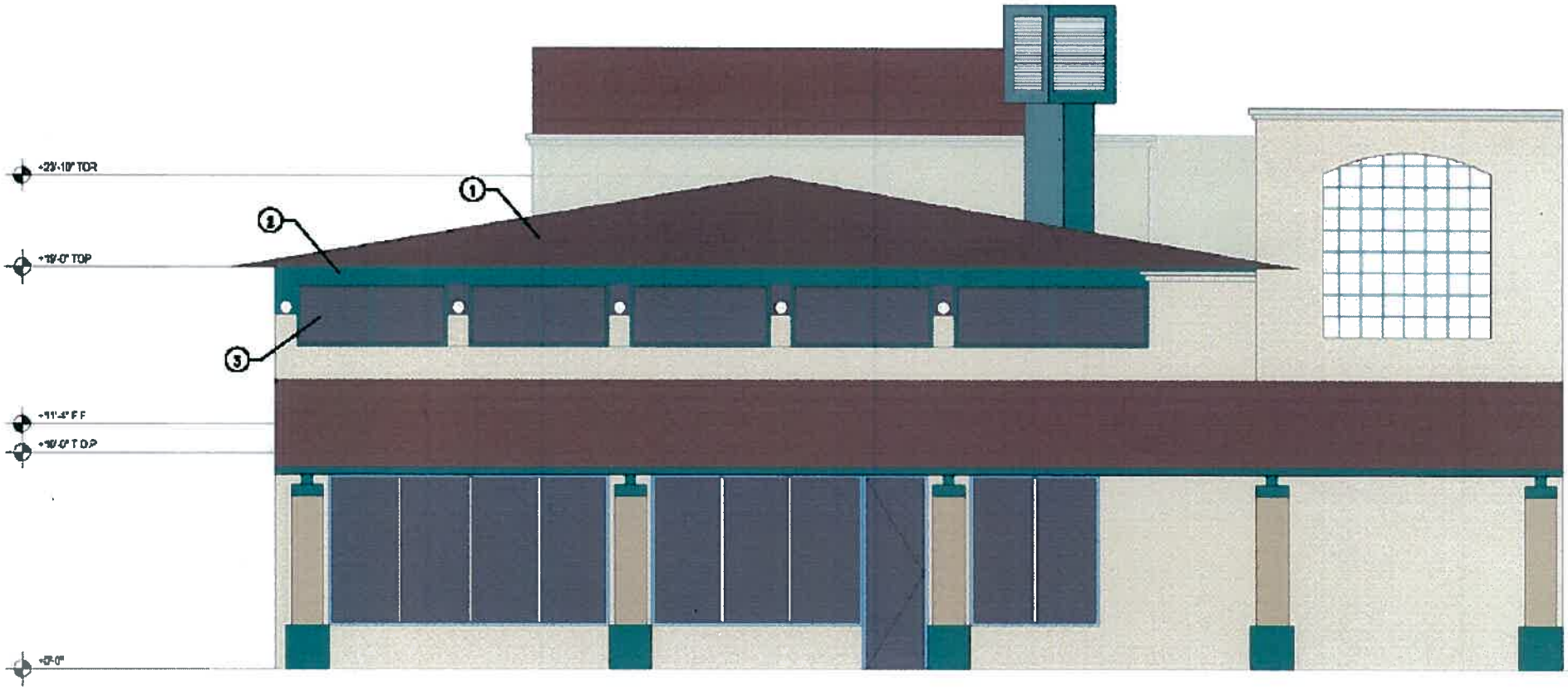
AYES: COUNCILMEMBERS:
NOES: COUNCILMEMBERS:
ABSENT: COUNCILMEMBERS:

JAMES C. JANNEY, MAYOR

ATTEST:

JACQUELINE M. HALD, CMC
CITY CLERK

ATTACHMENT 2



A EAST ELEVATION
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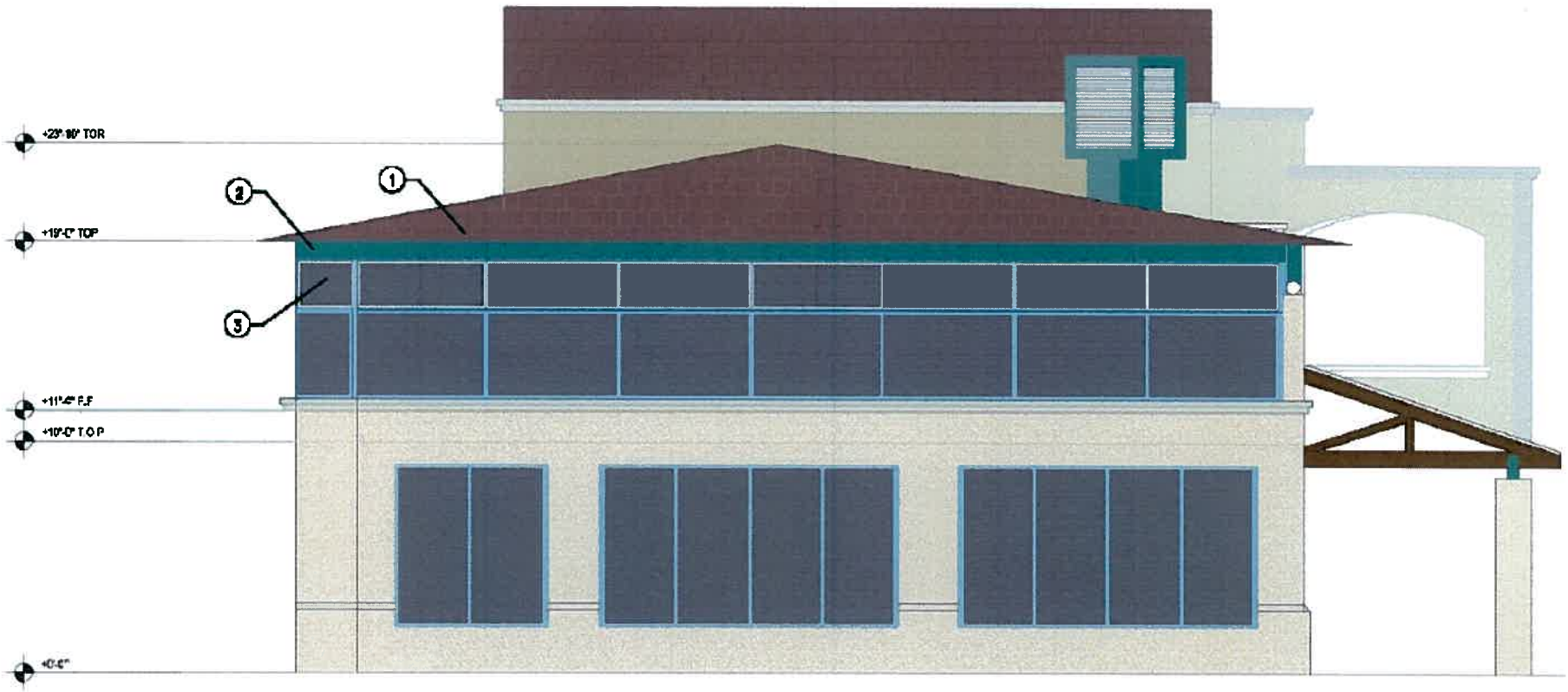
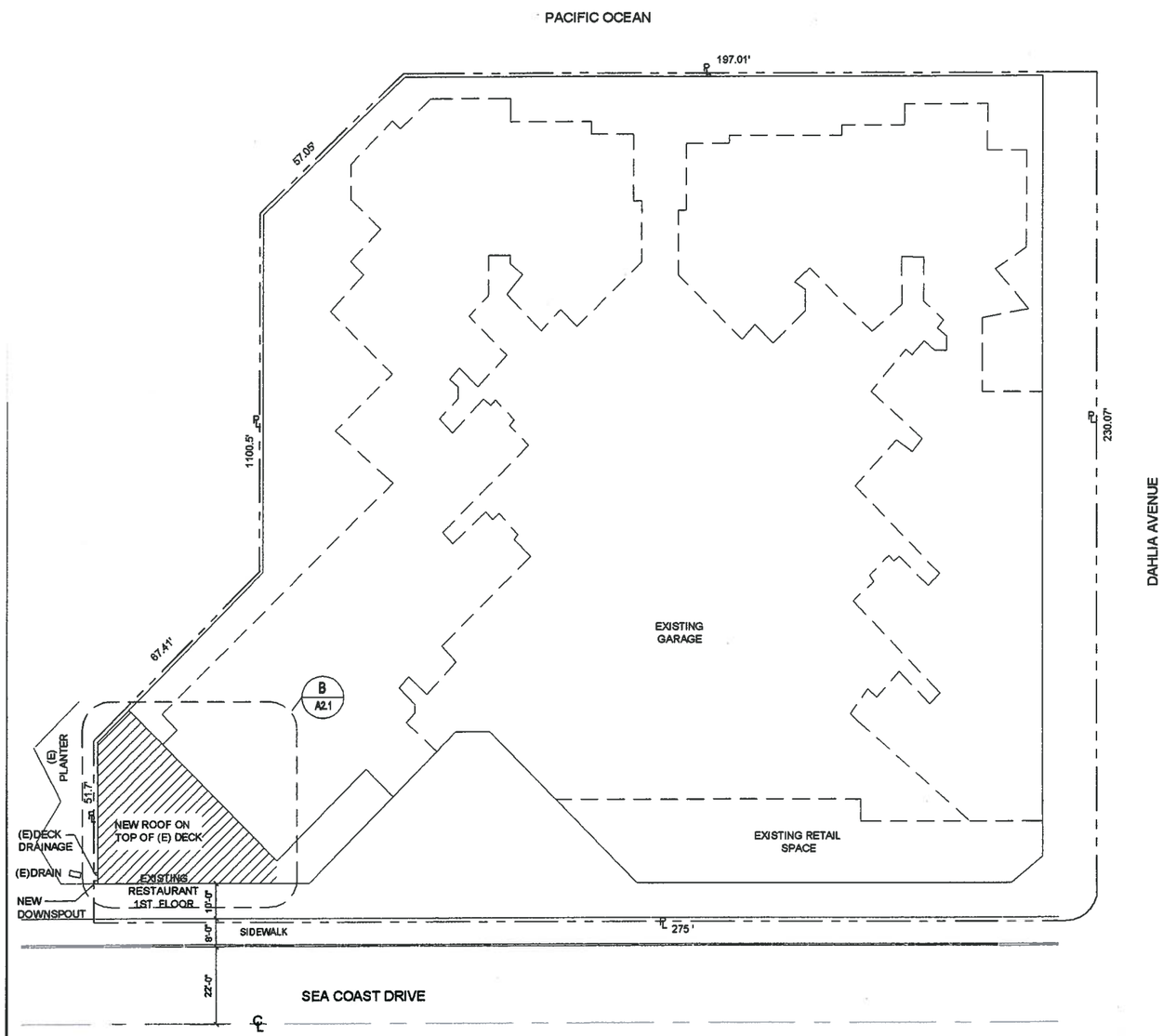


B SOUTH ELEVATION
NTS

SOUTH ELEVATION - SITE
NTS



A SITE PLAN
1"=20'-0"

NORTH

SITE PLAN LEGEND

- PROPERTY LINE
- YARD SETBACK - NONE REQUIRED
- PHOTOGRAPH # AND DIRECTION. SEE SHEET A1.2

DETAILED SCOPE OF WORK

ROOF ON TOP OF EXISTING 2ND. FLOOR DECK - TERRACE 1040 S.F. TO BE COVER WITH NEW ROOF SYSTEM (LIGHTWEIGHT TILE)

PROJECT DATA

PROJECT NAME:	WOODIES T.I.
PROJECT ADDRESS:	710 E. SEA COAST DRIVE IMPERIAL BEACH, CALIFORNIA 92101
OWNER:	JOHN HAUPT
OWNER'S PHONE #:	619.429.8536
APPLICANT'S NAME	CARMEN ROMO (DESIGNER)
APPLICANT'S ADDRESS	466 BROADWAY 57, CHULA VISTA, CA 91910
APPLICANT'S PHONE #	619.955.7597
HISTORIC:	☐ YES ☒ NO
SUBMITTAL DATE:	12/5/2008
ZONE:	C2 SEACOAST COMMERCIAL
A.P.N.:	625.182.1050
LEGAL DESCRIPTION:	LOT 1 MAP 12555

VICINITY MAP

B AERIAL VIEW
1"=20'-0"

NORTH

PROJECT:
WOODIES T.I.
710 E. SEACOAST DR.
Imperial Beach, CA 91932

SHEET TITLE:
SITE PLAN & DEMOLITION PLAN

SCALE:
1"=20'-0"

SHEET NO.
A1.1

REVISION #

A FRONT VIEW

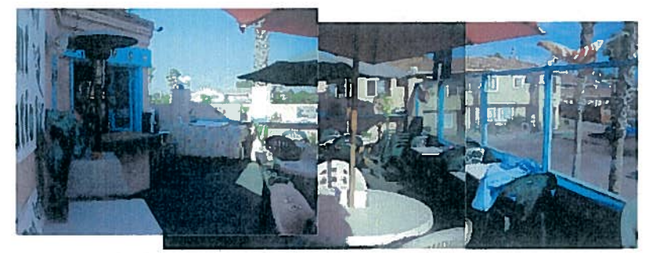
B STREET VIEW

C SURROUNDINGS

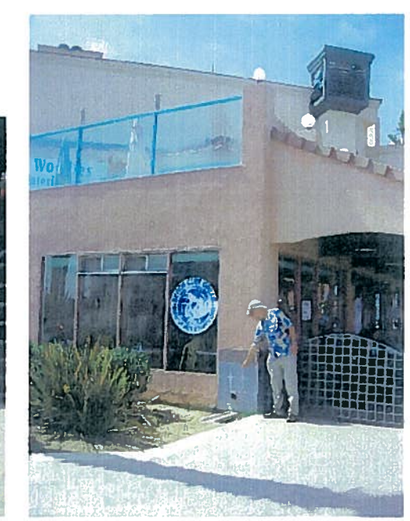
D VIEW FRONT PARK

E PARK

F TERRACE VIEW FROM PARK



G TERRACE



H EXISTING DRAINAGE

PROPUE
Desig

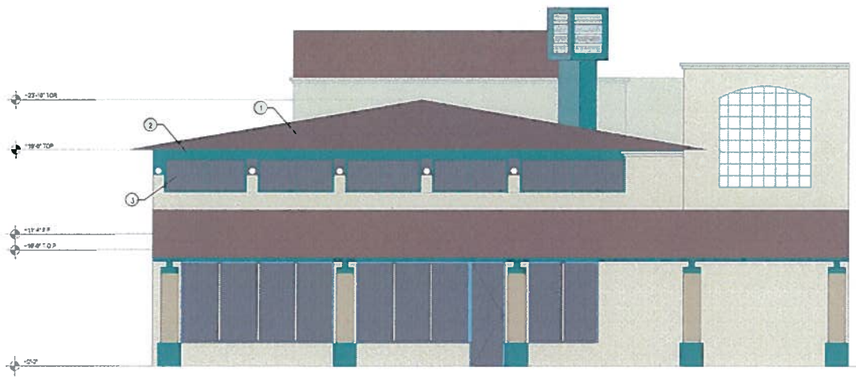
REVISION #	DESCRIPTION
A	
A	
A	
A	

PROJECT:
WOODIES T.I.
710 E. SEACOAST DR.

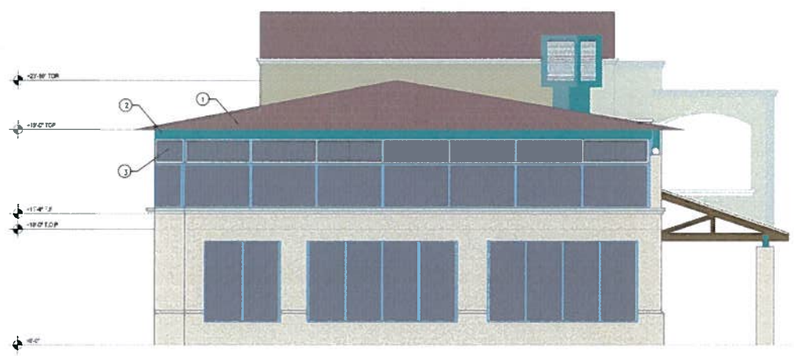
SHEET TITLE:
PHOTOGRAPHICAL REPORT

SCALE:

SHEET NO.
A1.2



A EAST ELEVATION
NTS

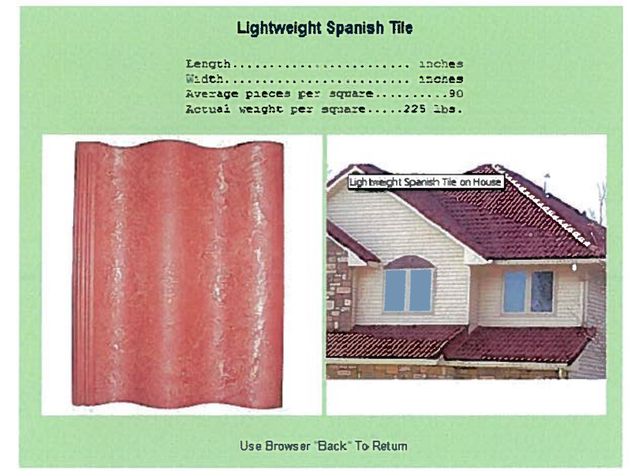


B SOUTH ELEVATION
NTS

C SOUTH ELEVATION - SITE
NTS

EXTERIOR ELEVATION FINISHES KEY NOTES:

1. PROVIDE NEW TILE ROOF TO MATCH EXISTING COLOR. TILES SHALL BE INSTALLED OVER ROOFS WITH MIN. SLOPE OF 4-in-12, OVER SHEATING & 1 LAYER OF HEAVY-DUTY FELT OR TYPE 30 FELT SIDE LAPPED 2". PER MANUFACTURER SPECS. MFR. US TILE ICBO # 3523
2. NEW CLEAR GLASS TEMPERED WINDOWS
3. WOOD BEAM



D PROPOSED ROOF TILE
NTS

PROPUESTA Design Group
44 MONTGOMERY ST. SUITE 1000, SAN FRANCISCO, CA 94104
PHONE (415) 912-4125 FAX (888) 279-7812
info@propuestadesign.com

REVISION #	DESCRIPTION
1	
2	
3	
4	

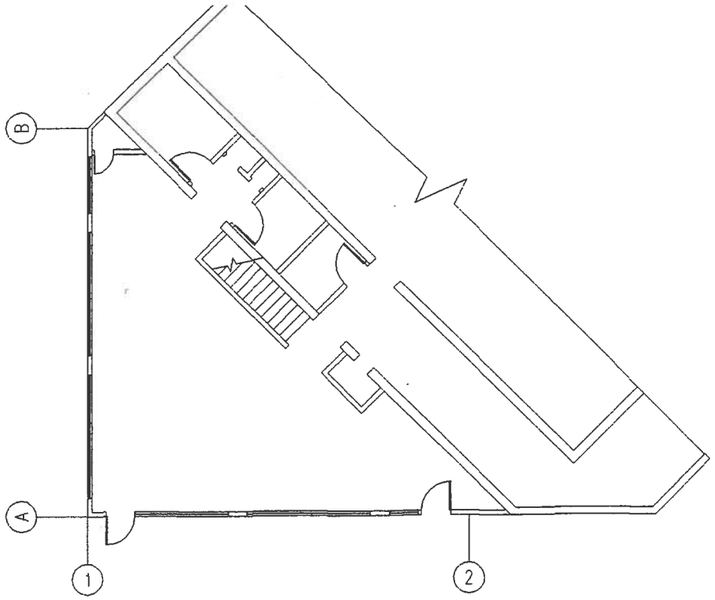
PROJECT:
WOODIES T.I.
710 E. SEACOAST DR.
Imperial Beach, CA 91932

SHEET TITLE:
ELEVATIONS & FINISHES

SCALE:
NTS

SHEET NO.
A1.3

JOB NO.



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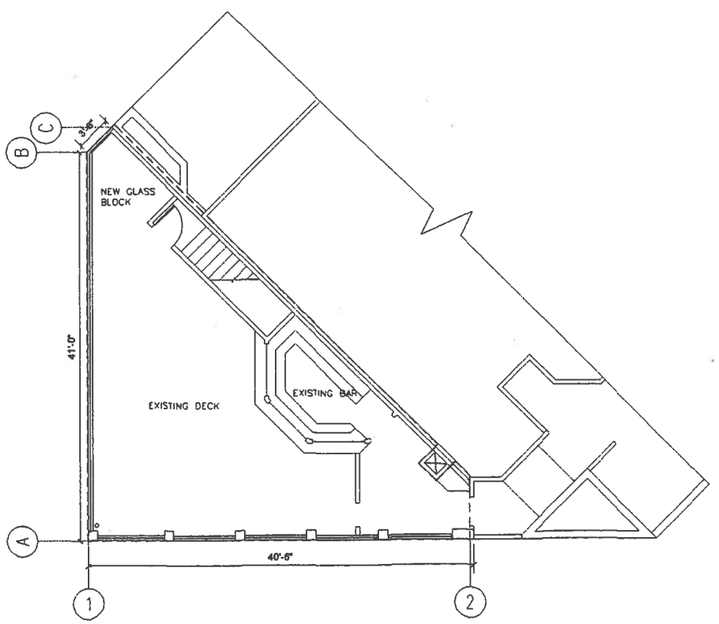
NORTH



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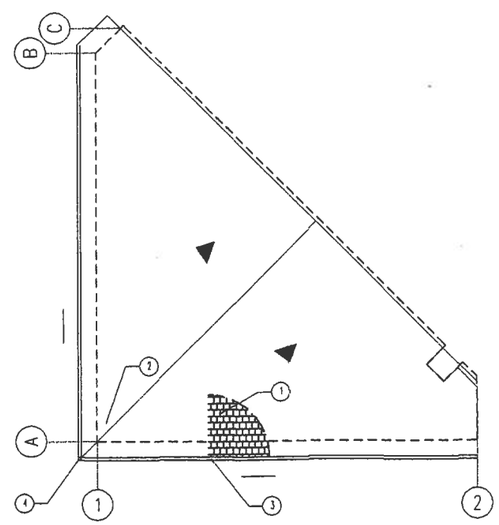
NORTH



A NEW ROOF PLAN
1/8"=1'-0"

NORTH

ROOF PLAN LEGEND

* REFER TO 'GENERAL NOTES' FOR ADDITIONAL INFORMATION

GUTTER & DOWNSPOUT

INDICATES DIRECTION OF ROOF SLOPE

ROOF PLAN GENERAL NOTES:

1. REFER TO MFR. RECOMMENDATIONS FOR ALL ROOFING SUBSTRATE REQ'S
2. REFER TO STRUCT'L DWG'S FOR SHEATHING & NAILING REQ'S
3. ALL ROOF SLOPES TO BE 4:12 U.N.O.
4. ATTIC VENTILATION OPENINGS SHALL BE COVERED WITH CORROSION-RESISTANT METAL MESH WITH MESH OPENINGS OF 1/4 - INCH NONCOMBUSTIBLE CORROSION-RESISTANT METAL MESH.

ROOF PLAN KEY NOTES:

1. LIGHTWEIGHT TILE ROOFS INSTALLED OVER ROOFS WITH MIN. SLOPE OF 4-in-12, OVER SHEATING & 1 LAYER OF HEAVY-DUTY FELT OR TYPE 30 FELT SIDE LAPPED 2". PER MANUFACTURER SPECS.
2. EXISTING DECK DRAIN TO REMAIN
3. NEW GUTTER
4. 3" X 4" NEW DOWNSPOUT

PROPUES
Design C
444 BROADWAY ST.
PHONE (619) 262-4

REVISION	BY	DESCRIPTION
1		
2		
3		
4		

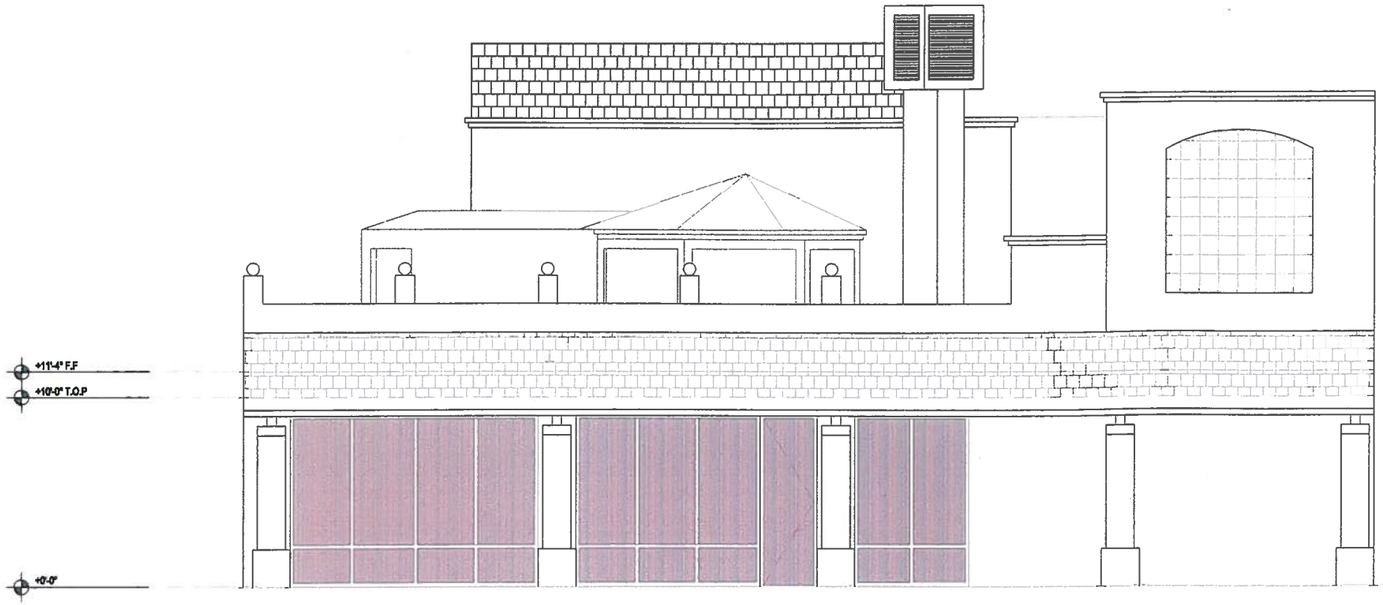
PROJECT:
WOODIES T.I.
710 E. SEACOAST DR.
Imperial Beach, CA 91932

SHEET TITLE:
FLOOR PLAN

SCALE:
1/8"=1'-0"

SHEET NO.
A2.1

JOB NO.



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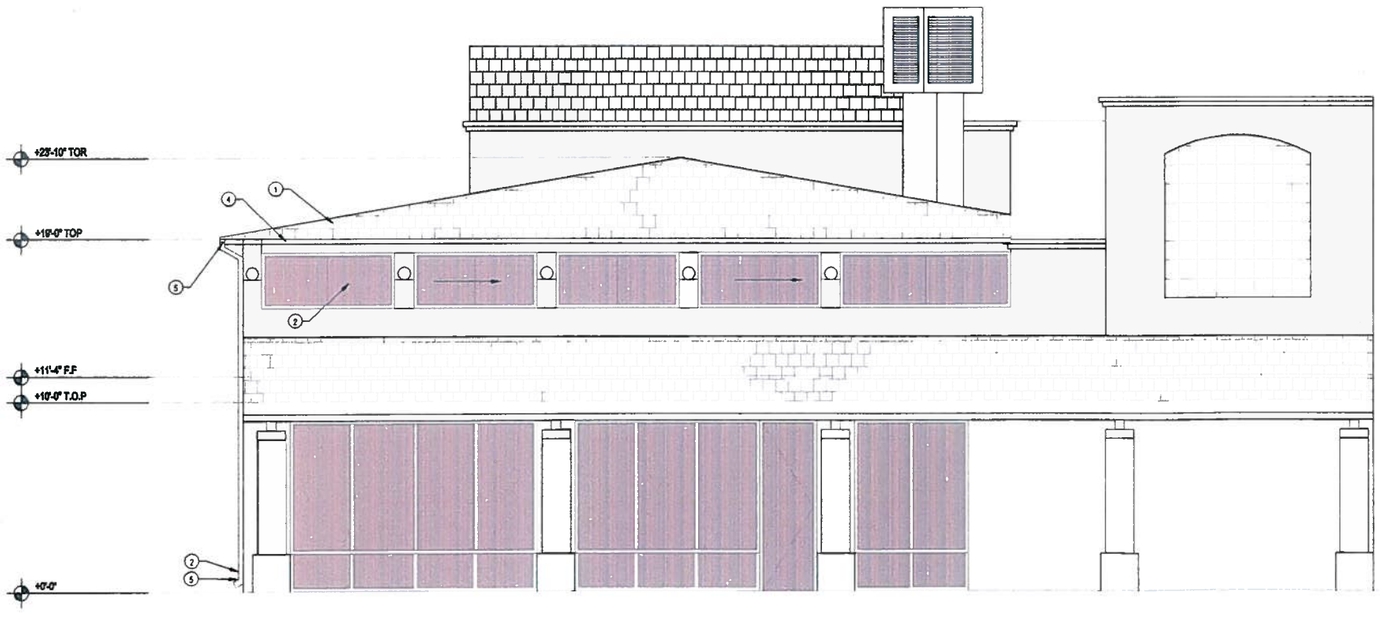

B PROPOSED ELEVATION - EAST
1/8"=1'-0"

EXTERIOR ELEVATION LEGEND:

(P-1) EXTERIOR PAINT: (MATCH COLOR TO EXISTIN) O/ STUCCO

EXTERIOR ELEVATION KEY NOTES:

1. CLASS A TYPE MIN. ROOF, LIGHTWEIGHT SPANISH TILE OVER 15# FELT UNDERLAYMENT (2 LAYERS) PER DETAIL.
2. NEW WINDOW – TEMPERED
3. EXISTING DECK DRAIN TO REMAIN INSIDE WALL SEE H/A1.2
4. PROVIDE NEW ROOF GUTTER
5. PROVIDE NEW DOWNSPOUT

PROPUES Design Gr
444 BROADWAY ST. CH
PHONE: (619) 962-8833

REVISION BY DESCRIPTION
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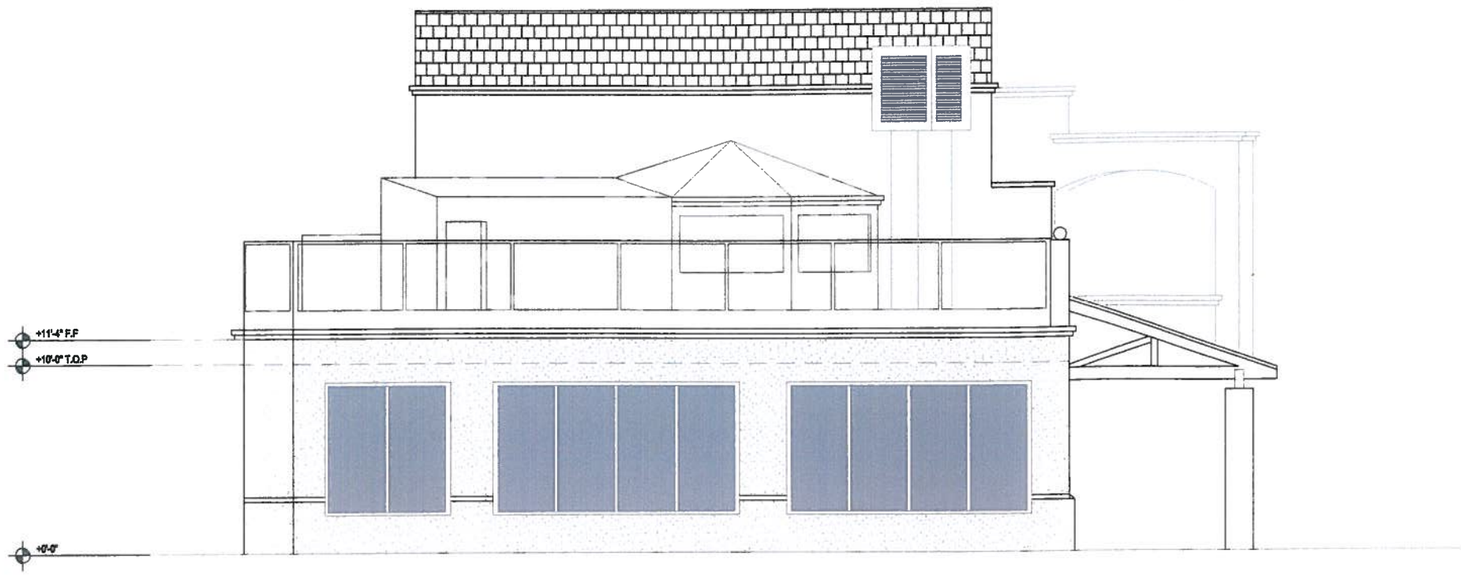
PROJECT:
WOODIES T.I.
710 E. SEACOAST DR.
Imperial Beach, CA 91932

SHEET TITLE:
ELEVATIONS - EAST
SCALE:
1/8"=1'-0"

SHEET NO.
A3.1
JOB NO.



A EXISTING ELEVATION - SOUTH
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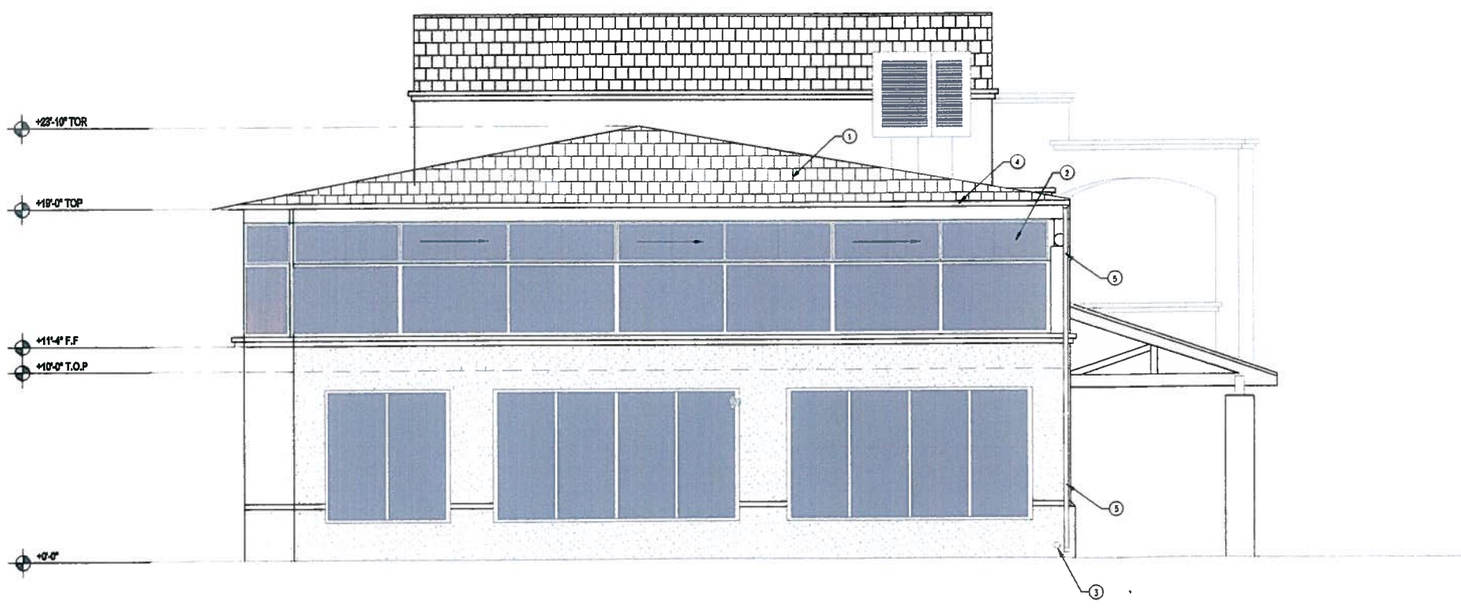

B PROPOSED ELEVATION - SOUTH
1/8"=1'-0"

P-1 EXTERIOR PAINT: (MATCH COLOR TO EXISTIN) O/ STUCCO

EXTERIOR ELEVATION KEY NOTES:

1. CLASS A TYPE MIN. ROOF, LIGHTWEIGHT SPANISH TILE OVER 15# FELT UNDERLAYMENT (2 LAYERS) PER DETAIL.
2. NEW WINDOW – TEMPERED
3. EXISTING DECK DRAIN – COMES DOWN INSIDE WALL
4. PROVIDE NEW ROOF GUTTER
5. PROVIDE NEW DOWNSPOUT

PROPUES Design G
444 SEACOAST DR. #
PHONE (619) 562-4[illegible]

REVISION	BY	DESCRIPTION
1		
2		
3		
4		

PROJECT:
WOODIES T.I.
710 E. SEACOAST DR.
Imperial Beach, CA 91932

SHEET TITLE:
ELEVATIONS - SOUTH
SCALE:
1/8"=1'-0"

SHEET NO.
A3.2

JOB NO.

AGENDA ITEM NO. 5.2

STAFF REPORT
CITY OF IMPERIAL BEACH REDEVELOPMENT AGENCY

TO:	**CHAIR AND MEMBERS OF THE REDEVELOPMENT AGENCY**
FROM:	**GARY BROWN, EXECUTIVE DIRECTOR**
MEETING DATE:	**FEBRUARY 3, 2010**
ORIGINATING DEPT.:	**COMMUNITY DEVELOPMENT DEPARTMENT** **GREG WADE, DIRECTOR** **GERARD SELBY, REDEVELOPMENT COORDINATOR**
SUBJECT:	**PUBLIC HEARING: FIVE-YEAR IMPLEMENTATION PLAN**

BACKGROUND:

Due to mitigating circumstances, staff recommends the public hearing be continued to the next regular meeting.

DEPARTMENT RECOMMENDATION:

1. Open the public hearing; and
2. Continue the public hearing to the next regular meeting of February 17, 2010 at 6:00 p.m.

EXECUTIVE DIRECTOR'S RECOMMENDATION:

Approve Department recommendation.

Gary Brown, Executive Director

Return to Agenda

AGENDA ITEM NO. 6.1

STAFF REPORT
CITY OF IMPERIAL BEACH

TO:	**HONORABLE MAYOR AND CITY COUNCIL**
FROM:	**GARY BROWN, CITY MANAGER**
MEETING DATE:	**FEBRUARY 3, 2010**
ORIGINATING DEPT.:	**COMMUNITY DEVELOPMENT** **GREG WADE, DIRECTOR** **ELIZABETH CUMMING, ASSISTANT PROJECT MANAGER**
SUBJECT:	**UPDATE ON THE RELOCATION OF THE IMPERIAL BEACH CERTIFIED FARMERS MARKET**

BACKGROUND:

On December 17, 2008, the City Council of Imperial Beach approved an Administrative Coastal Permit (ACP 080033), Conditional Use Permit (CUP 080034), Design Review Case (DRC 080035), and Site Plan Review (SPR 080036) for a Certified Farmer's Market to be located in the parking lot between the two northern driveways on the west property line at 600 Palm Avenue (Silver Strand Plaza; APN 625-140-14-00 & 625-140-19-00) in the C-1 (General Commercial) Zone. Property management had expressed strong support for the proposed Farmers Market as had many of the existing businesses of Silver Strand Plaza. The Silver Strand Certified Farmers Market opened on October 9, 2009.

The proposed Farmers Market, certified by the San Diego County Agricultural Commission and County of San Diego Department of Environmental Health, was scheduled to take place every Friday from 2 pm to 7 pm in the summer, and from 1 pm to 6 pm in the winter. The hours of operation included set-up and take-down of the market. Under the terms of the approved permit, the market was restricted to no more than thirty-one (31) vendors including no less than seven (7) certified farmer vendors, approximately seven (7) pre-packaged vendors, six (6) food vendors, six (6) art/crafts vendors, three (3) miscellaneous commercial vendors, and no more than two (2) non-profit vendors. The market operated with one manager and two assistant managers.

From the first day of operation, the Silver Strand Certified Farmers Market was well-attended and created a significant community amenity offering fresh local fruits and vegetables, arts and crafts and prepared food. The market continued to operate successfully at its former location until early November, 2009, when Silver Strand Plaza, LLC notified the Market Manager that a number of businesses in the plaza were upset by a lack of parking available for their clients and customers during market hours. After considerable negotiation, including alternative proposals and modifications by both parties, the lease between Silver Strand Plaza LLC and the Silver

Strand Farmers Market was terminated. Friday, December 18, 2009, was the last Farmers Market at its former location.

DISCUSSION:

Since December 2009, the Board of Directors of I.B Beautiful, the Farmers Market Managers, and City staff have been working together to find a new location for the Farmers Market. This search has included consideration of both temporary and permanent locations. A number of possible sites have been proposed and discussed. Sites considered include the following:

- The north end of 13th Street
- St. James Parking Lot
- Seacoast Inn Parking Lot
- Veterans Park
- Dunes Park
- Delaware Street (between Palm and the Alley)
- 10th Street (between Palm & Donax)
- 2nd Street (Between Palm and Donax)
- Palm & Seacoast Parking Lot (including the vacant lot to the south)
- Elkwood Parking Lot
- Pier Plaza Parking Lot
- Pier Plaza

Having considered all of the above sites, the I.B. Beautiful Board and Market Managers strongly favor the Pier Plaza location. They have submitted a number of layouts and designs to accommodate both the existing vendors as well as the possibility of adding additional vendors in the future. Community Development, Public Works, and Public Safety/Fire Department/Lifeguard staff is continuing to discuss and analyze the Pier Plaza proposal. Staff has also requested that the Market Manager and I.B. Beautiful Board identify at least one alternate location for consideration.

On Wednesday, January 20, 2010, members of the IB Beautiful Board of Directors and the Market Manager appeared before the City Council during public comment to provide an update on the Farmers Market and their search for a new location. City Council then directed staff to bring the matter back to the City Council at their regular meeting on February 3, 2010, as an agenda item.

A newly located Farmers Market will require review and approval of another conditional use permit (CUP). At this point, no application has been submitted as a suitable site has not

officially been identified. Because the CUP will require approval by the City Council at a future, publicly-noticed hearing, it is recommended that, during the presentation of this item on February 3rd, the City Council refrain from making any official action with respect to the Farmers Markets' proposed location. This item is being presented simply as status report on finding a new, suitable location for the Farmers Market in Imperial Beach.

City staff will continue to work with the IB Beautiful Board of Directors and the Market Managers to ensure that an acceptable site, site plan and conditions of approval are developed sufficient for submittal and review of a CUP application. Given that this review can take several weeks, City staff has also suggested that a temporary operation of the Farmers Market could take place through the issuance of temporary outdoor sales permits by City staff. This could allow the Farmers Market the ability to operate on a temporary basis while the CUP is being processed.

ENVIRONMENTAL IMPACT:

There is no environmental impact with this item.

FISCAL ANALYSIS:

The Executive Director of the Redevelopment Agency previously authorized up to $5,000, $3,200 of which was used, for IB Beautiful to assist with establishment of the Farmers Market at their former location. To date, no further request for funding has been made.

DEPARTMENT RECOMMENDATION:

Staff recommends that the City Council receive staff's update on the Farmers Market.

CITY MANAGER'S RECOMMENDATION:

Approve Department recommendation.

Gary Brown

Gary Brown
City Manager

Return to Agenda

AGENDA ITEM NO. 6.2

STAFF REPORT
CITY OF IMPERIAL BEACH

TO:	**HONORABLE MAYOR AND CITY COUNCIL**
FROM:	**GARY BROWN, CITY MANAGER**
MEETING DATE:	**February 3, 2010**
ORIGINATING DEPT.:	**Public Works**
SUBJECT:	**ACCEPTING THE PALM AVENUE LOW FLOW URBAN RUNOFF DIVERSION PROJECT FINAL REPORT**

BACKGROUND: Palm Avenue street-end was reconstructed by Reyes Construction under contract with the Port of San Diego. The street-end reconstruction included placing a new storm water pump station underground and installing a diverter element that is capable of diverting 250 gallons per minute of nuisance urban runoff and first flush storm water into the adjacent sanitary sewer system. The City of Imperial Beach contributed $1,247,000 from a Prop 50 Grant Clean Beaches Initiative (CBI) Grant for the construction of this diverter. The Palm Avenue urban runoff diverter became operational on January 5, 2009.

As part of the CBI grant agreement between the State and City, the City was to perform diverter post-construction monitoring. The monitoring was to include at a minimum, bacterial e-coli testing and analysis of diverted water volume over a one year monitoring period. The consultant, PBS&J, was awarded the contract for the post construction water quality monitoring at a cost of $40,000, which was covered under the awarded CBI Grant.

The last post construction monitoring activities were completed on December 1, 2009 and a Draft Final Project Report was submitted to the State Water Resource Control Board (SWRCB) on December 21, 2009 as required under the Grant agreement. Comments were received on the Draft Report from SWRCB Staff and incorporated into a Final Project Report that was submitted on January 20, 2010.

DISCUSSION: The following are the highlights from the Palm Avenue Low Flow Urban Runoff Diversion Project:

- Bacterial data collected during the monitoring phase shows that, in the absence of the Palm Avenue Diverter, low-flow urban runoff and first-flush stormwater with high levels of bacteria would have been discharged to the receiving waters.
- Comparison of the concentration of bacteria in the wet well with the AB411 water quality benchmarks indicates that for total coliform 98% of the samples exceeded benchmarks, and for *Enterococcus* 91% of the readings exceeded the benchmarks.
- Data analysis shows that 100% of the samples collected at the diverter wet well exceeded at least one of the bacterial indicator benchmarks.
- The Palm Avenue Diverter directs an average of 23,000 gallons per month of urban runoff to the sanitary sewer.

- Only the Carnation Avenue receiving water sampling station had exceedances of bacterial indicators during the project's monitoring period. On February 17 and 18, 2009, during a storm event greater than 1/10th of an inch, when the diverter operated in storm discharge mode, water quality exceeded AB411 benchmarks. During the same period, the southern-most sampling location at Seacoast Drive also provided evidence of high bacteria levels likely originating from other sources including the Tijuana River Valley and Mexico.
- This project was successful in combining access to recreation, aesthetic improvements, public infrastructure, and water quality benefits. It was part of the greater Palm Avenue Street End Improvement Project that received the "Project of the Year" award from the San Diego & Imperial Counties Section of the American Public Works Association (APWA).

ENVIRONMENTAL DETERMINATION:

Not a project as defined by CEQA.

FISCAL IMPACT:

Contract costs for the construction and post construction water quality monitoring were covered under a $1,292,000 CBI Grant. City Staff costs for project management and administration were not covered under the Grant Agreement.

DEPARTMENT RECOMMENDATION:

1. Receive this report.
2. Adopt the attached resolution.

CITY MANAGER'S RECOMMENDATION:

Approve Department recommendation.

Gary Brown, City Manager

Attachments:
1. Resolution No. 2010-6847
2. CBI Grant Final Monitoring Report – available on the City's web page and a copy is available in the City Clerks office.

ATTACHMENT 1

RESOLUTION NO. 2010-6847

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF IMPERIAL BEACH, CALIFORNIA, ACCEPTING THE FINAL REPORT FOR THE PALM AVENUE LOW FLOW URBAN RUNOFF DIVERSION PROJECT

WHEREAS, the City received $1,292,000 Prop 50 Clean Beaches Initiative (CBI) Grant for the Palm Avenue Low Flow Diversion project; and

WHEREAS, the City contributed $1,247,000 from Prop 50 CBI Grant for the construction of a low flow storm water diverter and pump station at the Palm Avenue street end; and

WHEREAS, as part of the CBI Grant agreement between the State and City, the City was to perform post construction water quality monitoring and flow analysis using no more than $45,000 of the awarded CBI funds; and

WHEREAS, Resolution No. 2008-6697 awarded the contract for post construction water quality monitoring and flow analysis to PBS&J at a cost of $40,000; and

WHEREAS, the consultant PBS&J successfully completed the required post construction water quality and flow analysis for the Palm Avenue Diversion project and assisted in the development of a Final Project Report that was submitted to the State Water Resource Control Board on January 20, 2010 in fulfillment of CBI Grant requirements.

NOW, THEREFORE, BE IT RESOLVED by the City Council of the City of Imperial Beach as follows:

1. The above recitals are true and correct.
2. This legislative body accepts the City of Imperial Beach Palm Avenue Low Flow Urban Runoff Diversion Project Monitoring Final Report.

PASSED, APPROVED, AND ADOPTED by the City Council of the City of Imperial Beach at its meeting held on the 3rd day of February 2010, by the following vote:

AYES: COUNCILMEMBERS:
NOES: COUNCILMEMBERS:
ABSENT: COUNCILMEMBERS:

_____
JAMES C. JANNEY, MAYOR

ATTEST:

_____
JACQUELINE M. HALD, CMC
CITY CLERK

ATTACHMENT 2

CITY OF IMPERIAL BEACH
PALM AVENUE LOW-FLOW URBAN RUNOFF DIVERSION PROJECT

FINAL REPORT

January 20, 2010

Proposition 50
Grant Agreement No. # 07-575-550-0

Clean Beaches Initiative Program

Prepared For:

City of Imperial Beach
825 Imperial Beach Boulevard
Imperial Beach, CA 91932

Prepared By:

1555 Faraday Avenue
Carlsbad, CA 92008
760.603.6000

PBS&J Project No. 100006315

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Executive Summary

ES.1 Project Description and Purpose

This project was envisioned as a way to eliminate the urban runoff and first-flush source of bacterial contamination to the City's beaches in the vicinity of Palm Avenue and to reduce the number of beach closure events and days during dry weather. The Palm Avenue Low-Flow Urban Runoff Diversion Project (Palm Avenue Diverter) consists of the construction of storm drain to sanitary sewer diversion structure that eliminates the discharge to the Pacific Ocean of low-flow urban runoff and first-flush flows during a storm event.

The construction phase was followed by an 11-month water quality monitoring phase that documents the bacteria levels and flows of urban runoff diverted to the sanitary sewer.

The City of Imperial Beach has prepared this report to present its water quality monitoring findings on the Palm Avenue Low-Flow Urban Runoff Diversion Project from January 1 through December 1, 2009.

This report summarizes the City's last project funded by the State Water Resources Control Board Grant Program under Proposition 50 Clean Beaches and consists of water quality monitoring data results, interpretation of data, information on the project's status, highlights and results of quality control assessments, internal review and project achievements. The monitoring efforts were conducted by the City of Imperial Beach through its consultant PBS&J, an environmental and engineering consulting firm, pursuant to grant agreement number 07-575-550-0 between the State Water Resources Control Board (State Water Board) and the City of Imperial Beach (City).

ES.2 Effectiveness and Benefits

- Bacterial data collected during the monitoring phase shows that, in the absence of the Palm Avenue Diverter, low-flow urban runoff and first-flush stormwater with high levels of bacteria would have been discharged to the receiving waters.
- Comparison of the concentration of bacteria in the wet well with the AB411 water quality benchmarks indicates that for total coliform 98% of the samples exceeded benchmarks, and for *Enterococcus* 91% of the readings exceeded the benchmarks.
- Data analysis shows that 100% of the samples collected at the diverter wet well exceeded at least one of the bacterial indicator benchmarks.
- The Palm Avenue Diverter directs an average of 23,000 gallons per month of urban runoff to the sanitary sewer.
- Only the Carnation Avenue receiving water sampling station had exceedances of bacterial indicators during the project's monitoring period. On February 17 and 18, 2009, during a storm event greater than 1/10th of an inch, when the diverter operated in storm discharge mode, water quality exceeded AB411 benchmarks. During the same period,

the southern-most sampling location at Seacoast Drive also provides evidence of high bacteria levels likely originating from other sources including the Tijuana River Valley and Mexico.

- This project was successful in combining access to recreation, aesthetic improvements, public infrastructure, and water quality benefits. It received the "Project of the Year" award from the San Diego & Imperial Counties Section of the American Public Works Association (APWA).

ES.3 Involved Public Agency/Private Partners

- State Water Resources Control Board (SWRCB)
- Port of San Diego
- City of Imperial Beach

ES.4 Additional Information

Total Project Cost: $1.54 million with $1.292 million from the SWRCB

Project Funding Source(s): SWRCB Proposition 50 – Clean Beaches Initiative Grant, Port of San Diego and the City of Imperial Beach.

Grantee Contact Info:
Name: Chris Helmer
Title: Environmental Programs Manager, City of Imperial Beach
Phone: (619) 628-1370
Email: CHelmer@CityofIB.org

Section 1
Introduction and Overview

The City of Imperial Beach has prepared this report to present its water quality monitoring findings on the Palm Avenue Low-Flow Urban Runoff Diversion Project from January 1 through December 1, 2009.

This report summarizes the last phase of the State Water Resources Control Board (SWRCB) Grant Program project under Proposition 50 Clean Beaches Initiative and consists of water quality monitoring data results, interpretation of data, information on the project's status, highlights and results of quality control assessments, internal review and project achievements. The monitoring efforts were conducted by the City of Imperial Beach through its consultant PBS&J, an environmental and engineering consulting firm, pursuant to grant agreement number 07-575-550-0 between the State Water Resources Control Board (State Water Board) and the City of Imperial Beach (City).

1.1 Problem Statement and Existing Conditions

This project was envisioned as a way to eliminate the urban runoff and first-flush sources of bacterial contamination to the City's beaches in the vicinity of Palm Avenue and to reduce the number of beach closure events and days during dry weather. The Palm Avenue Low-Flow Urban Runoff Diversion Project (Palm Avenue Diverter) consists of the construction of a storm drain to sanitary sewer diversion structure that when completed eliminates the discharge to the Pacific Ocean beaches of low-flow urban runoff and the first-flush flows during storm events. The construction phase was followed by an 11-month water quality monitoring phase that documents the bacteria levels and flows of urban runoff diverted to the sanitary sewer. This report summarizes the water quality monitoring data and data analysis.

Figure 1. Old pump station at the end of Palm Avenue

Studies have shown that one significant source of bacteria is urban runoff flowing into storm drains that eventually discharge onto beaches. Diversion projects have proven successful in reducing trash, sediment and bacteria loading to beaches within their respective drainage basins. To reduce bacteria loading to the City's beaches, the City of Imperial Beach constructed a low-flow diversion project that diverts 100% of the dry weather flows from approximately 72 acres of mixed residential and commercial zoned land. Prior to completion of the Palm Avenue Diverter, urban runoff flows entered a pump station and wet well designed to

pump the collected waters directly to the Pacific Ocean (Figure 1). During dry weather periods, the old station was turned off and 16,000 to 20,000 gallons of urban runoff were collected per week and pumped using portable pumps and hoses into the sewer system.

In conclusion, the project's monitoring plan was designed to answer these study questions:

- What are the characteristics of urban runoff diverted from the receiving waters during dry weather through the low-flow urban runoff diverter and to the sanitary sewer?
- What volume of contaminated urban runoff flow was diverted to the sanitary sewer?
- What level of bacterial contamination is found in the diverted flows?
- What improvements in water quality of the receiving waters can be quantified as a result of implementing the Palm Avenue Low-Flow Urban Runoff Diversion Project?

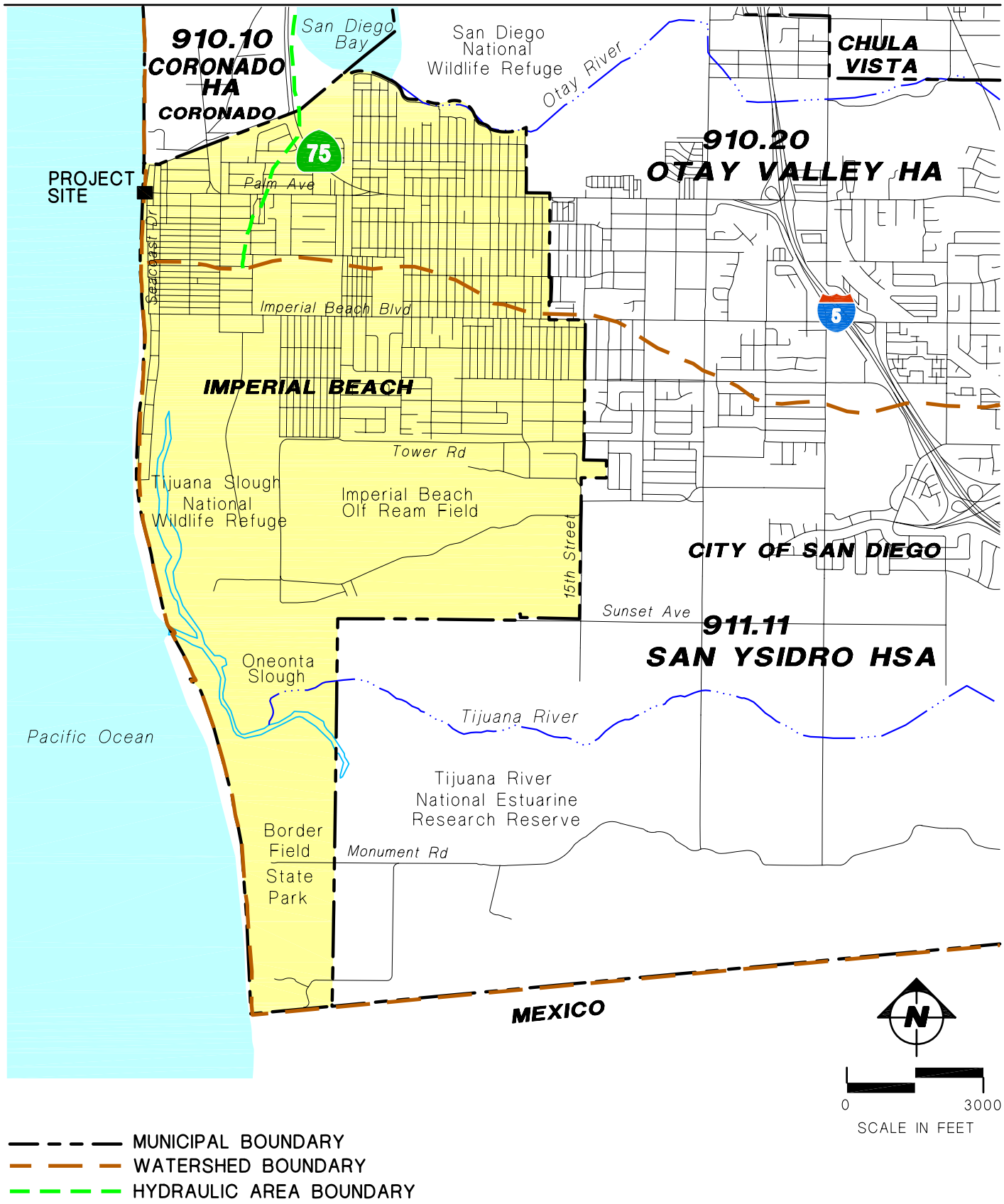
1.2 Geographical Setting

The City of Imperial Beach boundaries are to the north with the City of Coronado, San Diego Bay and the San Diego National Wildlife Refuge; to the south the international border with Mexico, and the Tijuana River National Estuarine Research Reserve; to the west the Pacific Ocean; and to the east the City of San Diego as shown in Figure 2. The project is located on the southwest end of the Otay Hydrologic Unit (910.00) and just north of the Tijuana Hydrologic Unit (911.00); as shown in Figure 2. The northeast and east portions of the City of Imperial Beach are located within the Otay Valley hydrologic area (910.20). This hydrologic area includes drainage from the Otay River that empties into San Diego Bay and the San Diego National Wildlife Refuge along the northern edge of the City. The hydraulic area for the project site is Coronado (910.10) which generally drains to the west to the Pacific Ocean as shown in Figure 2.

The Palm Avenue Diverter is located at the west end of Palm Avenue at Seacoast Drive in the City of Imperial Beach. The structure is at the end of the Palm Avenue drainage basin and the storm drain collection system. The other City diverter is located just south at the end of Date Avenue as shown in Figure 3.

The City of Imperial Beach jurisdiction covers 4.5 square miles or 2,880 acres of which approximately 60% is urbanized area and 40% is reserved for open space, parkland, and other conservation related uses. The City's urban areas are predominately residential and light commercial land use of which approximately 72 acres are in the drainage and storm drain system that connects to the outfall at the end of Palm Avenue. The Palm Avenue Diverter accounts for diversion of a significant portion of the City's low-flow urban runoff and first-flush stormwater to the Pacific Ocean

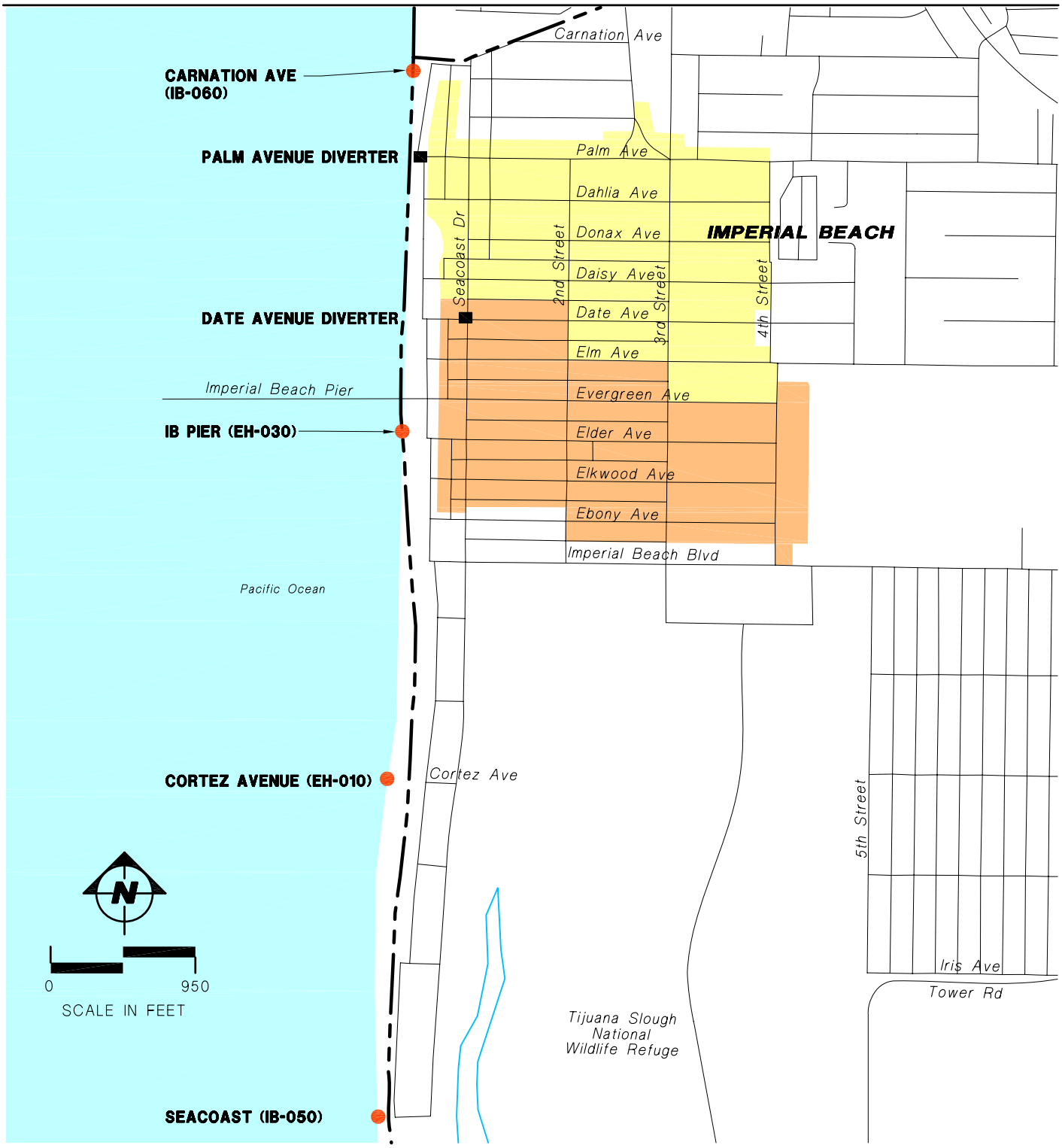
The surrounding area in the immediate vicinity of the project site is urban without habitat. Beneficial uses for the Pacific Ocean as defined in the San Diego Basin Plan (San Diego Basin Plan, Chapter 2) are: Industrial Service Supply (IND); Navigation (NAV); Contact Water Recreation (REC-1); Non-Contact Water Recreation (REC-2); Commercial and Sports Fishing (COMM); Preservation of Biological Habitats of Special Significance (BIOL); Wildlife Habitat (WILD); Rare, Threatened, or Endangered Species (RARE); Marine Habitat (MAR); Aquaculture (AQUA); Migration of Aquatic Organism (MIGR); Spawning, Reproduction, and/or Early Development (SPWN); and Shellfish Harvesting (SHELL).



MUNICIPAL BOUNDARY
WATERSHED BOUNDARY
HYDRAULIC AREA BOUNDARY

Figure 2. Project Location Map

I:\eng\124IB\WQmonitorPalmAv\Rpts\AnnualRpt\FinalDraftRpt\Grfx\6315 Location.dwg January 6, 2010



MUNICIPAL BOUNDARY

PALM DRAINAGE BASIN

DATE DRAINAGE BASIN

Figure 3. Diverter drainage basins and monitoring site locations

I:\eng\124IB\WQmonitorPalmAv\Rpts\AnnualRpt\FinalDraftRpt\Grfx\6315MonitorSiteLocations.dwg January 5, 2010

Section 2
Project Summary

2.1 Project's Objective

The Palm Avenue Diverter project consists of an automatic 250 gallons per minute low-flow urban runoff diverter system constructed at the Palm Avenue curb inlet to divert low-flow urban runoff and first-flush stormwater to the sanitary sewer system to prevent potential beach and Pacific Ocean contamination from the City's storm drain infrastructure. During wet weather the diverter system allows stormwater flows to be discharged to the storm drain system outfall located just west of the diverter system to the Pacific Ocean. To assess the pollutant load diverted to the sanitary sewer system from the storm drain system and ultimately the receiving waters an 11-month water quality monitoring program was conducted. Samples were collected on a weekly basis and analyzed for bacterial indicators. Also, visual observations and field measurements were collected on a weekly basis at the wet well, which is part of the diverter system, from January 6th through December 1st, 2009 to evaluate the quantity and quality of nuisance urban runoff diverted by the Palm Avenue Low-Flow Urban Runoff Diverter.

The bacteria levels along with the estimated volume of diverted urban runoff will be used to estimate the bacteria loading from the storm drain system outfall, which would have been directed to the Pacific Ocean, in the absence of the diverter system. The number of averted beach closure events and days will also be estimated.

2.2 Project History

Figure 4. Beach closure sign

The City of Imperial Beach was experiencing a significant number of beach closures as a result of high concentrations of indicator bacteria (Figure 4). For example, the beach was closed thirty-nine (39) times in the year 2000, with over half of the closures occurring during dry summer months when beach attendance is at a peak.

When this project was proposed in 2001, it was difficult to assess how local urban runoff and non-local sources interacted to contribute to the City's beach contamination problems. Statistics on beach closures suggest that the sources and physical transport processes in this region were many and complex. The need to examine and continuously monitor potential sources of bacteria was identified as an important first step, which over time would facilitate a solution to beach closures. Thus, the City obtained Proposition 13 Clean Beach Initiative (CBI) and later Proposition 50 Clean Beaches Grant program funds for three projects designed to enhance its understanding of the issue, and

to initiate the process of eliminating some of the known sources of pollution. The first project to be completed was the South Bay Coastal Ocean Observing System, which was designed to provide real time measurements of key oceanographic parameters relevant to understanding the complex coastal transport mechanisms present in the oceanographic region. The other two projects were designed to divert low-flow urban runoff into the sanitary sewer system.

This report focuses on the Palm Avenue Low-Flow Urban Runoff Diversion Project located at the intersection of Palm Avenue and Seacoast Drive which is the third of the three projects. Its purpose is to eliminate a local source from the myriad of potential sources of bacterial contamination to coastal waters in Imperial Beach.

The Palm Ave diverter pump station and storm drain improvements route urban low flows and first flush rain water into the sanitary sewer system through a four-inch PVC connection. When runoff during storm events exceed the capacity of the 250 gallons per minute diverter jockey pump, then the storm water is routed to an outfall at the end of Palm Avenue that discharges into the Pacific Ocean. Major construction of the Palm Avenue Diverter was completed in December 2008 with minor construction and electrical system troubleshooting completed in June 2009. Water quality sampling was initiated in January 2009. Water quality measurements and samples of the urban runoff water were taken for approximately one year on a weekly basis such that the quantity and quality of diverted and contaminated runoff could be assessed.

2.3 Baseline Water Quality

Although data collection and interpretation by third parties has varied throughout the years, the concern of beach closures and postings continued from 2001 through 2007 with closure events ranging from 8 to 20 per year, and the total number of beach closure days ranging from 17 in 2002 to a high of 85 in 2005. In some cases, beach closures were likely due to urban runoff and rain event flows from the Tijuana River Valley and Mexico, which reach the coastline of Imperial Beach due to northerly currents in the Pacific Ocean. Beach closure events in the dry weather period from April 1 through September 30 are shown in Table 1. Beach closure days range from a minimum of 8 in 2004 to a maximum of 25 in both 2003 and 2006.

Table 1. Beach closure events and days (County of San Diego)

Year	Beach Closure Events	Total Beach Closure Days	Beach Closure Events (4/1 – 9/30)	Beach Closure Days (4/1 – 9/30)
2001	11	63	8	24
2002	8	17	4	10
2003	14	72	7	25
2004	12	64	3	8
2005	14	85	3	23
2006	20	56	10	25
2007	20	38	7	9

2.4 Potential Source Categories

The City identified various potential sources of bacterial contamination to its beaches in the late 1990's and early 2000, and developed various project proposals to verify and quantify the sources. The City's ultimate goal being the elimination of as many sources it could control or manage in order to increase the number of days beaches are available to the public for recreational swimming and other activities.

Although studies have identified the Tijuana River and Mexico as significant sources of beach contamination, especially during wet weather, the City installed two low-flow urban runoff and first-flush diversion systems over the last five years to eliminate dry weather flows. The first one was completed in October 2004 at the Date Avenue outfall to the Pacific Ocean which resulted in the removal of one source of bacterial contamination. The City's second project was funded by the Proposition 50 Clean Beaches Grant program to eliminate the last major known source of bacterial pollution from the Palm Avenue drainage basin which is under the City's control. The installation of the second diverter structure at Palm Avenue was designed to remove most of the remaining urban runoff discharges with bacterial and other pollutants the Pacific Ocean beaches fronting Imperial Beach (Figure 5).

Figure 5. Imperial Beach Pier

2.5 Funding Program

The $3 million Palm Avenue Street End Project, which includes the Palm Avenue Low-Flow Urban Runoff Diverter Project, was jointly funded by the Port of San Diego and the City of Imperial Beach, with assistance from the SWRCB Proposition 50 Clean Beaches Initiative (CBI) Grant Program. The grant funding was obtained through an agreement between the SWRCB and the City of Imperial Beach. The total construction cost and post-construction water quality monitoring cost for the Palm Avenue Diverter Project was approximately $1.54 million (Table 2).

Table 2. Palm Avenue Diverter project funding summary

	Planning*	Design	Construction	Monitoring	O& M Annual
Project Cost					
CBI – Grant			$1,247,000	$45,000	
Other (specify)					
Local Match (Port of San Diego)			$247,000		

* Includes environmental document, permitting and right of way

2.6 Project timeline and funding

In 2001, the City was originally awarded $500,000 in SWRCB grant funds under Proposition 13 to build the Palm Avenue Diverter. The project would have been completed as originally scheduled around the same time as the Date Avenue Diverter project which was completed in 2005. The Palm Avenue Diverter project was delayed for five years pending the outcome of CEQA litigation unrelated to the diversion project itself. Once the legal issues were resolved, the project was given the go-ahead in July 2006, but there was insufficient time to complete the construction and post-construction water quality monitoring by the March 2008 deadline established in the grant agreement between the City and the SWRCB. In addition, the construction costs for the Palm Avenue Diverter had increased significantly beyond the original $500,000 costs estimate from 2001.

The City arranged with the SWRCB to forgo the 2001 funding under the Proposition 13 Clean Beaches Initiative (CBI) grant program and was advised by SWRCB staff to apply under Proposition 50 CBI grant funds with the up-to-date cost estimate of $1.292 million dollars.

The final grant award amount for the project from the SWRCB was $1.292 million dollars as originally requested by the City with matching funds provided by the Port of San Diego in the amount of $247,000.

Section 3
Project Activities, Tasks and Schedule of Completion

The Palm Avenue Diverter Project was part of the larger capital improvements in the Palm Avenue Street End project, a nearly $3 million public works project in the City of Imperial Beach.

The multi-faceted project transformed the end of Palm Avenue at the oceanfront of Imperial Beach into a park-like setting. It also includes important environmental and safety features. A new stormwater pump station with a built-in diversion system was installed to reduce urban runoff onto the beach. Other enhancements include the installation of ramps from the street end to the beach, providing direct beach access for emergency vehicles and individuals with disabilities. Traffic improvements from the project included a new turnaround, which allows two-way traffic. Perpendicular parking was added to both sides of the street. The project also includes public art. The plaza became the site for an 18-foot tall bronze sculpture of a surfer and his longboard. Titled "The Spirit of Imperial Beach," the artwork was created by the late A. Wasil and epitomizes the surf culture of the oceanfront city.

Figure 6. Palm Avenue and Diverter during final stages of construction

Figure 7. Main art piece: "The Spirit of Imperial Beach"

Reyes Construction was the contractor on the project and AECOM Transportation was the designer. Construction on the project began in May, 2008 and was completed in June, 2009. Water quality monitoring was initiated on January 6, 2009 and ended on December 1, 2009.

The full Table of Items for Review found on page five of Agreement No. 07-575-550-0 between the City of Imperial Beach and the SWRCB is included as Table 3 in this report.

Table 3. Table of items for review

Item	Description	Critical Due Date	Estimated Due Date
Exhibit A – Scope of Work			
A.	PLANS AND COMPLIANCE REQUIREMENTS		
1.	GPS information for Project site and monitoring locations	May 2007	
2.	Project Assessment and Evaluation Plan (PAEP)	June 2007	
3.	Monitoring Plan (MP)	Day 90	
4.	Quality Assurance Project Plan (QAPP)	Day 90	
5.	Copy of final CEQA/NEPA documentation	June 2007	
6.	Land Owner Agreement(s)	NA	NA
7.	Applicable permits (including Army Corps of Engineers Permit and 401 Water Quality Certification)		March 2008
B.	WORK TO BE PREFORMED BY GRANTEE		
1.3	As-advertised construction documents		February 2008
1.5	Bid summary, proof of advertising, and construction notice to proceed		April 2008
2.1	Final project design		February 2008
3.2	Photo documentation of construction work at all phases		October 2008
Exhibit B – Invoicing, Budget Detail, and Reporting Provisions			
A.	INVOICING		Quarterly
E.	REPORTS		
1.	Grant summary form	Day 90	
2.	Progress reports by the twentieth (20th) of the month following the end of the calendar quarter (March, June, September, and December)		Quarterly
3.	Natural Resource Project Inventory (NRPI) Project Survey Form	Before final invoice	
4.	Draft project report	1/1/10	
5.	Final project report	2/1/10	

The project schedule and project tasks, as shown in the above table, will be completed with the submittal of this final project report and the City will have then met its obligations under the CBI grant funding agreement for the Palm Avenue Low-Flow Urban Runoff Diverter Project. This final project report has been prepared to satisfy items 4 and 5 in Exhibit B of the Table of Items to Review (Table 3). Figure 8 below shows a typical construction phase project schedule as prepared by the construction contractor.

Figure 8. Sample construction phase project schedule

LOOK AHEAD SCHEDULE

REYES CONSTRUCTION, INC.
PALM AVENUE STREET END IMPROVEMENTS
CONTRACT NO. 2007-31

CONSTRUCTION SCHEDULE 14

Current Date: 8/19/2008
Oscar Ojeda

		Aug 08																					Sept 08							COMMENTS
		M	T	W	TH	F	S	S	M	T	W	TH	F	S	S	M	T	W	TH	F	S	S	M	T	W	TH	F	S	S	
Item	Description	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	1	2	3	4	5	6	7	
1	Seawall - Env Monitoring						X	X													X	X								
2	Seawall - Vibration Monitoring	X	X	X	X																									Completed end of 08-14
3	Seawall - Sheet Pile Install		X	X	X																									8-9 & 8-11: Repair Pile Rig
4	Seawall - Rebar & Welding								X		X	X	X			X														
5	Seawall - Forming															X	X	X	X	X										
6	Seawall - Pour																			X										
7	Pump Station - CMX23 Card																													07/24: Tune New Card
8	Pump Station - Dewatering	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	7/18: Switched to 7 HP Sub Pmps
9	PS Wall1 - Form Inside	X	X																											
10	PS Wall1 - Rebar & Waterstop	X	X	X	X	X																								
11	PS Wall1 - Form Outside			X	X	X																								
12	PS Wall1 - Pour (to Elev +8.40)								X																					
13	PS Wall1 - Cure Concrete								X	X	X	X	X	X	X															
14	PS Wall1 - Waterproofing															X	X													
15	PS Wall1 - Waterproofing Cure															X	X	X	X	X	X	X								
16	Backfill & Remove Lower Shoring																						X	X	X	X	X			
17	SWPPP Check & BMPs					X							X				x			X							X			Field Mtg URS August 5 & 26
	Utilities:																													
1	SDG&E Coordination Meeting																													Port
2	OLD PLANK - SDG&E and AT&T Site Work																													Port Direction to Reyes
3	Calif Am Water - CP to remove Exg Line																													Work: Done Week of June 30
4	Cap Sewer Closer to Main																													

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Section 4
Project Implementation and Improvements

The construction phase of the project initiated with a notice to proceed on May 7, 2008 and was completed on June 12, 2009. The majority of the construction work was finalized by January 1, 2009 with pump and diverter, and electrical system troubleshooting, landscaping, and other minor work taking place between January and June 2009.

The construction site was located the west end of Palm Avenue at the intersection with Seacoast Drive as show in the figures below. The installation of the Palm Avenue Diverter, as noted earlier in Section 1, allows low-flow urban runoff and first-flush stormwater to be directed to the sanitary sewer instead of discharging directly to the beach at the Pacific Ocean. The Palm Avenue Diverter project was part of a larger capital improvement project for the Palm Avenue street end which included improvements to the street, sidewalks, beach access, parking and drainage (Figure 9). Overall, beach safety was improved both in the water through the removal (diversion) of a pollutant source and in the surrounding area through infrastructure improvements as shown in the pre- and post-construction photos that follow.

Figure 9. Artist's rendering of the Palm Avenue street end improvements

The project site improvements include the storm drain system, the sanitary sewer system, and the installation of the 250 gallon per minute capacity pumping system with a wet well. The entire diversion system with the exception of the electrical control panel is located underground in the street end of Palm Avenue. As depicted in Figure 9 and in the photographs included later in this section, the Palm Avenue street improvements have many unique aesthetic components, and the water quality improvement system is invisible to the general public due to its location underground.

The Palm Avenue Diverter system is designed to operate in the sanitary sewer mode during dry weather and during the first flush of storm events in order to eliminate the discharge to the receiving waters at the beach of the Pacific Ocean. During wet weather, the system is designed to allow storm flows from the Palm Avenue drainage area to discharge directly to the Pacific Ocean via the outfall at the end of the street.

The final project construction includes a diverter system, new pump station, new wet well, new ocean outfall for non-diverted water and associated piping. The structure is designed to divert up to 250 gallons per minute of urban nuisance runoff water and first-flush stormwater to the

sanitary sewer system. The Palm Avenue Diverter is fed by four curb inlets and 15 grated drains. The inlets drain approximately 72.1 acres of residential and light commercial land uses as shown in Figure 3. Prior to the construction of the Palm Ave Diverter, all flows from these inlets discharged directly onto the beach. Operating at maximum capacity, the Palm Ave diverter can divert flows up to 250 gallons per minute into the sanitary sewer. Surface water flows are collected from the inlets to an 18-inch and a 30-inch reinforced concrete drainage (RCP) pipes that discharge flows into a storm drain wet well. The wet well and 30" pipe have the capability to store up to 3,260 cubic feet of stormwater before the stormwater pumps turn on. The first flush of stormwater runoff is diverted, with additional storm flows discharged to the beach via a diffuser vault at the end of a new concrete pipe, where it is dispersed onto the riprap embankment.

The completion of the Palm Avenue Diverter project is the third and last component of the City's original vision and plan to minimize urban runoff and nuisance discharges to the beach and Pacific Ocean. The project has allowed for improved water quality, and a better understanding of the sources and factors that affect beach posting and closures.

The operation of the Palm and Date Avenue basin diverters covers approximately 137.2 acres of land and collects low-flow urban runoff that is diverted before reaching the beach. The only coastal outfall in Imperial Beach not on a diverter system is at the Ebony Street end, which consists of a 12 inch outfall and drains a residential area of 2.2 acres.

4.1 Pre-Construction Project Site Description and Photos

Figures 10 through 15 are pre-construction photos that show the appearance of the west end of Palm Avenue on April 10 and 26, 2008. As seen in the figures, the street end consisted of limited vehicle access and parking, limited beach access (Figures 11 and 15) that included a steep drop-off from an abandoned concrete pad on the west and north sides with very limited safety features for emergency vehicles, pedestrians or beach patrons. The discharge from the storm drain pipe at the end of the street regularly resulted in beach closures and postings.

Figure 10. Project sign at the end of Palm Avenue

Figure 11. Western end of Palm Avenue looking southwest

Figure 12. Corner of Palm Avenue and Seacoast Drive

Figure 13. Western end of Palm Avenue looking east

Figure 14. Palm Avenue street end looking north

Figure 15. End of street looking toward the Pacific Ocean

4.2 Construction Phase Description and Photos

Construction was initiated with a notice to proceed to the selected construction contractor in May 2008. Figures 16 through 26 provide select photos taken at the project site during the construction phase from June through December 2009. The photos include views of the construction of the wet well wall and diversion structure during excavation, the installation of the sheet pilings for the retaining wall at the west end of the street. Figures 23 through 26 document the installation of new storm drain piping, final grading at the street, and improved pedestrian walkways and sidewalks.

Figure 16. Initial grading at the end of Palm Avenue

Figure 17. Wet well initial construction and dewatering

Figure 18. Sheet pile view

Figure 19. Sheet pile driving

Figure 20. Pump station excavation and construction

Figure 21. Pipes to be installed

Figure 22. Rebar for pump station structure

Figure 23. Pipeline replacement and construction

Figure 24. Final grading

Figure 25. Plaza and street finishing

Figure 26. Sidewalk improvements

4.3 Post-Construction Description and Photos

Photos in Figures 27 through 33 were taken after construction was completed. Figure 27 was taken during the dedication ceremony on January 2, 2009. The other figures show the finished look of the walkway, retaining wall, and pedestrian friendly Palm Avenue street end. Final project photos also show the art work, street lighting and landscaping included as part of the capital improvement project. The covers to the vaults that make up the Palm Avenue Diverter system are shown in Figure 32 and the underground diversion system located inside vaults with hinged doors that provide access for maintenance, repair and water sampling. A spigot system that was designed and installed to facilitate bacteria sampling from the diverter pump at grade level did not work as designed or intended. Post construction modifications also did not result in a suitable bacteria sampling system. For the purposes of this monitoring study samples were taken by dipping a sample bottle attached to extension pole lowered directly into the wet well.

Figure 27. Dedication – January 2, 2009

Figure 28. Palm Avenue street end with art work

Figure 29. Wet well open during sampling event

Figure 30. Wide view of Palm Avenue street end

Figure 31. Diverter structure with covers open

Figure 32. Diverter structure with covers in closed position

Figure 33. End of Palm Avenue

Section 5
Monitoring Program and Sample Collection

5.1 Sample Collection Strategy and Schedule

The City prepared a Quality Assurance Project Plan and Monitoring Plan (QAPP) for the Palm Avenue Diverter project which was completed in November 2008, and approved and signed prior to commencing the water quality monitoring activities. A copy of the project's QAPP can be found in Appendix C.

Weekly monitoring of the quantity and quality of runoff diverted to the sanitary sewer system was conducted to assess the bacterial levels diverted from entering the beaches at the Pacific Ocean. During the planned an 11-month monitoring of the Palm Avenue Diverter, only three weekly samplings events were cancelled due to ongoing maintenance activities preventing a representative sample from being collected. Those were March 3, May 5, and May 12. Two monitoring events were canceled in February 2009 due to storm events. A total of 43 sampling events were conducted over the course of 11 months.

Prior to sample collection, the sampling site was restricted with traffic cones for pedestrian safety. Bacteria samples and visual observations were taken at the wet well, which is part of the diverter system. During the project the flow meter and the spigot designed to draw a sample from the diverter flow had operational difficulties and it was decided early on to continue to collect samples from the diverter wet well for consistency.

Samples for bacteriological testing were collected every Tuesday morning from the diverter system wet well to coincide with sampling in the Pacific Ocean performed by other agencies. The samples were collected from the wet well using a long sampling pole and by dipping the collection bottle into the wet well and filling the bottle with water from the wet well (Figure 34). A 100ml prepared plastic sample container with 30 mg of sodium thiosulfate preservative was used. Samples were placed on ice immediately after collection and transported to EnviroMatrix Analytical (EMA) Laboratory within the holding time limit of 6 hours. Visual observations of the sampling site were recorded and documented with photographs during each sampling event. A totalizing flow meter was installed as part of the diverter system, but was found to be inoperable after the first few weeks of monitoring. An alternative method of estimating the flow started in March 2009 and was continued through the end of the project. This facilitated estimating the volume of dry weather flow diverted into the sewer by using the pump run time and the known pump capacity of 250 gallons per minute.

Figure 34. Sampling with long pole at the diverter structure wet well

The post-construction water quality monitoring was carried out for approximately one year from January through December 2009 following completion of the construction of the diverter. Beach advisory and closure data were obtained from the County of San Diego Department of Environmental Health to determine changes in the number of beach postings and closures upcoast (Carnation Avenue station) and downcoast (Imperial Beach Pier station) of Palm Avenue during dry weather conditions. In addition, sampling locations associated with the South Bay International Wastewater Treatment Plant located in San Ysidro, California were also reviewed. Sampling locations relative to the project site are shown in Figure 3.

Water Quality Analysis and Field Screening Observations

Field crews recorded on-site measurements of the following key water quality parameters on a weekly basis:

- Odor
- Color
- Floatables
- Water clarity
- Specific conductance (mS/cm)
- Temperature (Celsius)
- pH

Miscellaneous data

- Weather and rain event information
- Flow measurements
- Photographs

Laboratory Analytical Monitoring

- *Enterococcus* bacteria
- Total coliform bacteria
- *E. coli* (fecal coliform)

As stated in the QAPP, data quality objectives (DQOs) for bacteriological testing are summarized in the table below. Whenever possible, the method with the greatest sensitivity and lowest detection limit was employed as the primary method. Specific DQOs are not given for the flow monitoring. These data were continuously evaluated to ascertain their validity and usefulness.

Table 4. Data quality objectives for biological parameters

Parameter	Method/ Range	Units	Detection Limit	Sensitivity	Precision	Accuracy	Complete-ness
Total Coliform Bacteria	Colilert 18 hour	MPN/ 100ml	10	IDEXX quantitray tables	Duplicates within 95% confidence limits	Positive standard within ½ of an order of magnitude	80%
E. coli Bacteria	Colilert 18 hour	MPN/ 100ml	10	IDEXX quantitray tables	Duplicates within 95% confidence limits	Positive standard within ½ of an order of magnitude	80%
Enterococcus Bacteria	Enterolert 24 hour	MPN/ 100ml	10	IDEXX quantitray tables	Duplicates within 95% confidence limits	Positive standard within ½ of an order of magnitude	80%

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Section 6
Data Quality Assessment: Verification and Evaluation

As described in Elements 9 through 18 of the QAPP, all field results were recorded at the time of collection using the established field data sheets. Data sheets were reviewed for outliers and omissions before leaving the sample site and signed after review by the team captain. Data sheets were stored in hard copy form at the location specified and scanned electronically for storage in the project's database and electronic files. Field data sheets will be archived for three years from the time they were collected. Hard copies of all data, as well as computer back-up disks, will be maintained at City Department of Public Works offices and by the consultant PBS&J.

The team captain reviewed and identified any results were holding times where exceeded, sample identification information was incorrect, samples were inappropriately handled, or calibration information was missing or inadequate. Such data were marked as unacceptable by the team captain and were discussed with the quality assurance manager/project manager to arrive at a solution on whether data points would be entered into the electronic database.

The contracted environmental testing laboratory for the project was EnviroMatrix Analytical, Inc. (EMA). They provided the analytical report of the results to the team captain, project manager and the City's Environmental Program Manager electronically. The team captain and quality assurance manager/project manager verified sample identification information, reviewed the chain-of-custody forms, verified lab quality control, and identified the data appropriately in the database. These data were also reviewed by the Public Works Environmental Program Manager.

The data manager reviewed all the field sheets and entered the data deemed acceptable by the quality assurance manager/project manager. On a monthly basis and at the conclusion of the data collection period, the quality assurance manager/project manager verified, signed and archived the field data sheets. Data were entered into a spreadsheet (MS Excel) in a way that is compatible with EPA's STORET and the RWQCB's database guidelines. Following initial data entry the quality assurance manager/project manager reviewed and verified all electronic data, compared it to the original data sheets and corrected any data entry errors. After performing data checks and ensuring that data quality objectives had been met, data analysis was performed. As a result of quality control practices, a water quality reading of >256 mS/cm for conductivity on February 3, 2009 was not entered in the spreadsheet since it was determined to be an outlier and likely due to instrument or technician error in the field.

In addition, four sets of field blanks and field duplicate or replicate samples were collected during the water quality monitoring period and tested for all three bacterial indicators. The quality control samples were collected on March 10, June 30, September 22 and November 17, 2009. Except for the first set of blank and duplicate samples, all sample containers were labeled in a manner that did not disclose to laboratory personnel their intended purpose.

Laboratory duplicate tests were averaged to provide for one single data point for that sampling event and reported in the spreadsheet. A separate spreadsheet was prepared to enter the quality control data for these samples.

Quality control data are provided in Appendix A of this report and summarized as:

- All four field blanks for all three bacterial indicators had results reported as "non-detectable" with the appropriate detection limits.
- All four field duplicates for total coliform had acceptable standard deviations ranging from 11 to 25.6 percent with the first and fourth quarter sets having the highest deviation.
- All four field duplicates for *Enterococcus* had acceptable standard deviations ranging from 11 to 31 percent with the set for the third quarter being the highest.
- Three out of the four duplicate sample sets for *E. coli* were non-detectable. The first quarter test results did have a 55 percent standard deviation.

Additional quality control measures were taken when conducting field water quality measurements using the Sension 156 pH and conductivity meter with temperature measurement. Prior to each field visit, the meter and probes were calibrated per manufacturer's recommendations using standard solutions. Weekly calibration readings were entered in the instrument log.

Section 7
Results

7.1 Load Reduction Analysis

Bacterial Indicator Measurement

The results of the bacterial analyses as reported by EMA were compared with the following:

1. Single sample objectives established in the San Diego Basin Plan (1994) for the waters designated for contact recreation (REC-1) beneficial use.
2. AB411 objectives established by the California Department of Health Services for recreational waters.

The bacterial indicator benchmarks from these two regulatory programs are shown in Table 5.

Table 5. Bacterial indicator benchmarks (MPN/100ml)

Bacterial Indicator	Single Sample Objectives	AB411 Objectives
Total Coliform	NA	10,000
Enterococcus	104	104
E. coli	NA	NA

NA – Not Available

The purpose of the comparison is not to estimate the difference between water quality measurements collected at the diverter and the water quality objectives set for the receiving waters, but to assess the influence of the low-flow urban runoff diverter in reducing bacteriological and other urban runoff pollution to the Pacific Ocean.

One way to assess the environmental benefit of diverting the low-flow urban runoff to the sanitary sewer is to estimate the number of potential exceedances of water quality benchmarks against the bacteria levels in the samples collected at the diverter wet well, as will be shown below.

All three bacterial indicator test results varied significantly over the course of the 11-month monitoring program as shown in Figure 35 and summarized in Table 6. The full data set for the 11-month monitoring program can be found in Appendix A.

Figure 35. Bacterial indicator concentration

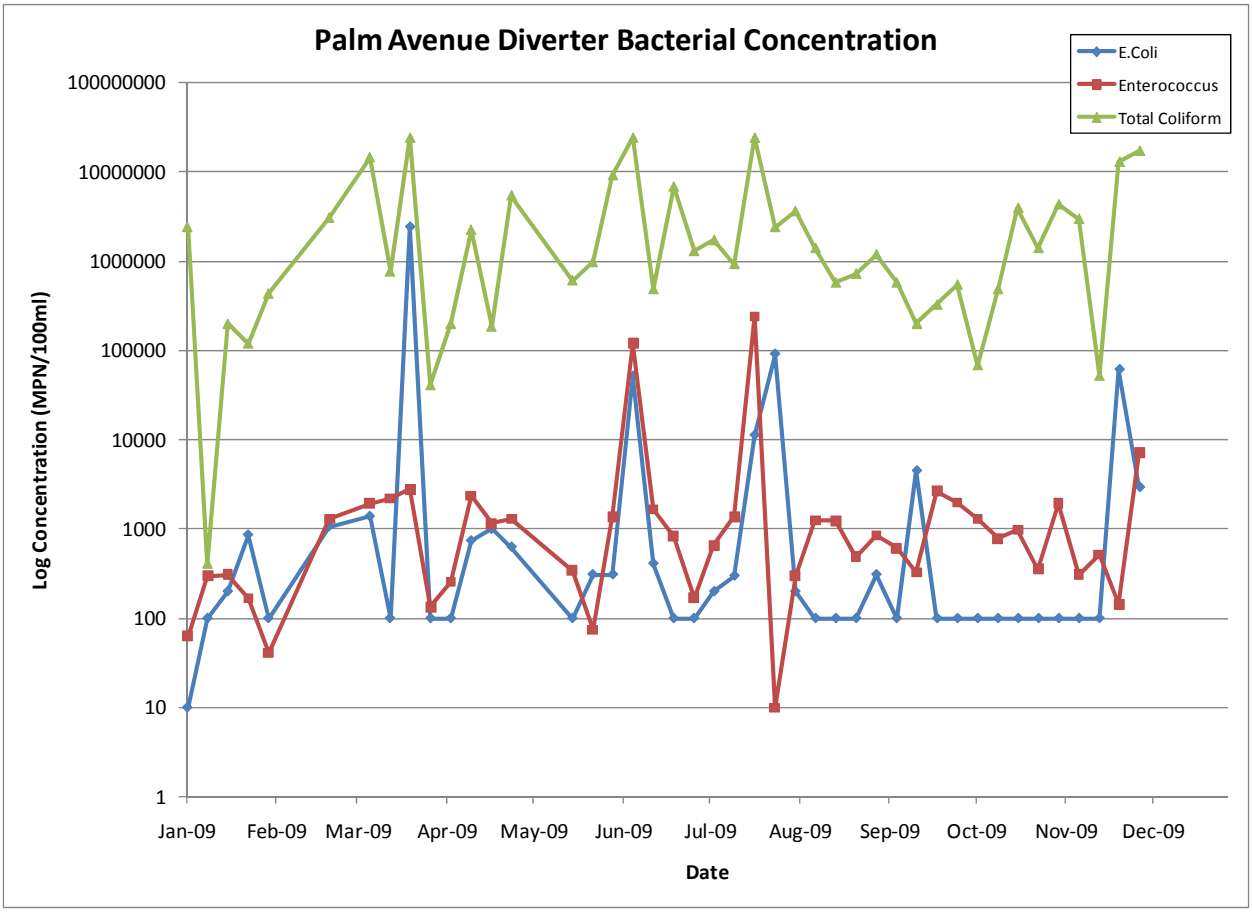


Table 6. Bacterial data summary (MPN/100ml)

Bacterial Indicator	Low Value	High	Median Value	Notes
Total coliform	410	>24,200,000	1,200,000	The high value was repeated on three separate sampling dates
E. coli	<10	2,420,000	100	
Enterococcus	<10	241,960	836	

Figure 36 includes the ocean water quality data collected by the International Boundary Treatment Plant at the IB-060 station located north of the Palm Avenue Diverter (see map shown in Figure 3) and similarly data from the southerly station (EH-030) collected by the County of San Diego. With the exception of wet weather influences on the ocean water quality in February 2009, the data for the ocean water quality sites indicates that while the diverter was operational none of the sites exceeded the total coliform action level. Table 7 show the resulting number of predicted water quality benchmark exceedances for total coliform in the receiving water, assuming the wet well had been discharged and reached the Pacific Ocean with minimum dilution and/or mixing. The data indicates that for the majority of the project monitoring period the ocean water quality was non-detectable for total coliform.

Figure 36. Total coliform concentration

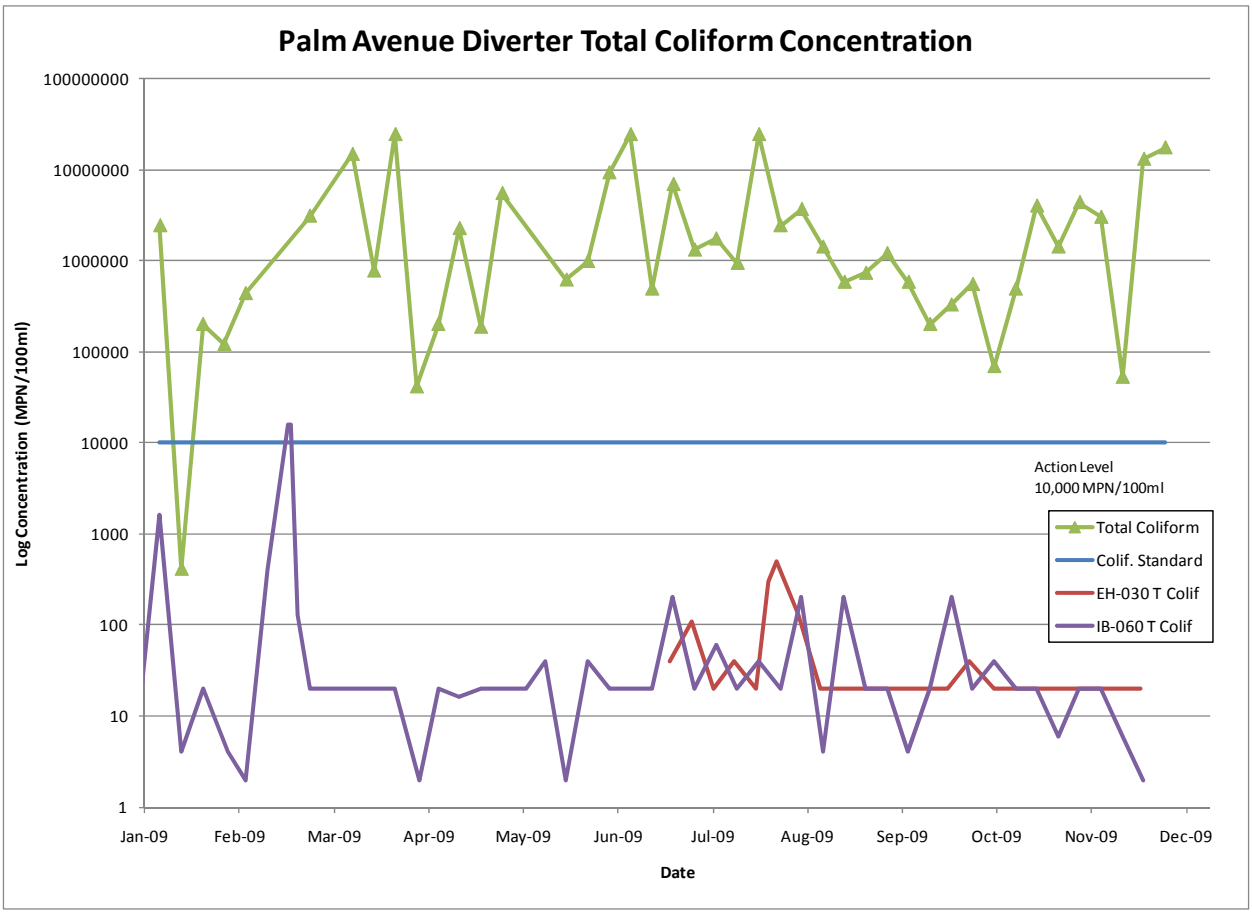


Table 7. Number of predicted total coliform exceedances

Bacterial Indicator	AB 411 Criteria (10,000 MPN/100ml)	Single Sample Objective (NA)
Total coliform Exceedances	42 out of 43 samples	NA

Figure 37 includes the ocean water quality data collected by the International Boundary Treatment Plant at the IB-060 station located north of the Palm Avenue Diverter (see map shown in Figure 3) and similarly data from the southerly station (EH-030) collected by the County of San Diego. Figure 37 includes wet weather data in February 2009 that shows an exceedance of action levels likely from a variety of sources. Table 8 shows the resulting number of predicted water quality benchmark exceedances for *Enterococcus* in the receiving water assuming the wet well had been discharged and reached the Pacific Ocean with minimum dilution and/or mixing. The data indicates that for the majority of the project monitoring period the ocean water quality was non-detectable for *Enterococcus* while the diverter wet well was above the action level.

Figure 37. *Enterococcus* concentration

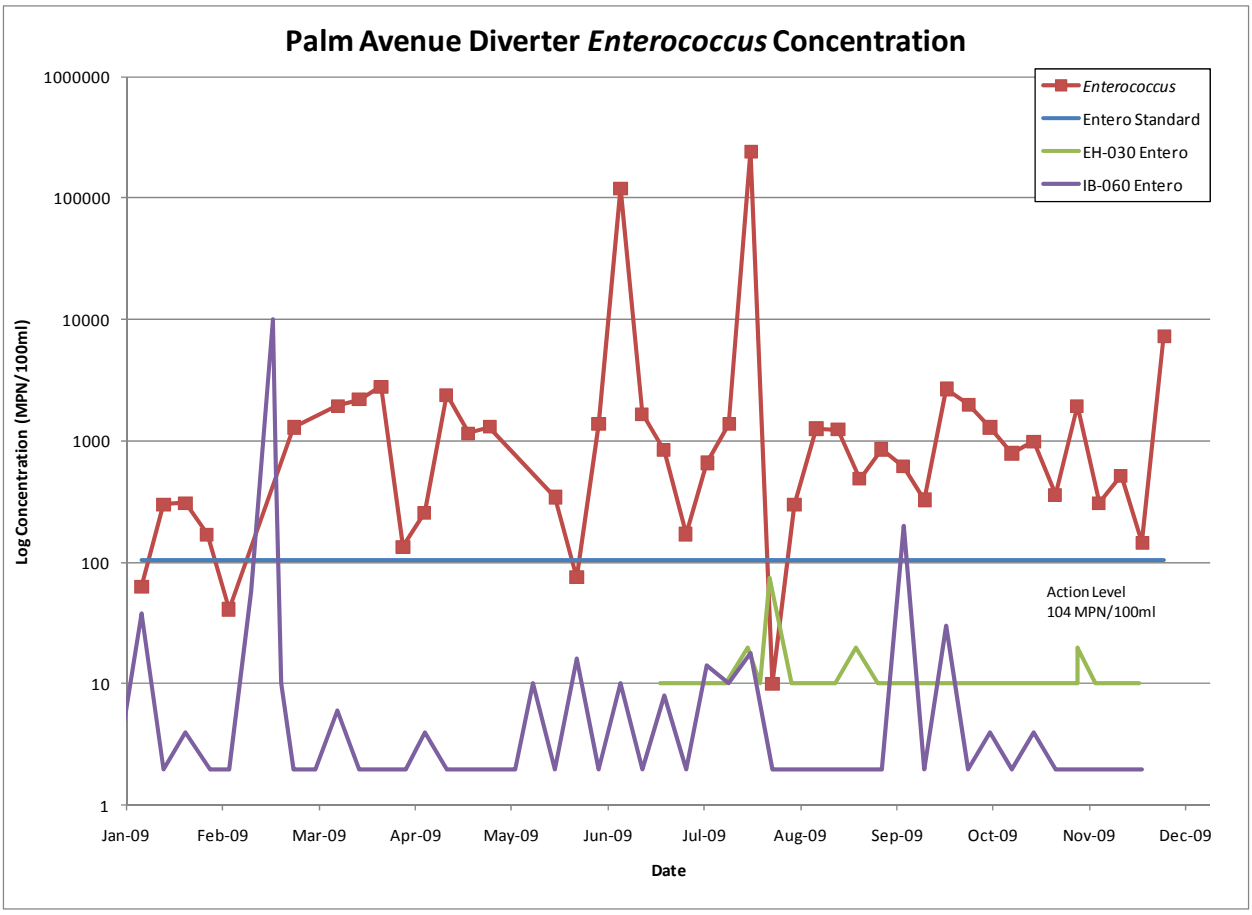
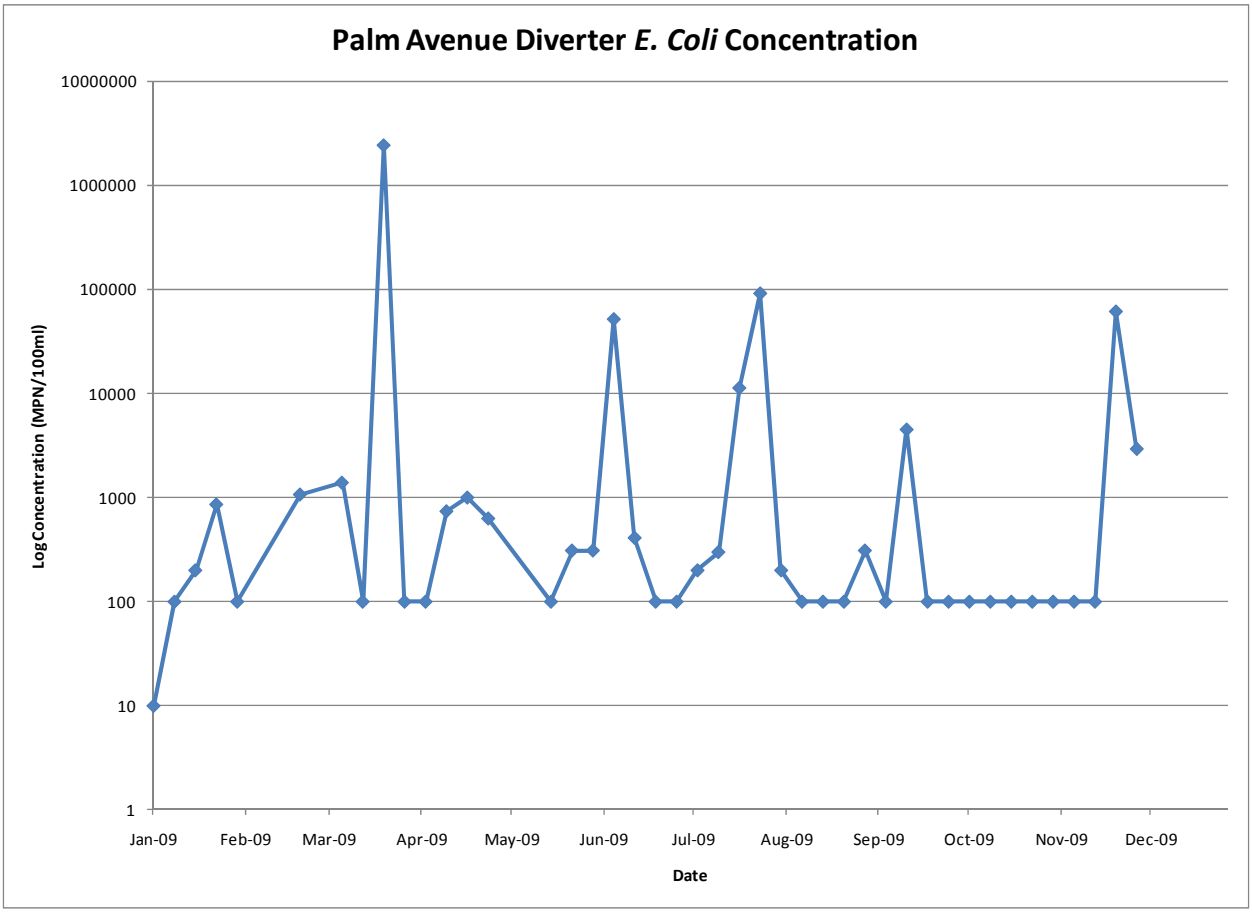


Table 8. Number of predicted *Enterococcus* exceedances

Bacterial Indicator	AB 411 Criteria (104 MPN/100ml)	Single Sample Objective (104 MPN/100ml)
Enterococcus Exceedances	39 out of 43 samples	39 out of 43 samples

Figure 38 provides a graphical representation of the data collected for *E. coli*. No prediction of the impact of this bacterial indicator is possible since there are no established water quality benchmarks.

Figure 38. *E. coli* Concentrations



In summary, the analysis of the data shows that 43 samples out of 43 collected had the potential to contribute to a bacterial indicator benchmark exceedance had the discharge gone directly to the receiving waters with limited dilution and/or mixing.

7.2 Results of Non-Bacterial Data

Figure 39. Water quality testing – pH, temperature, and conductivity probe

The San Diego Municipal Stormwater Copermittees (the City of Imperial Beach is a Copermittee) have established urban runoff/dry weather action levels for urban runoff in the storm drains that consist of the field screening analytes shown in Table 9. These action levels are used by the Copermittees to identify illegal discharges and illicit connections in the storm drain system and to prompt investigations to remedy nuisance urban runoff. Field screening parameters were taken at the wet well and recorded onto field data sheets during sampling events. The results were transferred to the data spreadsheet found in Appendix A. The sampling data were compared to the dry weather action levels to determine if diverted urban runoff was originating from an illegal discharge and warranted investigation by the City of Imperial Beach Stormwater Program.

Table 9. Copermittee action levels for field screening analytes

Field Screening Analyte	Copermittee Action Levels
pH	< 6.5 or > 9.0
Temperature (^{o}C)	BPJ
Specific Conductance (mS/cm)	BPJ

BPJ – Best Professional Judgment

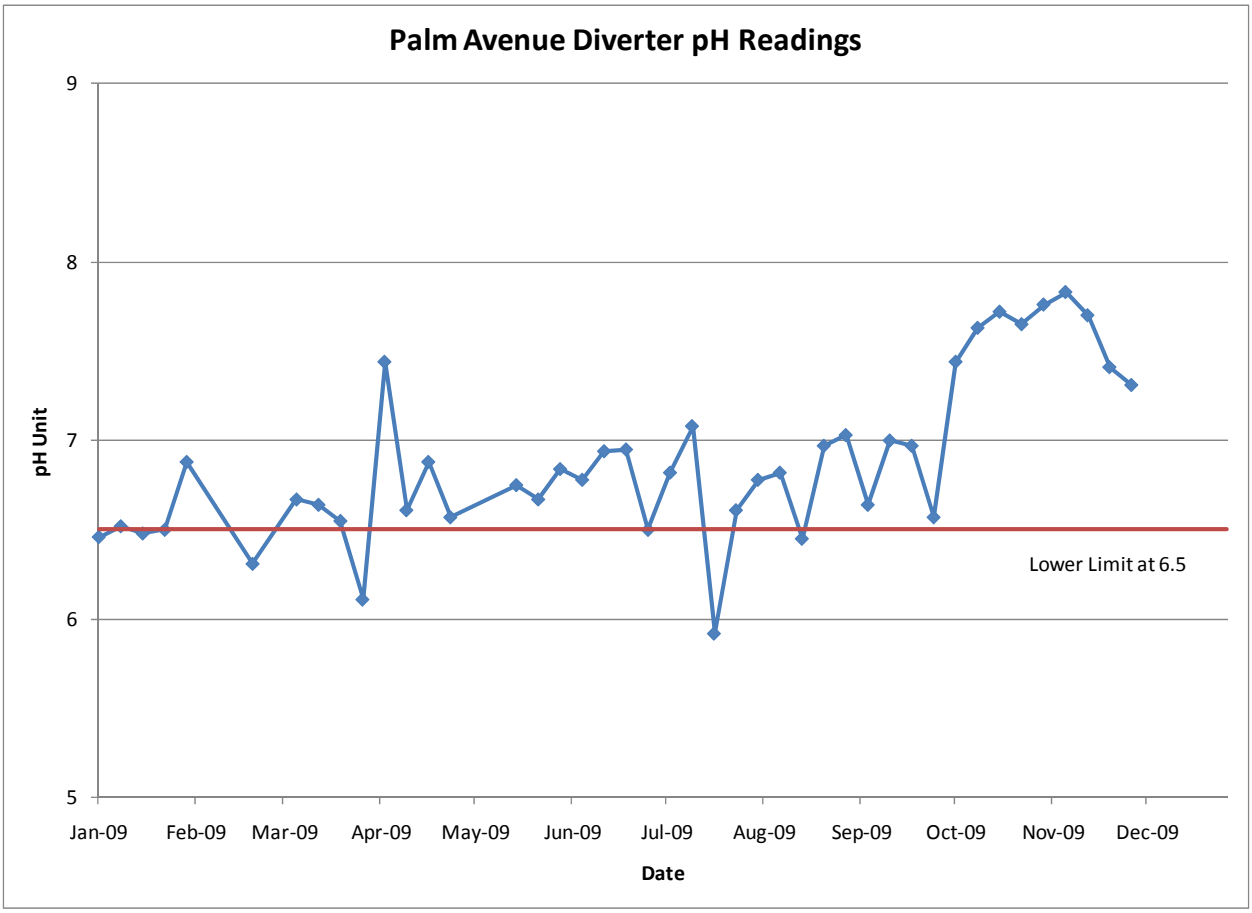
<u>pH Test Results</u>

Water quality testing included measuring pH in the field using a portable meter from grab samples collected at the wet well during the project's monitoring period. The lowest pH reading was 5.92 and took place on July 21, 2009. The entire data set is located in Appendix A and a summary is presented in Figure 40. The low pH reading coincided with the observations of unusually excessive amounts of trash including cigarette butts, glass bottles, and plastic bags. Other observations by field personnel included an excessive amount of beach sand observed on the ground surface near the Palm Avenue Diverter wet well. An inquiry was performed to identify the sources. City staff reported that Imperial Beach is the site of the annual U.S. Open Sand Castle Building Contest which draws hundreds of thousands of spectators and competitors from around the world each July. The City events included a street fair on July 18 and the main contest on July 19, 2009 on the weekend prior to this sampling event. The street fair included retail booths, eateries and portable/temporary toilet facilities on Seacoast Drive and Palm Avenue. The main contest conducted on the beach resulted in heavy foot traffic in and out of the beach. Possible dumping of trash by the large crowds gathered for the events likely led to the excessive trash observed in the wet well. Also, the heavy foot traffic was the likely cause of

the excessive amount of beach sand observed on the ground surface near the wet well. The source of the low pH could only be speculated to be related to this event. The highest pH reading was 7.83 on November 10, 2009 and within the acceptable range for pH readings in urban runoff.

A total of twelve pH readings out of 43 taken were found to be below the action level of 6.5 (Figure 40) and none were found to be above the 9.0 upper action level of the acceptable pH range. No discernable pattern was identified for the low pH values.

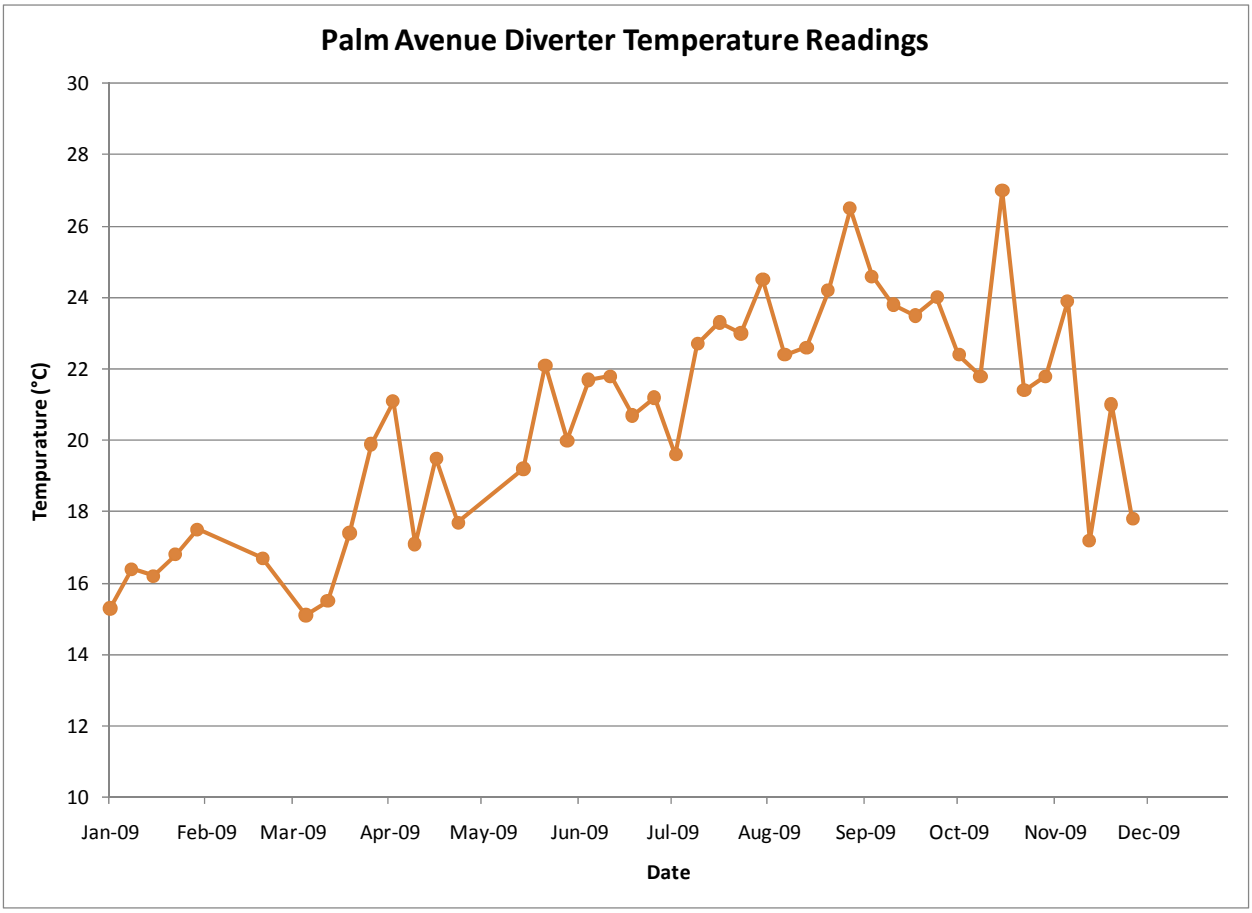
Figure 40. Graph of pH test results



Temperature Test Results

The temperature readings for the samples collected from the Palm Avenue Diverter wet well are provided in the graph in Figure 41 below. The highest value recorded was 27.0 °C on October 20, 2009 and the lowest was 15.1°C on March 10, 2009. Temperature readings appear to follow expected seasonal trends.

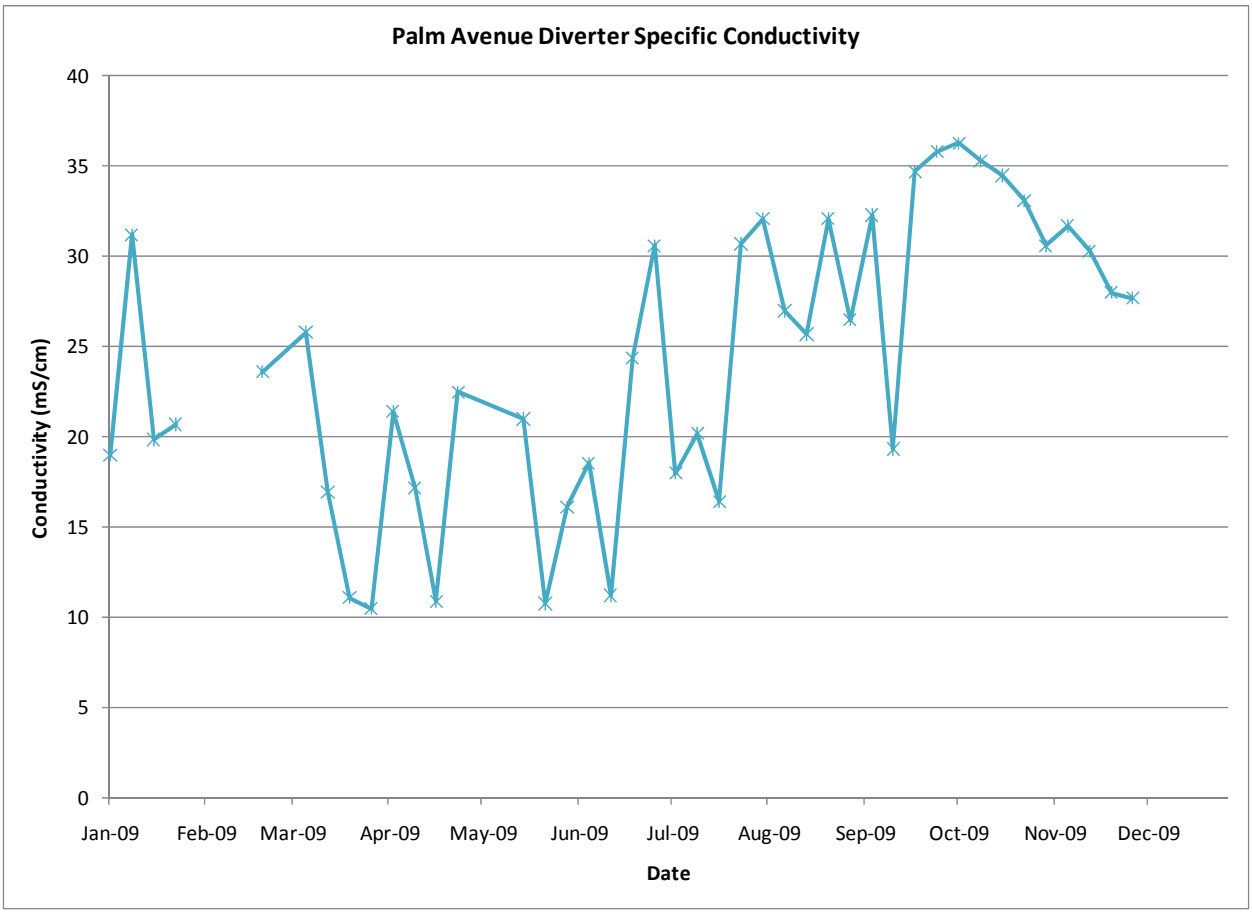
Figure 41. Graph of temperature results



Conductivity Test Results

Conductivity readings were taken alongside pH readings on grab samples. A total of 42 test results were obtained with readings ranging from 10.51 to 36.3 mS/cm with one result being recorded at >256 mS/cm on February 3, 2009. That data point was not entered into the spreadsheet and considered an outlier. The entire data set for conductivity readings can be found in Appendix A and a summary graph in Figure 42.

Figure 42. Graph of conductivity results



7.3 Result of Bacterial Data

Bacterial data collected in the near-by receiving waters was conducted by third parties and not as part of the City's portion of the project's monitoring plan. Bacterial test data were obtained from the County of San Diego's Department of Environmental Health (DEH) for regularly monitored beach locations from north to south as shown in Figure 3:

- Carnation Avenue (IB-060) monitored by the International Boundary Wastewater Treatment Plant
- Imperial Beach Pier or IB Pier (EH-030) monitored by the County's DEH
- Cortez Avenue (EH-010) monitored by the County's DEH
- Seacoast Drive (IB-050) located at the south end of the street monitored by the International Boundary Wastewater Treatment Plant

The data for the site at Carnation Avenue (IB-060) revealed exceedances of AB411 water quality benchmarks for *Enterococcus* and total coliform on February 17 and 18, and September 8, 2009. The Palm Avenue Diverter was not sampled on February 17-18 due to rainfall (0.13 inches) and the operation in ocean discharge mode. It is possible that along with other sources of bacterial contamination from these storm events, that the Palm Avenue basin and outfall may have contributed to the exceedances at Carnation Avenue. The data for the Palm Avenue Diverter indicates that the diverter was operating in sanitary sewer diversion mode on September 8th and thus it could not have contributed to the exceedances at the Carnation sampling location. Sampling data from the diverter wet well on September 8th indicates that both total coliform and *Enterococcus* levels were above the AB411 water quality benchmark. The volume diverted the week prior to September 8, 2009, was 3,900 gallons.

Further south along the coastline at the IB Pier (EH-030) sampling location, all three bacterial indicators were reported as non-detectable from June through November 2009 when data were collected by the DEH.

Cortez Drive is a newly added sampling location for which only three data points for November 3, 9 and 17, 2009 were available from the County's DEH. All data points for November 2009 were reported as non-detectable for all three bacterial indicators.

The data for the sampling site at Seacoast Drive (IB-050) that is located a significant distance south of the Palm Avenue Diverter revealed exceedances in *Enterococcus*, fecal and total coliform on three occasions: January 6, February 17, and April 14, 2009. None of these exceedances are likely related to the Palm Avenue Diverter.

7.4 Results of Flow Measurements

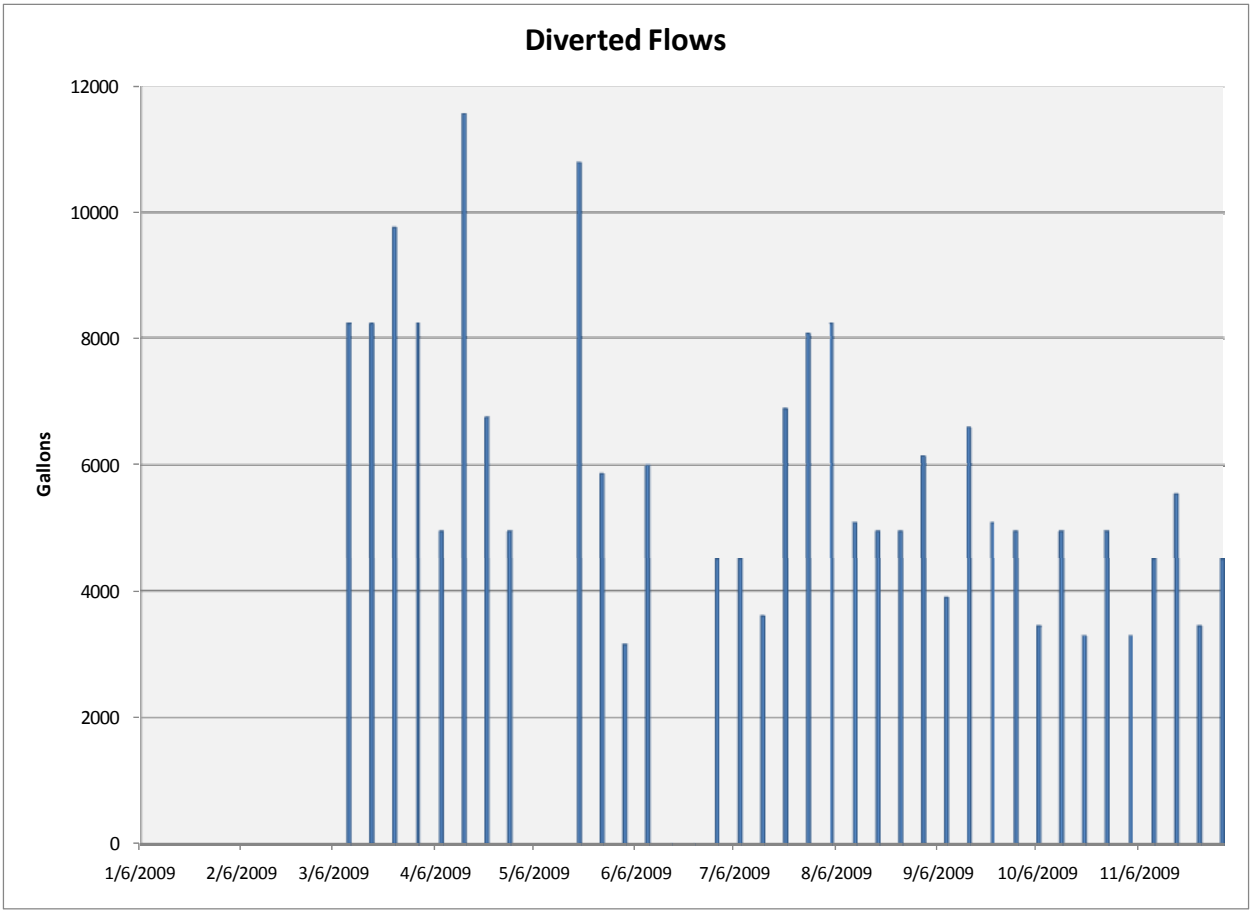
Flow Measurement

As noted above, flow measurements were estimated from the pump run time and the pump's flow rating. The diverted runoff volume was calculated on a weekly basis. The volume data are provided as part of the data package in Appendix A and shown graphically in Figure 43.

As shown in Figure 43, the lowest volume of urban runoff was zero gallons diverted in the month of June 2009 and the highest at 11,550 gallons April 14, 2009.

For the project monitoring period and since the installation of the Palm Avenue Diverter approximately 204,000 gallons of urban runoff and first-flush stormwater have been diverted to the sanitary sewer between March 3 and December 1, 2009. That corresponds to an average of 23,000 gallons per month. As a result, this project has significantly reduced this source's bacterial contribution to beach closures and/or postings during dry weather periods.

Figure 43. Graph of weekly diverted flow readings



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Section 8
Conclusion

The Palm Avenue Diverter project study questions from Section 1.1 are:

- What are the characteristics of urban runoff diverted from the receiving waters during dry weather through the low-flow urban runoff diverter and to the sanitary sewer?
- What volume of contaminated urban runoff flow was diverted to the sanitary sewer?
- What level of bacterial contamination is found in the diverted flows?
- What improvements in water quality of the receiving waters can be quantified as a result of implementing the Palm Avenue Low-Flow Urban Runoff Diversion Project?

The Palm Avenue Diverter project provides several benefits to the community and the environment and the following conclusions in response to the project questions:

- Bacterial data collected during the monitoring phase show that, in the absence of the Palm Avenue Diverter, low-flow urban runoff and first-flush stormwater with high levels of bacteria would have been discharged to the receiving waters.
- Comparison of the concentration of bacteria in the wet well with the AB411 water quality benchmarks indicates that for total coliform 98% of the samples exceeded benchmarks, and for *Enterococcus* 91% of the readings exceeded the benchmarks.
- Data analysis shows that 100% of the samples collected at the diverter wet well exceeded at least one of the bacterial indicator benchmarks.
- The Palm Avenue Diverter directs an average of 23,000 gallons per month of urban runoff to the sanitary sewer.
- Only the Carnation Avenue receiving water sampling station had exceedances of bacterial indicators during the project's monitoring period. On February 17 and 18, 2009, during a storm event greater than 1/10th of an inch, when the diverter operated in storm discharge mode, water quality exceeded AB411 benchmarks. During the same period, the southern-most sampling location at Seacoast Drive also provides evidence of high bacteria levels likely originating from other sources including the Tijuana River Valley and Mexico.
- This project was successful in combining access to recreation, aesthetic improvements, public infrastructure, and water quality benefits. It received the "Project of the Year" award from the San Diego & Imperial Counties Section of the American Public Works Association (APWA).

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Section 9
Recommendations

No specific recommendations or feasible alternatives to this project were identified through the review of the project's construction and water quality monitoring data and information.

Appendix A
Project-Specific Monitoring Date

City of Imperial Beach
Palm Avenue Urban Runoff Diverter Water Quality Monitoring Analysis
1. Valid Values

Weather	Odor	Color	Water Clarity	Floatables	Time Since Last Rain > 72 hrs	Bacteria Samples Taken?	Field Blank?	Field Duplicate?	Photo Taken?	Analyte	Unit	Qualifier	Sample Matrix
Sunny	None	None	Clear	None	Yes	Yes	Yes	Yes	Yes	pH	pH unit	None = True Sampling Result	Storm Water
Partly cloudy	Musty	Yellow	Slightly Opaque	Trash	No	No	No	No	No	Temperature	oC	NS = Not Sampled	
Overcast	Rotten eggs	Gray	Opaque	Bubbles/Foam						Specific Conductance	mS/cm	> = Greater Than	
Fog	Chemical	White		Sheen						Volume	(gallons/hcf)	ND = Not Detected	
	Sewage	Brown		Fecal matter						Total Coliform	MPN/100 mL	NA = Not Analyzed	
	Other	Other		Other						*E. coli*	MPN/100 mL		
										Enterococcus	MPN/100 mL		

Sampler Initials	Sampler Name	Association
CH	Chris Helmer	City staff
CP	Cynthia Peraza	PBS&J staff
DC	Dan Cruz	PBS&J staff
GN	Guy Nelson	City staff
PB	Philip Bordenave	PBS&J staff
PL	Peter Lau	City staff
PR	Pavitra Rammohan	PBS&J staff
RML	Rosanna Lacarra	PBS&J staff
SB	Suzanne B.	City staff
SM	Sharron Mackerras	PBS&J staff

City of Imperial Beach
Palm Avenue Urban Runoff Diverter Water Quality Monitoring Analysis
2. Field Observations

Sample ID	Sample Date	Sample Time (24-hour)	Sampled By (Initials)	Weather	Time Since Last Rain > 72 hrs?	Odor	Color	Floatables	Water Clarity	Bacteria Samples Taken?	Field Blank?	Field Duplicate?	Photo Taken?	Notes	Comments
PAD-A	1/6/2009	11:02	DC, PB, and CH	Sunny	Yes	None	Yellow	None	Clear	Yes	No	No	Yes		Flow meter and Diverter are not fully functional. Samples taken from wet well.
PAD-A	1/13/2009	8:50	PB	Sunny	Yes	None	None	None	Clear	Yes	No	No	Yes		Flow meter and Diverter are not fully functional. Samples taken from wet well.
PAD-A	1/20/2009	8:25	PB	Partly Cloudy	Yes	None	White	Other	Slightly Opaque	Yes	No	No	Yes	Floatables: Sand	Flow meter and Diverter are not fully functional. Samples taken from wet well.
PAD-A	1/27/2009	8:30	PB and CH	Sunny	Yes	None	None	Other	Slightly Opaque	Yes	No	No	No	Floatables: White Fluffy Strips. Dissolving paper fibers	Flow meter and Diverter are not fully functional. Samples taken from wet well.
PAD-A	2/3/2009	8:45	PB and CH	Sunny	Yes	None	None	None	Clear	Yes	No	No	Yes		Flow meter and Diverter are not fully functional. Samples taken from wet well.
PAD-A	2/24/2009	8:45	PB and PL	Overcast	Yes	None	None	Trash	Clear	Yes	No	No	Yes	Floatables: Large surface scum	Flow meter and Diverter are not fully functional. Samples taken from wet well.
PAD-A	3/10/2009	8:40	PB and CH	Partly Cloudy	Yes	None	None	None	Clear	Yes	Yes	Yes	Yes		Flow meter and Diverter are not fully functional. Samples taken from wet well.
PAD-A	3/17/2009	8:35	PB and CH	Sunny	Yes	None	None	None	Clear	Yes	No	No	Yes		Flow meter and Diverter are not fully functional. Samples taken from wet well.
PAD-A	3/24/2009	8:35	PB and CH	Sunny	No	None	Yellow	None	Clear	Yes	No	No	Yes	Rain <0.1 inches	No, but the last rain was less than 0.1 inches. Flow meter and Diverter are not fully functional. Samples taken from wet well.
PAD-A	3/31/2009	11:00	PR and CH	Sunny	Yes	None	None	Trash	Clear	Yes	No	No	Yes		Flow meter and Diverter are not fully functional. Samples taken from wet well.
PAD-A	4/7/2009	9:00	PR and CH	Sunny	Yes	None	None	Trash, Oil sheen	Clear	Yes	No	No	Yes		Flow meter and Diverter are not fully functional. Samples taken from wet well.
PAD-A	4/14/2009	9:00	PR and CH	Partly Cloudy	Yes	None	Yellow	Trash, Bubbles/Foam	Clear	Yes	No	No	Yes		Flow meter and Diverter are not fully functional. Samples taken from wet well.
PAD-A	4/21/2009	8:50	PR and CH	Sunny	Yes	None	None	Trash, Bubbles/Foam and Oil Sheen	Clear	Yes	No	No	Yes		Flow meter and Diverter are not fully functional. Samples taken from wet well.
PAD-A	4/28/2009	8:50	PR and CH	Partly Cloudy	Yes	None	None	Trash, Bubbles/Foam	Clear	Yes	No	No	Yes		Flow meter and Diverter are not fully functional. Samples taken from wet well.
PAD-A	5/19/2009	8:40	PR and CH	Partly Cloudy	Yes	None	None	Trash, Bubbles/Foam	Clear	Yes	No	No	Yes	O&M performed at the wet well on 05/18/09. Wet well system cleaned out.	Flow meter and Diverter are not fully functional. Samples taken from wet well.
PAD-A	5/26/2009	9:50	PR and CH	Partly Cloudy	Yes	None	None	Sediments, Oil sheen, foam, and dry Paint	Clear	Yes	No	No	Yes	Nearby construction activities on 5/21/09 to fix Water line break may have resulted in excessive sediments in wet well system.	Flow meter and Diverter are not fully functional. Samples taken from wet well.
PAD-A	6/2/2009	8:55	PR and CH	Partly Cloudy	Yes	None	None	Bubbles/Foam, Oil Sheen	Clear	Yes	No	No	Yes		Flow meter and Diverter are not fully functional. Samples taken from wet well.
PAD-A	6/9/2009	9:00	PR and CH	Partly Cloudy	Yes	None	Yellow	Sediments (Sand and clay) and Oil sheen	Clear	Yes	No	No	Yes		Flow meter and Diverter are not fully functional. Samples taken from wet well.
PAD-A	6/16/2009	8:45	PR and CH	Partly Cloudy	No	Chemical	Brown	Sediments, Bubbles/Foam and Oil Sheen	Slightly Opaque	Yes	No	No	Yes		No, but the last rain was less than 0.1 inches. Flow meter and Diverter are not fully functional. Samples taken from wet well.
PAD-A	6/23/2009	8:50	PR and CH	Partly Cloudy	Yes	Musty	Yellow	Bubbles/Foam and Oil Sheen	Clear	Yes	No	No	Yes	The City of Imperial Beach is categorized as a Stage I Water Alert City with specific water restrictions enforced on the City Residents.	Flow meter and Diverter are not fully functional. Samples taken from wet well.
PAD-A	6/30/2009	8:45	PR, CH, and SB	Partly Cloudy	Yes	None	None	Trash and Bubbles/Foam	Clear	Yes	Yes	Yes	Yes		Flow meter and Diverter are not fully functional. Samples taken from wet well.
PAD-A	7/7/2009	8:50	PR and SB	Partly Cloudy	Yes	Musty	None	Bubbles/Foam	Clear	Yes	No	No	Yes		Flow meter and Diverter are not fully functional. Samples taken from wet well.
PAD-A	7/14/2009	8:45	PR and SB	Partly Cloudy	Yes	Musty	None	Bubbles/Foam and Trash	Clear	Yes	No	No	Yes		Flow meter and Diverter are not fully functional. Samples taken from wet well.
PAD-A	7/21/2009	8:55	PR and SB	Sunny	Yes	Musty	Brown	Bubbles/Foam,Trash, and Oil sheen	Slightly Opaque	Yes	No	No	Yes	City fair and "Castle Building" community events were conducted the weekend before sampling. Trash including cigarette butts, small liquor bottles found in the wet well. Sand	Flow meter and Diverter are not fully functional. Samples taken from wet well.
PAD-A	7/28/2009	8:55	PR and SB	Partly Cloudy	Yes	Sewage	Yellow	Bubbles/Foam,Trash, and Oil sheen	Slightly Opaque	Yes	No	No	Yes	5-7 cigarette buds in the wet well. Trickling flow with bubbles and foam observed; possible caused nearby cleaning activities.	Flow meter and Diverter are not fully functional. Samples taken from wet well.
PAD-A	8/4/2009	8:55	PR and SB	Partly Cloudy	Yes	None	None	Trash and Oil sheen	Clear	Yes	No	No	Yes		Flow meter and Diverter are not fully functional. Samples taken from wet well.
PAD-A	8/11/2009	9:00	PR and CH	Partly Cloudy	Yes	None	None	Bubbles/Foam and Oil sheen	Clear	Yes	No	No	Yes	Deposits/scum on the surface of the pump was observed.	Flow meter and Diverter are not fully functional. Samples taken from wet well.
PAD-A	8/18/2009	8:05	PR and SB	Partly Cloudy	Yes	Musty	None	Bubbles/Foam,Trash, and Oil sheen	Clear	Yes	No	No	Yes	Trickling flow observed.	Flow meter and Diverter are not fully functional. Samples taken from wet well.
PAD-A	8/25/2009	8:50	PR and CH	Sunny	Yes	None	None	Trash and Bubbles /Foam	Clear	Yes	No	No	Yes		Flow meter and Diverter are not fully functional. Samples taken from wet well.
PAD-A	9/1/2009	8:50	PR and CH	Partly Cloudy	Yes	None	None	Trash and Bubbles /Foam	Clear	Yes	No	No	Yes		Flow meter and Diverter are not fully functional. Samples taken from wet well.
PAD-A	9/8/2009	8:50	PR and PL	Partly Cloudy	Yes	None	None	Trash and Bubbles /Foam	Clear	Yes	No	No	Yes	Trash included "used" plastic water bottle.	Flow meter and Diverter are not fully functional. Samples taken from wet well.
PAD-A	9/15/2009	8:40	PR and CH	Partly Cloudy	Yes	None	None	Trash, Bubbles /Foam, and Oil sheen	Clear	Yes	No	No	Yes		Flow meter and Diverter are not fully functional. Samples taken from wet well.
PAD-A	9/22/2009	8:50	PR and CH	Partly Cloudy	Yes	None	None	Trash	Clear	Yes	Yes	Yes	Yes		Flow meter and Diverter are not fully functional. Samples taken from wet well.
PAD-A	9/29/2009	8:50	PR and CH	Sunny	Yes	None	None	Trash and Oil sheen	Clear	Yes	No	No	Yes		Flow meter and Diverter are not fully functional. Samples taken from wet well.
PAD-A	10/6/2009	8:45	PR, CH, and GN	Sunny	Yes	None	None	Trash	Clear	Yes	No	No	Yes		Flow meter and Diverter are not fully functional. Samples taken from wet well.
PAD-A	10/13/2009	8:20	PR and GN	Sunny	Yes	None	None	Trash and Oil sheen	Clear	Yes	No	No	Yes		Flow meter and Diverter are not fully functional. Samples taken from wet well.
PAD-A	10/20/2009	10:25	PR and GN	Sunny	Yes	None	None	Trash	Clear	Yes	No	No	Yes		Flow meter and Diverter are not fully functional. Samples taken from wet well.
PAD-A	10/27/2009	8:40	PR, RML, and GN	Partly Cloudy	Yes	None	None	Trash	Clear	Yes	No	No	Yes		Flow meter and Diverter are not fully functional. Samples taken from wet well.
PAD-A	11/3/2009	8:55	PR, CP, and GN	Sunny	Yes	None	None	Trash	Clear	Yes	No	No	Yes		Flow meter and Diverter are not fully functional. Samples taken from wet well.
PAD-A	11/10/2009	8:40	PR, SM, and GN	Sunny	Yes	None	None	None	Clear	Yes	No	No	Yes		Flow meter and Diverter are not fully functional. Samples taken from wet well.
PAD-A	11/17/2009	8:30	PR, PB, and GN	Sunny	Yes	None	None	Trash	Clear	Yes	Yes	Yes	Yes		Flow meter and Diverter are not fully functional. Samples taken from wet well.
PAD-A	11/24/2009	8:30	PB and GN	Sunny	Yes	None	None	Trash	Clear	Yes	No	No	No	Failed to bring camera.	Flow meter and Diverter are not fully functional. Samples taken from wet well.
PAD-A	12/1/2009	8:30	PB and GN	Partly Cloudy	No	None	None	Trash	Clear	Yes	No	No	Yes	Approximately 56 hrs since rain event; measurable at 0.14 inches (NOAA)	Flow meter and Diverter are not fully functional. Samples taken from wet well.

City of Imperial Beach
Palm Avenue Urban Runoff Diverter Water Quality Monitoring Analysis
3. Field Screening Parameters

Sample ID	Sample Date	Sample Time (24-hour)	Sampled By (Initials)	Analyte	Method	Qualifier	Result	Units	Notes
PAD-A	1/6/2009	11:02	DC, PB, and CH	pH	Field Probe	None	6.46	pH Unit	
PAD-A	1/6/2009	11:02	DC, PB, and CH	Temperature	Field Probe	None	15.3	o C	
PAD-A	1/6/2009	11:02	DC, PB, and CH	Specific Conductance	Field Probe	None	18.98	mS/cm	
PAD-A	1/6/2009	11:02	DC, PB, and CH	Volume	Flow Meter	None	NS	Gallons	
PAD-A	1/13/2009	8:50	PB	pH	Field Probe	None	6.52	pH Unit	
PAD-A	1/13/2009	8:50	PB	Temperature	Field Probe	None	16.4	o C	
PAD-A	1/13/2009	8:50	PB	Specific Conductance	Field Probe	None	31.2	mS/cm	
PAD-A	1/13/2009	8:50	PB	Volume	Flow Meter	None	NS	Gallons	
PAD-A	1/20/2009	8:25	PB	pH	Field Probe	None	6.48	pH Unit	
PAD-A	1/20/2009	8:25	PB	Temperature	Field Probe	None	16.2	o C	
PAD-A	1/20/2009	8:25	PB	Specific Conductance	Field Probe	None	19.88	mS/cm	
PAD-A	1/20/2009	8:25	PB	Volume	Flow Meter	None	NS	Gallons	
PAD-A	1/27/2009	8:30	PB and CH	pH	Field Probe	None	6.50	pH Unit	
PAD-A	1/27/2009	8:30	PB and CH	Temperature	Field Probe	None	16.8	o C	
PAD-A	1/27/2009	8:30	PB and CH	Specific Conductance	Field Probe	None	20.7	mS/cm	
PAD-A	1/27/2009	8:30	PB and CH	Volume	Flow Meter	None	NS	Gallons	
PAD-A	2/3/2009	8:45	PB and CH	pH	Field Probe	None	6.88	pH Unit	
PAD-A	2/3/2009	8:45	PB and CH	Temperature	Field Probe	None	17.5	o C	
PAD-A	2/3/2009	8:45	PB and CH	Specific Conductance	Field Probe	None	NS	mS/cm	Conductivity was logged as >256 mS/cm and determined to be an error.
PAD-A	2/3/2009	8:45	PB and CH	Volume	Flow Meter	None	NS	Gallons	
PAD-A	2/24/2009	8:45	PB and PL	pH	Field Probe	None	6.31	pH Unit	
PAD-A	2/24/2009	8:45	PB and PL	Temperature	Field Probe	None	16.7	o C	
PAD-A	2/24/2009	8:45	PB and PL	Specific Conductance	Field Probe	None	23.6	mS/cm	
PAD-A	2/24/2009	8:45	PB and PL	Volume	Flow Meter	None	NS	Gallons	
PAD-A	3/10/2009	8:40	PB and CH	pH	Field Probe	None	6.67	pH Unit	
PAD-A	3/10/2009	8:40	PB and CH	Temperature	Field Probe	None	15.1	o C	
PAD-A	3/10/2009	8:40	PB and CH	Specific Conductance	Field Probe	None	25.8	mS/cm	
PAD-A	3/10/2009	8:40	PB and CH	Volume	Gauge	None		Gallons	Pump Run Time = 7.15 hrs
PAD-A	3/17/2009	8:35	PB and CH	pH	Field Probe	None	6.64	pH Unit	
PAD-A	3/17/2009	8:35	PB and CH	Temperature	Field Probe	None	15.5	o C	
PAD-A	3/17/2009	8:35	PB and CH	Specific Conductance	Field Probe	None	16.96	mS/cm	
PAD-A	3/17/2009	8:35	PB and CH	Volume	Gauge	None		Gallons	Pump Run Time = 7.7 hrs
PAD-A	3/24/2009	8:35	PB and CH	pH	Field Probe	None	6.55	pH Unit	
PAD-A	3/24/2009	8:35	PB and CH	Temperature	Field Probe	None	17.4	o C	
PAD-A	3/24/2009	8:35	PB and CH	Specific Conductance	Field Probe	None	11.10	mS/cm	
PAD-A	3/24/2009	8:35	PB and CH	Volume	Gauge	None		Gallons	Pump Run Time = 8.35 hrs
PAD-A	3/31/2009	11:00	PR and CH	pH	Field Probe	None	6.11	pH Unit	
PAD-A	3/31/2009	11:00	PR and CH	Temperature	Field Probe	None	19.9	o C	
PAD-A	3/31/2009	11:00	PR and CH	Specific Conductance	Field Probe	None	10.51	mS/cm	
PAD-A	3/31/2009	11:00	PR and CH	Volume	Gauge	None		Gallons	Pump Run Time = 8.9 hrs
PAD-A	4/7/2009	9:00	PR and CH	pH	Field Probe	None	7.44	pH Unit	Equipment problem. Did not stabilize.
PAD-A	4/7/2009	9:00	PR and CH	Temperature	Field Probe	None	21.1	o C	
PAD-A	4/7/2009	9:00	PR and CH	Specific Conductance	Field Probe	None	21.4	mS/cm	Equipment problem. Did not stabilize
PAD-A	4/7/2009	9:00	PR and CH	Volume	Gauge	None		Gallons	Pump Run Time = 9.23 hrs
PAD-A	4/14/2009	9:00	PR and CH	pH	Field Probe	None	6.61	pH Unit	
PAD-A	4/14/2009	9:00	PR and CH	Temperature	Field Probe	None	17.1	o C	
PAD-A	4/14/2009	9:00	PR and CH	Specific Conductance	Field Probe	None	17.16	mS/cm	
PAD-A	4/14/2009	9:00	PR and CH	Volume	Gauge	None		Gallons	Pump Run Time = 10.0 hrs
PAD-A	4/21/2009	8:50	PR and CH	pH	Field Probe	None	6.88	pH Unit	
PAD-A	4/21/2009	8:50	PR and CH	Temperature	Field Probe	None	19.5	o C	
PAD-A	4/21/2009	8:50	PR and CH	Specific Conductance	Field Probe	None	10.91	mS/cm	
PAD-A	4/21/2009	8:50	PR and CH	Volume	Gauge	None		Gallons	Pump Run Time = 10.45 hrs
PAD-A	4/28/2009	8:50	PR and CH	pH	Field Probe	None	6.57	pH Unit	
PAD-A	4/28/2009	8:50	PR and CH	Temperature	Field Probe	None	17.7	o C	
PAD-A	4/28/2009	8:50	PR and CH	Specific Conductance	Field Probe	None	22.5	mS/cm	
PAD-A	4/28/2009	8:50	PR and CH	Volume	Gauge	None		Gallons	Pump Run Time = 10.78 hrs
PAD-A	5/19/2009	8:40	PR and CH	pH	Field Probe	None	6.75	pH Unit	
PAD-A	5/19/2009	8:40	PR and CH	Temperature	Field Probe	None	19.2	o C	
PAD-A	5/19/2009	8:40	PR and CH	Specific Conductance	Field Probe	None	21.00	mS/cm	
PAD-A	5/19/2009	8:40	PR and CH	Volume	Gauge	None		Gallons	Pump Run Time = 11.5 hrs
PAD-A	5/26/2009	9:50	PR and CH	pH	Field Probe	None	6.67	pH Unit	
PAD-A	5/26/2009	9:50	PR and CH	Temperature	Field Probe	None	22.1	o C	
PAD-A	5/26/2009	9:50	PR and CH	Specific Conductance	Field Probe	None	10.79	mS/cm	
PAD-A	5/26/2009	9:50	PR and CH	Volume	Gauge	None		Gallons	Pump Run Time = 11.89 hrs
PAD-A	6/2/2009	8:55	PR and CH	pH	Field Probe	None	6.84	pH Unit	
PAD-A	6/2/2009	8:55	PR and CH	Temperature	Field Probe	None	20.0	o C	
PAD-A	6/2/2009	8:55	PR and CH	Specific Conductance	Field Probe	None	16.14	mS/cm	
PAD-A	6/2/2009	8:55	PR and CH	Volume	Gauge	None		Gallons	Pump Run Time = 12.1 hrs
PAD-A	6/9/2009	9:00	PR and CH	pH	Field Probe	None	6.78	pH Unit	
PAD-A	6/9/2009	9:00	PR and CH	Temperature	Field Probe	None	21.7	o C	
PAD-A	6/9/2009	9:00	PR and CH	Specific Conductance	Field Probe	None	18.55	mS/cm	
PAD-A	6/9/2009	9:00	PR and CH	Volume	Gauge	None		Gallons	Pump Run Time = 12.5 hrs
PAD-A	6/16/2009	8:45	PR and CH	pH	Field Probe	None	6.94	pH Unit	
PAD-A	6/16/2009	8:45	PR and CH	Temperature	Field Probe	None	21.8	o C	
PAD-A	6/16/2009	8:45	PR and CH	Specific Conductance	Field Probe	None	11.24	mS/cm	
PAD-A	6/16/2009	8:45	PR and CH	Volume	Gauge	None		Gallons	Pump Run Time = 12.5 hrs
PAD-A	6/23/2009	8:50	PR and CH	pH	Field Probe	None	6.95	pH Unit	
PAD-A	6/23/2009	8:50	PR and CH	Temperature	Field Probe	None	20.7	o C	
PAD-A	6/23/2009	8:50	PR and CH	Specific Conductance	Field Probe	None	24.40	mS/cm	
PAD-A	6/23/2009	8:50	PR and CH	Volume	Gauge	None		Gallons	Pump Run Time = 12.5 hrs
PAD-A	6/30/2009	8:45	PR, CH, and SB	pH	Field Probe	None	6.50	pH Unit	
PAD-A	6/30/2009	8:45	PR, CH, and SB	Temperature	Field Probe	None	21.2	o C	
PAD-A	6/30/2009	8:45	PR, CH, and SB	Specific Conductance	Field Probe	None	30.6	mS/cm	
PAD-A	6/30/2009	8:45	PR, CH, and SB	Volume	Gauge	None		Gallons	Pump Run Time = 12.8 hrs
PAD-A	7/7/2009	8:50	PR and SB	pH	Field Probe	None	6.82	pH Unit	
PAD-A	7/7/2009	8:50	PR and SB	Temperature	Field Probe	None	19.6	o C	
PAD-A	7/7/2009	8:50	PR and SB	Specific Conductance	Field Probe	None	18.01	mS/cm	
PAD-A	7/7/2009	8:50	PR and SB	Volume	Gauge	None		Gallons	Pump Run Time = 13.1 hrs

City of Imperial Beach
Palm Avenue Urban Runoff Diverter Water Quality Monitoring Analysis
3. Field Screening Parameters

Sample ID	Sample Date	Sample Time (24-hour)	Sampled By (Initials)	Analyte	Method	Qualifier	Result	Units	Notes
PAD-A	7/14/2009	8:45	PR and SB	pH	Field Probe	None	7.08	pH Unit	
PAD-A	7/14/2009	8:45	PR and SB	Temperature	Field Probe	None	22.7	o C	
PAD-A	7/14/2009	8:45	PR and SB	Specific Conductance	Field Probe	None	20.20	mS/cm	
PAD-A	7/14/2009	8:45	PR and SB	Volume	Gauge	None		Gallons	Pump Run Time = 13.34 hrs
PAD-A	7/21/2009	8:55	PR and SB	pH	Field Probe	None	5.92	pH Unit	
PAD-A	7/21/2009	8:55	PR and SB	Temperature	Field Probe	None	23.3	o C	
PAD-A	7/21/2009	8:55	PR and SB	Specific Conductance	Field Probe	None	16.43	mS/cm	
PAD-A	7/21/2009	8:55	PR and SB	Volume	Gauge	None		Gallons	Pump Run Time = 13.8 hrs
PAD-A	7/28/2009	8:55	PR and SB	pH	Field Probe	None	6.61	pH Unit	
PAD-A	7/28/2009	8:55	PR and SB	Temperature	Field Probe	None	23.0	o C	
PAD-A	7/28/2009	8:55	PR and SB	Specific Conductance	Field Probe	None	30.7	mS/cm	
PAD-A	7/28/2009	8:55	PR and SB	Volume	Gauge	None		Gallons	Pump Run Time = 14.34 hrs
PAD-A	8/4/2009	8:55	PR and SB	pH	Field Probe	None	6.78	pH Unit	
PAD-A	8/4/2009	8:55	PR and SB	Temperature	Field Probe	None	24.5	o C	
PAD-A	8/4/2009	8:55	PR and SB	Specific Conductance	Field Probe	None	32.1	mS/cm	
PAD-A	8/4/2009	8:55	PR and SB	Volume	Gauge	None		Gallons	Pump Run Time = 14.89 hrs
PAD-A	8/11/2009	9:00	PR and CH	pH	Field Probe	None	6.82	pH Unit	
PAD-A	8/11/2009	9:00	PR and CH	Temperature	Field Probe	None	22.4	o C	
PAD-A	8/11/2009	9:00	PR and CH	Specific Conductance	Field Probe	None	27.0	mS/cm	
PAD-A	8/11/2009	9:00	PR and CH	Volume	Gauge	None		Gallons	Pump Run Time = 15.23 hrs
PAD-A	8/18/2009	8:05	PR and SB	pH	Field Probe	None	6.45	pH Unit	
PAD-A	8/18/2009	8:05	PR and SB	Temperature	Field Probe	None	22.6	o C	
PAD-A	8/18/2009	8:05	PR and SB	Specific Conductance	Field Probe	None	25.7	mS/cm	
PAD-A	8/18/2009	8:05	PR and SB	Volume	Gauge	None		Gallons	Pump Run Time = 15.56 hrs
PAD-A	8/25/2009	8:50	PR and CH	pH	Field Probe	None	6.97	pH Unit	
PAD-A	8/25/2009	8:50	PR and CH	Temperature	Field Probe	None	24.2	o C	
PAD-A	8/25/2009	8:50	PR and CH	Specific Conductance	Field Probe	None	32.1	mS/cm	
PAD-A	8/25/2009	8:50	PR and CH	Volume	Gauge	None		Gallons	Pump Run Time = 15.89 hrs
PAD-A	9/1/2009	8:50	PR and CH	pH	Field Probe	None	7.03	pH Unit	
PAD-A	9/1/2009	8:50	PR and CH	Temperature	Field Probe	None	26.5	o C	
PAD-A	9/1/2009	8:50	PR and CH	Specific Conductance	Field Probe	None	26.5	mS/cm	
PAD-A	9/1/2009	8:50	PR and CH	Volume	Gauge	None		Gallons	Pump Run Time = 16.3 hrs
PAD-A	9/8/2009	8:50	PR and PL	pH	Field Probe	None	6.64	pH Unit	
PAD-A	9/8/2009	8:50	PR and PL	Temperature	Field Probe	None	24.6	o C	
PAD-A	9/8/2009	8:50	PR and PL	Specific Conductance	Field Probe	None	32.3	mS/cm	
PAD-A	9/8/2009	8:50	PR and PL	Volume	Gauge	None		Gallons	Pump Run Time = 16.56 hrs
PAD-A	9/15/2009	8:40	PR and CH	pH	Field Probe	None	7.00	pH Unit	
PAD-A	9/15/2009	8:40	PR and CH	Temperature	Field Probe	None	23.8	o C	
PAD-A	9/15/2009	8:40	PR and CH	Specific Conductance	Field Probe	None	19.35	mS/cm	
PAD-A	9/15/2009	8:40	PR and CH	Volume	Gauge	None		Gallons	Pump Run Time = 17.00 hrs
PAD-A	9/22/2009	8:50	PR and CH	pH	Field Probe	None	6.97	pH Unit	
PAD-A	9/22/2009	8:50	PR and CH	Temperature	Field Probe	None	23.5	o C	
PAD-A	9/22/2009	8:50	PR and CH	Specific Conductance	Field Probe	None	34.7	mS/cm	
PAD-A	9/22/2009	8:50	PR and CH	Volume	Gauge	None		Gallons	Pump Run Time = 17.34 hrs
PAD-A	9/29/2009	8:50	PR and CH	pH	Field Probe	None	6.57	pH Unit	
PAD-A	9/29/2009	8:50	PR and CH	Temperature	Field Probe	None	24.0	o C	
PAD-A	9/29/2009	8:50	PR and CH	Specific Conductance	Field Probe	None	35.8	mS/cm	
PAD-A	9/29/2009	8:50	PR and CH	Volume	Gauge	None		Gallons	Pump Run Time = 17.67 hrs
PAD-A	10/6/2009	8:45	PR, CH, and GN	pH	Field Probe	None	7.44	pH Unit	Equipment problem. The pH probe bulb broke.
PAD-A	10/6/2009	8:45	PR, CH, and GN	Temperature	Field Probe	None	22.4	o C	
PAD-A	10/6/2009	8:45	PR, CH, and GN	Specific Conductance	Field Probe	None	36.3	mS/cm	
PAD-A	10/6/2009	8:45	PR, CH, and GN	Volume	Gauge	None		Gallons	Pump Run Time = 17.9 hrs
PAD-A	10/13/2009	8:20	PR and GN	pH	Field Probe	None	7.63	pH Unit	
PAD-A	10/13/2009	8:20	PR and GN	Temperature	Field Probe	None	21.8	o C	
PAD-A	10/13/2009	8:20	PR and GN	Specific Conductance	Field Probe	None	35.3	mS/cm	
PAD-A	10/13/2009	8:20	PR and GN	Volume	Gauge	None		Gallons	Pump Run Time = 18.23 hrs
PAD-A	10/20/2009	10:25	PR and GN	pH	Field Probe	None	7.72	pH Unit	
PAD-A	10/20/2009	10:25	PR and GN	Temperature	Field Probe	None	27.0	o C	
PAD-A	10/20/2009	10:25	PR and GN	Specific Conductance	Field Probe	None	34.5	mS/cm	
PAD-A	10/20/2009	10:25	PR and GN	Volume	Gauge	None		Gallons	Pump Run Time = 18.45 hrs
PAD-A	10/27/2009	8:40	PR, RML, and GN	pH	Field Probe	None	7.65	pH Unit	
PAD-A	10/27/2009	8:40	PR, RML, and GN	Temperature	Field Probe	None	21.4	o C	
PAD-A	10/27/2009	8:40	PR, RML, and GN	Specific Conductance	Field Probe	None	33.1	mS/cm	
PAD-A	10/27/2009	8:40	PR, RML, and GN	Volume	Gauge	None		Gallons	Pump Run Time = 18.78 hrs
PAD-A	11/3/2009	8:55	PR, CP, and GN	pH	Field Probe	None	7.76	pH Unit	
PAD-A	11/3/2009	8:55	PR, CP, and GN	Temperature	Field Probe	None	21.8	o C	
PAD-A	11/3/2009	8:55	PR, CP, and GN	Specific Conductance	Field Probe	None	30.6	mS/cm	
PAD-A	11/3/2009	8:55	PR, CP, and GN	Volume	Gauge	None		Gallons	Pump Run Time = 19.0 hrs
PAD-A	11/10/2009	8:40	PR, SM, and GN	pH	Field Probe	None	7.83	pH Unit	
PAD-A	11/10/2009	8:40	PR, SM, and GN	Temperature	Field Probe	None	23.9	o C	
PAD-A	11/10/2009	8:40	PR, SM, and GN	Specific Conductance	Field Probe	None	31.7	mS/cm	
PAD-A	11/10/2009	8:40	PR, SM, and GN	Volume	Gauge	None		Gallons	Pump Run Time = 19.3 hrs
PAD-A	11/17/2009	8:30	PR, PB, and GN	pH	Field Probe	None	7.70	pH Unit	
PAD-A	11/17/2009	8:30	PR, PB, and GN	Temperature	Field Probe	None	17.2	o C	
PAD-A	11/17/2009	8:30	PR, PB, and GN	Specific Conductance	Field Probe	None	30.3	mS/cm	
PAD-A	11/17/2009	8:30	PR, PB, and GN	Volume	Gauge	None		Gallons	Pump Run Time = 19.67 hrs
PAD-A	11/24/2009	8:30	PB and GN	pH	Field Probe	None	7.41	pH Unit	
PAD-A	11/24/2009	8:30	PB and GN	Temperature	Field Probe	None	21.0	o C	
PAD-A	11/24/2009	8:30	PB and GN	Specific Conductance	Field Probe	None	28.0	mS/cm	
PAD-A	11/24/2009	8:30	PB and GN	Volume	Gauge	None		Gallons	Pump Run Time = 19.90 hrs
PAD-A	12/1/2009	8:30	PB and GN	pH	Field Probe	None	7.31	pH Unit	
PAD-A	12/1/2009	8:30	PB and GN	Temperature	Field Probe	None	17.8	o C	
PAD-A	12/1/2009	8:30	PB and GN	Specific Conductance	Field Probe	None	27.7	mS/cm	
PAD-A	12/1/2009	8:30	PB and GN	Volume	Gauge	None		Gallons	Pump Run Time = 20.2 hrs

City of Imperial Beach
Palm Avenue Urban Runoff Diverter Water Quality Monitoring Analysis
4. Field Screening Parameters

Sample ID	Sample Date	Sample Time (24-hour)	Sampled By (Initials)	Gauge Readings (Hrs)	Method	Pump Run Time (Hrs)	Monthly Diverted Volume (Gallons)	Notes
PAD-A	1/6/2009	11:02	DC, PB, and CH	NS	Flow Meter	NS	NS	
PAD-A	1/13/2009	8:50	PB	NS	Flow Meter	NS	NS	
PAD-A	1/20/2009	8:25	PB	NS	Flow Meter	NS	NS	
PAD-A	1/27/2009	8:30	PB and CH	NS	Flow Meter	NS	NS	
PAD-A	2/3/2009	8:45	PB and CH	NS	Flow Meter	NS	NS	
PAD-A	2/24/2009	8:45	PB and PL	NS	Flow Meter	NS	NS	
PAD-A	3/10/2009	8:40	PB and CH	7.15	Gauge	0.55	34500	
PAD-A	3/17/2009	8:35	PB and CH	7.7	Gauge	0.55		
PAD-A	3/24/2009	8:35	PB and CH	8.35	Gauge	0.65		
PAD-A	3/31/2009	11:00	PR and CH	8.9	Gauge	0.55		
PAD-A	4/7/2009	9:00	PR and CH	9.23	Gauge	0.33	28200	
PAD-A	4/14/2009	9:00	PR and CH	10	Gauge	0.77		
PAD-A	4/21/2009	8:50	PR and CH	10.45	Gauge	0.45		
PAD-A	4/28/2009	8:50	PR and CH	10.78	Gauge	0.33		Value Approx to 28,500 Gal
PAD-A	5/19/2009	8:40	PR and CH	11.5	Gauge	0.72	16650	
PAD-A	5/26/2009	9:50	PR and CH	11.89	Gauge	0.39		
PAD-A	6/2/2009	8:55	PR and CH	12.1	Gauge	0.21	13650	
PAD-A	6/9/2009	9:00	PR and CH	12.5	Gauge	0.4		
PAD-A	6/16/2009	8:45	PR and CH	12.5	Gauge	0		
PAD-A	6/23/2009	8:50	PR and CH	12.5	Gauge	0		
PAD-A	6/30/2009	8:45	PR, CH, and SB	12.8	Gauge	0.3		
PAD-A	7/7/2009	8:50	PR and SB	13.1	Gauge	0.3	23100	
PAD-A	7/14/2009	8:45	PR and SB	13.34	Gauge	0.24		
PAD-A	7/21/2009	8:55	PR and SB	13.8	Gauge	0.46		
PAD-A	7/28/2009	8:55	PR and SB	14.34	Gauge	0.54		
PAD-A	8/4/2009	8:55	PR and SB	14.89	Gauge	0.55	23250	
PAD-A	8/11/2009	9:00	PR and CH	15.23	Gauge	0.34		
PAD-A	8/18/2009	8:05	PR and SB	15.56	Gauge	0.33		
PAD-A	8/25/2009	8:50	PR and CH	15.89	Gauge	0.33		
PAD-A	9/1/2009	8:50	PR and CH	16.3	Gauge	0.41	26700	
PAD-A	9/8/2009	8:50	PR and PL	16.56	Gauge	0.26		
PAD-A	9/15/2009	8:40	PR and CH	17	Gauge	0.44		
PAD-A	9/22/2009	8:50	PR and CH	17.34	Gauge	0.34		
PAD-A	9/29/2009	8:50	PR and CH	17.67	Gauge	0.33		
PAD-A	10/6/2009	8:45	PR, GN, and CH	17.9	Gauge	0.23	16650	
PAD-A	10/13/2009	8:20	PR and GN	18.23	Gauge	0.33		
PAD-A	10/20/2009	10:25	PR and GN	18.45	Gauge	0.22		
PAD-A	10/27/2009	8:40	PR, RML, and GN	18.78	Gauge	0.33		
PAD-A	11/3/2009	8:55	PR, CP, and GN	19	Gauge	0.22	16800	
PAD-A	11/10/2009	8:40	PR, SM, and GN	19.3	Gauge	0.3		
PAD-A	11/17/2009	8:30	PR, PB, and GN	19.67	Gauge	0.37		
PAD-A	11/24/2009	8:30	PB and GN	19.9	Gauge	0.23		
PAD-A	12/1/2009	8:30	PB and GN	20.2	Gauge	0.3	4500	

NS=Not Sampled

City of Imperial Beach
Palm Avenue Urban Runoff Diverter Water Quality Monitoring Analysis
5. Lab Analysis

Sample ID	Sample Date	Sample Time (24-hour)	Analyte	Method	Qualifier	Result (MPN/100ml)	Reporting Limit (MPN/100ml)	Notes
PAD-A	1/6/2009	11:02	Total Coliform	SM9223	>	2,420,000	1000	
PAD-A	1/6/2009	11:02	*E. coli*	SM9223	<	10	10	
PAD-A	1/6/2009	11:02	*Enterococcus*	Idexx	None	63	10	
PAD-A	1/13/2009	8:50	Total Coliform	SM9223	None	410	100	
PAD-A	1/13/2009	8:50	*E. coli*	SM9223	<	100	100	
PAD-A	1/13/2009	8:50	*Enterococcus*	Idexx	None	301	10	
PAD-A	1/20/2009	8:25	Total Coliform	SM9223	None	199,000	100	
PAD-A	1/20/2009	8:25	*E. coli*	SM9223	None	200	100	
PAD-A	1/20/2009	8:25	*Enterococcus*	Idexx	None	309	10	
PAD-A	1/27/2009	8:30	Total Coliform	SM9223	None	120,000	100	
PAD-A	1/27/2009	8:30	*E. coli*	SM9223	None	860	100	
PAD-A	1/27/2009	8:30	*Enterococcus*	Idexx	None	169	10	
PAD-A	2/3/2009	8:45	Total Coliform	SM9223	None	435,000	1000	
PAD-A	2/3/2009	8:45	*E. coli*	SM9223	<	100	100	
PAD-A	2/3/2009	8:45	*Enterococcus*	Idexx	None	41	10	
PAD-A	2/24/2009	8:45	Total Coliform	SM9223	None	3,080,000	10000	
PAD-A	2/24/2009	8:45	*E. coli*	SM9223	None	1,070	100	
PAD-A	2/24/2009	8:45	*Enterococcus*	Idexx	None	1,296	1	
PAD-A/PAD-A Dup	3/10/2009	9:55	Total Coliform	SM9223	None	14,650,000	10000	Sample & Duplicate Average
PAD-A/PAD-A Dup	3/10/2009	9:55	*E. coli*	SM9223	None	1,390	100	Sample & Duplicate Average
PAD-A/PAD-A Dup	3/10/2009	9:55	*Enterococcus*	Idexx	None	1,942	10	Sample & Duplicate Average
PAD-A	3/17/2009	8:35	Total Coliform	SM9223	None	770,000	1000	
PAD-A	3/17/2009	8:35	*E. coli*	SM9223	None	100	100	
PAD-A	3/17/2009	8:35	*Enterococcus*	Idexx	None	2,200	20	
PAD-A	3/24/2009	8:35	Total Coliform	SM9223	>	24,200,000	10000	
PAD-A	3/24/2009	8:35	*E. coli*	SM9223	None	2,420,000	1000	
PAD-A	3/24/2009	8:35	*Enterococcus*	Idexx	None	2,800	20	
PAD-A	3/31/2009	11:00	Total Coliform	SM9223	None	41,100	100	
PAD-A	3/31/2009	11:00	*E. coli*	SM9223	None	100	100	
PAD-A	3/31/2009	11:00	*Enterococcus*	Idexx	None	134	10	
PAD-A	4/7/2009	9:00	Total Coliform	SM9223	None	199,000	100	
PAD-A	4/7/2009	9:00	*E. coli*	SM9223	<	100	100	
PAD-A	4/7/2009	9:00	*Enterococcus*	Idexx	None	256	10	
PAD-A	4/14/2009	9:00	Total Coliform	SM9223	None	2,250,000	10000	
PAD-A	4/14/2009	9:00	*E. coli*	SM9223	None	740	10	
PAD-A	4/14/2009	9:00	*Enterococcus*	Idexx	None	2,381	10	
PAD-A	4/21/2009	8:50	Total Coliform	SM9223	None	186,000	1000	
PAD-A	4/21/2009	8:50	*E. coli*	SM9223	None	1,000	1000	
PAD-A	4/21/2009	8:50	*Enterococcus*	Idexx	None	1,160	10	
PAD-A	4/28/2009	8:50	Total Coliform	SM9223	None	5,480,000	10000	
PAD-A	4/28/2009	8:50	*E. coli*	SM9223	None	630	100	
PAD-A	4/28/2009	8:50	*Enterococcus*	Idexx	None	1,305	10	
PAD-A	5/19/2009	8:40	Total Coliform	SM9223	None	613,000	10000	
PAD-A	5/19/2009	8:40	*E. coli*	SM9223	<	100	100	
PAD-A	5/19/2009	8:40	*Enterococcus*	Idexx	None	345	10	
PAD-A	5/26/2009	9:50	Total Coliform	SM9223	None	980,000	1000	
PAD-A	5/26/2009	9:50	*E. coli*	SM9223	None	310	100	
PAD-A	5/26/2009	9:50	*Enterococcus*	Idexx	None	75	10	
PAD-A	6/2/2009	8:55	Total Coliform	SM9223	None	9,210,000	10000	
PAD-A	6/2/2009	8:55	*E. coli*	SM9223	None	310	100	
PAD-A	6/2/2009	8:55	*Enterococcus*	Idexx	None	1,374	10	
PAD-A	6/9/2009	9:00	Total Coliform	SM9223	>	24,200,000	10000	
PAD-A	6/9/2009	9:00	*E. coli*	SM9223	None	51,700	100	
PAD-A	6/9/2009	9:00	*Enterococcus*	Idexx	None	120,330	100	
PAD-A	6/16/2009	8:50	Total Coliform	SM9223	None	488,000	1000	
PAD-A	6/16/2009	8:50	*E. coli*	SM9223	None	410	100	
PAD-A	6/16/2009	8:50	*Enterococcus*	Idexx	None	1,664	10	
PAD-A	6/23/2009	8:50	Total Coliform	SM9223	None	6,870,000	10000	
PAD-A	6/23/2009	8:50	*E. coli*	SM9223	None	100	100	
PAD-A	6/23/2009	8:50	*Enterococcus*	Idexx	None	836	10	
PAD-A/PAD-A-2	6/30/2009	8:45	Total Coliform	SM9223	None	1,305,000	1000	Sample & Duplicate Average
PAD-A/PAD-A-2	6/30/2009	8:45	*E. coli*	SM9223	<	100	100	Sample & Duplicate Average
PAD-A/PAD-A-2	6/30/2009	8:45	*Enterococcus*	Idexx	None	171	10	Sample & Duplicate Average
PAD-A	7/7/2009	8:50	Total Coliform	SM9223	None	1,730,000	1000	
PAD-A	7/7/2009	8:50	*E. coli*	SM9223	None	200	100	
PAD-A	7/7/2009	8:50	*Enterococcus*	Idexx	None	657	10	
PAD-A	7/14/2009	8:45	Total Coliform	SM9223	None	934,000	10000	
PAD-A	7/14/2009	8:45	*E. coli*	SM9223	None	300	100	
PAD-A	7/14/2009	8:45	*Enterococcus*	Idexx	None	1,374	10	
PAD-A	7/21/2009	8:55	Total Coliform	SM9223	>	24,200,000	10000	
PAD-A	7/21/2009	8:55	*E. coli*	SM9223	None	11,300	100	
PAD-A	7/21/2009	8:55	*Enterococcus*	Idexx	>	241,960	100	
PAD-A	7/28/2009	8:55	Total Coliform	SM9223	None	2,420,000	1000	
PAD-A	7/28/2009	8:55	*E. coli*	SM9223	None	91,400	100	
PAD-A	7/28/2009	8:55	*Enterococcus*	Idexx	<	10	10	
PAD-A	8/4/2009	8:55	Total Coliform	SM9223	None	3,650,000	10000	
PAD-A	8/4/2009	8:55	*E. coli*	SM9223	None	200	100	
PAD-A	8/4/2009	8:55	*Enterococcus*	Idexx	None	298	10	
PAD-A	8/11/2009	9:00	Total Coliform	SM9223	None	1,410,000	1000	
PAD-A	8/11/2009	9:00	*E. coli*	SM9223	<	100	100	
PAD-A	8/11/2009	9:00	*Enterococcus*	Idexx	None	1,259	10	
PAD-A	8/18/2009	8:05	Total Coliform	SM9223	None	579,000	1000	
PAD-A	8/18/2009	8:05	*E. coli*	SM9223	<	100	100	
PAD-A	8/18/2009	8:05	*Enterococcus*	Idexx	None	1,236	10	

Sample Lab: EnviroMatrix Analytical (EMA)
Sample Matrix: Storm Water

City of Imperial Beach
Palm Avenue Urban Runoff Diverter Water Quality Monitoring Analysis
5. Lab Analysis

Sample ID	Sample Date	Sample Time (24-hour)	Analyte	Method	Qualifier	Result (MPN/100ml)	Reporting Limit (MPN/100ml)	Notes
PAD-A	8/25/2009	8:50	Total Coliform	SM9223	None	727,000	1000	
PAD-A	8/25/2009	8:50	*E. coli*	SM9223	<	100	100	
PAD-A	8/25/2009	8:50	*Enterococcus*	Idexx	None	488	10	
PAD-A	9/1/2009	8:50	Total Coliform	SM9223	None	1,200,000	1000	
PAD-A	9/1/2009	8:50	*E. coli*	SM9223	None	310	100	
PAD-A	9/1/2009	8:50	*Enterococcus*	Idexx	None	857	10	
PAD-A	9/8/2009	8:50	Total Coliform	SM9223	None	579,000	1000	
PAD-A	9/8/2009	8:50	*E. coli*	SM9223	<	100	100	
PAD-A	9/8/2009	8:50	*Enterococcus*	Idexx	None	613	10	
PAD-A	9/15/2009	8:40	Total Coliform	SM9223	None	199,000	100	
PAD-A	9/15/2009	8:40	*E. coli*	SM9223	None	4,500	100	
PAD-A	9/15/2009	8:40	*Enterococcus*	Idexx	None	327	10	
PAD-A/PAD-A-2	9/22/2009	8:50	Total Coliform	SM9223	None	327,000	1000	Sample & Duplicate Average
PAD-A/PAD-A-2	9/22/2009	8:50	*E. coli*	SM9223	None	100	100	Sample & Duplicate Average
PAD-A/PAD-A-2	9/22/2009	8:50	*Enterococcus*	Idexx	None	2,677	10	Sample & Duplicate Average
PAD-A	9/29/2009	8:50	Total Coliform	SM9223	None	548,000	1000	
PAD-A	9/29/2009	8:50	*E. coli*	SM9223	None	100	100	
PAD-A	9/29/2009	8:50	*Enterococcus*	Idexx	None	1,989	10	
PAD-A	10/6/2009	8:45	Total Coliform	SM9223	None	68,700	100	
PAD-A	10/6/2009	8:45	*E. coli*	SM9223	<	100	100	
PAD-A	10/6/2009	8:45	*Enterococcus*	Idexx	None	1,296	10	
PAD-A	10/13/2009	8:20	Total Coliform	SM9223	None	488,000	1000	
PAD-A	10/13/2009	8:20	*E. coli*	SM9223	<	100	100	
PAD-A	10/13/2009	8:20	*Enterococcus*	Idexx	None	789	10	
PAD-A	10/20/2009	10:25	Total Coliform	SM9223	None	3,970,000	10000	
PAD-A	10/20/2009	10:25	*E. coli*	SM9223	<	100	100	
PAD-A	10/20/2009	10:25	*Enterococcus*	Idexx	None	985	10	
PAD-A	10/27/2009	8:40	Total Coliform	SM9223	None	1,410,000	1000	
PAD-A	10/27/2009	8:40	*E. coli*	SM9223	<	100	100	
PAD-A	10/27/2009	8:40	*Enterococcus*	Idexx	None	359	10	
PAD-A	11/3/2009	8:55	Total Coliform	SM9223	None	4,350,000	10000	
PAD-A	11/3/2009	8:55	*E. coli*	SM9223	<	100	100	
PAD-A	11/3/2009	8:55	*Enterococcus*	Idexx	None	1,935	10	
PAD-A	11/10/2009	8:40	Total Coliform	SM9223	None	2,990,000	1000	
PAD-A	11/10/2009	8:40	*E. coli*	SM9223	<	100	100	
PAD-A	11/10/2009	8:40	*Enterococcus*	Idexx	None	309	10	
PAD-A/PAD-A-2	11/17/2009	8:30	Total Coliform	SM9223	None	52,400	100	Sample & Duplicate Average
PAD-A/PAD-A-2	11/17/2009	8:30	*E. coli*	SM9223	<	100	100	Sample & Duplicate Average
PAD-A/PAD-A-2	11/17/2009	8:30	*Enterococcus*	Idexx	None	519	10	Sample & Duplicate Average
PAD-A	11/24/2009	8:30	Total Coliform	SM9223	None	13,000,000	10000	
PAD-A	11/24/2009	8:30	*E. coli*	SM9223	None	61,300	100	
PAD-A	11/24/2009	8:30	*Enterococcus*	Idexx	None	145	10	
PAD-A	12/1/2009	8:30	Total Coliform	SM9223	None	17,300,000	10000	
PAD-A	12/1/2009	8:30	*E. coli*	SM9223	None	2,940	100	
PAD-A	12/1/2009	8:30	*Enterococcus*	Idexx	None	7,270	10	

Sample Lab: EnviroMatrix Analytical (EMA)
Sample Matrix: Storm Water

City of Imperial Beach
Palm Avenue Urban Runoff Diverter Water Quality Monitoring Analysis
6. Quality Assurance

Sample ID	Sample Date	Sample Time (24-hour)	Type of Sample	Analyte	Method	Qualifier	Result (MPN/100ml)	Reporting Limit (MPN/100ml)
PAD-A Field Blank	3/10/2009	9:55	Field Blank	Total Coliform	SM9223	<	100	100
PAD-A Field Blank	3/10/2009	9:55	Field Blank	*E. coli*	SM9223	<	100	100
PAD-A Field Blank	3/10/2009	9:55	Field Blank	*Enterococcus*	Idexx	<	10	10
PAD-A	3/10/2009	9:55	Sample	Total Coliform	SM9223	None	12,000,000	10000
PAD-A	3/10/2009	9:55	Sample	*E. coli*	SM9223	None	850	100
PAD-A	3/10/2009	9:55	Sample	*Enterococcus*	Idexx	None	2,098	10
PAD-A Dup	3/10/2009	9:55	Field Duplicate	Total Coliform	SM9223	None	17,300,000	10000
PAD-A Dup	3/10/2009	9:55	Field Duplicate	*E. coli*	SM9223	None	1,930	100
PAD-A Dup	3/10/2009	9:55	Field Duplicate	*Enterococcus*	Idexx	None	1,785	10
PAD-A -1	6/30/2009	8:45	Field Blank	Total Coliform	SM9223	<	100	100
PAD-A -1	6/30/2009	8:45	Field Blank	*E. coli*	SM9223	<	100	100
PAD-A -1	6/30/2009	8:45	Field Blank	*Enterococcus*	Idexx	<	10	10
PAD-A	6/30/2009	8:45	Sample	Total Coliform	SM9223	None	1,410,000	1000
PAD-A	6/30/2009	8:45	Sample	*E. coli*	SM9223	<	100	100
PAD-A	6/30/2009	8:45	Sample	*Enterococcus*	Idexx	None	195	10
PAD-A -2	6/30/2009	8:45	Field Duplicate	Total Coliform	SM9223	None	1,200,000	100
PAD-A -2	6/30/2009	8:45	Field Duplicate	*E. coli*	SM9223	<	100	100
PAD-A -2	6/30/2009	8:45	Field Duplicate	*Enterococcus*	Idexx	None	146	10
PAD-A -1	9/22/2009	8:50	Field Blank	Total Coliform	SM9223	<	100	100
PAD-A -1	9/22/2009	8:50	Field Blank	*E. coli*	SM9223	<	100	100
PAD-A -1	9/22/2009	8:50	Field Blank	*Enterococcus*	Idexx	<	10	10
PAD-A	9/22/2009	8:50	Sample	Total Coliform	SM9223	None	326,000	100
PAD-A	9/22/2009	8:50	Sample	*E. coli*	SM9223	None	100	100
PAD-A	9/22/2009	8:50	Sample	*Enterococcus*	Idexx	None	2,098	10
PAD-A -2	9/22/2009	8:50	Field Duplicate	Total Coliform	SM9223	None	328,000	100
PAD-A -2	9/22/2009	8:50	Field Duplicate	*E. coli*	SM9223	None	100	100
PAD-A -2	9/22/2009	8:50	Field Duplicate	*Enterococcus*	Idexx	None	3,255	10
PAD-A -1	11/17/2009	8:30	Field Blank	Total Coliform	SM9223	<	100	1000
PAD-A -1	11/17/2009	8:30	Field Blank	*E. coli*	SM9223	<	100	100
PAD-A -1	11/17/2009	8:30	Field Blank	*Enterococcus*	Idexx	<	10	10
PAD-A	11/17/2009	8:30	Sample	Total Coliform	SM9223	None	43,500	100
PAD-A	11/17/2009	8:30	Sample	*E. coli*	SM9223	<	100	100
PAD-A	11/17/2009	8:30	Sample	*Enterococcus*	Idexx	None	435	10
PAD-A -2	11/17/2009	8:30	Field Duplicate	Total Coliform	SM9223	None	61,300	100
PAD-A -2	11/17/2009	8:30	Field Duplicate	*E. coli*	SM9223	<	100	100
PAD-A -2	11/17/2009	8:30	Field Duplicate	*Enterococcus*	Idexx	None	602	10

City of Imperial Beach
Palm Avenue Urban Runoff Diverter Water Quality Monitoring Analysis
7. AB411 Ocean Water Quality Bacterial Data

StationID	Location	Beach Name	SampleDate	StartTime	ParameterCode	AnalysisMethod	Qualifier	Result	Units
EH-010	Cortez Ave	Imperial Beach municipal beach	2/12/2007	11:18	Total Coliforms	MTF (APHA 9221 B)	<	20	MPN/100mL
EH-010	Cortez Ave	Imperial Beach municipal beach	2/12/2007	11:18	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	=	20	MPN/100mL
EH-010	Cortez Ave	Imperial Beach municipal beach	2/12/2007	11:18	*Enterococcus*	Enterolert	<	10	MPN/100mL
EH-010	Cortez Ave	Imperial Beach municipal beach	3/14/2007	10:50	Total Coliforms	MTF (APHA 9221 B)	=	20	MPN/100mL
EH-010	Cortez Ave	Imperial Beach municipal beach	3/14/2007	10:50	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	=	20	MPN/100mL
EH-010	Cortez Ave	Imperial Beach municipal beach	3/14/2007	10:50	*Enterococcus*	Enterolert	<	10	MPN/100mL
EH-010	Cortez Ave	Imperial Beach municipal beach	4/22/2007	7:10	Total Coliforms	MTF (APHA 9221 B)	=	220	MPN/100mL
EH-010	Cortez Ave	Imperial Beach municipal beach	4/22/2007	7:10	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	=	110	MPN/100mL
EH-010	Cortez Ave	Imperial Beach municipal beach	4/22/2007	7:10	*Enterococcus*	Enterolert	<	10	MPN/100mL
EH-010	Cortez Ave	Imperial Beach municipal beach	6/24/2007	11:55	Total Coliforms	MTF (APHA 9221 B)	<	20	MPN/100mL
EH-010	Cortez Ave	Imperial Beach municipal beach	6/24/2007	11:55	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	<	20	MPN/100mL
EH-010	Cortez Ave	Imperial Beach municipal beach	6/24/2007	11:55	*Enterococcus*	Enterolert	<	10	MPN/100mL
EH-010	Cortez Ave	Imperial Beach municipal beach	9/1/2007	10:54	Total Coliforms	MTF (APHA 9221 B)	<	20	MPN/100mL
EH-010	Cortez Ave	Imperial Beach municipal beach	9/1/2007	10:54	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	<	20	MPN/100mL
EH-010	Cortez Ave	Imperial Beach municipal beach	9/1/2007	10:54	*Enterococcus*	Enterolert	<	10	MPN/100mL
EH-010	Cortez Ave	Imperial Beach municipal beach	9/5/2007	8:37	Total Coliforms	MTF (APHA 9221 B)	=	40	MPN/100mL
EH-010	Cortez Ave	Imperial Beach municipal beach	9/5/2007	8:37	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	=	40	MPN/100mL
EH-010	Cortez Ave	Imperial Beach municipal beach	9/5/2007	8:37	*Enterococcus*	Enterolert	<	10	MPN/100mL
EH-010	Cortez Ave	Imperial Beach municipal beach	1/10/2008	8:18	Total Coliforms	MTF (APHA 9221 B)	=	170	MPN/100mL
EH-010	Cortez Ave	Imperial Beach municipal beach	1/10/2008	8:18	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	=	20	MPN/100mL
EH-010	Cortez Ave	Imperial Beach municipal beach	1/10/2008	8:18	*Enterococcus*	Enterolert	=	53	MPN/100mL
EH-010	Cortez Ave	Imperial Beach municipal beach	1/17/2008	9:05	Total Coliforms	MTF (APHA 9221 B)	=	800	MPN/100mL
EH-010	Cortez Ave	Imperial Beach municipal beach	1/17/2008	9:05	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	=	500	MPN/100mL
EH-010	Cortez Ave	Imperial Beach municipal beach	1/17/2008	9:05	*Enterococcus*	Enterolert	<	10	MPN/100mL
EH-010	Cortez Ave	Imperial Beach municipal beach	1/25/2008	10:15	Total Coliforms	MTF (APHA 9221 B)	=	300	MPN/100mL
EH-010	Cortez Ave	Imperial Beach municipal beach	1/25/2008	10:15	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	=	300	MPN/100mL
EH-010	Cortez Ave	Imperial Beach municipal beach	1/25/2008	10:15	*Enterococcus*	Enterolert	=	42	MPN/100mL
EH-010	Cortez Ave	Imperial Beach municipal beach	2/1/2008	9:10	Total Coliforms	MTF (APHA 9221 B)	=	170	MPN/100mL
EH-010	Cortez Ave	Imperial Beach municipal beach	2/1/2008	9:10	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	=	40	MPN/100mL
EH-010	Cortez Ave	Imperial Beach municipal beach	2/1/2008	9:10	*Enterococcus*	Enterolert	=	20	MPN/100mL
EH-010	Cortez Ave	Imperial Beach municipal beach	2/7/2008	9:57	Total Coliforms	MTF (APHA 9221 B)	=	40	MPN/100mL
EH-010	Cortez Ave	Imperial Beach municipal beach	2/7/2008	9:57	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	<	20	MPN/100mL
EH-010	Cortez Ave	Imperial Beach municipal beach	2/7/2008	9:57	*Enterococcus*	Enterolert	<	10	MPN/100mL
EH-010	Cortez Ave	Imperial Beach municipal beach	2/13/2008	10:12	Total Coliforms	MTF (APHA 9221 B)	=	500	MPN/100mL
EH-010	Cortez Ave	Imperial Beach municipal beach	2/13/2008	10:12	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	=	500	MPN/100mL
EH-010	Cortez Ave	Imperial Beach municipal beach	2/13/2008	10:12	*Enterococcus*	Enterolert	=	10	MPN/100mL
EH-010	Cortez Ave	Imperial Beach municipal beach	2/28/2008	8:15	Total Coliforms	MTF (APHA 9221 B)	=	1300	MPN/100mL
EH-010	Cortez Ave	Imperial Beach municipal beach	2/28/2008	8:15	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	=	1300	MPN/100mL
EH-010	Cortez Ave	Imperial Beach municipal beach	2/28/2008	8:15	*Enterococcus*	Enterolert	=	20	MPN/100mL
EH-010	Cortez Ave	Imperial Beach municipal beach	3/6/2008	8:40	Total Coliforms	MTF (APHA 9221 B)	=	500	MPN/100mL
EH-010	Cortez Ave	Imperial Beach municipal beach	3/6/2008	8:40	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	=	500	MPN/100mL

City of Imperial Beach
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7. AB411 Ocean Water Quality Bacterial Data

StationID	Location	Beach Name	SampleDate	StartTime	ParameterCode	AnalysisMethod	Qualifier	Result	Units
EH-010	Cortez Ave	Imperial Beach municipal beach	3/6/2008	8:40	*Enterococcus*	Enterolert	=	31	MPN/100mL
EH-010	Cortez Ave	Imperial Beach municipal beach	3/14/2008	10:17	Total Coliforms	MTF (APHA 9221 B)	<	20	MPN/100mL
EH-010	Cortez Ave	Imperial Beach municipal beach	3/14/2008	10:17	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	<	20	MPN/100mL
EH-010	Cortez Ave	Imperial Beach municipal beach	3/14/2008	10:17	*Enterococcus*	Enterolert	<	10	MPN/100mL
EH-010	Cortez Ave	Imperial Beach municipal beach	3/20/2008	9:50	Total Coliforms	MTF (APHA 9221 B)	=	80	MPN/100mL
EH-010	Cortez Ave	Imperial Beach municipal beach	3/20/2008	9:50	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	=	80	MPN/100mL
EH-010	Cortez Ave	Imperial Beach municipal beach	3/20/2008	9:50	*Enterococcus*	Enterolert	<	10	MPN/100mL
EH-010	Cortez Ave	Imperial Beach municipal beach	3/27/2008	8:54	Total Coliforms	MTF (APHA 9221 B)	<	20	MPN/100mL
EH-010	Cortez Ave	Imperial Beach municipal beach	3/27/2008	8:54	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	<	20	MPN/100mL
EH-010	Cortez Ave	Imperial Beach municipal beach	3/27/2008	8:54	*Enterococcus*	Enterolert	=	10	MPN/100mL
EH-010	Cortez Ave	Imperial Beach municipal beach	4/4/2008	9:02	Total Coliforms	MTF (APHA 9221 B)	<	20	MPN/100mL
EH-010	Cortez Ave	Imperial Beach municipal beach	4/4/2008	9:02	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	<	20	MPN/100mL
EH-010	Cortez Ave	Imperial Beach municipal beach	4/4/2008	9:02	*Enterococcus*	Enterolert	<	10	MPN/100mL
EH-010	Cortez Ave	Imperial Beach municipal beach	6/12/2008	13:14	Total Coliforms	MTF (APHA 9221 B)	<	20	MPN/100mL
EH-010	Cortez Ave	Imperial Beach municipal beach	6/12/2008	13:14	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	<	20	MPN/100mL
EH-010	Cortez Ave	Imperial Beach municipal beach	6/12/2008	13:14	*Enterococcus*	Enterolert	<	10	MPN/100mL
EH-010	Cortez Ave	Imperial Beach municipal beach	6/19/2008	11:37	Total Coliforms	MTF (APHA 9221 B)	<	20	MPN/100mL
EH-010	Cortez Ave	Imperial Beach municipal beach	6/19/2008	11:37	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	<	20	MPN/100mL
EH-010	Cortez Ave	Imperial Beach municipal beach	6/19/2008	11:37	*Enterococcus*	Enterolert	<	10	MPN/100mL
EH-010	Cortez Ave	Imperial Beach municipal beach	8/22/2008	14:15	Total Coliforms	MTF (APHA 9221 B)	=	20	MPN/100mL
EH-010	Cortez Ave	Imperial Beach municipal beach	8/22/2008	14:15	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	<	20	MPN/100mL
EH-010	Cortez Ave	Imperial Beach municipal beach	8/22/2008	14:15	*Enterococcus*	Enterolert	<	10	MPN/100mL
EH-010	Cortez Ave	Imperial Beach municipal beach	12/4/2008	6:55	Total Coliforms	MTF (APHA 9221 B)	=	40	MPN/100mL
EH-010	Cortez Ave	Imperial Beach municipal beach	12/4/2008	6:55	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	=	40	MPN/100mL
EH-010	Cortez Ave	Imperial Beach municipal beach	12/4/2008	6:55	*Enterococcus*	Enterolert	=	20	MPN/100mL
EH-010	Cortez Ave	Imperial Beach municipal beach	2/20/2009	13:00	Total Coliforms	MTF (APHA 9221 B)	E	170	MPN/100mL
EH-010	Cortez Ave	Imperial Beach municipal beach	2/20/2009	13:00	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	=	40	MPN/100mL
EH-010	Cortez Ave	Imperial Beach municipal beach	2/20/2009	13:00	*Enterococcus*	Enterolert	=	10	MPN/100mL
EH-010	Cortez Ave	Imperial Beach municipal beach	11/3/2009	11:32	Total Coliforms	MTF (APHA 9221 B)	<	20	MPN/100mL
EH-010	Cortez Ave	Imperial Beach municipal beach	11/3/2009	11:32	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	<	20	MPN/100mL
EH-010	Cortez Ave	Imperial Beach municipal beach	11/3/2009	11:32	*Enterococcus*	Enterolert	<	10	MPN/100mL
EH-010	Cortez Ave	Imperial Beach municipal beach	11/9/2009	7:25	Total Coliforms	MTF (APHA 9221 B)	=	20	MPN/100mL
EH-010	Cortez Ave	Imperial Beach municipal beach	11/9/2009	7:25	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	=	20	MPN/100mL
EH-010	Cortez Ave	Imperial Beach municipal beach	11/9/2009	7:25	*Enterococcus*	Enterolert	<	10	MPN/100mL
EH-010	Cortez Ave	Imperial Beach municipal beach	11/17/2009	5:30	Total Coliforms	MTF (APHA 9221 B)	<	20	MPN/100mL
EH-010	Cortez Ave	Imperial Beach municipal beach	11/17/2009	5:30	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	<	20	MPN/100mL
EH-010	Cortez Ave	Imperial Beach municipal beach	11/17/2009	5:30	*Enterococcus*	Enterolert	<	10	MPN/100mL
EH-010	Cortez Ave	Imperial Beach municipal beach	12/1/2009	10:40	Total Coliforms	MTF (APHA 9221 B)	=	60	MPN/100mL
EH-010	Cortez Ave	Imperial Beach municipal beach	12/1/2009	10:40	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	=	60	MPN/100mL
EH-010	Cortez Ave	Imperial Beach municipal beach	12/1/2009	10:40	*Enterococcus*	Enterolert	=	10	MPN/100mL
EH-010	Cortez Ave	Imperial Beach municipal beach	12/2/2009	11:27	Total Coliforms	MTF (APHA 9221 B)	<	20	MPN/100mL

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StationID	Location	Beach Name	SampleDate	StartTime	ParameterCode	AnalysisMethod	Qualifier	Result	Units
EH-010	Cortez Ave	Imperial Beach municipal beach	12/2/2009	11:27	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	<	20	MPN/100mL
EH-010	Cortez Ave	Imperial Beach municipal beach	12/2/2009	11:27	*Enterococcus*	Enterolert	=	10	MPN/100mL
EH-010	Cortez Ave	Imperial Beach municipal beach	12/9/2009	11:03	Total Coliforms	MTF (APHA 9221 B)	=	2400	MPN/100mL
EH-010	Cortez Ave	Imperial Beach municipal beach	12/9/2009	11:03	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	=	800	MPN/100mL
EH-010	Cortez Ave	Imperial Beach municipal beach	12/9/2009	11:03	*Enterococcus*	Enterolert	=	1013	MPN/100mL
EH-010	Cortez Ave	Imperial Beach municipal beach	12/10/2009	13:32	Total Coliforms	MTF (APHA 9221 B)	=	300	MPN/100mL
EH-010	Cortez Ave	Imperial Beach municipal beach	12/10/2009	13:32	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	=	230	MPN/100mL
EH-010	Cortez Ave	Imperial Beach municipal beach	12/10/2009	13:32	*Enterococcus*	Enterolert	=	64	MPN/100mL
EH-010	Cortez Ave	Imperial Beach municipal beach	12/14/2009	10:36	Total Coliforms	MTF (APHA 9221 B)	=	3000	MPN/100mL
EH-010	Cortez Ave	Imperial Beach municipal beach	12/14/2009	10:36	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	=	1100	MPN/100mL
EH-010	Cortez Ave	Imperial Beach municipal beach	12/14/2009	10:36	*Enterococcus*	Enterolert	=	659	MPN/100mL
EH-010	Cortez Ave	Imperial Beach municipal beach	12/16/2009	11:38	Total Coliforms	MTF (APHA 9221 B)	=	20	MPN/100mL
EH-010	Cortez Ave	Imperial Beach municipal beach	12/16/2009	11:38	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	=	20	MPN/100mL
EH-010	Cortez Ave	Imperial Beach municipal beach	12/16/2009	11:38	*Enterococcus*	Enterolert	=	31	MPN/100mL
EH-020	Imperial Beach Boulevard	Imperial Beach municipal beach	6/24/2007	12:00	Total Coliforms	MTF (APHA 9221 B)	=	70	MPN/100mL
EH-020	Imperial Beach Boulevard	Imperial Beach municipal beach	6/24/2007	12:00	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	=	70	MPN/100mL
EH-020	Imperial Beach Boulevard	Imperial Beach municipal beach	6/24/2007	12:00	*Enterococcus*	Enterolert	<	10	MPN/100mL
EH-020	Imperial Beach Boulevard	Imperial Beach municipal beach	5/25/2008	10:11	Total Coliforms	MTF (APHA 9221 B)	=	40	MPN/100mL
EH-020	Imperial Beach Boulevard	Imperial Beach municipal beach	5/25/2008	10:11	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	=	20	MPN/100mL
EH-020	Imperial Beach Boulevard	Imperial Beach municipal beach	5/25/2008	10:11	*Enterococcus*	Enterolert	<	10	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	1/11/2007	10:28	Total Coliforms	MTF (APHA 9221 B)	<	20	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	1/11/2007	10:28	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	<	20	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	1/11/2007	10:28	*Enterococcus*	Enterolert	<	10	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	1/18/2007	8:20	Total Coliforms	MTF (APHA 9221 B)	=	20	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	1/18/2007	8:20	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	=	20	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	1/18/2007	8:20	*Enterococcus*	Enterolert	=	10	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	1/20/2007	8:10	Total Coliforms	MTF (APHA 9221 B)	=	20	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	1/20/2007	8:10	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	=	20	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	1/20/2007	8:10	*Enterococcus*	Enterolert	<	10	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	1/20/2007	8:20	Total Coliforms	MTF (APHA 9221 B)	=	40	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	1/20/2007	8:20	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	=	40	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	1/20/2007	8:20	*Enterococcus*	Enterolert	=	10	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	1/25/2007	10:35	Total Coliforms	MTF (APHA 9221 B)	=	40	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	1/25/2007	10:35	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	=	40	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	1/25/2007	10:35	*Enterococcus*	Enterolert	=	31	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	1/31/2007	7:50	Total Coliforms	MTF (APHA 9221 B)	=	500	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	1/31/2007	7:50	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	=	130	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	1/31/2007	7:50	*Enterococcus*	Enterolert	=	31	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	2/8/2007	7:50	Total Coliforms	MTF (APHA 9221 B)	=	130	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	2/8/2007	7:50	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	=	130	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	2/8/2007	7:50	*Enterococcus*	Enterolert	<	10	MPN/100mL

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StationID	Location	Beach Name	SampleDate	StartTime	ParameterCode	AnalysisMethod	Qualifier	Result	Units
EH-030	Imperial Beach Pier	Imperial Beach pier area	2/12/2007	11:30	Total Coliforms	MTF (APHA 9221 B)	<	20	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	2/12/2007	11:30	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	<	20	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	2/12/2007	11:30	*Enterococcus*	Enterolert	<	10	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	2/21/2007	14:38	Total Coliforms	MTF (APHA 9221 B)	=	20	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	2/21/2007	14:38	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	=	20	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	2/21/2007	14:38	*Enterococcus*	Enterolert	<	10	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	2/28/2007	9:50	Total Coliforms	MTF (APHA 9221 B)	<	20	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	2/28/2007	9:50	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	<	20	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	2/28/2007	9:50	*Enterococcus*	Enterolert	=	10	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	3/8/2007	7:55	Total Coliforms	MTF (APHA 9221 B)	=	220	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	3/8/2007	7:55	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	=	220	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	3/8/2007	7:55	*Enterococcus*	Enterolert	<	10	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	3/14/2007	10:52	Total Coliforms	MTF (APHA 9221 B)	<	20	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	3/14/2007	10:52	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	<	20	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	3/14/2007	10:52	*Enterococcus*	Enterolert	<	10	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	3/15/2007	8:00	Total Coliforms	MTF (APHA 9221 B)	=	20	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	3/15/2007	8:00	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	=	20	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	3/15/2007	8:00	*Enterococcus*	Enterolert	<	10	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	3/21/2007	9:30	Total Coliforms	MTF (APHA 9221 B)	=	40	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	3/21/2007	9:30	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	=	40	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	3/21/2007	9:30	*Enterococcus*	Enterolert	<	10	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	3/28/2007	9:59	Total Coliforms	MTF (APHA 9221 B)	=	70	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	3/28/2007	9:59	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	=	70	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	3/28/2007	9:59	*Enterococcus*	Enterolert	<	10	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	4/5/2007	10:28	Total Coliforms	MTF (APHA 9221 B)	<	20	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	4/5/2007	10:28	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	<	20	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	4/5/2007	10:28	*Enterococcus*	Enterolert	<	10	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	4/11/2007	10:15	Total Coliforms	MTF (APHA 9221 B)	=	70	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	4/11/2007	10:15	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	=	40	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	4/11/2007	10:15	*Enterococcus*	Enterolert	<	10	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	4/18/2007	8:38	Total Coliforms	MTF (APHA 9221 B)	=	20	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	4/18/2007	8:38	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	<	20	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	4/18/2007	8:38	*Enterococcus*	Enterolert	<	10	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	4/22/2007	7:09	Total Coliforms	MTF (APHA 9221 B)	=	40	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	4/22/2007	7:09	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	=	20	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	4/22/2007	7:09	*Enterococcus*	Enterolert	=	20	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	4/22/2007	7:22	Total Coliforms	MTF (APHA 9221 B)	=	800	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	4/22/2007	7:22	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	=	500	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	4/22/2007	7:22	*Enterococcus*	Enterolert	=	42	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	4/25/2007	9:50	Total Coliforms	MTF (APHA 9221 B)	=	20	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	4/25/2007	9:50	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	=	20	MPN/100mL

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StationID	Location	Beach Name	SampleDate	StartTime	ParameterCode	AnalysisMethod	Qualifier	Result	Units
EH-030	Imperial Beach Pier	Imperial Beach pier area	4/25/2007	9:50	*Enterococcus*	Enterolert	<	10	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	5/2/2007	10:25	Total Coliforms	MTF (APHA 9221 B)	<	20	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	5/2/2007	10:25	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	<	20	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	5/2/2007	10:25	*Enterococcus*	Enterolert	=	10	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	5/9/2007	10:21	Total Coliforms	MTF (APHA 9221 B)	<	20	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	5/9/2007	10:21	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	<	20	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	5/9/2007	10:21	*Enterococcus*	Enterolert	<	10	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	5/16/2007	10:15	Total Coliforms	MTF (APHA 9221 B)	<	20	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	5/16/2007	10:15	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	<	20	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	5/16/2007	10:15	*Enterococcus*	Enterolert	<	10	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	5/19/2007	7:44	Total Coliforms	MTF (APHA 9221 B)	=	40	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	5/19/2007	7:44	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	=	40	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	5/19/2007	7:44	*Enterococcus*	Enterolert	=	10	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	5/19/2007	7:50	Total Coliforms	MTF (APHA 9221 B)	=	20	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	5/19/2007	7:50	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	=	20	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	5/19/2007	7:50	*Enterococcus*	Enterolert	<	10	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	5/23/2007	10:07	Total Coliforms	MTF (APHA 9221 B)	<	20	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	5/23/2007	10:07	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	<	20	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	5/23/2007	10:07	*Enterococcus*	Enterolert	<	10	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	6/6/2007	8:50	Total Coliforms	MTF (APHA 9221 B)	<	20	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	6/6/2007	8:50	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	<	20	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	6/6/2007	8:50	*Enterococcus*	Enterolert	<	10	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	6/13/2007	8:41	Total Coliforms	MTF (APHA 9221 B)	=	110	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	6/13/2007	8:41	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	=	110	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	6/13/2007	8:41	*Enterococcus*	Enterolert	<	10	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	6/20/2007	9:15	Total Coliforms	MTF (APHA 9221 B)	<	20	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	6/20/2007	9:15	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	<	20	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	6/20/2007	9:15	*Enterococcus*	Enterolert	<	10	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	6/24/2007	12:07	Total Coliforms	MTF (APHA 9221 B)	=	300	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	6/24/2007	12:07	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	=	300	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	6/24/2007	12:07	*Enterococcus*	Enterolert	<	10	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	6/27/2007	10:14	Total Coliforms	MTF (APHA 9221 B)	=	70	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	6/27/2007	10:14	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	=	70	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	6/27/2007	10:14	*Enterococcus*	Enterolert	<	10	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	7/2/2007	10:19	Total Coliforms	MTF (APHA 9221 B)	=	20	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	7/2/2007	10:19	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	=	20	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	7/2/2007	10:19	*Enterococcus*	Enterolert	<	10	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	7/12/2007	10:15	Total Coliforms	MTF (APHA 9221 B)	<	20	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	7/12/2007	10:15	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	<	20	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	7/12/2007	10:15	*Enterococcus*	Enterolert	=	10	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	7/18/2007	10:28	Total Coliforms	MTF (APHA 9221 B)	<	20	MPN/100mL

City of Imperial Beach
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StationID	Location	Beach Name	SampleDate	StartTime	ParameterCode	AnalysisMethod	Qualifier	Result	Units
EH-030	Imperial Beach Pier	Imperial Beach pier area	7/18/2007	10:28	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	<	20	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	7/18/2007	10:28	*Enterococcus*	Enterolert	<	10	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	7/25/2007	10:27	Total Coliforms	MTF (APHA 9221 B)	<	20	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	7/25/2007	10:27	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	<	20	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	7/25/2007	10:27	*Enterococcus*	Enterolert	<	10	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	8/1/2007	10:00	Total Coliforms	MTF (APHA 9221 B)	=	110	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	8/1/2007	10:00	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	=	110	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	8/1/2007	10:00	*Enterococcus*	Enterolert	=	10	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	8/8/2007	10:25	Total Coliforms	MTF (APHA 9221 B)	=	20	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	8/8/2007	10:25	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	=	20	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	8/8/2007	10:25	*Enterococcus*	Enterolert	<	10	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	8/15/2007	8:36	Total Coliforms	MTF (APHA 9221 B)	=	170	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	8/15/2007	8:36	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	=	170	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	8/15/2007	8:36	*Enterococcus*	Enterolert	<	10	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	8/22/2007	10:00	Total Coliforms	MTF (APHA 9221 B)	=	20	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	8/22/2007	10:00	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	=	20	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	8/22/2007	10:00	*Enterococcus*	Enterolert	<	10	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	9/1/2007	11:02	Total Coliforms	MTF (APHA 9221 B)	<	20	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	9/1/2007	11:02	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	<	20	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	9/1/2007	11:02	*Enterococcus*	Enterolert	<	10	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	9/5/2007	9:09	Total Coliforms	MTF (APHA 9221 B)	=	20	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	9/5/2007	9:09	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	=	20	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	9/5/2007	9:09	*Enterococcus*	Enterolert	=	10	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	9/12/2007	8:32	Total Coliforms	MTF (APHA 9221 B)	=	70	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	9/12/2007	8:32	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	=	40	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	9/12/2007	8:32	*Enterococcus*	Enterolert	<	10	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	9/19/2007	9:10	Total Coliforms	MTF (APHA 9221 B)	<	20	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	9/19/2007	9:10	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	<	20	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	9/19/2007	9:10	*Enterococcus*	Enterolert	<	10	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	9/26/2007	8:27	Total Coliforms	MTF (APHA 9221 B)	=	40	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	9/26/2007	8:27	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	=	40	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	9/26/2007	8:27	*Enterococcus*	Enterolert	=	10	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	10/3/2007	8:20	Total Coliforms	MTF (APHA 9221 B)	<	20	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	10/3/2007	8:20	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	<	20	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	10/3/2007	8:20	*Enterococcus*	Enterolert	<	10	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	10/10/2007	10:48	Total Coliforms	MTF (APHA 9221 B)	<	20	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	10/10/2007	10:48	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	<	20	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	10/10/2007	10:48	*Enterococcus*	Enterolert	<	10	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	10/17/2007	9:20	Total Coliforms	MTF (APHA 9221 B)	=	40	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	10/17/2007	9:20	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	=	40	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	10/17/2007	9:20	*Enterococcus*	Enterolert	<	10	MPN/100mL

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StationID	Location	Beach Name	SampleDate	StartTime	ParameterCode	AnalysisMethod	Qualifier	Result	Units
EH-030	Imperial Beach Pier	Imperial Beach pier area	10/31/2007	8:40	Total Coliforms	MTF (APHA 9221 B)	<	20	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	10/31/2007	8:40	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	<	20	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	10/31/2007	8:40	*Enterococcus*	Enterolert	<	10	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	11/8/2007	8:02	Total Coliforms	MTF (APHA 9221 B)	=	40	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	11/8/2007	8:02	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	=	40	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	11/8/2007	8:02	*Enterococcus*	Enterolert	<	10	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	11/14/2007	13:20	Total Coliforms	MTF (APHA 9221 B)	=	170	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	11/14/2007	13:20	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	=	170	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	11/14/2007	13:20	*Enterococcus*	Enterolert	=	10	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	11/29/2007	10:45	Total Coliforms	MTF (APHA 9221 B)	<	20	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	11/29/2007	10:45	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	<	20	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	11/29/2007	10:45	*Enterococcus*	Enterolert	<	10	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	12/6/2007	8:35	Total Coliforms	MTF (APHA 9221 B)	=	130	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	12/6/2007	8:35	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	=	80	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	12/6/2007	8:35	*Enterococcus*	Enterolert	<	10	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	12/11/2007	9:25	Total Coliforms	MTF (APHA 9221 B)	=	500	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	12/11/2007	9:25	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	=	300	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	12/11/2007	9:25	*Enterococcus*	Enterolert	=	42	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	12/11/2007	9:30	Total Coliforms	MTF (APHA 9221 B)	=	1400	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	12/11/2007	9:30	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	=	500	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	12/11/2007	9:30	*Enterococcus*	Enterolert	=	42	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	12/14/2007	7:35	Total Coliforms	MTF (APHA 9221 B)	=	2800	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	12/14/2007	7:35	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	=	1100	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	12/14/2007	7:35	*Enterococcus*	Enterolert	=	53	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	12/20/2007	9:40	Total Coliforms	MTF (APHA 9221 B)	<	20	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	12/20/2007	9:40	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	<	20	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	12/20/2007	9:40	*Enterococcus*	Enterolert	=	10	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	12/27/2007	10:00	Total Coliforms	MTF (APHA 9221 B)	=	20	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	12/27/2007	10:00	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	=	20	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	12/27/2007	10:00	*Enterococcus*	Enterolert	<	10	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	1/3/2008	10:30	Total Coliforms	MTF (APHA 9221 B)	=	20	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	1/3/2008	10:30	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	=	20	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	1/3/2008	10:30	*Enterococcus*	Enterolert	<	10	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	1/10/2008	8:08	Total Coliforms	MTF (APHA 9221 B)	=	130	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	1/10/2008	8:08	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	=	80	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	1/10/2008	8:08	*Enterococcus*	Enterolert	=	64	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	1/17/2008	8:44	Total Coliforms	MTF (APHA 9221 B)	=	230	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	1/17/2008	8:44	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	=	230	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	1/17/2008	8:44	*Enterococcus*	Enterolert	<	10	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	1/25/2008	10:20	Total Coliforms	MTF (APHA 9221 B)	=	800	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	1/25/2008	10:20	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	=	130	MPN/100mL

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StationID	Location	Beach Name	SampleDate	StartTime	ParameterCode	AnalysisMethod	Qualifier	Result	Units
EH-030	Imperial Beach Pier	Imperial Beach pier area	1/25/2008	10:20	*Enterococcus*	Enterolert	=	20	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	2/1/2008	9:15	Total Coliforms	MTF (APHA 9221 B)	=	80	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	2/1/2008	9:15	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	=	20	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	2/1/2008	9:15	*Enterococcus*	Enterolert	=	53	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	2/7/2008	9:47	Total Coliforms	MTF (APHA 9221 B)	=	20	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	2/7/2008	9:47	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	=	20	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	2/7/2008	9:47	*Enterococcus*	Enterolert	<	10	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	2/13/2008	10:15	Total Coliforms	MTF (APHA 9221 B)	=	70	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	2/13/2008	10:15	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	=	20	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	2/13/2008	10:15	*Enterococcus*	Enterolert	<	10	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	2/28/2008	8:34	Total Coliforms	MTF (APHA 9221 B)	=	1100	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	2/28/2008	8:34	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	=	500	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	2/28/2008	8:34	*Enterococcus*	Enterolert	=	31	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	3/6/2008	8:45	Total Coliforms	MTF (APHA 9221 B)	=	1100	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	3/6/2008	8:45	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	=	500	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	3/6/2008	8:45	*Enterococcus*	Enterolert	=	10	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	3/14/2008	10:22	Total Coliforms	MTF (APHA 9221 B)	<	20	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	3/14/2008	10:22	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	<	20	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	3/14/2008	10:22	*Enterococcus*	Enterolert	<	10	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	3/20/2008	9:40	Total Coliforms	MTF (APHA 9221 B)	=	20	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	3/20/2008	9:40	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	=	20	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	3/20/2008	9:40	*Enterococcus*	Enterolert	<	10	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	3/27/2008	8:45	Total Coliforms	MTF (APHA 9221 B)	<	20	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	3/27/2008	8:45	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	<	20	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	3/27/2008	8:45	*Enterococcus*	Enterolert	<	10	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	4/4/2008	8:45	Total Coliforms	MTF (APHA 9221 B)	<	20	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	4/4/2008	8:45	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	<	20	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	4/4/2008	8:45	*Enterococcus*	Enterolert	<	10	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	4/9/2008	10:07	Total Coliforms	MTF (APHA 9221 B)	=	20	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	4/9/2008	10:07	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	=	20	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	4/9/2008	10:07	*Enterococcus*	Enterolert	<	10	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	4/16/2008	10:07	Total Coliforms	MTF (APHA 9221 B)	=	40	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	4/16/2008	10:07	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	=	40	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	4/16/2008	10:07	*Enterococcus*	Enterolert	<	10	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	4/23/2008	9:45	Total Coliforms	MTF (APHA 9221 B)	=	800	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	4/23/2008	9:45	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	=	800	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	4/23/2008	9:45	*Enterococcus*	Enterolert	=	31	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	4/25/2008	12:35	Total Coliforms	MTF (APHA 9221 B)	<	20	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	4/25/2008	12:35	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	<	20	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	4/25/2008	12:35	*Enterococcus*	Enterolert	<	10	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	4/25/2008	12:37	Total Coliforms	MTF (APHA 9221 B)	<	20	MPN/100mL

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StationID	Location	Beach Name	SampleDate	StartTime	ParameterCode	AnalysisMethod	Qualifier	Result	Units
EH-030	Imperial Beach Pier	Imperial Beach pier area	4/25/2008	12:37	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	<	20	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	4/25/2008	12:37	*Enterococcus*	Enterolert	<	10	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	4/30/2008	9:51	Total Coliforms	MTF (APHA 9221 B)	=	80	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	4/30/2008	9:51	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	=	80	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	4/30/2008	9:51	*Enterococcus*	Enterolert	=	10	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	5/7/2008	9:42	Total Coliforms	MTF (APHA 9221 B)	=	80	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	5/7/2008	9:42	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	=	80	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	5/7/2008	9:42	*Enterococcus*	Enterolert	=	42	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	5/12/2008	10:10	Total Coliforms	MTF (APHA 9221 B)	=	20	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	5/12/2008	10:10	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	=	20	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	5/12/2008	10:10	*Enterococcus*	Enterolert	<	10	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	5/12/2008	10:15	Total Coliforms	MTF (APHA 9221 B)	=	500	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	5/12/2008	10:15	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	=	500	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	5/12/2008	10:15	*Enterococcus*	Enterolert	=	10	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	5/14/2008	9:50	Total Coliforms	MTF (APHA 9221 B)	=	20	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	5/14/2008	9:50	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	=	20	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	5/14/2008	9:50	*Enterococcus*	Enterolert	<	10	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	5/14/2008	9:58	Total Coliforms	MTF (APHA 9221 B)	=	80	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	5/14/2008	9:58	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	=	80	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	5/14/2008	9:58	*Enterococcus*	Enterolert	=	10	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	5/21/2008	8:54	Total Coliforms	MTF (APHA 9221 B)	=	40	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	5/21/2008	8:54	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	<	20	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	5/21/2008	8:54	*Enterococcus*	Enterolert	=	10	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	5/25/2008	10:04	Total Coliforms	MTF (APHA 9221 B)	<	20	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	5/25/2008	10:04	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	<	20	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	5/25/2008	10:04	*Enterococcus*	Enterolert	<	10	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	5/30/2008	8:45	Total Coliforms	MTF (APHA 9221 B)	=	20	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	5/30/2008	8:45	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	=	20	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	5/30/2008	8:45	*Enterococcus*	Enterolert	=	20	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	6/4/2008	9:37	Total Coliforms	MTF (APHA 9221 B)	=	40	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	6/4/2008	9:37	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	=	40	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	6/4/2008	9:37	*Enterococcus*	Enterolert	=	53	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	6/11/2008	8:56	Total Coliforms	MTF (APHA 9221 B)	=	130	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	6/11/2008	8:56	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	=	130	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	6/11/2008	8:56	*Enterococcus*	Enterolert	<	10	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	6/12/2008	13:18	Total Coliforms	MTF (APHA 9221 B)	<	20	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	6/12/2008	13:18	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	<	20	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	6/12/2008	13:18	*Enterococcus*	Enterolert	<	10	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	6/18/2008	9:18	Total Coliforms	MTF (APHA 9221 B)	<	20	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	6/18/2008	9:18	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	<	20	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	6/18/2008	9:18	*Enterococcus*	Enterolert	<	10	MPN/100mL

City of Imperial Beach
Palm Avenue Urban Runoff Diverter Water Quality Monitoring Analysis
7. AB411 Ocean Water Quality Bacterial Data

StationID	Location	Beach Name	SampleDate	StartTime	ParameterCode	AnalysisMethod	Qualifier	Result	Units
EH-030	Imperial Beach Pier	Imperial Beach pier area	6/19/2008	11:43	Total Coliforms	MTF (APHA 9221 B)	<	20	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	6/19/2008	11:43	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	<	20	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	6/19/2008	11:43	*Enterococcus*	Enterolert	<	10	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	6/23/2008	11:09	Total Coliforms	MTF	=	20	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	6/23/2008	11:09	Fecal Coliforms	MTF	=	20	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	6/23/2008	11:09	*Enterococcus*	Enterolert	<	10	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	6/23/2008	11:13	Total Coliforms	MTF	=	20	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	6/23/2008	11:13	Fecal Coliforms	MTF	=	20	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	6/23/2008	11:13	*Enterococcus*	Enterolert	<	10	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	6/25/2008	8:42	Total Coliforms	MTF	=	20	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	6/25/2008	8:42	Fecal Coliforms	MTF	=	20	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	6/25/2008	8:42	*Enterococcus*	Enterolert	=	10	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	7/1/2008	9:48	Total Coliforms	MTF	<	20	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	7/1/2008	9:48	Fecal Coliforms	MTF	<	20	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	7/1/2008	9:48	*Enterococcus*	Enterolert	<	10	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	7/9/2008	8:54	Total Coliforms	MTF (APHA 9221 B)	=	20	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	7/9/2008	8:54	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	=	20	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	7/9/2008	8:54	*Enterococcus*	Enterolert	<	10	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	7/16/2008	9:32	Total Coliforms	MTF (APHA 9221 B)	=	300	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	7/16/2008	9:32	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	=	300	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	7/16/2008	9:32	*Enterococcus*	Enterolert	<	10	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	7/23/2008	9:32	Total Coliforms	MTF (APHA 9221 B)	<	20	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	7/23/2008	9:32	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	<	20	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	7/23/2008	9:32	*Enterococcus*	Enterolert	<	10	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	7/30/2008	9:40	Total Coliforms	MTF (APHA 9221 B)	=	40	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	7/30/2008	9:40	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	=	40	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	7/30/2008	9:40	*Enterococcus*	Enterolert	=	20	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	8/6/2008	8:58	Total Coliforms	MTF (APHA 9221 B)	=	20	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	8/6/2008	8:58	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	=	20	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	8/6/2008	8:58	*Enterococcus*	Enterolert	=	137	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	8/8/2008	10:15	Total Coliforms	MTF (APHA 9221 B)	=	300	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	8/8/2008	10:15	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	=	300	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	8/8/2008	10:15	*Enterococcus*	Enterolert	=	20	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	8/13/2008	8:50	Total Coliforms	MTF (APHA 9221 B)	=	20	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	8/13/2008	8:50	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	=	20	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	8/13/2008	8:50	*Enterococcus*	Enterolert	<	10	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	8/20/2008	9:12	Total Coliforms	MTF (APHA 9221 B)	=	300	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	8/20/2008	9:12	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	=	300	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	8/20/2008	9:12	*Enterococcus*	Enterolert	=	75	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	8/22/2008	14:40	Total Coliforms	MTF (APHA 9221 B)	<	20	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	8/22/2008	14:40	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	<	20	MPN/100mL

City of Imperial Beach
Palm Avenue Urban Runoff Diverter Water Quality Monitoring Analysis
7. AB411 Ocean Water Quality Bacterial Data

StationID	Location	Beach Name	SampleDate	StartTime	ParameterCode	AnalysisMethod	Qualifier	Result	Units
EH-030	Imperial Beach Pier	Imperial Beach pier area	8/22/2008	14:40	*Enterococcus*	Enterolert	<	10	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	8/27/2008	11:18	Total Coliforms	MTF (APHA 9221 B)	<	20	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	8/27/2008	11:18	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	<	20	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	8/27/2008	11:18	*Enterococcus*	Enterolert	<	10	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	9/3/2008	9:58	Total Coliforms	MTF (APHA 9221 B)	=	80	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	9/3/2008	9:58	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	=	20	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	9/3/2008	9:58	*Enterococcus*	Enterolert	<	10	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	9/10/2008	9:57	Total Coliforms	MTF (APHA 9221 B)	<	20	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	9/10/2008	9:57	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	<	20	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	9/10/2008	9:57	*Enterococcus*	Enterolert	<	10	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	9/17/2008	9:46	Total Coliforms	MTF (APHA 9221 B)	<	20	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	9/17/2008	9:46	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	<	20	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	9/17/2008	9:46	*Enterococcus*	Enterolert	=	20	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	12/4/2008	7:05	Total Coliforms	MTF (APHA 9221 B)	=	40	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	12/4/2008	7:05	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	=	40	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	12/4/2008	7:05	*Enterococcus*	Enterolert	=	10	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	2/12/2009	10:20	Total Coliforms	MTF (APHA 9221 B)	<	20	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	2/12/2009	10:20	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	<	20	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	2/12/2009	10:20	*Enterococcus*	Enterolert	<	10	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	2/12/2009	10:25	Total Coliforms	MTF (APHA 9221 B)	=	20	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	2/12/2009	10:25	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	=	20	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	2/12/2009	10:25	*Enterococcus*	Enterolert	=	10	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	2/12/2009	10:30	Total Coliforms	MTF (APHA 9221 B)	<	20	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	2/12/2009	10:30	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	=	20	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	2/12/2009	10:30	*Enterococcus*	Enterolert	<	10	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	2/20/2009	12:48	Total Coliforms	MTF (APHA 9221 B)	E	130	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	2/20/2009	12:48	Total Coliforms	MTF (APHA 9221 B)	E	130	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	2/20/2009	12:48	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	<	20	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	2/20/2009	12:48	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	<	20	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	2/20/2009	12:48	*Enterococcus*	Enterolert	=	31	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	2/20/2009	12:48	*Enterococcus*	Enterolert	=	31	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	6/22/2009	10:30	Total Coliforms	MTF (APHA 9221 B)	=	40	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	6/22/2009	10:30	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	=	40	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	6/22/2009	10:30	*Enterococcus*	Enterolert	<	10	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	6/29/2009	9:20	Total Coliforms	MTF (APHA 9221 B)	=	110	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	6/29/2009	9:20	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	=	110	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	6/29/2009	9:20	*Enterococcus*	Enterolert	=	10	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	7/6/2009	8:50	Total Coliforms	MTF (APHA 9221 B)	<	20	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	7/6/2009	8:50	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	<	20	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	7/6/2009	8:50	*Enterococcus*	Enterolert	=	10	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	7/13/2009	9:55	Total Coliforms	MTF (APHA 9221 B)	=	40	MPN/100mL

City of Imperial Beach
Palm Avenue Urban Runoff Diverter Water Quality Monitoring Analysis
7. AB411 Ocean Water Quality Bacterial Data

StationID	Location	Beach Name	SampleDate	StartTime	ParameterCode	AnalysisMethod	Qualifier	Result	Units
EH-030	Imperial Beach Pier	Imperial Beach pier area	7/13/2009	9:55	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	=	40	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	7/13/2009	9:55	*Enterococcus*	Enterolert	<	10	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	7/20/2009	9:05	Total Coliforms	MTF (APHA 9221 B)	=	20	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	7/20/2009	9:05	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	<	20	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	7/20/2009	9:05	*Enterococcus*	Enterolert	=	20	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	7/24/2009	11:30	Total Coliforms	MTF (APHA 9221 B)	=	300	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	7/24/2009	11:30	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	=	170	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	7/24/2009	11:30	*Enterococcus*	Enterolert	<	10	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	7/27/2009	9:35	Total Coliforms	MTF (APHA 9221 B)	=	500	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	7/27/2009	9:35	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	=	130	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	7/27/2009	9:35	*Enterococcus*	Enterolert	=	75	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	8/3/2009	9:25	Total Coliforms	MTF (APHA 9221 B)	=	130	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	8/3/2009	9:25	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	=	130	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	8/3/2009	9:25	*Enterococcus*	Enterolert	<	10	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	8/10/2009	9:35	Total Coliforms	MTF (APHA 9221 B)	<	20	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	8/10/2009	9:35	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	<	20	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	8/10/2009	9:35	*Enterococcus*	Enterolert	<	10	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	8/17/2009	9:43	Total Coliforms	MTF (APHA 9221 B)	<	20	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	8/17/2009	9:43	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	<	20	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	8/17/2009	9:43	*Enterococcus*	Enterolert	<	10	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	8/24/2009	9:35	Total Coliforms	MTF (APHA 9221 B)	<	20	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	8/24/2009	9:35	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	<	20	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	8/24/2009	9:35	*Enterococcus*	Enterolert	<	20	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	8/31/2009	10:10	Total Coliforms	MTF (APHA 9221 B)	<	20	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	8/31/2009	10:10	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	<	20	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	8/31/2009	10:10	*Enterococcus*	Enterolert	<	10	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	9/8/2009	9:45	Total Coliforms	MTF (APHA 9221 B)	<	20	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	9/8/2009	9:45	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	<	20	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	9/8/2009	9:45	*Enterococcus*	Enterolert	=	10	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	9/14/2009	8:45	Total Coliforms	MTF (APHA 9221 B)	<	20	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	9/14/2009	8:45	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	<	20	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	9/14/2009	8:45	*Enterococcus*	Enterolert	<	10	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	9/21/2009	7:35	Total Coliforms	MTF (APHA 9221 B)	<	20	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	9/21/2009	7:35	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	<	20	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	9/21/2009	7:35	*Enterococcus*	Enterolert	=	10	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	9/28/2009	9:00	Total Coliforms	MTF (APHA 9221 B)	=	40	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	9/28/2009	9:00	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	=	40	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	9/28/2009	9:00	*Enterococcus*	Enterolert	<	10	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	10/6/2009	7:10	Total Coliforms	MTF (APHA 9221 B)	<	20	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	10/6/2009	7:10	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	<	20	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	10/6/2009	7:10	*Enterococcus*	Enterolert	<	10	MPN/100mL

City of Imperial Beach
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7. AB411 Ocean Water Quality Bacterial Data

StationID	Location	Beach Name	SampleDate	StartTime	ParameterCode	AnalysisMethod	Qualifier	Result	Units
EH-030	Imperial Beach Pier	Imperial Beach pier area	10/12/2009	9:30	Total Coliforms	MTF (APHA 9221 B)	<	20	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	10/12/2009	9:30	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	<	20	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	10/12/2009	9:30	*Enterococcus*	Enterolert	<	10	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	10/14/2009	10:53	Total Coliforms	MTF (APHA 9221 B)	<	20	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	10/14/2009	10:53	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	<	20	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	10/14/2009	10:53	*Enterococcus*	Enterolert	<	10	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	10/19/2009	7:39	Total Coliforms	MTF (APHA 9221 B)	<	20	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	10/19/2009	7:39	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	<	20	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	10/19/2009	7:39	*Enterococcus*	Enterolert	<	10	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	10/26/2009	9:20	Total Coliforms	MTF (APHA 9221 B)	<	20	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	10/26/2009	9:20	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	<	20	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	10/26/2009	9:20	*Enterococcus*	Enterolert	=	10	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	11/3/2009	11:40	Total Coliforms	MTF (APHA 9221 B)	<	20	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	11/3/2009	11:40	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	<	20	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	11/3/2009	11:40	*Enterococcus*	Enterolert	=	20	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	11/9/2009	7:20	Total Coliforms	MTF (APHA 9221 B)	<	20	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	11/9/2009	7:20	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	<	20	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	11/9/2009	7:20	*Enterococcus*	Enterolert	<	10	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	11/17/2009	5:35	Total Coliforms	MTF (APHA 9221 B)	<	20	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	11/17/2009	5:35	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	<	20	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	11/17/2009	5:35	*Enterococcus*	Enterolert	<	10	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	11/23/2009	9:45	Total Coliforms	MTF (APHA 9221 B)	<	20	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	11/23/2009	9:45	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	<	20	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	11/23/2009	9:45	*Enterococcus*	Enterolert	<	10	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	12/1/2009	10:45	Total Coliforms	MTF (APHA 9221 B)	<	20	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	12/1/2009	10:45	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	<	20	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	12/1/2009	10:45	*Enterococcus*	Enterolert	=	20	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	12/2/2009	11:35	Total Coliforms	MTF (APHA 9221 B)	<	20	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	12/2/2009	11:35	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	<	20	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	12/2/2009	11:35	*Enterococcus*	Enterolert	=	10	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	12/9/2009	11:08	Total Coliforms	MTF (APHA 9221 B)	=	1300	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	12/9/2009	11:08	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	=	500	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	12/9/2009	11:08	*Enterococcus*	Enterolert	=	1091	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	12/10/2009	13:20	Total Coliforms	MTF (APHA 9221 B)	=	300	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	12/10/2009	13:20	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	=	230	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	12/10/2009	13:20	*Enterococcus*	Enterolert	=	164	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	12/14/2009	10:55	Total Coliforms	MTF (APHA 9221 B)	=	300	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	12/14/2009	10:55	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	=	300	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	12/14/2009	10:55	*Enterococcus*	Enterolert	=	64	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	12/16/2009	11:50	Total Coliforms	MTF (APHA 9221 B)	<	20	MPN/100mL
EH-030	Imperial Beach Pier	Imperial Beach pier area	12/16/2009	11:50	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	<	20	MPN/100mL

City of Imperial Beach
Palm Avenue Urban Runoff Diverter Water Quality Monitoring Analysis
7. AB411 Ocean Water Quality Bacterial Data

StationID	Location	Beach Name	SampleDate	StartTime	ParameterCode	AnalysisMethod	Qualifier	Result	Units
EH-030	Imperial Beach Pier	Imperial Beach pier area	12/16/2009	11:50	*Enterococcus*	Enterolert	=	10	MPN/100mL
EH-041	Camp Surf jetty	north Imperial Beach	4/5/2007	10:19	Total Coliforms	MTF (APHA 9221 B)	=	20	MPN/100mL
EH-041	Camp Surf jetty	north Imperial Beach	4/5/2007	10:19	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	<	20	MPN/100mL
EH-041	Camp Surf jetty	north Imperial Beach	4/5/2007	10:19	*Enterococcus*	Enterolert	<	10	MPN/100mL
EH-041	Camp Surf jetty	north Imperial Beach	4/11/2007	10:00	Total Coliforms	MTF (APHA 9221 B)	=	170	MPN/100mL
EH-041	Camp Surf jetty	north Imperial Beach	4/11/2007	10:00	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	=	70	MPN/100mL
EH-041	Camp Surf jetty	north Imperial Beach	4/11/2007	10:00	*Enterococcus*	Enterolert	<	10	MPN/100mL
EH-041	Camp Surf jetty	north Imperial Beach	4/18/2007	8:28	Total Coliforms	MTF (APHA 9221 B)	<	20	MPN/100mL
EH-041	Camp Surf jetty	north Imperial Beach	4/18/2007	8:28	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	<	20	MPN/100mL
EH-041	Camp Surf jetty	north Imperial Beach	4/18/2007	8:28	*Enterococcus*	Enterolert	<	10	MPN/100mL
EH-041	Camp Surf jetty	north Imperial Beach	4/22/2007	6:52	Total Coliforms	MTF (APHA 9221 B)	=	130	MPN/100mL
EH-041	Camp Surf jetty	north Imperial Beach	4/22/2007	6:52	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	=	80	MPN/100mL
EH-041	Camp Surf jetty	north Imperial Beach	4/22/2007	6:52	*Enterococcus*	Enterolert	<	10	MPN/100mL
EH-041	Camp Surf jetty	north Imperial Beach	4/25/2007	9:37	Total Coliforms	MTF (APHA 9221 B)	<	20	MPN/100mL
EH-041	Camp Surf jetty	north Imperial Beach	4/25/2007	9:37	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	<	20	MPN/100mL
EH-041	Camp Surf jetty	north Imperial Beach	4/25/2007	9:37	*Enterococcus*	Enterolert	<	10	MPN/100mL
EH-041	Camp Surf jetty	north Imperial Beach	5/2/2007	10:05	Total Coliforms	MTF (APHA 9221 B)	<	20	MPN/100mL
EH-041	Camp Surf jetty	north Imperial Beach	5/2/2007	10:05	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	<	20	MPN/100mL
EH-041	Camp Surf jetty	north Imperial Beach	5/2/2007	10:05	*Enterococcus*	Enterolert	<	10	MPN/100mL
EH-041	Camp Surf jetty	north Imperial Beach	5/9/2007	9:55	Total Coliforms	MTF (APHA 9221 B)	<	20	MPN/100mL
EH-041	Camp Surf jetty	north Imperial Beach	5/9/2007	9:55	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	<	20	MPN/100mL
EH-041	Camp Surf jetty	north Imperial Beach	5/9/2007	9:55	*Enterococcus*	Enterolert	<	10	MPN/100mL
EH-041	Camp Surf jetty	north Imperial Beach	5/16/2007	9:50	Total Coliforms	MTF (APHA 9221 B)	=	20	MPN/100mL
EH-041	Camp Surf jetty	north Imperial Beach	5/16/2007	9:50	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	=	20	MPN/100mL
EH-041	Camp Surf jetty	north Imperial Beach	5/16/2007	9:50	*Enterococcus*	Enterolert	=	10	MPN/100mL
EH-041	Camp Surf jetty	north Imperial Beach	5/23/2007	10:30	Total Coliforms	MTF (APHA 9221 B)	=	40	MPN/100mL
EH-041	Camp Surf jetty	north Imperial Beach	5/23/2007	10:30	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	=	40	MPN/100mL
EH-041	Camp Surf jetty	north Imperial Beach	5/23/2007	10:30	*Enterococcus*	Enterolert	<	10	MPN/100mL
EH-041	Camp Surf jetty	north Imperial Beach	5/30/2007	10:50	Total Coliforms	MTF (APHA 9221 B)	<	20	MPN/100mL
EH-041	Camp Surf jetty	north Imperial Beach	5/30/2007	10:50	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	<	20	MPN/100mL
EH-041	Camp Surf jetty	north Imperial Beach	5/30/2007	10:50	*Enterococcus*	Enterolert	=	10	MPN/100mL
EH-041	Camp Surf jetty	north Imperial Beach	6/6/2007	9:10	Total Coliforms	MTF (APHA 9221 B)	<	20	MPN/100mL
EH-041	Camp Surf jetty	north Imperial Beach	6/6/2007	9:10	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	<	20	MPN/100mL
EH-041	Camp Surf jetty	north Imperial Beach	6/6/2007	9:10	*Enterococcus*	Enterolert	<	10	MPN/100mL
EH-041	Camp Surf jetty	north Imperial Beach	6/13/2007	8:22	Total Coliforms	MTF (APHA 9221 B)	<	20	MPN/100mL
EH-041	Camp Surf jetty	north Imperial Beach	6/13/2007	8:22	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	<	20	MPN/100mL
EH-041	Camp Surf jetty	north Imperial Beach	6/13/2007	8:22	*Enterococcus*	Enterolert	<	10	MPN/100mL
EH-041	Camp Surf jetty	north Imperial Beach	6/20/2007	9:00	Total Coliforms	MTF (APHA 9221 B)	=	20	MPN/100mL
EH-041	Camp Surf jetty	north Imperial Beach	6/20/2007	9:00	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	<	20	MPN/100mL
EH-041	Camp Surf jetty	north Imperial Beach	6/20/2007	9:00	*Enterococcus*	Enterolert	=	31	MPN/100mL
EH-041	Camp Surf jetty	north Imperial Beach	6/27/2007	9:55	Total Coliforms	MTF (APHA 9221 B)	=	20	MPN/100mL

City of Imperial Beach
Palm Avenue Urban Runoff Diverter Water Quality Monitoring Analysis
7. AB411 Ocean Water Quality Bacterial Data

StationID	Location	Beach Name	SampleDate	StartTime	ParameterCode	AnalysisMethod	Qualifier	Result	Units
EH-041	Camp Surf jetty	north Imperial Beach	6/27/2007	9:55	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	=	20	MPN/100mL
EH-041	Camp Surf jetty	north Imperial Beach	6/27/2007	9:55	*Enterococcus*	Enterolert	=	10	MPN/100mL
EH-041	Camp Surf jetty	north Imperial Beach	7/2/2007	10:10	Total Coliforms	MTF (APHA 9221 B)	=	20	MPN/100mL
EH-041	Camp Surf jetty	north Imperial Beach	7/2/2007	10:10	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	=	20	MPN/100mL
EH-041	Camp Surf jetty	north Imperial Beach	7/2/2007	10:10	*Enterococcus*	Enterolert	=	10	MPN/100mL
EH-041	Camp Surf jetty	north Imperial Beach	7/12/2007	10:00	Total Coliforms	MTF (APHA 9221 B)	=	20	MPN/100mL
EH-041	Camp Surf jetty	north Imperial Beach	7/12/2007	10:00	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	<	20	MPN/100mL
EH-041	Camp Surf jetty	north Imperial Beach	7/12/2007	10:00	*Enterococcus*	Enterolert	<	10	MPN/100mL
EH-041	Camp Surf jetty	north Imperial Beach	7/18/2007	10:15	Total Coliforms	MTF (APHA 9221 B)	=	20	MPN/100mL
EH-041	Camp Surf jetty	north Imperial Beach	7/18/2007	10:15	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	=	20	MPN/100mL
EH-041	Camp Surf jetty	north Imperial Beach	7/18/2007	10:15	*Enterococcus*	Enterolert	<	10	MPN/100mL
EH-041	Camp Surf jetty	north Imperial Beach	7/25/2007	10:15	Total Coliforms	MTF (APHA 9221 B)	<	20	MPN/100mL
EH-041	Camp Surf jetty	north Imperial Beach	7/25/2007	10:15	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	<	20	MPN/100mL
EH-041	Camp Surf jetty	north Imperial Beach	7/25/2007	10:15	*Enterococcus*	Enterolert	<	10	MPN/100mL
EH-041	Camp Surf jetty	north Imperial Beach	8/1/2007	10:12	Total Coliforms	MTF (APHA 9221 B)	=	20	MPN/100mL
EH-041	Camp Surf jetty	north Imperial Beach	8/1/2007	10:12	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	<	20	MPN/100mL
EH-041	Camp Surf jetty	north Imperial Beach	8/1/2007	10:12	*Enterococcus*	Enterolert	<	10	MPN/100mL
EH-041	Camp Surf jetty	north Imperial Beach	8/8/2007	10:44	Total Coliforms	MTF (APHA 9221 B)	=	20	MPN/100mL
EH-041	Camp Surf jetty	north Imperial Beach	8/8/2007	10:44	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	<	20	MPN/100mL
EH-041	Camp Surf jetty	north Imperial Beach	8/8/2007	10:44	*Enterococcus*	Enterolert	<	10	MPN/100mL
EH-041	Camp Surf jetty	north Imperial Beach	8/15/2007	8:50	Total Coliforms	MTF (APHA 9221 B)	=	20	MPN/100mL
EH-041	Camp Surf jetty	north Imperial Beach	8/15/2007	8:50	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	=	20	MPN/100mL
EH-041	Camp Surf jetty	north Imperial Beach	8/15/2007	8:50	*Enterococcus*	Enterolert	<	10	MPN/100mL
EH-041	Camp Surf jetty	north Imperial Beach	8/22/2007	10:17	Total Coliforms	MTF (APHA 9221 B)	=	20	MPN/100mL
EH-041	Camp Surf jetty	north Imperial Beach	8/22/2007	10:17	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	=	20	MPN/100mL
EH-041	Camp Surf jetty	north Imperial Beach	8/22/2007	10:17	*Enterococcus*	Enterolert	<	10	MPN/100mL
EH-041	Camp Surf jetty	north Imperial Beach	8/29/2007	8:00	Total Coliforms	MTF (APHA 9221 B)	<	20	MPN/100mL
EH-041	Camp Surf jetty	north Imperial Beach	8/29/2007	8:00	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	<	20	MPN/100mL
EH-041	Camp Surf jetty	north Imperial Beach	8/29/2007	8:00	*Enterococcus*	Enterolert	=	10	MPN/100mL
EH-041	Camp Surf jetty	north Imperial Beach	9/5/2007	8:23	Total Coliforms	MTF (APHA 9221 B)	<	20	MPN/100mL
EH-041	Camp Surf jetty	north Imperial Beach	9/5/2007	8:23	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	<	20	MPN/100mL
EH-041	Camp Surf jetty	north Imperial Beach	9/5/2007	8:23	*Enterococcus*	Enterolert	=	31	MPN/100mL
EH-041	Camp Surf jetty	north Imperial Beach	9/12/2007	8:05	Total Coliforms	MTF (APHA 9221 B)	<	20	MPN/100mL
EH-041	Camp Surf jetty	north Imperial Beach	9/12/2007	8:05	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	<	20	MPN/100mL
EH-041	Camp Surf jetty	north Imperial Beach	9/12/2007	8:05	*Enterococcus*	Enterolert	=	31	MPN/100mL
EH-041	Camp Surf jetty	north Imperial Beach	9/19/2007	8:55	Total Coliforms	MTF (APHA 9221 B)	=	40	MPN/100mL
EH-041	Camp Surf jetty	north Imperial Beach	9/19/2007	8:55	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	=	20	MPN/100mL
EH-041	Camp Surf jetty	north Imperial Beach	9/19/2007	8:55	*Enterococcus*	Enterolert	<	10	MPN/100mL
EH-041	Camp Surf jetty	north Imperial Beach	9/26/2007	8:18	Total Coliforms	MTF (APHA 9221 B)	=	20	MPN/100mL
EH-041	Camp Surf jetty	north Imperial Beach	9/26/2007	8:18	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	=	20	MPN/100mL
EH-041	Camp Surf jetty	north Imperial Beach	9/26/2007	8:18	*Enterococcus*	Enterolert	<	10	MPN/100mL

City of Imperial Beach
Palm Avenue Urban Runoff Diverter Water Quality Monitoring Analysis
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StationID	Location	Beach Name	SampleDate	StartTime	ParameterCode	AnalysisMethod	Qualifier	Result	Units
EH-041	Camp Surf jetty	north Imperial Beach	10/3/2007	8:00	Total Coliforms	MTF (APHA 9221 B)	<	20	MPN/100mL
EH-041	Camp Surf jetty	north Imperial Beach	10/3/2007	8:00	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	<	20	MPN/100mL
EH-041	Camp Surf jetty	north Imperial Beach	10/3/2007	8:00	*Enterococcus*	Enterolert	<	10	MPN/100mL
EH-041	Camp Surf jetty	north Imperial Beach	10/10/2007	10:39	Total Coliforms	MTF (APHA 9221 B)	<	20	MPN/100mL
EH-041	Camp Surf jetty	north Imperial Beach	10/10/2007	10:39	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	<	20	MPN/100mL
EH-041	Camp Surf jetty	north Imperial Beach	10/10/2007	10:39	*Enterococcus*	Enterolert	<	10	MPN/100mL
EH-041	Camp Surf jetty	north Imperial Beach	10/17/2007	9:10	Total Coliforms	MTF (APHA 9221 B)	<	20	MPN/100mL
EH-041	Camp Surf jetty	north Imperial Beach	10/17/2007	9:10	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	<	20	MPN/100mL
EH-041	Camp Surf jetty	north Imperial Beach	10/17/2007	9:10	*Enterococcus*	Enterolert	<	10	MPN/100mL
EH-041	Camp Surf jetty	north Imperial Beach	10/31/2007	8:20	Total Coliforms	MTF (APHA 9221 B)	=	20	MPN/100mL
EH-041	Camp Surf jetty	north Imperial Beach	10/31/2007	8:20	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	=	20	MPN/100mL
EH-041	Camp Surf jetty	north Imperial Beach	10/31/2007	8:20	*Enterococcus*	Enterolert	<	10	MPN/100mL
EH-041	Camp Surf jetty	north Imperial Beach	4/2/2008	10:14	Total Coliforms	MTF (APHA 9221 B)	<	20	MPN/100mL
EH-041	Camp Surf jetty	north Imperial Beach	4/2/2008	10:14	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	<	20	MPN/100mL
EH-041	Camp Surf jetty	north Imperial Beach	4/2/2008	10:14	*Enterococcus*	Enterolert	<	10	MPN/100mL
EH-041	Camp Surf jetty	north Imperial Beach	4/9/2008	10:27	Total Coliforms	MTF (APHA 9221 B)	<	20	MPN/100mL
EH-041	Camp Surf jetty	north Imperial Beach	4/9/2008	10:27	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	<	20	MPN/100mL
EH-041	Camp Surf jetty	north Imperial Beach	4/9/2008	10:27	*Enterococcus*	Enterolert	<	10	MPN/100mL
EH-041	Camp Surf jetty	north Imperial Beach	4/16/2008	10:21	Total Coliforms	MTF (APHA 9221 B)	=	20	MPN/100mL
EH-041	Camp Surf jetty	north Imperial Beach	4/16/2008	10:21	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	=	20	MPN/100mL
EH-041	Camp Surf jetty	north Imperial Beach	4/16/2008	10:21	*Enterococcus*	Enterolert	<	10	MPN/100mL
EH-041	Camp Surf jetty	north Imperial Beach	4/23/2008	9:58	Total Coliforms	MTF (APHA 9221 B)	<	20	MPN/100mL
EH-041	Camp Surf jetty	north Imperial Beach	4/23/2008	9:58	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	<	20	MPN/100mL
EH-041	Camp Surf jetty	north Imperial Beach	4/23/2008	9:58	*Enterococcus*	Enterolert	<	10	MPN/100mL
EH-041	Camp Surf jetty	north Imperial Beach	4/30/2008	10:05	Total Coliforms	MTF (APHA 9221 B)	=	20	MPN/100mL
EH-041	Camp Surf jetty	north Imperial Beach	4/30/2008	10:05	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	<	20	MPN/100mL
EH-041	Camp Surf jetty	north Imperial Beach	4/30/2008	10:05	*Enterococcus*	Enterolert	<	10	MPN/100mL
EH-041	Camp Surf jetty	north Imperial Beach	5/7/2008	9:55	Total Coliforms	MTF (APHA 9221 B)	<	20	MPN/100mL
EH-041	Camp Surf jetty	north Imperial Beach	5/7/2008	9:55	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	<	20	MPN/100mL
EH-041	Camp Surf jetty	north Imperial Beach	5/7/2008	9:55	*Enterococcus*	Enterolert	<	10	MPN/100mL
EH-041	Camp Surf jetty	north Imperial Beach	5/14/2008	10:18	Total Coliforms	MTF (APHA 9221 B)	<	20	MPN/100mL
EH-041	Camp Surf jetty	north Imperial Beach	5/14/2008	10:18	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	<	20	MPN/100mL
EH-041	Camp Surf jetty	north Imperial Beach	5/14/2008	10:18	*Enterococcus*	Enterolert	<	10	MPN/100mL
EH-041	Camp Surf jetty	north Imperial Beach	5/21/2008	9:15	Total Coliforms	MTF (APHA 9221 B)	=	80	MPN/100mL
EH-041	Camp Surf jetty	north Imperial Beach	5/21/2008	9:15	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	=	40	MPN/100mL
EH-041	Camp Surf jetty	north Imperial Beach	5/21/2008	9:15	*Enterococcus*	Enterolert	<	10	MPN/100mL
EH-041	Camp Surf jetty	north Imperial Beach	5/28/2008	8:55	Total Coliforms	MTF (APHA 9221 B)	<	20	MPN/100mL
EH-041	Camp Surf jetty	north Imperial Beach	5/28/2008	8:55	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	<	20	MPN/100mL
EH-041	Camp Surf jetty	north Imperial Beach	5/28/2008	8:55	*Enterococcus*	Enterolert	=	20	MPN/100mL
EH-041	Camp Surf jetty	north Imperial Beach	6/4/2008	9:53	Total Coliforms	MTF (APHA 9221 B)	=	20	MPN/100mL
EH-041	Camp Surf jetty	north Imperial Beach	6/4/2008	9:53	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	=	20	MPN/100mL

City of Imperial Beach
Palm Avenue Urban Runoff Diverter Water Quality Monitoring Analysis
7. AB411 Ocean Water Quality Bacterial Data

StationID	Location	Beach Name	SampleDate	StartTime	ParameterCode	AnalysisMethod	Qualifier	Result	Units
EH-041	Camp Surf jetty	north Imperial Beach	6/4/2008	9:53	*Enterococcus*	Enterolert	<	10	MPN/100mL
EH-041	Camp Surf jetty	north Imperial Beach	6/11/2008	9:15	Total Coliforms	MTF (APHA 9221 B)	=	80	MPN/100mL
EH-041	Camp Surf jetty	north Imperial Beach	6/11/2008	9:15	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	=	20	MPN/100mL
EH-041	Camp Surf jetty	north Imperial Beach	6/11/2008	9:15	*Enterococcus*	Enterolert	<	10	MPN/100mL
EH-041	Camp Surf jetty	north Imperial Beach	6/18/2008	9:32	Total Coliforms	MTF (APHA 9221 B)	<	20	MPN/100mL
EH-041	Camp Surf jetty	north Imperial Beach	6/18/2008	9:32	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	<	20	MPN/100mL
EH-041	Camp Surf jetty	north Imperial Beach	6/18/2008	9:32	*Enterococcus*	Enterolert	=	20	MPN/100mL
EH-041	Camp Surf jetty	north Imperial Beach	6/25/2008	8:57	Total Coliforms	MTF	<	20	MPN/100mL
EH-041	Camp Surf jetty	north Imperial Beach	6/25/2008	8:57	Fecal Coliforms	MTF	<	20	MPN/100mL
EH-041	Camp Surf jetty	north Imperial Beach	6/25/2008	8:57	*Enterococcus*	Enterolert	<	10	MPN/100mL
EH-041	Camp Surf jetty	north Imperial Beach	7/1/2008	10:00	Total Coliforms	MTF	<	20	MPN/100mL
EH-041	Camp Surf jetty	north Imperial Beach	7/1/2008	10:00	Fecal Coliforms	MTF	<	20	MPN/100mL
EH-041	Camp Surf jetty	north Imperial Beach	7/1/2008	10:00	*Enterococcus*	Enterolert	<	10	MPN/100mL
EH-041	Camp Surf jetty	north Imperial Beach	7/9/2008	9:08	Total Coliforms	MTF (APHA 9221 B)	<	20	MPN/100mL
EH-041	Camp Surf jetty	north Imperial Beach	7/9/2008	9:08	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	<	20	MPN/100mL
EH-041	Camp Surf jetty	north Imperial Beach	7/9/2008	9:08	*Enterococcus*	Enterolert	<	10	MPN/100mL
EH-041	Camp Surf jetty	north Imperial Beach	7/16/2008	9:52	Total Coliforms	MTF (APHA 9221 B)	=	40	MPN/100mL
EH-041	Camp Surf jetty	north Imperial Beach	7/16/2008	9:52	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	=	20	MPN/100mL
EH-041	Camp Surf jetty	north Imperial Beach	7/16/2008	9:52	*Enterococcus*	Enterolert	<	10	MPN/100mL
EH-041	Camp Surf jetty	north Imperial Beach	7/23/2008	9:48	Total Coliforms	MTF (APHA 9221 B)	<	20	MPN/100mL
EH-041	Camp Surf jetty	north Imperial Beach	7/23/2008	9:48	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	<	20	MPN/100mL
EH-041	Camp Surf jetty	north Imperial Beach	7/23/2008	9:48	*Enterococcus*	Enterolert	<	10	MPN/100mL
EH-041	Camp Surf jetty	north Imperial Beach	7/30/2008	9:58	Total Coliforms	MTF (APHA 9221 B)	<	20	MPN/100mL
EH-041	Camp Surf jetty	north Imperial Beach	7/30/2008	9:58	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	<	20	MPN/100mL
EH-041	Camp Surf jetty	north Imperial Beach	7/30/2008	9:58	*Enterococcus*	Enterolert	=	20	MPN/100mL
EH-041	Camp Surf jetty	north Imperial Beach	8/6/2008	9:14	Total Coliforms	MTF (APHA 9221 B)	=	40	MPN/100mL
EH-041	Camp Surf jetty	north Imperial Beach	8/6/2008	9:14	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	=	20	MPN/100mL
EH-041	Camp Surf jetty	north Imperial Beach	8/6/2008	9:14	*Enterococcus*	Enterolert	<	10	MPN/100mL
EH-041	Camp Surf jetty	north Imperial Beach	8/13/2008	9:08	Total Coliforms	MTF (APHA 9221 B)	=	130	MPN/100mL
EH-041	Camp Surf jetty	north Imperial Beach	8/13/2008	9:08	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	=	130	MPN/100mL
EH-041	Camp Surf jetty	north Imperial Beach	8/13/2008	9:08	*Enterococcus*	Enterolert	<	10	MPN/100mL
EH-041	Camp Surf jetty	north Imperial Beach	8/20/2008	9:32	Total Coliforms	MTF (APHA 9221 B)	<	20	MPN/100mL
EH-041	Camp Surf jetty	north Imperial Beach	8/20/2008	9:32	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	<	20	MPN/100mL
EH-041	Camp Surf jetty	north Imperial Beach	8/20/2008	9:32	*Enterococcus*	Enterolert	<	10	MPN/100mL
EH-041	Camp Surf jetty	north Imperial Beach	9/3/2008	10:14	Total Coliforms	MTF (APHA 9221 B)	=	40	MPN/100mL
EH-041	Camp Surf jetty	north Imperial Beach	9/3/2008	10:14	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	<	20	MPN/100mL
EH-041	Camp Surf jetty	north Imperial Beach	9/3/2008	10:14	*Enterococcus*	Enterolert	<	10	MPN/100mL
EH-041	Camp Surf jetty	north Imperial Beach	9/10/2008	10:14	Total Coliforms	MTF (APHA 9221 B)	<	20	MPN/100mL
EH-041	Camp Surf jetty	north Imperial Beach	9/10/2008	10:14	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	<	20	MPN/100mL
EH-041	Camp Surf jetty	north Imperial Beach	9/10/2008	10:14	*Enterococcus*	Enterolert	<	10	MPN/100mL
EH-041	Camp Surf jetty	north Imperial Beach	9/17/2008	10:04	Total Coliforms	MTF (APHA 9221 B)	=	20	MPN/100mL

City of Imperial Beach
Palm Avenue Urban Runoff Diverter Water Quality Monitoring Analysis
7. AB411 Ocean Water Quality Bacterial Data

StationID	Location	Beach Name	SampleDate	StartTime	ParameterCode	AnalysisMethod	Qualifier	Result	Units
EH-041	Camp Surf jetty	north Imperial Beach	9/17/2008	10:04	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	=	20	MPN/100mL
EH-041	Camp Surf jetty	north Imperial Beach	9/17/2008	10:04	*Enterococcus*	Enterolert	=	42	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	1/3/2007	10:46	Total Coliforms	MF	E	40	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	1/3/2007	10:46	Fecal Coliforms	MF	<	2	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	1/3/2007	10:46	*Enterococcus*	MF	E	22	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	1/9/2007	9:16	Total Coliforms	MF	E	20	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	1/9/2007	9:16	Fecal Coliforms	MF	E	4	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	1/9/2007	9:16	*Enterococcus*	MF	E	2	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	1/16/2007	11:10	Total Coliforms	MF	<	2	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	1/16/2007	11:10	Fecal Coliforms	MF	<	2	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	1/16/2007	11:10	*Enterococcus*	MF	E	2	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	1/23/2007	9:32	Total Coliforms	MF	<	2	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	1/23/2007	9:32	Fecal Coliforms	MF	<	2	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	1/23/2007	9:32	*Enterococcus*	MF	E	4	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	1/30/2007	10:45	Total Coliforms	MF	E	4	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	1/30/2007	10:45	Fecal Coliforms	MF	E	6	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	1/30/2007	10:45	*Enterococcus*	MF	E	4	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	2/6/2007	10:38	Total Coliforms	MF	E	2600	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	2/6/2007	10:38	Fecal Coliforms	MF	E	24	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	2/6/2007	10:38	*Enterococcus*	MF	E	4	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	2/13/2007	10:23	Total Coliforms	MF	E	14	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	2/13/2007	10:23	Fecal Coliforms	MF	E	2	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	2/13/2007	10:23	*Enterococcus*	MF	E	4	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	2/20/2007	10:45	Total Coliforms	MF	=	5800	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	2/20/2007	10:45	Fecal Coliforms	MF	E	220	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	2/20/2007	10:45	*Enterococcus*	MF	E	160	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	2/27/2007	10:20	Total Coliforms	MF	E	8	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	2/27/2007	10:20	Fecal Coliforms	MF	E	6	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	2/27/2007	10:20	*Enterococcus*	MF	E	4	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	3/6/2007	8:04	Total Coliforms	MF	E	2	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	3/6/2007	8:04	Fecal Coliforms	MF	E	2	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	3/6/2007	8:04	*Enterococcus*	MF	E	2	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	3/13/2007	11:10	Total Coliforms	MF	=	56	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	3/13/2007	11:10	Fecal Coliforms	MF	E	2	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	3/13/2007	11:10	*Enterococcus*	MF	E	4	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	3/14/2007	10:37	Total Coliforms	MTF (APHA 9221 B)	=	20	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	3/14/2007	10:37	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	<	20	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	3/14/2007	10:37	*Enterococcus*	Enterolert	<	10	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	3/15/2007	8:22	Total Coliforms	MTF (APHA 9221 B)	<	20	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	3/15/2007	8:22	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	<	20	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	3/15/2007	8:22	*Enterococcus*	Enterolert	<	10	MPN/100mL

City of Imperial Beach
Palm Avenue Urban Runoff Diverter Water Quality Monitoring Analysis
7. AB411 Ocean Water Quality Bacterial Data

StationID	Location	Beach Name	SampleDate	StartTime	ParameterCode	AnalysisMethod	Qualifier	Result	Units
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	3/20/2007	13:26	Total Coliforms	MF	E	2	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	3/20/2007	13:26	Fecal Coliforms	MF	<	2	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	3/20/2007	13:26	*Enterococcus*	MF	<	2	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	3/27/2007	9:35	Total Coliforms	MF	E	40	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	3/27/2007	9:35	Fecal Coliforms	MF	E	4	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	3/27/2007	9:35	*Enterococcus*	MF	E	2	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	4/3/2007	8:25	Total Coliforms	MF	<	20	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	4/3/2007	8:25	Fecal Coliforms	MF	<	20	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	4/3/2007	8:25	*Enterococcus*	MF	<	2	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	4/10/2007	10:38	Total Coliforms	MF	<	20	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	4/10/2007	10:38	Fecal Coliforms	MF	<	2	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	4/10/2007	10:38	*Enterococcus*	MF	E	2	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	4/17/2007	10:13	Total Coliforms	MF	<	20	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	4/17/2007	10:13	Fecal Coliforms	MF	<	2	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	4/17/2007	10:13	*Enterococcus*	MF	E	2	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	4/22/2007	7:17	Total Coliforms	MTF (APHA 9221 B)	=	230	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	4/22/2007	7:17	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	=	130	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	4/22/2007	7:17	*Enterococcus*	Enterolert	=	10	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	4/24/2007	10:35	Total Coliforms	MF	<	20	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	4/24/2007	10:35	Fecal Coliforms	MF	<	2	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	4/24/2007	10:35	*Enterococcus*	MF	<	2	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	5/1/2007	7:40	Total Coliforms	MF	E	20	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	5/1/2007	7:40	Fecal Coliforms	MF	E	6	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	5/1/2007	7:40	*Enterococcus*	MF	<	2	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	5/8/2007	10:00	Total Coliforms	MF	<	2	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	5/8/2007	10:00	Fecal Coliforms	MF	<	2	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	5/8/2007	10:00	*Enterococcus*	MF	<	2	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	5/15/2007	9:56	Total Coliforms	MF	<	20	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	5/15/2007	9:56	Fecal Coliforms	MF	E	2	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	5/15/2007	9:56	*Enterococcus*	MF	E	8	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	5/22/2007	8:22	Total Coliforms	MF	E	180	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	5/22/2007	8:22	Fecal Coliforms	MF	E	22	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	5/22/2007	8:22	*Enterococcus*	MF	E	8	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	5/29/2007	10:26	Total Coliforms	MF	<	20	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	5/29/2007	10:26	Fecal Coliforms	MF	<	2	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	5/29/2007	10:26	*Enterococcus*	MF	E	4	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	6/5/2007	10:12	Total Coliforms	MF	<	20	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	6/5/2007	10:12	Fecal Coliforms	MF	E	10	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	6/5/2007	10:12	*Enterococcus*	MF	=	52	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	6/12/2007	10:10	Total Coliforms	MF	E	20	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	6/12/2007	10:10	Fecal Coliforms	MF	E	2	CFU/100ml

City of Imperial Beach
Palm Avenue Urban Runoff Diverter Water Quality Monitoring Analysis
7. AB411 Ocean Water Quality Bacterial Data

StationID	Location	Beach Name	SampleDate	StartTime	ParameterCode	AnalysisMethod	Qualifier	Result	Units
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	6/12/2007	10:10	*Enterococcus*	MF	E	4	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	6/19/2007	11:05	Total Coliforms	MF	<	20	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	6/19/2007	11:05	Fecal Coliforms	MF	<	2	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	6/19/2007	11:05	*Enterococcus*	MF	<	2	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	6/24/2007	11:48	Total Coliforms	MTF (APHA 9221 B)	<	20	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	6/24/2007	11:48	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	<	20	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	6/24/2007	11:48	*Enterococcus*	Enterolert	<	10	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	6/24/2007	11:51	Total Coliforms	MTF (APHA 9221 B)	<	20	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	6/24/2007	11:51	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	<	20	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	6/24/2007	11:51	*Enterococcus*	Enterolert	<	10	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	6/27/2007	7:44	Total Coliforms	MF	E	20	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	6/27/2007	7:44	Fecal Coliforms	MF	E	6	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	6/27/2007	7:44	*Enterococcus*	MF	E	2	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	7/3/2007	9:30	Total Coliforms	MF	<	20	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	7/3/2007	9:30	Fecal Coliforms	MF	E	2	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	7/3/2007	9:30	*Enterococcus*	MF	E	4	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	7/10/2007	12:16	Total Coliforms	MF	<	20	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	7/10/2007	12:16	Fecal Coliforms	MF	<	2	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	7/10/2007	12:16	*Enterococcus*	MF	<	2	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	7/17/2007	10:15	Total Coliforms	MF	<	20	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	7/17/2007	10:15	Fecal Coliforms	MF	E	2	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	7/17/2007	10:15	*Enterococcus*	MF	<	2	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	7/24/2007	11:00	Total Coliforms	MF	<	20	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	7/24/2007	11:00	Fecal Coliforms	MF	E	2	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	7/24/2007	11:00	*Enterococcus*	MF	<	2	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	7/31/2007	10:35	Total Coliforms	MF	<	20	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	7/31/2007	10:35	Fecal Coliforms	MF	E	2	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	7/31/2007	10:35	*Enterococcus*	MF	E	4	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	8/7/2007	10:23	Total Coliforms	MF	E	40	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	8/7/2007	10:23	Fecal Coliforms	MF	<	2	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	8/7/2007	10:23	*Enterococcus*	MF	<	2	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	8/14/2007	10:15	Total Coliforms	MF	<	20	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	8/14/2007	10:15	Fecal Coliforms	MF	E	4	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	8/14/2007	10:15	*Enterococcus*	MF	E	2	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	8/21/2007	8:50	Total Coliforms	MF	<	20	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	8/21/2007	8:50	Fecal Coliforms	MF	<	2	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	8/21/2007	8:50	*Enterococcus*	MF	<	2	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	8/28/2007	10:22	Total Coliforms	MF	<	20	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	8/28/2007	10:22	Fecal Coliforms	MF	<	2	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	8/28/2007	10:22	*Enterococcus*	MF	E	2	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	9/1/2007	10:47	Total Coliforms	MTF (APHA 9221 B)	=	20	MPN/100mL

City of Imperial Beach
Palm Avenue Urban Runoff Diverter Water Quality Monitoring Analysis
7. AB411 Ocean Water Quality Bacterial Data

StationID	Location	Beach Name	SampleDate	StartTime	ParameterCode	AnalysisMethod	Qualifier	Result	Units
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	9/1/2007	10:47	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	=	20	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	9/1/2007	10:47	*Enterococcus*	Enterolert	<	10	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	9/4/2007	9:53	Total Coliforms	MF	E	12	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	9/4/2007	9:53	Fecal Coliforms	MF	E	2	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	9/4/2007	9:53	*Enterococcus*	MF	E	4	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	9/11/2007	9:55	Total Coliforms	MF	<	20	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	9/11/2007	9:55	Fecal Coliforms	MF	<	2	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	9/11/2007	9:55	*Enterococcus*	MF	E	2	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	9/18/2007	7:45	Total Coliforms	MF	<	20	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	9/18/2007	7:45	Fecal Coliforms	MF	<	2	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	9/18/2007	7:45	*Enterococcus*	MF	E	4	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	9/25/2007	11:20	Total Coliforms	MF	E	20	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	9/25/2007	11:20	Fecal Coliforms	MF	E	2	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	9/25/2007	11:20	*Enterococcus*	MF	<	2	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	10/2/2007	10:22	Total Coliforms	MF	E	2	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	10/2/2007	10:22	Fecal Coliforms	MF	E	2	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	10/2/2007	10:22	*Enterococcus*	MF	<	2	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	10/9/2007	8:45	Total Coliforms	MF	<	2	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	10/9/2007	8:45	Fecal Coliforms	MF	<	2	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	10/9/2007	8:45	*Enterococcus*	MF	<	2	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	10/16/2007	9:34	Total Coliforms	MF	<	20	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	10/16/2007	9:34	Fecal Coliforms	MF	E	10	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	10/16/2007	9:34	*Enterococcus*	MF	E	2	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	10/23/2007	11:42	Total Coliforms	MF	<	20	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	10/23/2007	11:42	Fecal Coliforms	MF	<	2	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	10/23/2007	11:42	*Enterococcus*	MF	E	4	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	10/30/2007	9:05	Total Coliforms	MF	<	20	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	10/30/2007	9:05	Fecal Coliforms	MF	<	2	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	10/30/2007	9:05	*Enterococcus*	MF	<	2	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	11/6/2007	9:10	Total Coliforms	MF	E	20	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	11/6/2007	9:10	Fecal Coliforms	MF	E	10	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	11/6/2007	9:10	*Enterococcus*	MF	<	2	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	11/13/2007	10:14	Total Coliforms	MF	E	160	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	11/13/2007	10:14	Fecal Coliforms	MF	E	8	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	11/13/2007	10:14	*Enterococcus*	MF	E	2	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	11/20/2007	9:54	Total Coliforms	MF	<	20	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	11/20/2007	9:54	Fecal Coliforms	MF	E	2	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	11/20/2007	9:54	*Enterococcus*	MF	E	28	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	11/27/2007	12:27	Total Coliforms	MF	<	2	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	11/27/2007	12:27	Fecal Coliforms	MF	E	4	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	11/27/2007	12:27	*Enterococcus*	MF	E	2	CFU/100ml

City of Imperial Beach
Palm Avenue Urban Runoff Diverter Water Quality Monitoring Analysis
7. AB411 Ocean Water Quality Bacterial Data

StationID	Location	Beach Name	SampleDate	StartTime	ParameterCode	AnalysisMethod	Qualifier	Result	Units
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	12/4/2007	10:40	Total Coliforms	MF	E	60	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	12/4/2007	10:40	Fecal Coliforms	MF	<	20	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	12/4/2007	10:40	*Enterococcus*	MF	E	4	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	12/11/2007	11:45	Total Coliforms	MF	=	4200	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	12/11/2007	11:45	Fecal Coliforms	MF	E	280	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	12/11/2007	11:45	*Enterococcus*	MF	=	110	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	12/18/2007	10:30	Total Coliforms	MF	<	20	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	12/18/2007	10:30	Fecal Coliforms	MF	E	2	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	12/18/2007	10:30	*Enterococcus*	MF	<	2	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	12/26/2007	10:56	Total Coliforms	MF	E	80	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	12/26/2007	10:56	Fecal Coliforms	MF	E	12	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	12/26/2007	10:56	*Enterococcus*	MF	=	40	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	1/2/2008	9:25	Total Coliforms	MF	<	20	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	1/2/2008	9:25	Fecal Coliforms	MF	E	2	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	1/2/2008	9:25	*Enterococcus*	MF	<	2	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	1/8/2008	10:37	Total Coliforms	MF	=	5800	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	1/8/2008	10:37	Fecal Coliforms	MF	E	680	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	1/8/2008	10:37	*Enterococcus*	MF	E	1600	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	1/15/2008	10:52	Total Coliforms	MF	E	1600	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	1/15/2008	10:52	Fecal Coliforms	MF	E	160	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	1/15/2008	10:52	*Enterococcus*	MF	E	6	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	1/22/2008	12:28	Total Coliforms	MF	<	20	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	1/22/2008	12:28	Fecal Coliforms	MF	<	2	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	1/22/2008	12:28	*Enterococcus*	MF	E	4	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	1/29/2008	11:04	Total Coliforms	MF	>	16000	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	1/29/2008	11:04	Fecal Coliforms	MF	=	9000	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	1/29/2008	11:04	*Enterococcus*	MF	=	8400	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	1/30/2008	11:40	Total Coliforms	MF	E	800	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	1/30/2008	11:40	Fecal Coliforms	MF	E	200	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	1/30/2008	11:40	*Enterococcus*	MF	=	480	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	2/1/2008	9:00	Total Coliforms	MTF (APHA 9221 B)	=	3000	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	2/1/2008	9:00	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	=	1100	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	2/1/2008	9:00	*Enterococcus*	Enterolert	=	31	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	2/5/2008	11:52	Total Coliforms	MF	E	20	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	2/5/2008	11:52	Fecal Coliforms	MF	E	2	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	2/5/2008	11:52	*Enterococcus*	MF	E	28	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	2/12/2008	10:05	Total Coliforms	MF	=	5400	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	2/12/2008	10:05	Fecal Coliforms	MF	=	500	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	2/12/2008	10:05	*Enterococcus*	MF	=	64	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	2/19/2008	8:30	Total Coliforms	MF	>	16000	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	2/19/2008	8:30	Fecal Coliforms	MF	E	3000	CFU/100ml

City of Imperial Beach
Palm Avenue Urban Runoff Diverter Water Quality Monitoring Analysis
7. AB411 Ocean Water Quality Bacterial Data

StationID	Location	Beach Name	SampleDate	StartTime	ParameterCode	AnalysisMethod	Qualifier	Result	Units
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	2/19/2008	8:30	*Enterococcus*	MF	E	300	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	2/20/2008	12:23	Total Coliforms	MF	=	4800	CFU/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	2/20/2008	12:23	Fecal Coliforms	MF	E	360	CFU/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	2/20/2008	12:23	*Enterococcus*	MF	E	74	CFU/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	2/26/2008	11:05	Total Coliforms	MF	E	280	CFU/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	2/26/2008	11:05	Fecal Coliforms	MF	E	20	CFU/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	2/26/2008	11:05	*Enterococcus*	MF	E	4	CFU/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	3/4/2008	12:03	Total Coliforms	MF	>	16000	CFU/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	3/4/2008	12:03	Fecal Coliforms	MF	E	1800	CFU/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	3/4/2008	12:03	*Enterococcus*	MF	=	800	CFU/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	3/5/2008	10:15	Total Coliforms	MF (APHA 9222 B)	>	16000	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	3/5/2008	10:15	Fecal Coliforms	MF (APHA 9222 D)	E	1700	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	3/5/2008	10:15	*Enterococcus*	EPA 1600	E	320	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	3/11/2008	10:04	Total Coliforms	MF (APHA 9222 B)	E	1700	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	3/11/2008	10:04	Fecal Coliforms	MF (APHA 9222 D)	E	40	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	3/11/2008	10:04	*Enterococcus*	EPA 1600	=	100	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	3/18/2008	10:35	Total Coliforms	MF (APHA 9222 B)	E	8	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	3/18/2008	10:35	Fecal Coliforms	MF (APHA 9222 D)	E	6	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	3/18/2008	10:35	*Enterococcus*	EPA 1600	<	2	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	3/25/2008	11:10	Total Coliforms	MF (APHA 9222 B)	=	54	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	3/25/2008	11:10	Fecal Coliforms	MF (APHA 9222 D)	<	2	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	3/25/2008	11:10	*Enterococcus*	EPA 1600	<	2	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	4/1/2008	11:49	Total Coliforms	MF (APHA 9222 B)	<	2	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	4/1/2008	11:49	Fecal Coliforms	MF (APHA 9222 D)	<	2	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	4/1/2008	11:49	*Enterococcus*	EPA 1600	<	2	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	4/8/2008	11:00	Total Coliforms	MF (APHA 9222 B)	<	20	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	4/8/2008	11:00	Fecal Coliforms	MF (APHA 9222 D)	E	2	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	4/8/2008	11:00	*Enterococcus*	EPA 1600	E	4	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	4/15/2008	9:20	Total Coliforms	MF (APHA 9222 B)	<	20	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	4/15/2008	9:20	Fecal Coliforms	MF (APHA 9222 D)	<	2	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	4/15/2008	9:20	*Enterococcus*	EPA 1600	<	2	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	4/22/2008	11:15	Total Coliforms	MF (APHA 9222 B)	<	2	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	4/22/2008	11:15	Fecal Coliforms	MF (APHA 9222 D)	E	2	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	4/22/2008	11:15	*Enterococcus*	EPA 1600	<	2	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	4/29/2008	9:40	Total Coliforms	MF (APHA 9222 B)	<	2	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	4/29/2008	9:40	Fecal Coliforms	MF (APHA 9222 D)	<	2	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	4/29/2008	9:40	*Enterococcus*	EPA 1600	<	2	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	5/6/2008	10:28	Total Coliforms	MF (APHA 9222 B)	E	40	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	5/6/2008	10:28	Fecal Coliforms	MF (APHA 9222 D)	E	2	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	5/6/2008	10:28	*Enterococcus*	EPA 1600	E	38	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	5/13/2008	10:50	Total Coliforms	MF (APHA 9222 B)	<	20	CFU/100ml

City of Imperial Beach
Palm Avenue Urban Runoff Diverter Water Quality Monitoring Analysis
7. AB411 Ocean Water Quality Bacterial Data

StationID	Location	Beach Name	SampleDate	StartTime	ParameterCode	AnalysisMethod	Qualifier	Result	Units
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	5/13/2008	10:50	Fecal Coliforms	MF (APHA 9222 D)	<	2	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	5/13/2008	10:50	*Enterococcus*	EPA 1600	E	4	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	5/20/2008	11:28	Total Coliforms	MF (APHA 9222 B)	<	20	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	5/20/2008	11:28	Fecal Coliforms	MF (APHA 9222 D)	<	2	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	5/20/2008	11:28	*Enterococcus*	EPA 1600	<	2	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	5/25/2008	10:20	Total Coliforms	MTF (APHA 9221 B)	<	20	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	5/25/2008	10:20	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	<	20	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	5/25/2008	10:20	*Enterococcus*	Enterolert	<	10	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	5/27/2008	10:25	Total Coliforms	MF (APHA 9222 B)	<	20	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	5/27/2008	10:25	Fecal Coliforms	MF (APHA 9222 D)	<	2	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	5/27/2008	10:25	*Enterococcus*	EPA 1600	<	2	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	6/3/2008	11:52	Total Coliforms	MF (APHA 9222 B)	E	400	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	6/3/2008	11:52	Fecal Coliforms	MF (APHA 9222 D)	<	2	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	6/3/2008	11:52	*Enterococcus*	EPA 1600	E	2	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	6/10/2008	10:20	Total Coliforms	MF (APHA 9222 B)	E	2	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	6/10/2008	10:20	Fecal Coliforms	MF (APHA 9222 D)	<	2	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	6/10/2008	10:20	*Enterococcus*	EPA 1600	<	2	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	6/12/2008	13:10	Total Coliforms	MTF (APHA 9221 B)	<	20	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	6/12/2008	13:10	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	<	20	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	6/12/2008	13:10	*Enterococcus*	Enterolert	<	10	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	6/17/2008	10:00	Total Coliforms	MF (APHA 9222 B)	E	200	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	6/17/2008	10:00	Fecal Coliforms	MF (APHA 9222 D)	E	10	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	6/17/2008	10:00	*Enterococcus*	EPA 1600	E	6	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	6/19/2008	11:34	Total Coliforms	MTF (APHA 9221 B)	<	20	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	6/19/2008	11:34	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	<	20	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	6/19/2008	11:34	*Enterococcus*	Enterolert	<	10	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	6/24/2008	10:33	Total Coliforms	MF (APHA 9222 B)	<	2	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	6/24/2008	10:33	Fecal Coliforms	MF (APHA 9222 D)	<	2	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	6/24/2008	10:33	*Enterococcus*	EPA 1600	<	2	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	7/1/2008	10:51	Total Coliforms	MF (APHA 9222 B)	<	20	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	7/1/2008	10:51	Fecal Coliforms	MF (APHA 9222 D)	E	2	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	7/1/2008	10:51	*Enterococcus*	EPA 1600	<	2	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	7/8/2008	10:40	Total Coliforms	MF (APHA 9222 B)	<	20	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	7/8/2008	10:40	Fecal Coliforms	MF (APHA 9222 D)	<	2	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	7/8/2008	10:40	*Enterococcus*	EPA 1600	<	2	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	7/15/2008	11:38	Total Coliforms	MF (APHA 9222 B)	<	20	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	7/15/2008	11:38	Fecal Coliforms	MF (APHA 9222 D)	<	2	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	7/15/2008	11:38	*Enterococcus*	EPA 1600	<	2	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	7/22/2008	11:20	Total Coliforms	MF (APHA 9222 B)	<	20	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	7/22/2008	11:20	Fecal Coliforms	MF (APHA 9222 D)	E	2	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	7/22/2008	11:20	*Enterococcus*	EPA 1600	<	2	CFU/100ml

City of Imperial Beach
Palm Avenue Urban Runoff Diverter Water Quality Monitoring Analysis
7. AB411 Ocean Water Quality Bacterial Data

StationID	Location	Beach Name	SampleDate	StartTime	ParameterCode	AnalysisMethod	Qualifier	Result	Units
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	7/29/2008	9:42	Total Coliforms	MF (APHA 9222 B)	<	20	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	7/29/2008	9:42	Fecal Coliforms	MF (APHA 9222 D)	E	4	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	7/29/2008	9:42	*Enterococcus*	EPA 1600	E	4	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	8/5/2008	10:35	Total Coliforms	MF (APHA 9222 B)	<	20	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	8/5/2008	10:35	Fecal Coliforms	MF (APHA 9222 D)	<	2	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	8/5/2008	10:35	*Enterococcus*	EPA 1600	<	2	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	8/12/2008	10:13	Total Coliforms	MF (APHA 9222 B)	<	20	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	8/12/2008	10:13	Fecal Coliforms	MF (APHA 9222 D)	<	2	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	8/12/2008	10:13	*Enterococcus*	EPA 1600	E	2	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	8/19/2008	10:30	Total Coliforms	MF (APHA 9222 B)	E	8	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	8/19/2008	10:30	Fecal Coliforms	MF (APHA 9222 D)	<	2	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	8/19/2008	10:30	*Enterococcus*	EPA 1600	<	2	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	8/22/2008	13:56	Total Coliforms	MTF (APHA 9221 B)	<	20	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	8/22/2008	13:56	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	<	20	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	8/22/2008	13:56	*Enterococcus*	Enterolert	<	10	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	8/26/2008	12:08	Total Coliforms	MF (APHA 9222 B)	<	20	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	8/26/2008	12:08	Fecal Coliforms	MF (APHA 9222 D)	E	2	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	8/26/2008	12:08	*Enterococcus*	EPA 1600	<	2	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	9/3/2008	11:00	Total Coliforms	MF (APHA 9222 B)	<	20	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	9/3/2008	11:00	Fecal Coliforms	MF (APHA 9222 D)	<	2	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	9/3/2008	11:00	*Enterococcus*	EPA 1600	E	2	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	9/4/2008	6:48	Total Coliforms	MTF (APHA 9221 B)	<	20	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	9/4/2008	6:48	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	<	20	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	9/4/2008	6:48	*Enterococcus*	Enterolert	<	10	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	9/5/2008	10:03	Total Coliforms	MTF (APHA 9221 B)	<	20	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	9/5/2008	10:03	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	<	20	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	9/5/2008	10:03	*Enterococcus*	Enterolert	<	10	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	9/9/2008	12:21	Total Coliforms	MF (APHA 9222 B)	<	2	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	9/9/2008	12:21	Fecal Coliforms	MF (APHA 9222 D)	<	2	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	9/9/2008	12:21	*Enterococcus*	EPA 1600	<	2	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	9/17/2008	10:20	Total Coliforms	MF (APHA 9222 B)	<	20	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	9/17/2008	10:20	Fecal Coliforms	MF (APHA 9222 D)	<	2	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	9/17/2008	10:20	*Enterococcus*	EPA 1600	E	2	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	9/23/2008	11:45	Total Coliforms	MF (APHA 9222 B)	<	2	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	9/23/2008	11:45	Fecal Coliforms	MF (APHA 9222 D)	<	2	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	9/23/2008	11:45	*Enterococcus*	EPA 1600	<	2	CFU/100ml
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	10/1/2008	11:00	Total Coliforms	MTF (APHA 9221 B)	<	20	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	10/1/2008	11:00	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	<	2	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	10/1/2008	11:00	*Enterococcus*	Enterolert	E	2	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	10/7/2008	11:30	Total Coliforms	MTF (APHA 9221 B)	<	20	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	10/7/2008	11:30	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	<	2	MPN/100mL

City of Imperial Beach
Palm Avenue Urban Runoff Diverter Water Quality Monitoring Analysis
7. AB411 Ocean Water Quality Bacterial Data

StationID	Location	Beach Name	SampleDate	StartTime	ParameterCode	AnalysisMethod	Qualifier	Result	Units
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	10/7/2008	11:30	*Enterococcus*	Enterolert	<	2	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	10/14/2008	11:45	Total Coliforms	MTF (APHA 9221 B)	<	20	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	10/14/2008	11:45	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	<	2	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	10/14/2008	11:45	*Enterococcus*	Enterolert	<	8	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	10/21/2008	9:40	Total Coliforms	MTF (APHA 9221 B)	<	20	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	10/21/2008	9:40	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	<	2	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	10/21/2008	9:40	*Enterococcus*	Enterolert	<	2	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	10/28/2008	11:05	Total Coliforms	MTF (APHA 9221 B)	<	2	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	10/28/2008	11:05	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	E	2	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	10/28/2008	11:05	*Enterococcus*	Enterolert	E	2	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	11/4/2008	11:45	Total Coliforms	MTF (APHA 9221 B)	<	2	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	11/4/2008	11:45	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	<	2	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	11/4/2008	11:45	*Enterococcus*	Enterolert	<	2	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	11/12/2008	11:10	Total Coliforms	MTF (APHA 9221 B)	E	40	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	11/12/2008	11:10	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	E	24	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	11/12/2008	11:10	*Enterococcus*	Enterolert	E	34	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	11/18/2008	10:33	Total Coliforms	MTF (APHA 9221 B)	<	2	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	11/18/2008	10:33	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	<	2	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	11/18/2008	10:33	*Enterococcus*	Enterolert	E	2	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	11/25/2008	10:20	Total Coliforms	MTF (APHA 9221 B)	E	2	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	11/25/2008	10:20	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	<	20	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	11/25/2008	10:20	*Enterococcus*	Enterolert	E	2	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	12/2/2008	12:09	Total Coliforms	MTF (APHA 9221 B)	E	800	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	12/2/2008	12:09	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	E	130	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	12/2/2008	12:09	*Enterococcus*	Enterolert	E	300	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	12/4/2008	6:45	Total Coliforms	MTF (APHA 9221 B)	=	130	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	12/4/2008	6:45	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	=	80	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	12/4/2008	6:45	*Enterococcus*	Enterolert	=	53	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	12/10/2008	12:15	Total Coliforms	MTF (APHA 9221 B)	<	2	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	12/10/2008	12:15	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	<	2	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	12/10/2008	12:15	*Enterococcus*	Enterolert	E	2	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	12/16/2008	10:11	Total Coliforms	MTF (APHA 9221 B)	>	16000	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	12/16/2008	10:11	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	=	4800	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	12/16/2008	10:11	*Enterococcus*	Enterolert	=	12000	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	12/23/2008	11:00	Total Coliforms	MTF (APHA 9221 B)	=	1000	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	12/23/2008	11:00	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	E	24	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	12/23/2008	11:00	*Enterococcus*	Enterolert	E	180	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	12/31/2008	12:19	Total Coliforms	MTF (APHA 9221 B)	E	20	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	12/31/2008	12:19	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	E	6	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	12/31/2008	12:19	*Enterococcus*	Enterolert	E	24	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	1/6/2009	11:04	Total Coliforms	MTF (APHA 9221 B)	>	16000	MPN/100mL

City of Imperial Beach
Palm Avenue Urban Runoff Diverter Water Quality Monitoring Analysis
7. AB411 Ocean Water Quality Bacterial Data

StationID	Location	Beach Name	SampleDate	StartTime	ParameterCode	AnalysisMethod	Qualifier	Result	Units
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	1/6/2009	11:04	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	E	1000	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	1/6/2009	11:04	*Enterococcus*	Enterolert	E	180	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	1/13/2009	11:51	Total Coliforms	MTF (APHA 9221 B)	<	2	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	1/13/2009	11:51	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	<	2	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	1/13/2009	11:51	*Enterococcus*	Enterolert	E	2	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	1/20/2009	11:10	Total Coliforms	MTF (APHA 9221 B)	E	40	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	1/20/2009	11:10	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	E	6	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	1/20/2009	11:10	*Enterococcus*	Enterolert	E	18	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	1/28/2009	11:33	Total Coliforms	MTF (APHA 9221 B)	E	34	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	1/28/2009	11:33	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	<	2	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	1/28/2009	11:33	*Enterococcus*	Enterolert	E	6	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	2/3/2009	11:15	Total Coliforms	MTF (APHA 9221 B)	<	2	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	2/3/2009	11:15	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	<	2	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	2/3/2009	11:15	*Enterococcus*	Enterolert	E	12	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	2/10/2009	11:22	Total Coliforms	MTF (APHA 9221 B)	E	600	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	2/10/2009	11:22	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	E	32	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	2/10/2009	11:22	*Enterococcus*	Enterolert	=	46	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	2/17/2009	11:35	Total Coliforms	MTF (APHA 9221 B)	>	16000	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	2/17/2009	11:35	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	=	8600	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	2/17/2009	11:35	*Enterococcus*	Enterolert	=	6000	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	2/18/2009	11:30	Total Coliforms	MTF (APHA 9221 B)	E	1600	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	2/18/2009	11:30	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	=	96	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	2/18/2009	11:30	*Enterococcus*	Enterolert	E	100	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	2/20/2009	12:20	Total Coliforms	MTF (APHA 9221 B)	E	80	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	2/20/2009	12:20	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	=	20	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	2/20/2009	12:20	*Enterococcus*	Enterolert	=	10	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	2/24/2009	12:07	Total Coliforms	MTF (APHA 9221 B)	E	200	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	2/24/2009	12:07	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	E	240	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	2/24/2009	12:07	*Enterococcus*	Enterolert	E	2	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	3/3/2009	11:24	Total Coliforms	MTF (APHA 9221 B)	E	40	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	3/3/2009	11:24	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	E	20	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	3/3/2009	11:24	*Enterococcus*	Enterolert	E	8	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	3/10/2009	12:26	Total Coliforms	MTF (APHA 9221 B)	<	20	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	3/10/2009	12:26	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	<	2	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	3/10/2009	12:26	*Enterococcus*	Enterolert	E	4	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	3/17/2009	11:15	Total Coliforms	MTF (APHA 9221 B)	E	40	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	3/17/2009	11:15	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	E	4	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	3/17/2009	11:15	*Enterococcus*	Enterolert	<	2	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	3/24/2009	12:56	Total Coliforms	MTF (APHA 9221 B)	E	20	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	3/24/2009	12:56	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	E	2	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	3/24/2009	12:56	*Enterococcus*	Enterolert	E	2	MPN/100mL

City of Imperial Beach
Palm Avenue Urban Runoff Diverter Water Quality Monitoring Analysis
7. AB411 Ocean Water Quality Bacterial Data

StationID	Location	Beach Name	SampleDate	StartTime	ParameterCode	AnalysisMethod	Qualifier	Result	Units
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	4/1/2009	11:20	Total Coliforms	MTF (APHA 9221 B)	<	2	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	4/1/2009	11:20	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	<	2	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	4/1/2009	11:20	*Enterococcus*	Enterolert	<	2	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	4/7/2009	12:01	Total Coliforms	MTF (APHA 9221 B)	<	2	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	4/7/2009	12:01	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	<	2	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	4/7/2009	12:01	*Enterococcus*	Enterolert	<	2	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	4/14/2009	8:49	Total Coliforms	MTF (APHA 9221 B)	<	16000	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	4/14/2009	8:49	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	<	5200	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	4/14/2009	8:49	*Enterococcus*	Enterolert	<	240	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	4/15/2009	9:43	Total Coliforms	MTF (APHA 9221 B)	E	180	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	4/15/2009	9:43	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	E	8	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	4/15/2009	9:43	*Enterococcus*	Enterolert	E	2	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	4/21/2009	10:40	Total Coliforms	MTF (APHA 9221 B)	<	20	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	4/21/2009	10:40	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	<	2	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	4/21/2009	10:40	*Enterococcus*	Enterolert	E	2	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	4/28/2009	7:44	Total Coliforms	MTF (APHA 9221 B)	<	200	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	4/28/2009	7:44	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	E	8	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	4/28/2009	7:44	*Enterococcus*	Enterolert	E	14	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	5/6/2009	11:45	Total Coliforms	MTF (APHA 9221 B)	<	20	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	5/6/2009	11:45	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	<	2	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	5/6/2009	11:45	*Enterococcus*	Enterolert	<	2	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	5/12/2009	7:22	Total Coliforms	MTF (APHA 9221 B)	E	40	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	5/12/2009	7:22	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	<	2	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	5/12/2009	7:22	*Enterococcus*	Enterolert	E	8	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	5/19/2009	11:30	Total Coliforms	MTF (APHA 9221 B)	<	2	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	5/19/2009	11:30	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	<	2	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	5/19/2009	11:30	*Enterococcus*	Enterolert	<	2	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	5/26/2009	7:22	Total Coliforms	MTF (APHA 9221 B)	<	20	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	5/26/2009	7:22	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	E	4	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	5/26/2009	7:22	*Enterococcus*	Enterolert	E	22	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	6/2/2009	11:15	Total Coliforms	MTF (APHA 9221 B)	<	20	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	6/2/2009	11:15	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	<	2	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	6/2/2009	11:15	*Enterococcus*	Enterolert	<	2	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	6/9/2009	7:21	Total Coliforms	MTF (APHA 9221 B)	E	60	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	6/9/2009	7:21	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	E	6	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	6/9/2009	7:21	*Enterococcus*	Enterolert	E	20	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	6/16/2009	11:00	Total Coliforms	MTF (APHA 9221 B)	<	2	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	6/16/2009	11:00	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	<	2	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	6/16/2009	11:00	*Enterococcus*	Enterolert	<	2	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	6/23/2009	9:13	Total Coliforms	MTF (APHA 9221 B)	E	20	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	6/23/2009	9:13	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	<	2	MPN/100mL

City of Imperial Beach
Palm Avenue Urban Runoff Diverter Water Quality Monitoring Analysis
7. AB411 Ocean Water Quality Bacterial Data

StationID	Location	Beach Name	SampleDate	StartTime	ParameterCode	AnalysisMethod	Qualifier	Result	Units
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	6/23/2009	9:13	*Enterococcus*	Enterolert	E	8	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	6/30/2009	11:20	Total Coliforms	MTF (APHA 9221 B)	<	20	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	6/30/2009	11:20	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	E	2	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	6/30/2009	11:20	*Enterococcus*	Enterolert	<	2	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	7/7/2009	6:38	Total Coliforms	MTF (APHA 9221 B)	<	20	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	7/7/2009	6:38	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	<	2	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	7/7/2009	6:38	*Enterococcus*	Enterolert	E	18	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	7/14/2009	10:30	Total Coliforms	MTF (APHA 9221 B)	<	20	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	7/14/2009	10:30	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	E	2	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	7/14/2009	10:30	*Enterococcus*	Enterolert	E	10	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	7/21/2009	6:51	Total Coliforms	MTF (APHA 9221 B)	E	1000	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	7/21/2009	6:51	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	E	14	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	7/21/2009	6:51	*Enterococcus*	Enterolert	=	100	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	7/28/2009	10:45	Total Coliforms	MTF (APHA 9221 B)	<	20	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	7/28/2009	10:45	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	E	12	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	7/28/2009	10:45	*Enterococcus*	Enterolert	E	4	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	8/4/2009	8:45	Total Coliforms	MTF (APHA 9221 B)	<	200	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	8/4/2009	8:45	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	<	2	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	8/4/2009	8:45	*Enterococcus*	Enterolert	<	2	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	8/11/2009	10:20	Total Coliforms	MTF (APHA 9221 B)	<	2	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	8/11/2009	10:20	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	<	2	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	8/11/2009	10:20	*Enterococcus*	Enterolert	<	2	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	8/17/2009	9:25	Total Coliforms	MTF (APHA 9221 B)	=	20	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	8/17/2009	9:25	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	<	20	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	8/17/2009	9:25	*Enterococcus*	Enterolert	<	10	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	8/18/2009	12:29	Total Coliforms	MTF (APHA 9221 B)	<	20	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	8/18/2009	12:29	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	<	2	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	8/18/2009	12:29	*Enterococcus*	Enterolert	C	2	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	8/25/2009	12:25	Total Coliforms	MTF (APHA 9221 B)	<	20	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	8/25/2009	12:25	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	E	2	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	8/25/2009	12:25	*Enterococcus*	Enterolert	<	2	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	9/1/2009	12:01	Total Coliforms	MTF (APHA 9221 B)	<	20	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	9/1/2009	12:01	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	<	2	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	9/1/2009	12:01	*Enterococcus*	Enterolert	<	2	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	9/8/2009	11:00	Total Coliforms	MTF (APHA 9221 B)	<	20	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	9/8/2009	11:00	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	<	2	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	9/8/2009	11:00	*Enterococcus*	Enterolert	<	2	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	9/15/2009	12:15	Total Coliforms	MTF (APHA 9221 B)	<	20	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	9/15/2009	12:15	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	<	2	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	9/15/2009	12:15	*Enterococcus*	Enterolert	<	2	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	9/22/2009	11:25	Total Coliforms	MTF (APHA 9221 B)	E	60	MPN/100mL

City of Imperial Beach
Palm Avenue Urban Runoff Diverter Water Quality Monitoring Analysis
7. AB411 Ocean Water Quality Bacterial Data

StationID	Location	Beach Name	SampleDate	StartTime	ParameterCode	AnalysisMethod	Qualifier	Result	Units
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	9/22/2009	11:25	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	=	54	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	9/22/2009	11:25	*Enterococcus*	Enterolert	=	40	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	9/29/2009	11:16	Total Coliforms	MTF (APHA 9221 B)	E	300	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	9/29/2009	11:16	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	=	76	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	9/29/2009	11:16	*Enterococcus*	Enterolert	E	30	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	10/6/2009	10:30	Total Coliforms	MTF (APHA 9221 B)	<	20	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	10/6/2009	10:30	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	<	2	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	10/6/2009	10:30	*Enterococcus*	Enterolert	<	2	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	10/13/2009	11:34	Total Coliforms	MTF (APHA 9221 B)	E	2	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	10/13/2009	11:34	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	<	2	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	10/13/2009	11:34	*Enterococcus*	Enterolert	<	2	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	10/14/2009	10:40	Total Coliforms	MTF (APHA 9221 B)	<	20	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	10/14/2009	10:40	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	<	20	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	10/14/2009	10:40	*Enterococcus*	Enterolert	=	10	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	10/20/2009	12:37	Total Coliforms	MTF (APHA 9221 B)	<	20	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	10/20/2009	12:37	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	E	2	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	10/20/2009	12:37	*Enterococcus*	Enterolert	E	26	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	10/27/2009	10:35	Total Coliforms	MTF (APHA 9221 B)	<	20	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	10/27/2009	10:35	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	<	2	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	10/27/2009	10:35	*Enterococcus*	Enterolert	<	2	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	11/3/2009	11:00	Total Coliforms	MTF (APHA 9221 B)	<	2	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	11/3/2009	11:00	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	E	2	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	11/3/2009	11:00	*Enterococcus*	Enterolert	<	2	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	11/10/2009	10:52	Total Coliforms	MTF (APHA 9221 B)	<	20	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	11/10/2009	10:52	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	<	2	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	11/10/2009	10:52	*Enterococcus*	Enterolert	<	2	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	11/17/2009	10:55	Total Coliforms	MTF (APHA 9221 B)	E	60	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	11/17/2009	10:55	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	E	16	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	11/17/2009	10:55	*Enterococcus*	Enterolert	=	400	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	11/19/2009	8:30	Total Coliforms	MTF (APHA 9221 B)	<	20	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	11/19/2009	8:30	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	<	20	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	11/19/2009	8:30	*Enterococcus*	Enterolert	=	20	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	11/24/2009	9:46	Total Coliforms	MTF (APHA 9221 B)	<	2	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	11/24/2009	9:46	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	E	4	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	11/24/2009	9:46	*Enterococcus*	Enterolert	<	2	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	11/30/2009	13:40	Total Coliforms	MTF (APHA 9221 B)	<	20	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	11/30/2009	13:40	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	<	20	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	11/30/2009	13:40	*Enterococcus*	Enterolert	=	10	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	12/1/2009	12:10	Total Coliforms	MTF (APHA 9221 B)	<	20	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	12/1/2009	12:10	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	<	2	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	12/1/2009	12:10	*Enterococcus*	Enterolert	E	4	MPN/100mL

City of Imperial Beach
Palm Avenue Urban Runoff Diverter Water Quality Monitoring Analysis
7. AB411 Ocean Water Quality Bacterial Data

StationID	Location	Beach Name	SampleDate	StartTime	ParameterCode	AnalysisMethod	Qualifier	Result	Units
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	12/2/2009	11:21	Total Coliforms	MTF (APHA 9221 B)	<	20	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	12/2/2009	11:21	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	<	20	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	12/2/2009	11:21	*Enterococcus*	Enterolert	=	31	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	12/8/2009	8:45	Total Coliforms	MTF (APHA 9221 B)	>	16000	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	12/8/2009	8:45	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	E	1200	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	12/8/2009	8:45	*Enterococcus*	Enterolert	E	3800	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	12/9/2009	10:56	Total Coliforms	MTF (APHA 9221 B)	=	5000	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	12/9/2009	10:56	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	=	2400	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	12/9/2009	10:56	*Enterococcus*	Enterolert	=	1445	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	12/9/2009	10:59	Total Coliforms	MTF (APHA 9221 B)	>	16000	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	12/9/2009	10:59	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	E	320	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	12/9/2009	10:59	*Enterococcus*	Enterolert	=	1200	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	12/10/2009	13:45	Total Coliforms	MTF (APHA 9221 B)	=	800	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	12/10/2009	13:45	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	=	500	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	12/10/2009	13:45	*Enterococcus*	Enterolert	=	111	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	12/14/2009	10:40	Total Coliforms	MTF (APHA 9221 B)	=	900	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	12/14/2009	10:40	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	=	500	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	12/14/2009	10:40	*Enterococcus*	Enterolert	=	831	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	12/15/2009	12:58	Total Coliforms	MTF (APHA 9221 B)	E	180	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	12/15/2009	12:58	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	E	12	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	12/15/2009	12:58	*Enterococcus*	Enterolert	E	14	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	12/16/2009	11:30	Total Coliforms	MTF (APHA 9221 B)	=	20	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	12/16/2009	11:30	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	=	20	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	12/16/2009	11:30	*Enterococcus*	Enterolert	<	10	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	12/17/2009	12:08	Total Coliforms	MTF (APHA 9221 B)	<	20	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	12/17/2009	12:08	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	<	20	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	12/17/2009	12:08	*Enterococcus*	Enterolert	<	10	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	12/22/2009	8:31	Total Coliforms	MTF (APHA 9221 B)	=	11000	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	12/22/2009	8:31	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	E	0	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	12/22/2009	8:31	*Enterococcus*	Enterolert	=	64	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	12/23/2009	10:50	Total Coliforms	MTF (APHA 9221 B)	<	20	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	12/23/2009	10:50	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	<	2	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	12/23/2009	10:50	*Enterococcus*	Enterolert	E	4	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	12/29/2009	12:15	Total Coliforms	MTF (APHA 9221 B)	E	40	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	12/29/2009	12:15	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	<	2	MPN/100mL
IB-050	End of Seacoast Dr	Imperial Beach municipal beach	12/29/2009	12:15	*Enterococcus*	Enterolert	E	12	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	1/3/2007	11:30	Total Coliforms	MF	E	20	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	1/3/2007	11:30	Fecal Coliforms	MF	E	2	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	1/3/2007	11:30	*Enterococcus*	MF	E	10	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	1/9/2007	10:22	Total Coliforms	MF	E	2	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	1/9/2007	10:22	Fecal Coliforms	MF	E	2	CFU/100ml

City of Imperial Beach
Palm Avenue Urban Runoff Diverter Water Quality Monitoring Analysis
7. AB411 Ocean Water Quality Bacterial Data

StationID	Location	Beach Name	SampleDate	StartTime	ParameterCode	AnalysisMethod	Qualifier	Result	Units
IB-060	Carnation Ave.	north Imperial Beach	1/9/2007	10:22	*Enterococcus*	MF	<	2	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	1/16/2007	10:00	Total Coliforms	MF	<	2	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	1/16/2007	10:00	Fecal Coliforms	MF	<	2	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	1/16/2007	10:00	*Enterococcus*	MF	E	2	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	1/23/2007	10:47	Total Coliforms	MF	E	2	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	1/23/2007	10:47	Fecal Coliforms	MF	<	2	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	1/23/2007	10:47	*Enterococcus*	MF	<	2	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	1/30/2007	10:27	Total Coliforms	MF	E	60	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	1/30/2007	10:27	Fecal Coliforms	MF	E	6	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	1/30/2007	10:27	*Enterococcus*	MF	=	1100	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	2/6/2007	12:22	Total Coliforms	MF	E	140	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	2/6/2007	12:22	Fecal Coliforms	MF	E	4	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	2/6/2007	12:22	*Enterococcus*	MF	<	2	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	2/13/2007	9:24	Total Coliforms	MF	E	10	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	2/13/2007	9:24	Fecal Coliforms	MF	E	2	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	2/13/2007	9:24	*Enterococcus*	MF	E	8	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	2/20/2007	9:48	Total Coliforms	MF	E	100	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	2/20/2007	9:48	Fecal Coliforms	MF	E	4	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	2/20/2007	9:48	*Enterococcus*	MF	=	64	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	2/27/2007	9:40	Total Coliforms	MF	E	6	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	2/27/2007	9:40	Fecal Coliforms	MF	<	2	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	2/27/2007	9:40	*Enterococcus*	MF	<	2	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	3/6/2007	9:22	Total Coliforms	MF	<	2	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	3/6/2007	9:22	Fecal Coliforms	MF	<	2	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	3/6/2007	9:22	*Enterococcus*	MF	<	2	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	3/13/2007	10:18	Total Coliforms	MF	E	20	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	3/13/2007	10:18	Fecal Coliforms	MF	E	8	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	3/13/2007	10:18	*Enterococcus*	MF	<	2	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	3/20/2007	13:39	Total Coliforms	MF	E	2	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	3/20/2007	13:39	Fecal Coliforms	MF	<	2	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	3/20/2007	13:39	*Enterococcus*	MF	E	2	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	3/27/2007	8:44	Total Coliforms	MF	<	20	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	3/27/2007	8:44	Fecal Coliforms	MF	E	2	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	3/27/2007	8:44	*Enterococcus*	MF	E	2	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	4/3/2007	9:38	Total Coliforms	MF	<	200	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	4/3/2007	9:46	Fecal Coliforms	MF	E	4	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	4/3/2007	9:46	*Enterococcus*	MF	E	2	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	4/10/2007	9:42	Total Coliforms	MF	<	20	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	4/10/2007	9:42	Fecal Coliforms	MF	E	6	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	4/10/2007	9:42	*Enterococcus*	MF	<	2	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	4/17/2007	9:17	Total Coliforms	MF	<	20	CFU/100ml

City of Imperial Beach
Palm Avenue Urban Runoff Diverter Water Quality Monitoring Analysis
7. AB411 Ocean Water Quality Bacterial Data

StationID	Location	Beach Name	SampleDate	StartTime	ParameterCode	AnalysisMethod	Qualifier	Result	Units
IB-060	Carnation Ave.	north Imperial Beach	4/17/2007	9:17	Fecal Coliforms	MF	<	2	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	4/17/2007	9:17	*Enterococcus*	MF	E	2	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	4/24/2007	9:40	Total Coliforms	MF	<	20	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	4/24/2007	9:40	Fecal Coliforms	MF	<	2	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	4/24/2007	9:40	*Enterococcus*	MF	<	2	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	5/1/2007	8:42	Total Coliforms	MF	E	20	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	5/1/2007	8:42	Fecal Coliforms	MF	E	12	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	5/1/2007	8:42	*Enterococcus*	MF	E	4	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	5/8/2007	9:25	Total Coliforms	MF	<	20	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	5/8/2007	9:25	Fecal Coliforms	MF	E	8	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	5/8/2007	9:25	*Enterococcus*	MF	<	2	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	5/15/2007	11:02	Total Coliforms	MF	E	200	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	5/15/2007	11:02	Fecal Coliforms	MF	<	20	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	5/15/2007	11:02	*Enterococcus*	MF	E	2	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	5/22/2007	7:24	Total Coliforms	MF	E	100	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	5/22/2007	7:24	Fecal Coliforms	MF	E	6	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	5/22/2007	7:24	*Enterococcus*	MF	E	2	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	5/29/2007	11:30	Total Coliforms	MF	E	8	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	5/29/2007	11:30	Fecal Coliforms	MF	<	2	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	5/29/2007	11:30	*Enterococcus*	MF	<	2	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	6/5/2007	9:08	Total Coliforms	MF	<	20	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	6/5/2007	9:08	Fecal Coliforms	MF	<	2	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	6/5/2007	9:08	*Enterococcus*	MF	<	2	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	6/12/2007	9:14	Total Coliforms	MF	E	40	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	6/12/2007	9:14	Fecal Coliforms	MF	E	6	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	6/12/2007	9:14	*Enterococcus*	MF	E	6	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	6/19/2007	10:00	Total Coliforms	MF	<	20	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	6/19/2007	10:00	Fecal Coliforms	MF	E	2	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	6/19/2007	10:00	*Enterococcus*	MF	E	6	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	6/27/2007	8:49	Total Coliforms	MF	<	20	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	6/27/2007	8:49	Fecal Coliforms	MF	E	2	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	6/27/2007	8:49	*Enterococcus*	MF	<	2	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	7/3/2007	8:30	Total Coliforms	MF	<	200	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	7/3/2007	8:30	Fecal Coliforms	MF	E	6	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	7/3/2007	8:30	*Enterococcus*	MF	E	4	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	7/10/2007	12:33	Total Coliforms	MF	<	20	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	7/10/2007	12:33	Fecal Coliforms	MF	<	2	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	7/10/2007	12:33	*Enterococcus*	MF	<	2	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	7/17/2007	9:27	Total Coliforms	MF	E	20	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	7/17/2007	9:27	Fecal Coliforms	MF	E	10	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	7/17/2007	9:27	*Enterococcus*	MF	<	2	CFU/100ml

City of Imperial Beach
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7. AB411 Ocean Water Quality Bacterial Data

StationID	Location	Beach Name	SampleDate	StartTime	ParameterCode	AnalysisMethod	Qualifier	Result	Units
IB-060	Carnation Ave.	north Imperial Beach	7/24/2007	12:15	Total Coliforms	MF	<	20	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	7/24/2007	12:15	Fecal Coliforms	MF	E	10	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	7/24/2007	12:15	*Enterococcus*	MF	E	14	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	7/31/2007	9:45	Total Coliforms	MF	E	20	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	7/31/2007	9:45	Fecal Coliforms	MF	E	40	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	7/31/2007	9:45	*Enterococcus*	MF	E	8	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	8/7/2007	11:16	Total Coliforms	MF	E	20	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	8/7/2007	11:16	Fecal Coliforms	MF	<	2	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	8/7/2007	11:16	*Enterococcus*	MF	<	2	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	8/14/2007	9:30	Total Coliforms	MF	<	200	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	8/14/2007	9:30	Fecal Coliforms	MF	E	18	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	8/14/2007	9:30	*Enterococcus*	MF	E	180	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	8/16/2007	8:30	Total Coliforms	MTF (APHA 9221 B)	<	20	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	8/16/2007	8:30	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	<	20	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	8/16/2007	8:30	*Enterococcus*	Enterolert	<	10	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	8/21/2007	10:04	Total Coliforms	MF	<	20	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	8/21/2007	10:04	Fecal Coliforms	MF	<	2	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	8/21/2007	10:04	*Enterococcus*	MF	E	2	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	8/28/2007	9:27	Total Coliforms	MF	E	40	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	8/28/2007	9:27	Fecal Coliforms	MF	E	100	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	8/28/2007	9:27	*Enterococcus*	MF	E	8	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	9/1/2007	11:15	Total Coliforms	MTF (APHA 9221 B)	=	20	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	9/1/2007	11:15	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	=	20	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	9/1/2007	11:15	*Enterococcus*	Enterolert	<	10	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	9/4/2007	10:13	Total Coliforms	MF	E	60	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	9/4/2007	10:13	Fecal Coliforms	MF	<	2	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	9/4/2007	10:13	*Enterococcus*	MF	E	14	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	9/11/2007	9:05	Total Coliforms	MF	E	20	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	9/11/2007	9:05	Fecal Coliforms	MF	<	2	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	9/11/2007	9:05	*Enterococcus*	MF	<	2	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	9/18/2007	6:55	Total Coliforms	MF	<	20	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	9/18/2007	6:55	Fecal Coliforms	MF	E	4	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	9/18/2007	6:55	*Enterococcus*	MF	E	16	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	9/25/2007	10:23	Total Coliforms	MF	<	20	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	9/25/2007	10:23	Fecal Coliforms	MF	<	20	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	9/25/2007	10:23	*Enterococcus*	MF	E	2	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	10/2/2007	11:16	Total Coliforms	MF	E	20	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	10/2/2007	11:16	Fecal Coliforms	MF	E	20	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	10/2/2007	11:16	*Enterococcus*	MF	E	10	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	10/9/2007	7:55	Total Coliforms	MF	E	28	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	10/9/2007	7:55	Fecal Coliforms	MF	E	18	CFU/100ml

City of Imperial Beach
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StationID	Location	Beach Name	SampleDate	StartTime	ParameterCode	AnalysisMethod	Qualifier	Result	Units
IB-060	Carnation Ave.	north Imperial Beach	10/9/2007	7:55	*Enterococcus*	MF	<	2	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	10/16/2007	10:50	Total Coliforms	MF	E	16	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	10/16/2007	10:50	Fecal Coliforms	MF	E	2	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	10/16/2007	10:50	*Enterococcus*	MF	E	2	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	10/23/2007	10:40	Total Coliforms	MF	<	200	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	10/23/2007	10:40	Fecal Coliforms	MF	<	2	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	10/23/2007	10:40	*Enterococcus*	MF	E	18	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	10/30/2007	8:10	Total Coliforms	MF	E	12	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	10/30/2007	8:10	Fecal Coliforms	MF	E	6	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	10/30/2007	8:10	*Enterococcus*	MF	E	6	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	11/6/2007	8:20	Total Coliforms	MF	E	100	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	11/6/2007	8:20	Fecal Coliforms	MF	=	50	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	11/6/2007	8:20	*Enterococcus*	MF	=	66	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	11/13/2007	11:12	Total Coliforms	MF	<	20	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	11/13/2007	11:12	Fecal Coliforms	MF	<	2	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	11/13/2007	11:12	*Enterococcus*	MF	=	62	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	11/20/2007	8:30	Total Coliforms	MF	E	20	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	11/20/2007	8:30	Fecal Coliforms	MF	<	2	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	11/20/2007	8:30	*Enterococcus*	MF	E	4	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	11/27/2007	11:13	Total Coliforms	MF	E	2	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	11/27/2007	11:13	Fecal Coliforms	MF	<	2	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	11/27/2007	11:13	*Enterococcus*	MF	E	2	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	12/4/2007	9:40	Total Coliforms	MF	<	20	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	12/4/2007	9:40	Fecal Coliforms	MF	<	2	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	12/4/2007	9:40	*Enterococcus*	MF	<	2	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	12/11/2007	9:34	Total Coliforms	MF	E	40	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	12/11/2007	9:34	Fecal Coliforms	MF	E	20	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	12/11/2007	9:34	*Enterococcus*	MF	=	90	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	12/18/2007	9:39	Total Coliforms	MF	<	20	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	12/18/2007	9:39	Fecal Coliforms	MF	<	2	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	12/18/2007	9:39	*Enterococcus*	MF	<	2	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	12/26/2007	11:18	Total Coliforms	MF	E	40	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	12/26/2007	11:18	Fecal Coliforms	MF	<	2	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	12/26/2007	11:18	*Enterococcus*	MF	E	20	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	1/2/2008	8:20	Total Coliforms	MF	<	20	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	1/2/2008	8:20	Fecal Coliforms	MF	E	2	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	1/2/2008	8:20	*Enterococcus*	MF	<	2	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	1/8/2008	11:43	Total Coliforms	MF	=	2400	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	1/8/2008	11:43	Fecal Coliforms	MF	=	120	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	1/8/2008	11:43	*Enterococcus*	MF	=	440	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	1/15/2008	9:45	Total Coliforms	MF	<	20	CFU/100ml

City of Imperial Beach
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StationID	Location	Beach Name	SampleDate	StartTime	ParameterCode	AnalysisMethod	Qualifier	Result	Units
IB-060	Carnation Ave.	north Imperial Beach	1/15/2008	9:45	Fecal Coliforms	MF	<	2	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	1/15/2008	9:45	*Enterococcus*	MF	E	2	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	1/22/2008	12:44	Total Coliforms	MF	<	20	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	1/22/2008	12:44	Fecal Coliforms	MF	<	2	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	1/22/2008	12:44	*Enterococcus*	MF	E	220	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	1/29/2008	10:00	Total Coliforms	MF	=	5200	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	1/29/2008	10:00	Fecal Coliforms	MF	E	1200	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	1/29/2008	10:00	*Enterococcus*	MF	E	2200	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	2/5/2008	12:20	Total Coliforms	MF	E	40	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	2/5/2008	12:20	Fecal Coliforms	MF	<	2	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	2/5/2008	12:20	*Enterococcus*	MF	E	10	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	2/12/2008	9:00	Total Coliforms	MF	=	600	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	2/12/2008	9:00	Fecal Coliforms	MF	E	140	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	2/12/2008	9:00	*Enterococcus*	MF	E	22	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	2/19/2008	9:55	Total Coliforms	MF	E	4	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	2/19/2008	9:55	Fecal Coliforms	MF	E	4	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	2/19/2008	9:55	*Enterococcus*	MF	E	24	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	2/26/2008	9:30	Total Coliforms	MF	E	3800	CFU/100mL
IB-060	Carnation Ave.	north Imperial Beach	2/26/2008	9:30	Fecal Coliforms	MF	=	600	CFU/100mL
IB-060	Carnation Ave.	north Imperial Beach	2/26/2008	9:30	*Enterococcus*	MF	=	66	CFU/100mL
IB-060	Carnation Ave.	north Imperial Beach	3/4/2008	11:43	Total Coliforms	MF	E	220	CFU/100mL
IB-060	Carnation Ave.	north Imperial Beach	3/4/2008	11:43	Fecal Coliforms	MF	E	32	CFU/100mL
IB-060	Carnation Ave.	north Imperial Beach	3/4/2008	11:43	*Enterococcus*	MF	E	8	CFU/100mL
IB-060	Carnation Ave.	north Imperial Beach	3/11/2008	8:40	Total Coliforms	MF (APHA 9222 B)	E	20	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	3/11/2008	8:40	Fecal Coliforms	MF (APHA 9222 D)	E	6	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	3/11/2008	8:40	*Enterococcus*	EPA 1600	E	2	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	3/18/2008	9:25	Total Coliforms	MF (APHA 9222 B)	<	20	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	3/18/2008	9:25	Fecal Coliforms	MF (APHA 9222 D)	E	4	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	3/18/2008	9:25	*Enterococcus*	EPA 1600	E	6	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	3/25/2008	10:15	Total Coliforms	MF (APHA 9222 B)	<	20	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	3/25/2008	10:15	Fecal Coliforms	MF (APHA 9222 D)	<	2	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	3/25/2008	10:15	*Enterococcus*	EPA 1600	<	2	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	4/1/2008	9:36	Total Coliforms	MF (APHA 9222 B)	<	20	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	4/1/2008	9:36	Fecal Coliforms	MF (APHA 9222 D)	E	2	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	4/1/2008	9:36	*Enterococcus*	EPA 1600	<	2	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	4/8/2008	9:35	Total Coliforms	MF (APHA 9222 B)	<	20	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	4/8/2008	9:35	Fecal Coliforms	MF (APHA 9222 D)	<	2	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	4/8/2008	9:35	*Enterococcus*	EPA 1600	<	2	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	4/15/2008	10:35	Total Coliforms	MF (APHA 9222 B)	E	2	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	4/15/2008	10:35	Fecal Coliforms	MF (APHA 9222 D)	<	2	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	4/15/2008	10:35	*Enterococcus*	EPA 1600	<	2	CFU/100ml

City of Imperial Beach
Palm Avenue Urban Runoff Diverter Water Quality Monitoring Analysis
7. AB411 Ocean Water Quality Bacterial Data

StationID	Location	Beach Name	SampleDate	StartTime	ParameterCode	AnalysisMethod	Qualifier	Result	Units
IB-060	Carnation Ave.	north Imperial Beach	4/22/2008	10:00	Total Coliforms	MF (APHA 9222 B)	<	20	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	4/22/2008	10:00	Fecal Coliforms	MF (APHA 9222 D)	<	2	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	4/22/2008	10:00	*Enterococcus*	EPA 1600	<	2	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	4/29/2008	8:50	Total Coliforms	MF (APHA 9222 B)	E	2	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	4/29/2008	8:50	Fecal Coliforms	MF (APHA 9222 D)	<	2	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	4/29/2008	8:50	*Enterococcus*	EPA 1600	<	2	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	5/6/2008	9:29	Total Coliforms	MF (APHA 9222 B)	E	60	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	5/6/2008	9:29	Fecal Coliforms	MF (APHA 9222 D)	E	4	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	5/6/2008	9:29	*Enterococcus*	EPA 1600	E	10	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	5/13/2008	9:45	Total Coliforms	MF (APHA 9222 B)	E	6	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	5/13/2008	9:45	Fecal Coliforms	MF (APHA 9222 D)	E	4	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	5/13/2008	9:45	*Enterococcus*	EPA 1600	<	2	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	5/20/2008	11:43	Total Coliforms	MF (APHA 9222 B)	<	200	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	5/20/2008	11:43	Fecal Coliforms	MF (APHA 9222 D)	E	2	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	5/20/2008	11:43	*Enterococcus*	EPA 1600	E	10	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	5/27/2008	9:50	Total Coliforms	MF (APHA 9222 B)	<	20	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	5/27/2008	9:50	Fecal Coliforms	MF (APHA 9222 D)	<	2	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	5/27/2008	9:50	*Enterococcus*	EPA 1600	<	2	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	6/3/2008	10:49	Total Coliforms	MF (APHA 9222 B)	<	200	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	6/3/2008	10:49	Fecal Coliforms	MF (APHA 9222 D)	<	2	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	6/3/2008	10:49	*Enterococcus*	EPA 1600	E	2	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	6/10/2008	9:20	Total Coliforms	MF (APHA 9222 B)	<	20	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	6/10/2008	9:20	Fecal Coliforms	MF (APHA 9222 D)	E	4	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	6/10/2008	9:20	*Enterococcus*	EPA 1600	E	2	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	6/17/2008	9:03	Total Coliforms	MF (APHA 9222 B)	E	20	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	6/17/2008	9:03	Fecal Coliforms	MF (APHA 9222 D)	E	4	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	6/17/2008	9:03	*Enterococcus*	EPA 1600	E	4	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	6/24/2008	9:34	Total Coliforms	MF (APHA 9222 B)	<	20	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	6/24/2008	9:34	Fecal Coliforms	MF (APHA 9222 D)	E	2	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	6/24/2008	9:34	*Enterococcus*	EPA 1600	E	2	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	7/1/2008	11:11	Total Coliforms	MF (APHA 9222 B)	<	20	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	7/1/2008	11:11	Fecal Coliforms	MF (APHA 9222 D)	<	2	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	7/1/2008	11:11	*Enterococcus*	EPA 1600	<	2	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	7/8/2008	9:40	Total Coliforms	MF (APHA 9222 B)	<	20	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	7/8/2008	9:40	Fecal Coliforms	MF (APHA 9222 D)	E	2	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	7/8/2008	9:40	*Enterococcus*	EPA 1600	<	2	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	7/15/2008	11:00	Total Coliforms	MF (APHA 9222 B)	<	20	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	7/15/2008	11:00	Fecal Coliforms	MF (APHA 9222 D)	E	2	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	7/15/2008	11:00	*Enterococcus*	EPA 1600	<	2	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	7/22/2008	10:00	Total Coliforms	MF (APHA 9222 B)	<	20	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	7/22/2008	10:00	Fecal Coliforms	MF (APHA 9222 D)	E	12	CFU/100ml

City of Imperial Beach
Palm Avenue Urban Runoff Diverter Water Quality Monitoring Analysis
7. AB411 Ocean Water Quality Bacterial Data

StationID	Location	Beach Name	SampleDate	StartTime	ParameterCode	AnalysisMethod	Qualifier	Result	Units
IB-060	Carnation Ave.	north Imperial Beach	7/22/2008	10:00	*Enterococcus*	EPA 1600	<	2	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	7/29/2008	10:05	Total Coliforms	MF (APHA 9222 B)	E	20	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	7/29/2008	10:05	Fecal Coliforms	MF (APHA 9222 D)	<	20	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	7/29/2008	10:05	*Enterococcus*	EPA 1600	<	2	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	8/5/2008	10:00	Total Coliforms	MF (APHA 9222 B)	E	20	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	8/5/2008	10:00	Fecal Coliforms	MF (APHA 9222 D)	E	8	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	8/5/2008	10:00	*Enterococcus*	EPA 1600	E	32	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	8/12/2008	11:14	Total Coliforms	MF (APHA 9222 B)	E	20	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	8/12/2008	11:14	Fecal Coliforms	MF (APHA 9222 D)	E	8	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	8/12/2008	11:14	*Enterococcus*	EPA 1600	E	2	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	8/19/2008	9:44	Total Coliforms	MF (APHA 9222 B)	<	20	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	8/19/2008	9:44	Fecal Coliforms	MF (APHA 9222 D)	E	2	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	8/19/2008	9:44	*Enterococcus*	EPA 1600	E	6	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	8/26/2008	11:35	Total Coliforms	MF (APHA 9222 B)	<	20	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	8/26/2008	11:35	Fecal Coliforms	MF (APHA 9222 D)	<	2	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	8/26/2008	11:35	*Enterococcus*	EPA 1600	E	2	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	9/3/2008	10:20	Total Coliforms	MF (APHA 9222 B)	<	20	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	9/3/2008	10:20	Fecal Coliforms	MF (APHA 9222 D)	<	20	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	9/3/2008	10:20	*Enterococcus*	EPA 1600	E	2	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	9/9/2008	12:39	Total Coliforms	MF (APHA 9222 B)	<	20	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	9/9/2008	12:39	Fecal Coliforms	MF (APHA 9222 D)	E	12	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	9/9/2008	12:39	*Enterococcus*	EPA 1600	E	2	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	9/17/2008	9:42	Total Coliforms	MF (APHA 9222 B)	E	20	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	9/17/2008	9:42	Fecal Coliforms	MF (APHA 9222 D)	E	40	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	9/17/2008	9:42	*Enterococcus*	EPA 1600	E	10	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	9/23/2008	12:00	Total Coliforms	MF (APHA 9222 B)	<	2	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	9/23/2008	12:00	Fecal Coliforms	MF (APHA 9222 D)	<	2	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	9/23/2008	12:00	*Enterococcus*	EPA 1600	<	2	CFU/100ml
IB-060	Carnation Ave.	north Imperial Beach	10/1/2008	9:50	Total Coliforms	MTF (APHA 9221 B)	E	100	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	10/1/2008	9:50	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	E	12	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	10/1/2008	9:50	*Enterococcus*	Enterolert	E	6	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	10/7/2008	10:15	Total Coliforms	MTF (APHA 9221 B)	E	20	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	10/7/2008	10:15	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	E	4	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	10/7/2008	10:15	*Enterococcus*	Enterolert	<	2	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	10/14/2008	10:30	Total Coliforms	MTF (APHA 9221 B)	E	20	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	10/14/2008	10:30	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	E	28	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	10/14/2008	10:30	*Enterococcus*	Enterolert	E	6	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	10/21/2008	10:02	Total Coliforms	MTF (APHA 9221 B)	<	20	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	10/21/2008	10:02	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	E	2	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	10/21/2008	10:02	*Enterococcus*	Enterolert	<	2	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	10/28/2008	10:00	Total Coliforms	MTF (APHA 9221 B)	E	12	MPN/100mL

City of Imperial Beach
Palm Avenue Urban Runoff Diverter Water Quality Monitoring Analysis
7. AB411 Ocean Water Quality Bacterial Data

StationID	Location	Beach Name	SampleDate	StartTime	ParameterCode	AnalysisMethod	Qualifier	Result	Units
IB-060	Carnation Ave.	north Imperial Beach	10/28/2008	10:00	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	<	2	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	10/28/2008	10:00	*Enterococcus*	Enterolert	<	2	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	11/4/2008	12:00	Total Coliforms	MTF (APHA 9221 B)	<	20	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	11/4/2008	12:00	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	E	20	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	11/4/2008	12:00	*Enterococcus*	Enterolert	E	6	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	11/12/2008	10:40	Total Coliforms	MTF (APHA 9221 B)	E	220	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	11/12/2008	10:40	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	E	40	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	11/12/2008	10:40	*Enterococcus*	Enterolert	=	84	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	11/18/2008	10:51	Total Coliforms	MTF (APHA 9221 B)	<	2	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	11/18/2008	10:51	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	<	2	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	11/18/2008	10:51	*Enterococcus*	Enterolert	E	2	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	11/25/2008	9:20	Total Coliforms	MTF (APHA 9221 B)	<	2	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	11/25/2008	9:20	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	E	20	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	11/25/2008	9:20	*Enterococcus*	Enterolert	E	40	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	12/2/2008	12:22	Total Coliforms	MTF (APHA 9221 B)	E	20	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	12/2/2008	12:22	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	E	8	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	12/2/2008	12:22	*Enterococcus*	Enterolert	E	16	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	12/4/2008	7:20	Total Coliforms	MTF (APHA 9221 B)	=	20	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	12/4/2008	7:20	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	=	20	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	12/4/2008	7:20	*Enterococcus*	Enterolert	=	10	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	12/10/2008	11:23	Total Coliforms	MTF (APHA 9221 B)	<	20	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	12/10/2008	11:23	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	<	2	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	12/10/2008	11:23	*Enterococcus*	Enterolert	E	8	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	12/16/2008	12:12	Total Coliforms	MTF (APHA 9221 B)	>	16000	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	12/16/2008	12:12	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	=	10000	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	12/16/2008	12:12	*Enterococcus*	Enterolert	>	12000	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	12/23/2008	9:55	Total Coliforms	MTF (APHA 9221 B)	E	80	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	12/23/2008	9:55	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	E	20	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	12/23/2008	9:55	*Enterococcus*	Enterolert	E	260	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	12/23/2008	10:05	Total Coliforms	MTF (APHA 9221 B)	=	720	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	12/23/2008	10:05	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	E	16	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	12/23/2008	10:05	*Enterococcus*	Enterolert	E	20	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	12/31/2008	12:35	Total Coliforms	MTF (APHA 9221 B)	<	20	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	12/31/2008	12:35	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	<	2	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	12/31/2008	12:35	*Enterococcus*	Enterolert	E	4	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	1/6/2009	12:33	Total Coliforms	MTF (APHA 9221 B)	E	1600	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	1/6/2009	12:33	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	E	180	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	1/6/2009	12:33	*Enterococcus*	Enterolert	E	38	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	1/13/2009	12:08	Total Coliforms	MTF (APHA 9221 B)	E	4	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	1/13/2009	12:08	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	E	4	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	1/13/2009	12:08	*Enterococcus*	Enterolert	<	2	MPN/100mL

City of Imperial Beach
Palm Avenue Urban Runoff Diverter Water Quality Monitoring Analysis
7. AB411 Ocean Water Quality Bacterial Data

StationID	Location	Beach Name	SampleDate	StartTime	ParameterCode	AnalysisMethod	Qualifier	Result	Units
IB-060	Carnation Ave.	north Imperial Beach	1/20/2009	10:05	Total Coliforms	MTF (APHA 9221 B)	<	20	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	1/20/2009	10:05	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	<	2	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	1/20/2009	10:05	*Enterococcus*	Enterolert	E	4	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	1/28/2009	11:45	Total Coliforms	MTF (APHA 9221 B)	E	4	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	1/28/2009	11:45	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	<	2	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	1/28/2009	11:45	*Enterococcus*	Enterolert	E	2	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	2/3/2009	10:40	Total Coliforms	MTF (APHA 9221 B)	E	2	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	2/3/2009	10:40	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	<	2	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	2/3/2009	10:40	*Enterococcus*	Enterolert	<	2	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	2/10/2009	9:08	Total Coliforms	MTF (APHA 9221 B)	E	400	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	2/10/2009	9:08	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	E	20	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	2/10/2009	9:08	*Enterococcus*	Enterolert	=	58	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	2/17/2009	10:20	Total Coliforms	MTF (APHA 9221 B)	>	16000	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	2/17/2009	10:20	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	E	3800	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	2/17/2009	10:20	*Enterococcus*	Enterolert	=	10000	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	2/18/2009	10:50	Total Coliforms	MTF (APHA 9221 B)	>	16000	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	2/18/2009	10:50	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	=	440	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	2/18/2009	10:50	*Enterococcus*	Enterolert	=	640	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	2/20/2009	12:35	Total Coliforms	MTF (APHA 9221 B)	E	130	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	2/20/2009	12:35	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	=	80	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	2/20/2009	12:35	*Enterococcus*	Enterolert	=	10	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	2/24/2009	11:34	Total Coliforms	MTF (APHA 9221 B)	E	20	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	2/24/2009	11:34	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	E	2	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	2/24/2009	11:34	*Enterococcus*	Enterolert	<	2	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	3/3/2009	10:50	Total Coliforms	MTF (APHA 9221 B)	<	20	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	3/3/2009	10:50	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	<	2	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	3/3/2009	10:50	*Enterococcus*	Enterolert	<	2	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	3/10/2009	11:54	Total Coliforms	MTF (APHA 9221 B)	<	20	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	3/10/2009	11:54	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	E	2	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	3/10/2009	11:54	*Enterococcus*	Enterolert	E	6	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	3/17/2009	10:20	Total Coliforms	MTF (APHA 9221 B)	<	20	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	3/17/2009	10:20	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	<	2	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	3/17/2009	10:20	*Enterococcus*	Enterolert	<	2	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	3/24/2009	12:14	Total Coliforms	MTF (APHA 9221 B)	<	20	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	3/24/2009	12:14	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	<	2	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	3/24/2009	12:14	*Enterococcus*	Enterolert	<	2	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	4/1/2009	10:50	Total Coliforms	MTF (APHA 9221 B)	<	2	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	4/1/2009	10:50	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	<	2	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	4/1/2009	10:50	*Enterococcus*	Enterolert	<	2	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	4/7/2009	11:22	Total Coliforms	MTF (APHA 9221 B)	<	20	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	4/7/2009	11:22	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	<	2	MPN/100mL

City of Imperial Beach
Palm Avenue Urban Runoff Diverter Water Quality Monitoring Analysis
7. AB411 Ocean Water Quality Bacterial Data

StationID	Location	Beach Name	SampleDate	StartTime	ParameterCode	AnalysisMethod	Qualifier	Result	Units
IB-060	Carnation Ave.	north Imperial Beach	4/7/2009	11:22	*Enterococcus*	Enterolert	E	4	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	4/14/2009	9:03	Total Coliforms	MTF (APHA 9221 B)	E	16	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	4/14/2009	9:03	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	<	2	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	4/14/2009	9:03	*Enterococcus*	Enterolert	E	2	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	4/21/2009	10:10	Total Coliforms	MTF (APHA 9221 B)	<	20	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	4/21/2009	10:10	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	<	2	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	4/21/2009	10:10	*Enterococcus*	Enterolert	<	2	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	4/28/2009	7:58	Total Coliforms	MTF (APHA 9221 B)	<	20	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	4/28/2009	7:58	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	E	4	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	4/28/2009	7:58	*Enterococcus*	Enterolert	E	2	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	5/6/2009	10:45	Total Coliforms	MTF (APHA 9221 B)	<	20	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	5/6/2009	10:45	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	<	2	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	5/6/2009	10:45	*Enterococcus*	Enterolert	<	2	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	5/12/2009	7:41	Total Coliforms	MTF (APHA 9221 B)	E	40	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	5/12/2009	7:41	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	E	60	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	5/12/2009	7:41	*Enterococcus*	Enterolert	E	10	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	5/19/2009	10:40	Total Coliforms	MTF (APHA 9221 B)	<	2	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	5/19/2009	10:40	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	<	2	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	5/19/2009	10:40	*Enterococcus*	Enterolert	<	2	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	5/26/2009	7:38	Total Coliforms	MTF (APHA 9221 B)	E	40	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	5/26/2009	7:38	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	E	20	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	5/26/2009	7:38	*Enterococcus*	Enterolert	E	16	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	6/2/2009	10:40	Total Coliforms	MTF (APHA 9221 B)	<	20	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	6/2/2009	10:40	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	<	2	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	6/2/2009	10:40	*Enterococcus*	Enterolert	E	2	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	6/9/2009	7:37	Total Coliforms	MTF (APHA 9221 B)	E	20	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	6/9/2009	7:37	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	E	20	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	6/9/2009	7:37	*Enterococcus*	Enterolert	E	10	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	6/16/2009	10:25	Total Coliforms	MTF (APHA 9221 B)	<	20	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	6/16/2009	10:25	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	E	4	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	6/16/2009	10:25	*Enterococcus*	Enterolert	<	2	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	6/23/2009	9:28	Total Coliforms	MTF (APHA 9221 B)	<	200	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	6/23/2009	9:28	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	E	2	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	6/23/2009	9:28	*Enterococcus*	Enterolert	E	8	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	6/30/2009	10:30	Total Coliforms	MTF (APHA 9221 B)	<	20	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	6/30/2009	10:30	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	<	2	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	6/30/2009	10:30	*Enterococcus*	Enterolert	<	2	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	7/7/2009	6:56	Total Coliforms	MTF (APHA 9221 B)	E	60	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	7/7/2009	6:56	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	E	6	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	7/7/2009	6:56	*Enterococcus*	Enterolert	E	14	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	7/14/2009	9:40	Total Coliforms	MTF (APHA 9221 B)	<	20	MPN/100mL

City of Imperial Beach
Palm Avenue Urban Runoff Diverter Water Quality Monitoring Analysis
7. AB411 Ocean Water Quality Bacterial Data

StationID	Location	Beach Name	SampleDate	StartTime	ParameterCode	AnalysisMethod	Qualifier	Result	Units
IB-060	Carnation Ave.	north Imperial Beach	7/14/2009	9:40	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	E	2	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	7/14/2009	9:40	*Enterococcus*	Enterolert	E	10	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	7/21/2009	7:12	Total Coliforms	MTF (APHA 9221 B)	E	40	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	7/21/2009	7:12	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	E	30	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	7/21/2009	7:12	*Enterococcus*	Enterolert	E	18	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	7/28/2009	10:00	Total Coliforms	MTF (APHA 9221 B)	<	20	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	7/28/2009	10:00	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	<	2	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	7/28/2009	10:00	*Enterococcus*	Enterolert	E	2	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	8/4/2009	9:09	Total Coliforms	MTF (APHA 9221 B)	<	200	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	8/4/2009	9:09	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	<	2	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	8/4/2009	9:09	*Enterococcus*	Enterolert	<	2	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	8/11/2009	10:40	Total Coliforms	MTF (APHA 9221 B)	E	4	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	8/11/2009	10:40	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	<	2	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	8/11/2009	10:40	*Enterococcus*	Enterolert	E	2	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	8/18/2009	11:53	Total Coliforms	MTF (APHA 9221 B)	<	200	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	8/18/2009	11:53	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	<	2	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	8/18/2009	11:53	*Enterococcus*	Enterolert	<	2	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	8/25/2009	10:45	Total Coliforms	MTF (APHA 9221 B)	<	20	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	8/25/2009	10:45	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	<	2	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	8/25/2009	10:45	*Enterococcus*	Enterolert	<	2	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	9/1/2009	11:08	Total Coliforms	MTF (APHA 9221 B)	E	20	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	9/1/2009	11:08	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	E	12	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	9/1/2009	11:08	*Enterococcus*	Enterolert	E	2	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	9/8/2009	10:10	Total Coliforms	MTF (APHA 9221 B)	<	4	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	9/8/2009	10:10	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	=	38	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	9/8/2009	10:10	*Enterococcus*	Enterolert	=	200	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	9/15/2009	11:34	Total Coliforms	MTF (APHA 9221 B)	<	20	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	9/15/2009	11:34	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	<	2	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	9/15/2009	11:34	*Enterococcus*	Enterolert	<	2	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	9/22/2009	10:38	Total Coliforms	MTF (APHA 9221 B)	E	200	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	9/22/2009	10:38	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	E	20	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	9/22/2009	10:38	*Enterococcus*	Enterolert	E	30	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	9/29/2009	10:39	Total Coliforms	MTF (APHA 9221 B)	<	20	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	9/29/2009	10:39	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	E	2	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	9/29/2009	10:39	*Enterococcus*	Enterolert	E	2	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	10/6/2009	9:35	Total Coliforms	MTF (APHA 9221 B)	=	40	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	10/6/2009	9:35	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	=	8	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	10/6/2009	9:35	*Enterococcus*	Enterolert	=	4	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	10/13/2009	11:00	Total Coliforms	MTF (APHA 9221 B)	<	20	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	10/13/2009	11:00	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	E	2	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	10/13/2009	11:00	*Enterococcus*	Enterolert	E	2	MPN/100mL

City of Imperial Beach
Palm Avenue Urban Runoff Diverter Water Quality Monitoring Analysis
7. AB411 Ocean Water Quality Bacterial Data

StationID	Location	Beach Name	SampleDate	StartTime	ParameterCode	AnalysisMethod	Qualifier	Result	Units
IB-060	Carnation Ave.	north Imperial Beach	10/20/2009	12:12	Total Coliforms	MTF (APHA 9221 B)	E	20	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	10/20/2009	12:12	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	E	6	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	10/20/2009	12:12	*Enterococcus*	Enterolert	E	4	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	10/27/2009	9:45	Total Coliforms	MTF (APHA 9221 B)	E	6	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	10/27/2009	9:45	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	<	2	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	10/27/2009	9:45	*Enterococcus*	Enterolert	<	2	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	11/3/2009	9:45	Total Coliforms	MTF (APHA 9221 B)	<	20	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	11/3/2009	9:45	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	E	2	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	11/3/2009	9:45	*Enterococcus*	Enterolert	<	2	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	11/10/2009	11:07	Total Coliforms	MTF (APHA 9221 B)	<	20	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	11/10/2009	11:07	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	<	2	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	11/10/2009	11:07	*Enterococcus*	Enterolert	<	2	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	11/17/2009	10:10	Total Coliforms	MTF (APHA 9221 B)	E	6	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	11/17/2009	10:10	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	E	2	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	11/17/2009	10:10	*Enterococcus*	Enterolert	E	2	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	11/24/2009	11:01	Total Coliforms	MTF (APHA 9221 B)	<	2	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	11/24/2009	11:01	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	<	2	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	11/24/2009	11:01	*Enterococcus*	Enterolert	<	2	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	12/1/2009	10:30	Total Coliforms	MTF (APHA 9221 B)	E	20	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	12/1/2009	10:30	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	E	8	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	12/1/2009	10:30	*Enterococcus*	Enterolert	=	48	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	12/8/2009	8:58	Total Coliforms	MTF (APHA 9221 B)	>	16000	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	12/8/2009	8:58	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	=	980	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	12/8/2009	8:58	*Enterococcus*	Enterolert	=	4000	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	12/9/2009	11:11	Total Coliforms	MTF (APHA 9221 B)	=	6400	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	12/9/2009	11:11	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	E	240	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	12/9/2009	11:11	*Enterococcus*	Enterolert	=	860	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	12/14/2009	10:45	Total Coliforms	MTF (APHA 9221 B)	=	300	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	12/14/2009	10:45	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	=	130	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	12/14/2009	10:45	*Enterococcus*	Enterolert	=	150	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	12/15/2009	10:46	Total Coliforms	MTF (APHA 9221 B)	E	40	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	12/15/2009	10:46	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	E	12	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	12/15/2009	10:46	*Enterococcus*	Enterolert	E	20	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	12/16/2009	11:45	Total Coliforms	MTF (APHA 9221 B)	<	20	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	12/16/2009	11:45	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	<	20	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	12/16/2009	11:45	*Enterococcus*	Enterolert	<	10	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	12/22/2009	8:46	Total Coliforms	MTF (APHA 9221 B)	>	16000	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	12/22/2009	8:46	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	=	1000	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	12/22/2009	8:46	*Enterococcus*	Enterolert	E	260	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	12/23/2009	11:03	Total Coliforms	MTF (APHA 9221 B)	<	20	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	12/23/2009	11:03	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	<	2	MPN/100mL

City of Imperial Beach
Palm Avenue Urban Runoff Diverter Water Quality Monitoring Analysis
7. AB411 Ocean Water Quality Bacterial Data

StationID	Location	Beach Name	SampleDate	StartTime	ParameterCode	AnalysisMethod	Qualifier	Result	Units
IB-060	Carnation Ave.	north Imperial Beach	12/23/2009	11:03	*Enterococcus*	Enterolert	E	2	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	12/29/2009	12:41	Total Coliforms	MTF (APHA 9221 B)	<	20	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	12/29/2009	12:41	Fecal Coliforms	MTF by EC (APHA 9221 E.1)	<	2	MPN/100mL
IB-060	Carnation Ave.	north Imperial Beach	12/29/2009	12:41	*Enterococcus*	Enterolert	E	18	MPN/100mL

Appendix B
Final Project Summary

Final Project Summary for
Palm Avenue Low-Flow Urban Runoff Diversion Project

City of Imperial Beach
$1,292,000 (Grant Amount)

- The Palm Avenue Low-Flow Urban Runoff Diversion Project (Palm Avenue Diverter) consists of the construction of a storm drain to sanitary sewer diversion structure with a capacity of 250 gallons per minute that eliminates the discharge to the Pacific Ocean beaches of low-flow urban runoff and the first flush during a storm event. This project is located in the City of Imperial Beach in the County of San Diego.
- Construction began on May 7, 2008 and was completed on June 12, 2009.
- The City of Imperial Beach has prepared this report to present the weekly water quality monitoring results for the Palm Avenue Low-Flow Urban Runoff Diversion Project from January 6 through December 1, 2009.
- Bacterial data collected during the monitoring phase shows that, in the absence of the Palm Avenue Diverter, low-flow urban runoff and first-flush stormwater with high levels of bacteria would have been discharged to the receiving waters.
- Comparison of the concentration of bacteria in the wet well with the AB411 water quality benchmarks indicates that for total coliform 98% of the samples exceeded benchmarks, and for *Enterococcus* 91% of the readings exceeded the benchmarks.
- Data analysis shows that 100% of the samples collected at the diverter wet well exceeded at least one of the bacterial indicator benchmarks.
- The Palm Avenue Diverter directs an average of 23,000 gallons per month of urban runoff to the sanitary sewer.
- Only the Carnation Avenue receiving water sampling station had exceedances of bacterial indicators during the project's monitoring period. On February 17 and 18, 2009, during a storm event greater than 1/10th of an inch, when the diverter operated in storm discharge mode, water quality exceeded AB411 benchmarks. During the same period, the southern-most sampling location at Seacoast Drive also provides evidence of high bacteria levels likely originating from other sources including the Tijuana River Valley and Mexico.
- This project was successful in combining access to recreation, aesthetic improvements, public infrastructure, and water quality benefits. It received the "Project of the Year" award from the San Diego & Imperial Counties Section of the American Public Works Association (APWA).

For more information on this project please contact Mr. Chris Helmer, City of Imperial Beach at (619) 628-1370 or via email at CHelmer@CityofIB.org.

Project Photographs (2008-2009)

End of Palm Avenue – pre-existing

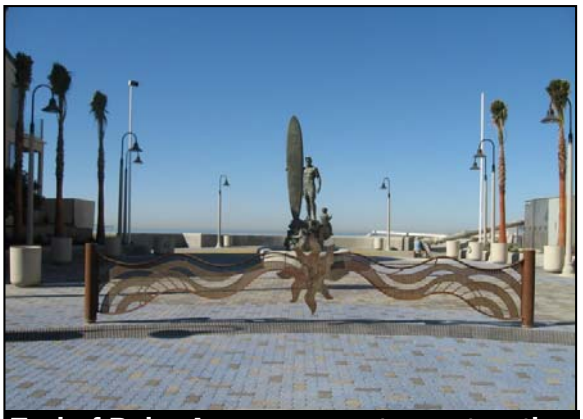
Pump station – pre-existing

New diverter pump system

Diverter structure wet well construction

Wet well during construction

End of Palm Avenue – post-construction



End of Palm Avenue – post-construction

Appendix C
QAPP

THE CITY OF IMPERIAL BEACH
CLEAN BEACHES INITIATIVE
EFFECTIVENESS ASSESSMENT

FINAL
QUALITY ASSURANCE PROJECT PLAN
AND MONITORING PLAN
for the Palm Avenue Low Flow
Urban Runoff Diverter Project
No. 07-575-550-0

PREPARED BY:
The City of Imperial Beach

Refer correspondence to:
Hank Levien
Project Manager, City of Imperial Beach,
495 10th Street, CA 91932
(619) 628-1369
hlevien@CityofIB.org

ELEMENT 1 TITLE AND APPROVAL SHEET

QUALITY ASSURANCE PROJECT PLAN
AND MONITORING PLAN

for the Palm Avenue Low Flow
Urban Runoff Diverter Project
Clean Beach Initiative Grant No. 07-575-550-0

The City of Imperial Beach

Approval Signatures:

Title	Name	Signature	Date*
State Water Board Program Manager	Jennifer Toney		1/12/09
State Water Board Quality Assurance / Compliance Officer	William Ray		1/12/09
City of Imperial Beach, Project Manager	Chris Helmer	Chris Helmer	1/5/09
Contractor Quality Assurance Officer	Rosanna Lacarra		1/5/09

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ELEMENT 3 DISTRIBUTION LIST

Table 1 identifies those individuals who will receive one copy of the approved Quality Assurance Project Plan (QAPP).

Table 1. Quality Assurance Project Plan Distribution List

Title	Name and Affiliation	Telephone No.	QAPP No.
Program Manager	Jennifer Toney, State Water Resources Control Board	(916) 341-5646	01
Grant Manager	Hoa Ly, State Water Resources Control Board	(916) 341-5720	02
Quality Assurance (QA) Officer	William Ray, State Water Resources Control Board	(916) 341-5583	03
Project Director	Hank Levien, Director of Public Works, City of Imperial Beach	(619) 628-1369	04

All group leaders, and technical advisors will receive copies of this QAPP, and any approved revisions of this plan. Any revisions to this QAPP will require approval by the State Water Board QA Officer prior to resubmittal to personnel on the above distribution list. Prior copies will be destroyed.

Upon approval, this QAPP will be available to any interested party by requesting a copy from the Director of Public Works for the City of Imperial Beach.

ELEMENT 4 PROJECT/TASK ORGANIZATION

This Quality Assurance Project Plan (QAPP) reflects the diversity of monitoring and organizational support involved in this project. For the elements of this QAPP, aspects that are shared with all groups as well as those aspects that are unique to individual groups are addressed. The data quality objectives among each monitoring group are consistent allowing comparison of data collected by different organizations. The specific organizational structure for each of the participating organizations is given below. Each of these groups is a public agency that is experienced at water quality sampling and data management, and each has internal QA/QC guidance for those activities. The City of Imperial Beach Public Works Department (CIBPWD) will provide overall QA/QC coordination to assure that data collected for the effectiveness assessment program are collected, analyzed, and reported in a consistent manner following the protocols outlined in this document. The progress and results of the program will be reported quarterly to the State Water Resources Control Board (State Water Board).

A. City of Imperial Beach Public Works Department (CIBPWD)

Organization and Responsibilities

- Provide overall project coordination, including project design, management, and implementation.
- Retain a water monitoring consulting firm to provide trained staff for collection of field observations and water sample collection for bacteriological testing and analysis.
- Retain a water monitoring consulting firm to provide a central location for data reporting and analysis.
- Retain a water testing laboratory through the water monitoring consulting firm to provide trained laboratory assistants and public health microbiologists to perform all water testing procedures for bacteriological testing and analysis that meets the Clean Beaches Initiative (CBI) monitoring requirements. The collection and analysis will be in conjunction with the County and City of San Diego's State AB411 coastal outfall bacteriological monitoring program.

The information collected by the CIBPWD will be provided to the regulatory agencies. It is the responsibility of the regulatory agencies to ensure that adequate and valid data are collected to meet their regulatory requirements.

Management (Monitoring Leaders and Trainers)

City of Imperial Beach
Environmental Program Manager

Field Monitors and Team Captains (Staff)

City of Imperial Beach, Team Captain
Environmental Program Specialist

Monitoring Technicians
As identified by the contracted water monitoring consulting firm.

Testing Personnel
As identified by the contracted water testing laboratory.

Data Managers

As identified by the contracted water monitoring consulting firm.

Quality Assurance Personnel

As identified by the contracted water monitoring consulting firm

B. San Diego County Department of Environmental Health

Organization and Responsibilities

- Provide coordination between the CIBPWD and San Diego County Public Health Laboratory staff to collect samples on the same day at the same time.
- Provide data to CIBPWD collected for bacteriological testing as outlined in agreements between the City of San Diego and San Diego County for AB411 testing.

Management (Monitoring Leaders and Trainers)

General Supervisor
County of San Diego, Senior Public Health Microbiologist

Field Monitors and Team Captains (Staff)

Testing Personnel
County of San Diego, Public Health Microbiologists

C. City of San Diego Metropolitan Wastewater Department

Organization and Responsibilities

- Provide coordination between the CIBPWD and San Diego County Public Health Laboratory staff to collect samples on the same day at the same time.
- Provide data to CIBPWD staff collected for bacteriological testing as outlined in agreements between the City of San Diego and San Diego County for AB411 testing. The Wastewater Department's General Supervisor will perform final review before mailing or faxing results to CIBWD Environmental Program Manager.

Management (Monitoring Leaders and Trainers)

General Supervisor:
County of San Diego, Department of Public Health Senior Microbiologist

Field Monitors and Team Captains (Staff)

Testing Personnel
County of San Diego, Department of Public Health Microbiologists

ELEMENT 5 PROBLEM DEFINITION/BACKGROUND

Problem Statement

The purpose of this CBI project (Project) is to evaluate the effectiveness of a diverter being implemented by the City of Imperial Beach to reduce bacteriological and other urban runoff pollution to the Pacific Ocean surrounding the City of Imperial Beach. The current project supports diversion and monitoring initiatives aimed at reducing and eventually eliminating beach closures due to bacteria contamination. With the aid of the CBI program, the City of Imperial Beach is installing the Palm Avenue diverter, which will reroute nuisance urban runoff to the sanitary sewer system to prevent potential contamination problems.

Studies have shown that one significant source of bacteria is urban runoff flowing into storm drains that eventually discharge onto the beaches. Diversion projects have proven successful in reducing trash, sediment and bacteria loading to beaches within their respective drainage basins. To reduce bacteria loading to the City's beach, the City of Imperial Beach is constructing a low-flow diversion project that diverts 100% of the dry weather flows from approximately 81 acres of mixed residential and commercial zoned land. Currently, the flows run into a pump station and wet well designed to pump the collected waters directly to the Pacific Ocean. In recent years, during dry weather periods, the station pumps have been turned off and the 16,000 to 20,000 gallons of urban runoff collected per week was pumped using portable pumps and hoses into the sewer system.

ELEMENT 6 PROJECT/TASK DESCRIPTION

Work Statement and Produced Products

The project consists of the installation of a low-flow diverter, water sampling, analysis and associated monitoring, measurement of diverted flow, field screening, and photographic documentation on a weekly basis such that quantity and quality of contaminants diverted are calculated and findings analyzed for a period of one (1) year, with the results provided in a data report.

Geographical Setting

Imperial Beach, located in the City of Imperial Beach, is a popular beach in the State of California maintained by the City. This beach, however, is currently subject to numerous postings due to levels of bacteria that exceed standards. Imperial Beach was posted with warning or closure signs during calendar year 2000 for 34.5 days, 75 days in 2001, 22 days in 2002, 72 days in 2003, 81 days in 2004, 106 days in 2005, and 69 days in 2006.

The project constructs a diverter system, new pump station, new wet well, new ocean outfall for non-diverted water and associated piping. The diverter is designed to discharge (divert) up to 250 gallons per minute (GPM) of urban nuisance runoff water and first flush storm water to the sanitary sewer system. The drainage area served by this new diverter is approximately 81 acres of predominantly residential and light commercial land uses. Surface water flows are collected in three street drop inlets leading to 18-inch and 30-inch reinforced concrete drainage (RCP) pipes that discharge flows into a storm drain wet well. Construction of new pump station, diversion system, and associated conveyance system reconfigurations started June 2008 and is due to be completed in January 2009. The wet well and 30” pipe will have the capability to store up to 3260 cubic feet of stormwater before the stormwater pumps turn on. The first flush of stormwater runoff will be diverted, with additional storm flows discharged to the beach via a diffuser vault at the end of a new concrete pipe, where it will be dispersed onto the riprap embankment.

Task 1 – Equipment Installation

A new storm water pump station is under construction at the Palm Avenue street end in Imperial Beach. The new pump station will be capable of automatically diverting low flows to the sanitary sewer and pumping higher flows (i.e., in excess of 250 gallons per minute) to the ocean outfall. The existing ocean outfall is being reconstructed.

Task 2 – Monitoring

Weekly monitoring of the quantity and quality of runoff diverted to the sanitary sewer system will be conducted to help quantify the total bacterial load prevented from entering the ocean. This post-construction monitoring will be carried out for one year following project completion. Beach advisory and closure data will be obtained from the County of San Diego Department of Environmental Health to observe any noticeable changes in the number of beach postings and closures upcoast (Carnation Avenue station) and downcoast (Imperial Beach Pier station) of Palm Avenue during dry weather conditions.

Water Quality Analysis and Field Screening Observations

Field crews will make on-site measurements of key water quality parameters:

- Odor
- Water clarity
- Staining
- Specific conductance (calculated estimate Total Dissolved Solids)
- Temperature

- pH

Misc.

- Flow measurements
- Photographs

Laboratory Analytical Monitoring

- Enterococcus bacteria
- Total coliform bacteria
- Fecal coliform bacteria

Provide alternate costs for adding metals to the scope of laboratory analytical monitoring as listed below, all other items listed are considered part of the base proposal.

Alternate #1
Metals / Toxics

- Cadmium (dissolved)
- Copper (dissolved)
- Lead (dissolved)
- Zinc (dissolved)

ELEMENT 7 QUALITY OBJECTIVES AND CRITERIA FOR MEASUREMENT DATA

Data quality objectives (DQOs) for the bacteriological testing are summarized in the table below. Whenever possible, the method with the greatest sensitivity and lowest detection limit will be employed as the primary method. Specific DQOs are not given for the flow monitoring. These data will be continuously evaluated to ascertain their validity and usefulness.

Data Quality Objectives for Biological Parameters Table

Parameter	Method/ Range	Units	Detection Limit	Sensitivity	Precision	Accuracy	Completeness
Total Coliform Bacteria	Colilert 18 hour	MPN/ 100ml	10	See IDEXX quantitray tables	Duplicates within 95% confidence limits	Positive standard within ½ of an order of magnitude	80%
E. coli Bacteria	Colilert 18 hour	MPN/ 100ml	10	See IDEXX quantitray tables	Duplicates within 95% confidence limits	Positive standard within ½ of an order of magnitude	80%
Enterococcus Bacteria	Enterolert 24 hour	MPN/ 100ml	10	See IDEXX quantitray tables	Duplicates within 95% confidence limits	Positive standard within ½ of an order of magnitude	80%

Accuracy and Precision

All results will be reviewed and checked for accuracy by the Data Manager and the Quality Assurance Personnel. Precision and accuracy are also assessed by yearly proficiency testing from ELAP.

Comparability

Comparability is the degree to which data can be compared directly to similar studies. To ensure that the data can be compared to other bacteriological characterization studies for AB411 and receiving water monitoring by municipalities in San Diego County, the monitoring group will use the methods described in EPA's Standard Methods for Examination of Water and Wastewater.

Completeness

Completeness is the fraction of planned data that must be collected in order to fulfill the statistical criteria of the project. There are no statistical criteria that require a certain percentage of data. However, it is expected that 80% of all measurements will be taken when anticipated. This accounts for adverse weather conditions, safety concerns, and equipment problems.

The City will determine completeness by comparing the number of planned measurements to the number of measurements that are actually collected and deemed valid. An invalid measurement would be one that does not meet the sampling methods requirements and the data quality objectives. Completeness results will be checked quarterly. This will allow the City to identify and correct problems. The Data Quality Form: Completeness, found in Appendix 1, will be used to record completeness.

Representativeness

Representativeness describes how relevant the data are to the actual environmental condition. Problems can occur if:

- Samples are taken in a stream reach that does not describe the area, or samples are taken in an unusual habitat type (e.g. a stagnant backwater instead of in the flowing portion of the storm drain)
- Samples are not analyzed or processed appropriately; causing conditions in the sample to change (e.g. water chemistry measurements are not taken immediately).

Representativeness will be ensured by following the established methods in this plan, and by obtaining approval of this document.

Method Detection Limit and Sensitivity

The Method Detection Limit is the lowest possible concentration the instrument or equipment can detect. This is important to record because the City cannot determine that bacteria were not present, only that is was not detected. Sensitivity is the ability of the instrument to detect one concentration from the next. Detection Limits and Sensitivities for Total Coliform, Fecal Coliform, and Enterococcus are noted in the Data Quality Objectives for Biological Parameters table.

ELEMENT 8 TRAINING REQUIREMENTS

Special Training or Certifications

Field Sampling

Field personnel will be trained to collect samples and make observations that are consistent with those methods used for AB411 and receiving water monitoring by municipalities in San Diego County.

Analytical Laboratory

The selected consultant's laboratory will be have the appropriate accreditations.

Training and Certification Documentation

Personnel are responsible for complying with QA/QC requirements that pertain to their organizational/technical function. Each technical staff member must have a combination of experience and education to adequately demonstrate a specific knowledge of their function and a general knowledge of laboratory operations, test methods, QA/QC procedures, and records management.

Training Personnel

The selected consultant will provide training for field personnel in proper sampling techniques prior to work initiation to ensure consistent and appropriate sampling, sample handling/storage, and COC procedures. The selected consultant is responsible to ensure training has been completed.

ELEMENT 9 DOCUMENTATION AND RECORDS

All field results will be recorded at the time of completion, using the field data sheets (see Appendix 2). Data sheets will be reviewed for outliers and omissions before leaving the sample site. Data sheets will be signed after review by the Team Captain leader. Data sheets will be stored in hard copy form at the location specified. Field data sheets are archived for three years from the time they were collected. Hard copies of all data, as well as computer back-up disks, are maintained at City Department of Public Works offices.

ELEMENT 10 SAMPLE PROCESS DESIGN

Rationale for Selection of Sampling Sites

Sampling site is indicated on the map in Appendix 3. The site is in the diverter to achieve accurate flow measurements and representative water quality data from the diverted urban runoff.

Access to the diverter will be achieved through floor panels providing access to the diverter pump. Prior to sampling, the plaza will be partially cordoned off to allow for observations of the diverter pump and reading of the jock pump flow meter. Samples can then be taken from an easily accessible spigot off the diverter pump. The site visit also includes visual observations of the water sample and site area, which includes written descriptions and photographs.

Sample Design Logistics

Safety measures will be discussed with the City of Imperial Beach's Team Captain and Consultant's monitoring technicians.

ELEMENT 11 SAMPLING METHOD REQUIREMENTS

Water samples for bacteriological testing should be submitted to testing laboratory on the day of sampling. Sampling will be coordinated with the AB-411 monitoring samples days at Imperial Beach. Samples will be taken during dry weather, with no less than 72 hours since the last measurable rain event.

The selected consultant will verify with the lab in advance which specific upper endpoints are anticipated and needed. Endpoints (i.e., the number of dilutions) will ensure an accurate estimate of MPN/100 ml of bacteria in the samples. Routine water testing has an upper endpoint of $\geq$ 1,600,000 MPN/100 ml.

ELEMENT 12 SAMPLE HANDLING CUSTODY

Sample Handling

Identification information for each sample will be recorded on the field data sheets (see Appendix 2) when the sample is collected. Samples will be labeled with the stations ID, sample location, sample number, date and time of collection, sampler's name, and method used to preserve sample (if any).

Custody Procedures

Samples will be considered to be in custody if they are (1) in the custodian's possession or view, (2) retained in a secured place (under lock) with restricted access, or (3) placed in a container and secured with an official seal such that the sample could not be reached with breaking the seal.

Chain of Custody (COC) procedures will be initiated during sample collection. A COC record will be provided with each sample or group of samples. When samples are transferred from one member of the monitoring group to another member of the same organization for analysis, or from one monitoring group to someone outside of the group, then a COC form will be used. Each person who will have custody of the samples will sign the COC form and ensure the samples will not be left unattended unless properly secured. COC procedures will be used for samples throughout the collection, transport, and analytical process.

Documentation of sample handling and custody includes the following:

- Sample number/identifier
- Sample collection date and time
- Any special notations on sample characteristics or analysis
- Initials of the person collecting the sample
- Date the sample was sent to the analytical laboratory
- Shipping company and waybill information

Completed COC forms will be placed in a plastic envelope and kept inside the cooler containing the samples. Once delivered to the analytical laboratory, the COC form will be signed by the person receiving the samples. The condition of the samples will be noted and recorded by the receiver. COC records will be included in the final reports prepared by the analytical laboratories and are considered an integral part of the report.

When quality control checks are performed by the environmental testing laboratory, their samples will be processed under their chain of custody procedures with their labels and documentation procedures.

Disposal

All analyzed samples or spent chemicals including used reagents, buffers or standards will be collected in a plastic bottle clearly marked "Waste" or "Poison". This waste material will be disposed of according to appropriate state and local regulations. This will usually mean disposal into a drain connected to a sewage treatment plant.

ELEMENT 13 ANALYTICAL METHODS

The table below outlines the methods to be used, any modifications to those methods, and the appropriate reference to a standard method.

Analytical Methods for Water Quality Parameters Table

Parameter	Method	Modification	Reference (a)
Total Coliform Bacteria	Colilert 18 hour	none	IDEXX Corp.
E. coli Bacteria	Colilert 18 hour	none	IDEXX Corp.
Enterococcus Bacteria	Enterolert 24 hour	none	IDEXX Corp.

(a) All of the above methods have been approved by the EPA and are described in Standard Methods for the Examination of Water and Wastewater 20th Edition. American Public Health Association et al, 1998.

ELEMENT 14 QUALITY CONTROL

Quality control samples will be taken to ensure valid data are collected. Quality control samples will consist of blanks, replicate samples, and split samples.

Blanks, Replicates, Split Samples, and Standardization

Field/Laboratory Blanks: For bacterial analysis, a laboratory blank will be performed in accordance with the procedures outlined in the EPA's Standard Methods for the Examination of Water and Wastewater.

Replicate Samples: Replicate samples are two or more samples collected at the same time and place. When there are only two replicates then these are referred to as duplicates. For bacterial analysis lab duplicates will be run per the procedures outlined in the EPA's Standard Methods for the Examination of Water and Wastewater.

Continuous Monitoring Devices: The continuous monitoring flow devices used will be calibrated and deployed according to the manufacturer's specifications and field confirmation will be performed. Confirmations using a flow meter will be performed at the time of deploying and retrieving the device. This will serve to determine the accuracy of the continuous monitoring device.

ELEMENT 15 DATA ACQUISITION REQUIREMENTS

Only certified analytical laboratories, such as a private laboratory like EnviroMatrix, or academic laboratories will be used for quality assurance checks and analysis of field samples. The Technical advisory Committee (TAC) or technical advisors will review the data of these laboratories. They may also review the labs own quality control data to ensure data validity.

ELEMENT 16 GEOGRAPHICAL INFORMATION/ MAPPING

Construction drawings provided by the City of Imperial Beach will be used to identify the diverter and storm drain system geometry. Land use information is available through the City of Imperial Beach.

ELEMENT 17 DATA MANAGEMENT

Field data sheets are checked and signed in the field by the Team Captain. The Team Captain will identify any results where holding times have been exceeded, sample identification information is incorrect, samples were inappropriately handled, or calibration information is missing or inadequate. Such data will be marked as unacceptable by the Team Captain and will not be entered into the electronic data base.

The contracted environmental testing laboratory will report their results to the Team Captain. The Team Captain will verify sample identification information, review the chain-of-custody forms, and identify the data appropriately in the database. These data are also reviewed by the Public Works Environmental Program Manager.

The Data Manager will review the field sheets and enter the data deemed acceptable by the Quality Assurance Personnel, Team Captain and Environmental Program Manager. Upon entering the data, the Data Manager will sign and archive the field data sheets. Data will be entered into a spreadsheet (MS Excel) in a way that will be compatible with EPA's STORET and the RWQCB's database guidelines. Following initial data entry the Quality Assurance Personnel will review electronic data, compare to the original data sheets and correct entry errors. After performing data checks, and ensuring that data quality objectives have been met, data analysis will be performed.

Raw data will be provided to the State Water Board and Regional Water Board in electronic form at least once a year so that it can be included in the 305(b) report. Appropriate quality assurance information may be provided upon request.

ELEMENT 18 ASSESSMENT AND RESPONSE ACTIONS

Review of all field and data activities is the responsibility of the Team Captain, with the assistance of the Public Works Environmental Program Manager. Within the first three months of the monitoring project, the State Water Board or Regional Water Board staff, or its designee, may evaluate field and laboratory performance and provide a report to the monitoring group. All field and laboratory activities, and records may be reviewed by State and EPA quality assurance officers as requested.

ELEMENT 19 REPORTS

Project updates will be provided on a monthly basis to the City of Imperial Beach, Project Director. The reports will be in memo format and contain the relevant information regarding project progress, data collection, and any issues and associated resolution. In addition, data reports will be prepared on a quarterly basis for submission to the Project Director and the State Water Board Program Manager. These data reports will contain summaries of project progress and preliminary findings.

ELEMENT 20 DATA REVIEW, VERIFICATION AND VALIDATION

The technician generating the data has the prime responsibility for the accuracy and completeness of the data. Each technician reviews the data to ensure that:

- Sample description information is correct and complete.
- Analysis information is correct and complete.
- Results are correct and complete.
- Documentation is complete.

Data are entered in a database, and comparisons are made for any discrepancy, which is then resolved. In the event that a discrepancy cannot be resolved, the Project Manager will be notified.

In the data review process, the data are compared to information such as the sample's history, sample preservation, and QC sample data to evaluate the validity of the results. Corrective action is minimized through the development and implementation of routing internal system controls. Data sheets or data files are reviewed quarterly by the technical advisors to determine if the data meet the QAPP objectives. They will identify outliers, spurious results or omissions to the monitoring leader. They will also evaluate compliance with the data quality objectives. They will suggest corrective action that will be implemented by the monitoring leader. Problems with data quality and corrective action will be reported in final reports.

ELEMENT 21 VALIDATION AND VERIFICATION METHODS

As part of standard field protocols, any sample readings out of the expected range will be reported to the monitoring leader. A second sample will be taken as soon as possible to verify the condition. If the data is invalid, then the data will be noted (flagged) on the data sheet. Further actions will be taken to trace the sources of error, and to correct those problems.

ELEMENT 22 RECONCILIATION WITH DQOS

The QA personnel will review data quarterly to determine if the data quality objectives (DQOs) have been met. If data do not meet the project's specifications, the QA personnel review errors and determine if the problem is due to equipment failure, calibration/maintenance, sampling techniques, or other factors, and they will suggest corrective action. It is expected that the problem would be correctible through personnel re-training, technique revision, or supplies/equipment replacement. If not, the DQOs will be reviewed for feasibility. If the specific DQOs are not achievable, the QA personnel will recommend appropriate modifications. Any revisions would need approval by the City Project Manager and the State Water Board Program Manager.

Data produced as part of this project will be reviewed following the completion of data validation and verification procedures. Data flagged with validation or verification issues will be qualified to data users.

MONITORING PLAN for the Palm Avenue Low Flow Urban Runoff Diverter Project

Monitoring Mission and Goals

Mission

The mission of the monitoring program is to assess the effectiveness of the project that is implemented in the CBI program described above, and produce environmental information which is needed to evaluate the pollution prevention measures within the watershed that has been implemented by the City of Imperial Beach.

This project is being led by the City of Imperial Beach, Public Works Department (CIBPWD). The CIBPWD will cooperate with and utilize data from the following groups to monitor and assess the Palm Avenue storm drain diverter within the City of Imperial Beach:

1. San Diego County Department of Environmental Health
2. The City of San Diego Metropolitan Wastewater Department

Problem Statement

i. Identify and characterize baseline data

Despite aggressive programs to manage urban runoff and storm water, coastal storm drains in the City of Imperial Beach continue to exhibit high levels of indicator bacteria. A year-long water quality monitoring study at the Date Avenue coastal storm drain (0.2 miles south of the Palm Avenue street end) determined that the concentration of indicator bacteria in non-storm water flows exceeded AB411 public health standards 80-90% of the time. In addition, beach water quality samples collected along the Imperial Beach shoreline during the AB411 sampling season (April 1 – October 31) show frequent exceedances of water quality standards for bacterial indicators. Elevated concentrations of indicator bacteria have been shown to correlate with increased health risks to ocean water recreators.

ii. Identify pollution source categories

The project will treat runoff from a drainage area of approximately 81 acres of predominately residential and light commercial uses.

iii. Summarize how the effectiveness of the proposed practices or measures in preventing or reducing pollution will be determined

Benefits to water quality and beneficial uses will be measured in two ways. First, weekly monitoring of the quantity and quality of runoff diverted to the sanitary sewer system will help quantify the total bacterial load prevented from entering the ocean. This post-construction monitoring will be carried out for one year following project completion. Second, beach advisory and closure data will be obtaiend from the County of San Diego Department of Environmental Health to observe any noticeable changes in the number of beach postings and closures upcoast (Carnation Avenue station) and downcoast (Imperial Beach Pier station) of Palm Avenue during dry weather conditions.

Program Goals

The general goals of the monitoring include:

- Assess the effectiveness of the CBI Project in minimizing bacteriological contamination near Pacific Ocean outfall areas in and surrounding the City of Imperial Beach
- Provide screening for water quality
- Identifying pollution sources and illegal activities (spills, wetland fill, diversions, discharges)
- Establish trends in water quality for waters that may otherwise be un-monitored
- Evaluate the quality of water compared to specific water quality criteria.

Intended Usage of Data

All of the data will be used by the City of Imperial Beach for the purpose of assessing the effectiveness of the CBI project components. The assessment of this data will also be useful in providing information for watershed management and pollution prevention. The data will be made available to the public for purposes of watershed education. It will also be made available to the regulatory and resource management agencies to supplement their existing data collection efforts. One potential application of the data will be to provide information to the Regional and State Water Boards for their use, if they so choose, in Section 305(b) and 303(d) reporting.

Data will be compiled by selected consultant and shared with the State Water Resources Control Board, the San Diego Regional Water Quality Control Board, and upon request to other state, federal, and local agencies and organizations. The main database will be maintained at the City of Imperial Beach.

General Overview of Monitoring

The effectiveness assessment monitoring will take place over period of one year after the completion of the Palm Avenue diverter, which is scheduled for December 2008, and includes the following five components:

1. Flow and bacteriological monitoring of the Palm Avenue diverter by the City of Imperial Beach once per week (year-round)

2. Bacteriological monitoring data by County Department of Environmental Health staff at Camp Surf jetty and Imperial Beach Pier Station as part of the County-wide AB411 program from April 1 to October 1 each year. (See Figure 2) Water analyses are contracted to the County Public Health Laboratory to ensure consistency of data between the AB411 program and the City outfall monitoring program.

3. Monthly bacteriological monitoring data of the Pacific Ocean surf zone at Carnation Avenue Station, End of Seacoast Drive Station, ¾ mile north of Tijuana River Station, Tijuana Rivermouth Station, Monument Road Station and Border Fence, North side Station by the San Diego Metropolitan Wastewater District.

4. The total amount of nuisance urban runoff that is diverted at the outfall diversion structure as recorded by selected consultant staff.

Table 6.1 summarizes the monitoring design that relates to the different agencies, including the physical, chemical and biological parameters to be measured, whether the samples will be analyzed by the City, or sampled for later analysis by the County Public Health laboratory, and the frequency of measurement.

Table 6.1
Summary of Monitoring Design

	City of Imperial Beach	County Department of Environmental Public Health Laboratory	San Diego Metropolitan Wastewater District
Flow	Field observations and calculations performed on a monthly basis at a minimum	Not Applicable	Not Applicable
Bacteria	Sampling once per week at the Palm Avenue diverter by selected consultant. Samples analyzed by contractor's laboratory.	Seasonal AB411 sampling and testing at two beaches from April 1 to October 1 and sampling once per week at two outfalls by County Department of Environmental Health. Samples analyzed by County Public Health Laboratory.	Monitoring once per week throughout the year at Carnation Avenue Station, End of Seacoast Drive Station, ¾ mile north of Tijuana River Station, Tijuana Rivermouth Station, Monument Road Station, and Border Fence, North Side Station by the San Diego Metropolitan Wastewater District.

All of the water quality data will be compared to the Regional Water Quality Control Board, Region 9, Basin Plan.

This QAPP only addresses data quality objectives for the following parameters:

- Total Coliform Bacteria
- *E. coli* Bacteria
- Enterococcus Bacteria

Bacteriological parameters will be monitored using protocols outlined in the EPA's Standard Methods for the Examination of Water and Wastewater.

6.2. Project Timetable

Table 6.2 identifies the schedule of major activities associated with this project.

Table 6.2
Project Schedule

Activity	Date
Identify monitoring leaders	December 3, 2008
Obtain training for monitoring leaders	December 10, 2008
Recruit monitors	December 3-10, 2008
Obtain and check operation of instruments	December 10, 2008
Train monitors	December 10-12, 2008
Initiate monitoring	December 23, 2008

Initiate data entry	December 23, 2008
Calibration and quality control sessions	Begin January 2009 and quarterly thereafter

This section identifies how accurate, precise, complete, comparable, sensitive and representative measurements will be. For purposes of this Monitoring Plan, the data quality is considered adequate for the determination of general water quality conditions, with a potential application of the data to Section 305(b) reporting purposes.

Sampling Method Requirements

Water samples for bacteriological testing should be submitted to testing laboratory on the day of sampling. Sampling will be collected on the same day that the other agencies are collecting their samples, which is Tuesday morning.

Consult with the lab in advance to specify what upper endpoints are anticipated and needed. Endpoints (i.e. the number of dilutions) will ensure an accurate estimate of MPN/100 ml of bacteria in the samples. Routine water testing has an upper endpoint of $\geq$ 1,600,000 MPN/100 ml.

Use rigid, sterile, plastic screw cap bottles for samples such as salt water, streams, lakes, sewage, seepage, and other non-potable waters. These bottles contain 30 mg of sodium thiosulfate which is sufficient to dechlorinate 125 ml of water containing 45 mg/liter (or 45 PPM) of chlorine. Bottles for this project have been supplied by Environmental Engineering Laboratory (EEL).

A. EQUIPMENT AND SUPPLIES NEEDED FOR WATER SAMPLE COLLECTION

- Sample collection containers (see above for appropriate type)
- Sampling pole
- Pen with waterproof ink
- Ice chest with ice pack(s)
- Laptop computer
- Digital camera
- Field data sheets

B. COLLECTION AND LABELING

- Wearing nitrile gloves, remove cap from opaque screw cap bottle. Taking care not to place fingers into bottle, place the bottle in the pole sampling device, and plunge the bottle mouth down into the water to avoid introducing surface scum. Position the mouth of the bottle into the current, if any, and away from the hand of the collector. Tip the bottle slightly upward to allow air to exit and the bottle to fill. All samples are taken approximately one inch below the surface.
- Do not fill the bottle to the brim. Leave a small airspace of approximately 1/4 to 1/2 inch at the top of the bottle to allow mixing of the sample in the laboratory.
- Screw cap firmly on bottle.
- Record observations of odor, water clarity and debris on the field data sheet.
- Flow measurements are taken using the installed flow meter and attaching that to a laptop in the field. Record the flow measurement on the field data sheet.
- Take photographs of the site and diverter.

C. PACKAGING AND DELIVERY

- For non-potable samples, keep lab forms in a clean dry place - not in ice chest.
- Place all samples and mailers with samples into an ice chest with ice packs.

- Deliver samples directly to the lab office. Always keep samples on ice. If a courier is used to deliver samples, it is the responsibility of the sampler to make sure the samples will be received by the laboratory within the holding time limits. The holding time for bacteria samples for surface and waste waters is 6 hours. Samples received in the lab after the holding time will be reported as "Unsatisfactory: Sample received > 6 hours) after collection. Please resample."

Sample Handling and Custody Procedures

Sample Handling

Identification information for each sample will be recorded on the field data sheets (see Appendix 2) when the sample is collected. Samples will be labeled with the stations ID, sample location, sample number, date and time of collection, sampler's name, and method used to preserve sample (if any).

Custody Procedures

When samples are transferred from one member of the monitoring group to another member of the same organization for analysis, or from one monitoring group to someone outside of the group, then a Chain of Custody form will be used. This form identifies the waterbody name, sample location, sample number, date and time of collection, sampler's name, and method used to preserve sample (if any). It also indicates the date and time of transfer, and the name and signature of the sampler and the sample recipient.

When quality control checks are performed by the environmental testing laboratory, their samples will be processed under their chain of custody procedures with their labels and documentation procedures.

Disposal

All analyzed samples or spent chemicals including used reagents, buffers or standards will be collected in a plastic bottle clearly marked "Waste" or "Poison". This waste material will be disposed of according to appropriate state and local regulations. This will usually mean disposal into a drain connected to a sewage treatment plant.

Analytical Methods Requirements

The table below outlines the methods to be used, any modifications to those methods, and the appropriate reference to a standard method.

Analytical Methods for Water Quality Parameters Table

Parameter	Method	Modification	Reference (a)
Total Coliform Bacteria	Colilert 18 hour	none	IDEXX Corp.
E. coli Bacteria	Colilert 18 hour	none	IDEXX Corp.
Enterococcus Bacteria	Enterolert 24 hour	none	IDEXX Corp.

(b) All of the above methods have been approved by the EPA and are described in Standard Methods for the Examination of Water and Wastewater 20th Edition. American Public Health Association et al, 1998.

Quality Control Requirements

Quality control samples will be taken to ensure valid data are collected. Quality control samples will consist of blanks, replicate samples, and split samples.

Blanks, Replicates, Split Samples, and Standardization

Field/Laboratory Blanks: For bacterial analysis, a laboratory blank will be performed in accordance with the procedures outlined in the EPA's Standard Methods for the Examination of Water and Wastewater.

Replicate Samples: Replicate samples are two or more samples collected at the same time and place. When there are only two replicates then these are referred to as duplicates. For bacterial analysis lab duplicates will be run per the procedures outlined in the EPA's Standard Methods for the Examination of Water and Wastewater.

Continuous Monitoring Devices: The continuous monitoring flow devices used will be calibrated and deployed according to the manufacturer's specifications and field confirmation will be performed. Confirmations using a flow meter will be performed at the time of deploying and retrieving the device. This will serve to determine the accuracy of the continuous monitoring device.

APPENDIX 1. Data Quality Form

Data Quality Form: Completeness

Quality Control Session

Monitoring Group Name	Type of Session (field or lab)
Your Name	Quality Assurance Leader
Date	

Parameter	Collection Period	No. of Samples Anticipated	No. Valid Samples Collected and Analyzed	Percent Complete
Total Coliform				
Fecal Coliform				
Enterococcus				

Comments:

APPENDIX 2. Data and Observation Sheet

CONSULTANT LOGO

EQUIPMENT USED:

DATE _____

OBSERVER _____

PROJECT _____

SITE	STATION	TIME	SAMPLE IDENTIFICATION	FLOW	FECAL/TOTAL COLIFORM SAMPLE TAKEN?	ENTEROCOCCUS SAMPLE TAKEN?	ODOR	WATER COLOR	DEBRIS, GARBAGE WASTE	OIL OR PETROLEUM	PHOTO FRAME

OBSERVATIONS:

1 _____

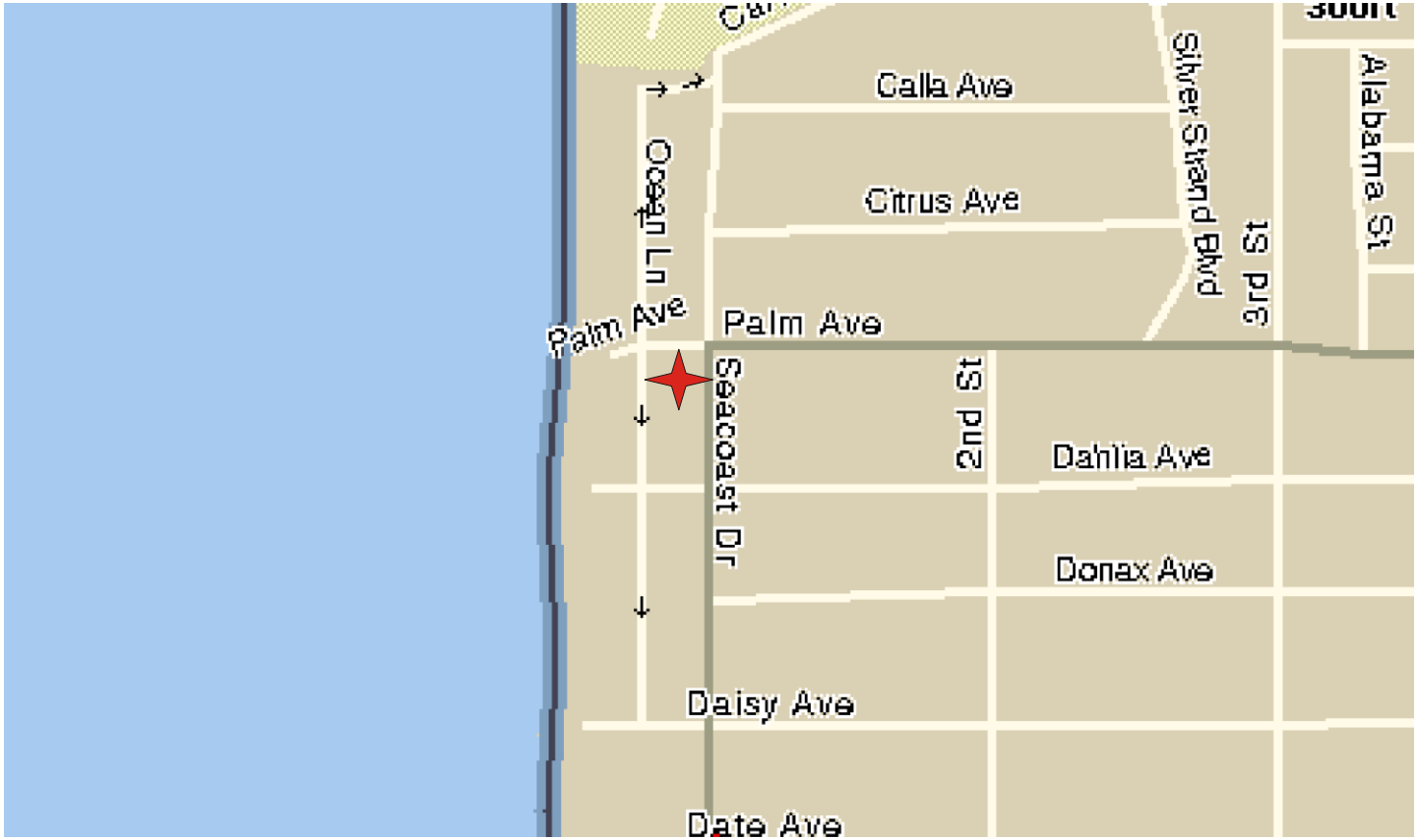
2 _____

3 _____

4 _____

5 _____

APPENDIX 3. Map of Sampling Site



Palm Avenue Diverter
32.3502266, -117.0756493

Figure 1.
Palm Avenue Diverter
Site Map

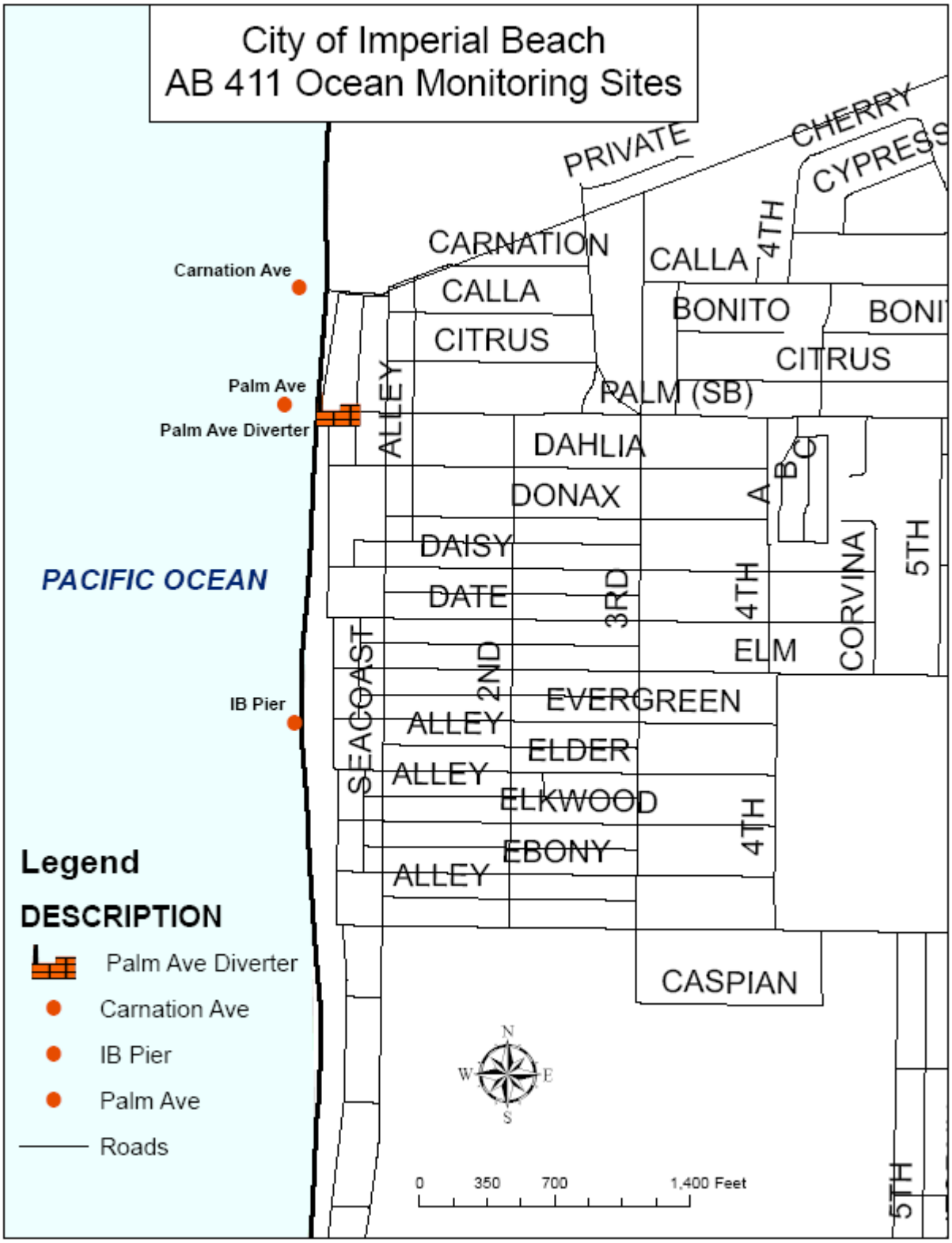


Figure 2.
AB411 Monitoring Sites
in relation to Palm Avenue Diverter

AGENDA ITEM NO. 6.3

STAFF REPORT
CITY OF IMPERIAL BEACH

TO:	**HONORABLE MAYOR AND CITY COUNCIL**
FROM:	**GARY BROWN, CITY MANAGER**
MEETING DATE:	**February 3, 2010**
ORIGINATING DEPT.:	**Public Works**
SUBJECT:	**APPROVE FY 2008-09 ANNUAL REPORTS FOR THE SAN DIEGO BAY AND THE TIJUANA RIVER WATERSHED URBAN RUNOFF MANAGEMENT PROGRAMS**

BACKGROUND: The Tijuana River and San Diego Bay Watershed Urban Runoff Management Programs were updated on March 24, 2008 in response to the requirements of the Municipal Storm Water Permit, Order No. R9-2007-0001 issued by the San Diego Regional Water Quality Control Board on January 24, 2007. Section E of the Municipal Storm Water Permit requires each Copermittee within each defined Watershed Management Area (WMA) to collaborate, develop, and implement a Watershed Urban Runoff Management Program (WURMP). The City of Imperial Beach falls into two WMAs, and therefore collaborates in the implementation of two WURMPs, which includes 1) the San Diego Bay WMA and 2) the Tijuana River WMA. The WMA's annual reports are due to the Regional Water Control Board, San Diego Region not later than January 31 of each calendar year for the preceding State fiscal year.

The Annual Reports from the San Diego Bay WMA and Tijuana River WMA represent the efforts made during Fiscal Year 2008-09 reporting period to meet the requirement of the Municipal Storm Water Permit. The WURMPs are intended to address the sources of urban runoff that are causing the WMA's high priority water quality problems. It supplements the baseline urban runoff management programs implemented as part of the Regional Copermittees' Regional Urban Runoff Management Program (RURMP) and each Copermittee's Jurisdictional Urban Runoff Management Program (JURMP).

DISCUSSION: The following are the highlights from both the San Diego Bay and Tijuana River WURMP Annual Reports for FY 2008-09.

San Diego Bay WURMP
The San Diego Bay WMA Copermittees include: Imperial Beach, City of San Diego, Port of San Diego, National City, Coronado, Lemon Grove, County of San Diego, La Mesa, Airport Authority, and Chula Vista.

During this reporting year, the San Diego Bay WMA Copermittees implemented 15 water quality activities, which include six trash and debris related water quality activities focused on reducing the amount of trash entering the Municipal Separate Storm Sewer System (MS4) and six other activities focused on implementing enhanced inspections to abate sources of high priority water quality problems. In addition, the Copermittees implemented 12 Monitoring/Source Identification activities, implemented 11 education activities, and conducted effectiveness assessments for each activity whenever possible.

Imperial Beach specifically participated in four collaborative water quality activities 1) Enhanced Street Sweeping, 2) Large Cleanup Events, 3) Pet Waste Bag Dispensers and, 4) Storm Drain Litter Control. The City also participated in the I Love a Clean San Diego elementary school watershed presentations, 2009 Creek to Bay Cleanup sponsorship, and received watershed credit for the Palm Ave low flow diverter.

Tijuana River WURMP
The Tijuana River WMA Copermittees include: Imperial Beach, City of San Diego, and County of San Diego.

During this reporting period, the Tijuana WMA Copermittees implemented a total of 20 watershed activities including 10 activities focused on water quality, 4 activities focused on education, and 6 activities focused on both education and water quality. These activities also include 3 new activities from the previous year. The Tijuana River Copermittees also implemented a total of 62 Public Participation, Education, and Outreach Activities that reached an estimated audience of 1,425,000 people.

Imperial Beach specifically participated in three watershed activities including 1) Large Special Event Cleanup and Inspections, 2) Citywide Cleanup Events, and 3) Bacteria Source Identification Study. The City also participated in a number of education, outreach, and public participation activities during the year and participated in the Tijuana River Recovery Team.

ENVIRONMENTAL DETERMINATION:

Not a project as defined by CEQA.

FISCAL IMPACT:

Costs this year have largely been staff time attending meetings, compiling the annual reports, and collaborating with the WMA Copermittees in the development and implementation of Water Quality and Watershed Education activities. Costs are covered under the storm water budget.

DEPARTMENT RECOMMENDATION:

1. Receive this report.
2. Adopt the attached resolution.

CITY MANAGER'S RECOMMENDATION:

Approve Department recommendation.

Gary Brown

Gary Brown, City Manager

Attachments:
1. Resolution No. 2010-6846
2. San Diego Watershed Urban Runoff Management Program Annual Report – report to be provided prior to the City Council meeting.
3. Tijuana Watershed Urban Runoff Management Program Annual Report - report to be provide prior to the City Council meeting.

ATTACHMENT 1

RESOLUTION NO. 2010-6846

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF IMPERIAL BEACH, CALIFORNIA, APPROVING FISCAL YEAR 2008-09 ANNUAL REPORTS FOR THE TIJUANA RIVER AND SAN DIEGO BAY WATERSHED URBAN RUNOFF MANAGEMENT PROGRAMS

WHEREAS, on January 24, 2007, the Regional Water Quality Control Board – Region 9 issued the Municipal Storm Water Permit, Order No. R9-2007-0001 to the 21 Copermittees in San Diego County; and

WHEREAS, Section E of Order No. R9-2007-0001 requires each Copermittee within each defined Watershed Management Area (WMA) to collaborate, to develop, and to implement a Watershed Urban Runoff Management Program (WURMP); and

WHEREAS, on March 24, 2008 both the San Diego Bay and Tijuana River Watershed Urban Runoff Management Programs were submitted to the Regional Water Quality Control Board; and

WHEREAS, part of the implementation of the WURMP is the submittal of an annual report to the Regional Water Quality Control Board due by January 31st of each calendar year that shows how the Copermittees met the requirements of Section E in Order No. R9-2007-0001; and

WHEREAS, the City collaborated in the development of the FY 2008-09 annual reports for the San Diego Bay and Tijuana River WURMPs.

NOW, THEREFORE, BE IT RESOLVED by the City Council of the City of Imperial Beach as follows:

1. The above recitals are true and correct.
2. This legislative body approves the Fiscal Year 2008-09 Annual Reports for the Tijuana River and San Diego Bay Watershed Urban Runoff Management Programs

PASSED, APPROVED, AND ADOPTED by the City Council of the City of Imperial Beach at its meeting held on the 3rd day of February 2010, by the following vote:

AYES: COUNCILMEMBERS:
NOES: COUNCILMEMBERS:
ABSENT: COUNCILMEMBERS:

JAMES C. JANNEY, MAYOR

ATTEST:

JACQUELINE M. HALD, CMC
CITY CLERK