APPENDIX C
Operations & Maintenance Schedule

This Section Contains:

Description of Cleaning Program

Map of Sewer Cleaning Areas

Map of Cleaning Frequencies

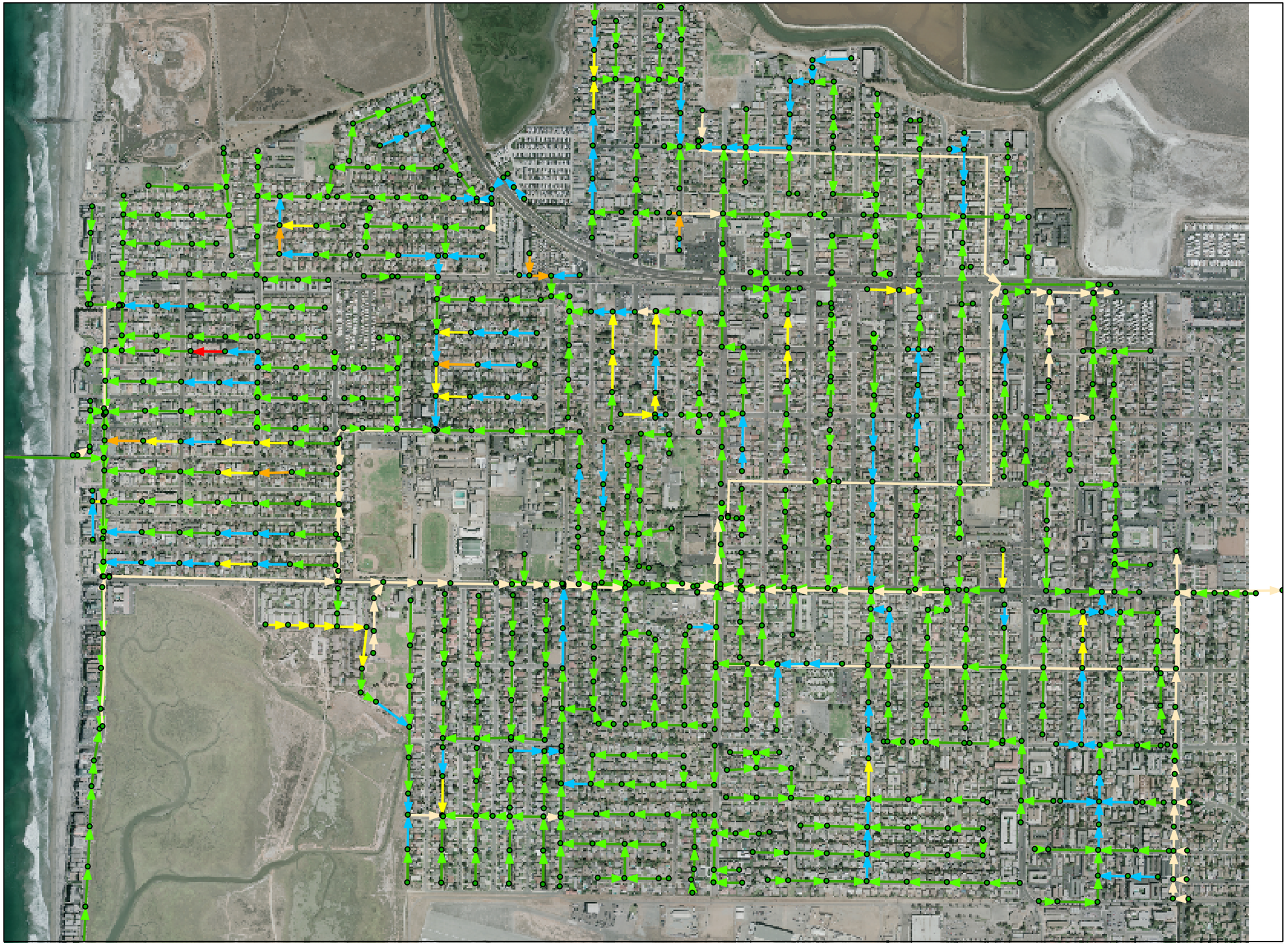
Description of Pump Station & Valve Maintenance Program

Map of Pump Stations

CITY OF IMPERIAL BEACH
PREVENTATIVE OPERATION AND MAINTENANCE SCHEDULE

Routine Cleaning
In order to minimize maintenance problems, every line in the system is cleaned at least once a year. The sewer system is divided into 16 areas. The cleaning of Area 1 is started in January and when completed Area 2 is started. The cleaning is to be done so that Area 16 is completed by the end of December. See map for cleaning areas.

Hotspot Cleaning
In addition to the yearly cleaning there are 165 lines that need additional cleaning. They are cleaned between 1 and 8 additional times during the year due to special events (The Sand Castle Contest) or to prevent the build-up of roots, grease or debris. See map for cleaning frequency.



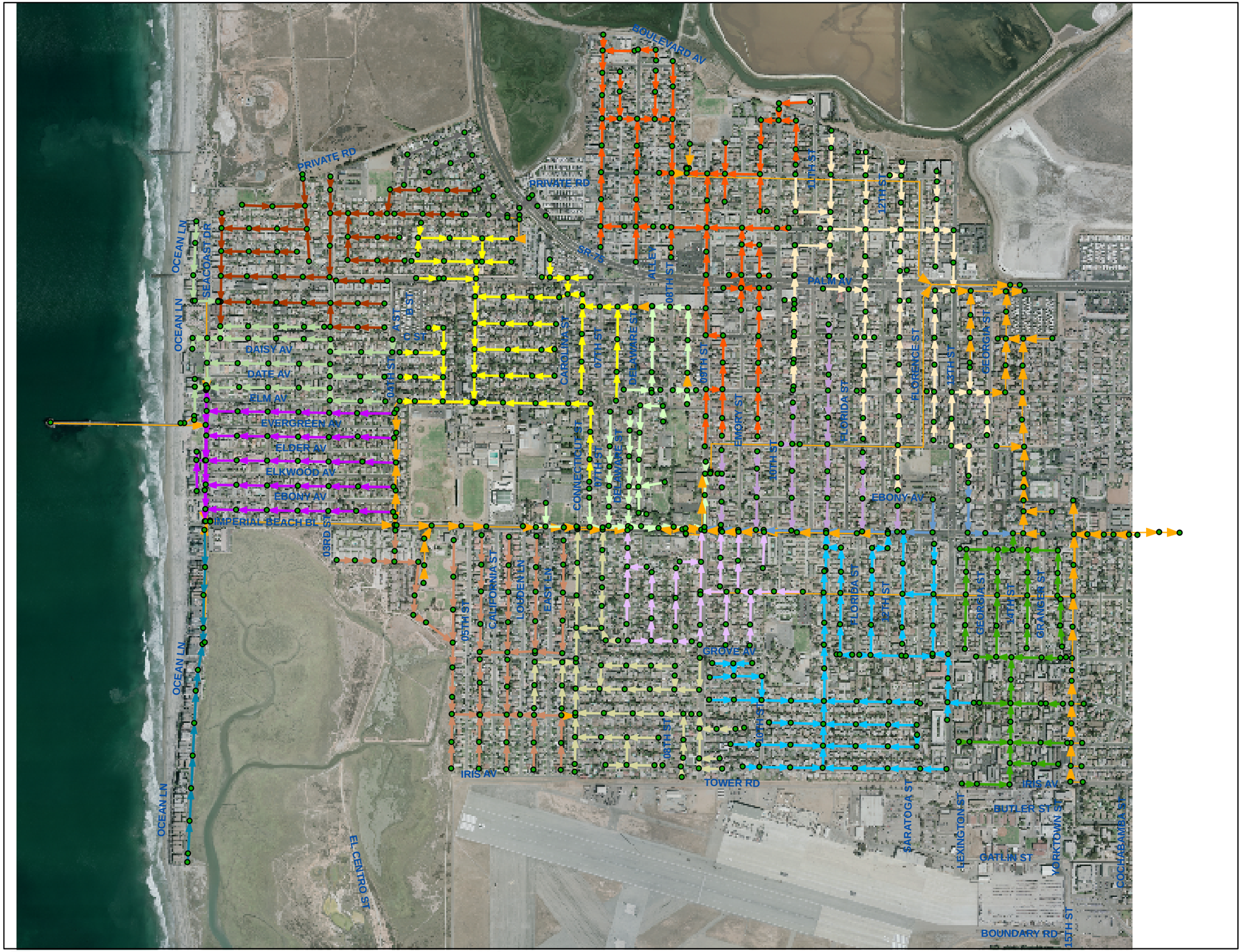
800 400 0 800 Feet

Data Source
Manhole locations determined by GPS land survey by RBF Consulting, June 2007
Pipeline information from previous system maps
with selected CCTV verification.
Datum: NGVD 29, NAD 83

RBF CONSULTING GIS PLANNING ■ DESIGN ■ CONSTRUCTION

Imperial Beach Sewer System
Sewer Cleaning Frequency

June 2008



Legend

- SSO
- Manholes

SewerLines

- <all other values>

AREANUM

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16

June 2008

1,000 500 0 1,000 Feet

Data Source
Manhole locations determined by GPS land survey by RBF Consulting, June 2007
Pipeline information from previous system maps
with selected CCTV verification.
Datum: NGVD 29, NAD 83

RBF CONSULTING GIS PLANNING ■ DESIGN ■ CONSTRUCTION

Imperial Beach Sewer System Sewer Cleaning Areas

PREVENTIVE MAINTENANCE SCHEDULE PS 1A

DAILY

1. Ensure lights work.
2. Ensure vent fan is working (before entry).
3. Inspect general condition of electrical panels.
4. Turn both pump switches off and inspect the following:
5. Turn #1 pump switch to **MANUAL** and observe water level indicators for proper operation, then turn back to the **OFF** position.
6. Repeat Step 5 with pump #2.
7. Return both #1 and #2 pump switches to **AUTO**.
8. Inspect sump pump for proper operation.
9. Inspect trouble light for proper operation.
10. Turn off lights on departure.
11. Log hour meter readings and sign off check sheet.

WEEKLY

1. Exercise all gate valves.
2. Clean station.
3. Pump wet well below set level

MONTHLY

1. Wash down station.

SEMI-ANNUALLY

1. Grease motors.

# # #

PREVENTIVE MAINTENANCE SCHEDULE PS 1B

DAILY

1. Ensure lights work.
2. Ensure vent fan is working (before entry).
3. Check sump pump for proper operation.
4. Inspect general condition of electrical panels.
5. Turn both pump switches off and inspect the following:
    a. Oil levels for proper level;
    b. Water and oil leaks;
    c. Belts for alignment and proper tension;
    d. Belts guard for security.
6. Turn pump #1 switch to **MANUAL** and observe water level indicator for proper operation, then turn back to the **OFF** position.
7. Repeat Step 6 with pump #2.
8. Inspect air flow for bubbler system operation.
9. Switch to back-up air pump and check indicator for proper operation, then switch back to lead air pump.
10. Return all switches to **AUTO**.
11. Log hour meter readings and sign off check list.
12. Check trouble light for proper operation.
13. Turn off lights on departure.

WEEKLY

1. Exercise gate and plug valves.
2. Clean station.
3. Pump wet well below set level

MONTHLY

1. Wash down station.
2. Test Alarm

SEMI-ANNUALLY

1. Adjust impeller to wear plate clearance. (depending on application, this may need to be done quarterly)

2. Grease motors.

ANNUALLY

1. Change oil in pump seal chamber and bearing chamber or every 4,000 hrs.
2. Replace air pump filter

# # #

PREVENTIVE MAINTENANCE SCHEDULE PS 2

DAILY

1. Ensure lights work.
2. Ensure vent fan is working (on thermostat).
3. Inspect general condition of electrical panels.
4. Turn both pump switches off and inspect the following:
    e. Oil levels for proper level;
    f. Valves and piping for leaks;
    g. Belts for alignment and proper tension;
    h. Belts guard for security.
5. Turn pump #1 switch to **MANUAL** and observe water level indicator and check valves for proper operation, then turn back to the **OFF** position.
6. Repeat Step 5 with pump #2.
7. Inspect air pump indicator for proper air pump operation.
8. Switch to back-up air pump and check indicator for proper operation, then switch back to lead air pump.
9. Return all switches to **AUTO**.
10. Log hour meter readings and sign off check list.
11. Turn off lights on departure.

WEEKLY

1. Exercise gate and plug valves.
2. Clean station.
3. Pump wet well below set level

MONTHLY

1. Open and inspect sliding cover.
2. Wash down station.
3. Test Alarm

SEMI-ANNUALLY

3. Adjust impeller to wear plate clearance. (depending on application, this may need to be done quarterly)
4. Replace air pump filter.
5. Grease motors.

ANNUALLY

1. Change oil in pump seal chamber and bearing chamber or every 4,000 hrs.
2. Replace air pump filter

# # #

PREVENTIVE MAINTENANCE SCHEDULE PS 3

DAILY

1. Ensure lights work.
2. Ensure vent fan is working (before entry).
3. Inspect sump pump for proper operation.
4. Inspect trouble light for proper operation.
5. Inspect general condition of electrical panels.
6. Turn both pump switches to the **OFF** position.
7. Turn #1 pump switch to **MANUAL** and observe water level indicator for proper operation, then turn back to the **OFF** position.
8. Repeat Step 6 with pump #2.
9. Return all switches to **AUTO**.
10. Inspect pumps, check valves and piping for leaks.
11. Log hour meter readings and sign off check list.
12. Turn off lights on departure.

WEEKLY

1. Exercise gate valves.
2. Clean station.

MONTHLY

1. Wash down station.
2. Test alarm

SEMI-ANNUALLY

1. Grease motors.

# # #

PREVENTIVE MAINTENANCE SCHEDULE PS 4

DAILY

1. Ensure lights work.
2. Ensure vent fan is working (before entry).
3. Inspect sump pump for proper operation.
4. Inspect trouble light for proper operation.
5. Inspect general condition of electrical panels.
6. Inspect packing glands for leakage and bolts for security. Adjust as necessary.
7. Turn both pump switches to the **OFF** position.
8. Turn pump #1 switch to **MANUAL** and observe water level indicator for proper operation, then turn back to the **OFF** position.
9. Repeat Step 6 with pump #2.
10. Return all switches to **AUTO**.
11. Inspect pumps, check valves and piping for leaks.
12. Log hour meter readings and sign off check list.
13. Turn off lights on departure.

WEEKLY

1. Exercise gate valves.
2. Clean station.

MONTHLY

1. Wash down station.
2. Test alarm.

SEMI-ANNUALLY

1. Grease motors.

# # #

PREVENTIVE MAINTENANCE SCHEDULE PS 5

DAILY

1. Ensure lights work.
2. Ensure vent fan is working (before entry).
3. Operate air compressor, observe press gauge.
4. Check air pumps to ensure proper bubbler system air flow.
5. Switch to back-up air pump and check indicator for proper operation, then switch back to lead air pump.
6. Operate both pumps while observing check valve lever operation and level control.
7. Inspect pump packing, check valves and piping for leaks. Adjust as necessary.
8. Inspect sump pump for proper operation.
9. Record elapsed time meter readings.

WEEKLY

1. Check compressor belts and proper oil level.
2. Exercise gate valves.
3. Clean station.

MONTHLY

1. Wash down station.
2. Test alarm

SEMI-ANNUALLY

1. Grease pumps and motors.
2. Inspect motor to pump shaft couplers.
3. Replace air pump filter.

# # #

PREVENTIVE MAINTENANCE SCHEDULE PS 6

DAILY

1. Ensure lights work.
2. Ensure blower is working (before entry).
3. Inspect sump pump for proper operation.
4. Inspect trouble light for proper operation.
5. Inspect electrical panels for general condition.
6. Inspect packing gland for leakage and nuts for security. Adjust as necessary.
7. Turn both pump switches to the **OFF** position.
8. Turn pump #1 switch to **MANUAL** and observe water level indicator for proper operation (turn back to the **OFF** position).
9. Repeat Step 6 with pump #2.
10. Return all switches to **AUTO**.
11. Inspect pumps, check valves and piping for leaks.
12. Log hour meter readings and sign off check list.
13. Turn off lights on departure.

WEEKLY

1. Exercise gate valves.
2. Clean station.
3. Pump wet well below set level

MONTHLY

1. Wash down station.
2. Clean station.
3. Test alarm

SEMI-ANNUALLY

1. Grease motors.

# # #

PREVENTIVE MAINTENANCE SCHEDULE PS 7

DAILY

1. Ensure lights work.
2. Ensure vent fan is working (before entry).
3. Inspect trouble light for proper operation.
4. Operate air compressor, observe pressure gauge.
5. Check air flow indicator to insure proper bubbler system air flow.
6. Switch to back-up air pump and check indicator for proper operation, then switch back to lead air pump.
7. Operate both pumps while observing check valve lever operation and level control.
8. Inspect pump packing for leakage and nuts for security. Adjust as necessary.
9. Inspect sump pump for proper operation.
10. Record elapsed time meter readings.

WEEKLY

1. Check compressor belts and proper oil level.
2. Exercise gate valves.
3. Clean station.
4. Pump wet well below set level

MONTHLY

1. Wash down station.
2. Test alarm

SEMI-ANNUALLY

1. Grease pumps and motors.
2. Inspect motor to pump shaft couplers.
3. Replace air pump filter.

# # #

PREVENTIVE MAINTENANCE SCHEDULE PS 8

DAILY

1. Ensure lights work.
2. Ensure vent fan is working.
3. Inspect general condition of electrical panels.
4. Inspect Panel #3 for proper level setting.
5. Inspect air flow indicator for operation of bubbler system.
6. Inspect non running drive shafts for security and ease of turning.
7. Inspect pump packing for leakage and gland nut security. (adjust as necessary)
8. Inspect check valve operation on duty pump.
9. Inspect sump pump for proper operation.
10. Inspect trouble light for proper operation.
11. Log hour meter readings and sign off check sheet.
12. Turn off lights on departure.

WEEKLY

1. Exercise all gate valves.
2. Inspect drive units for condition and operation of fans.
3. Run pump #3 for proper operation and change leads.
4. Clean station.

MONTHLY

1. Wash down station.
2. Test alarm

SEMI-ANNUALLY

1. Grease motors and "U" Joints/Pillow Blocks.
2. Replace air pump filter.

# # #

PREVENTIVE MAINTENANCE SCHEDULE PS 9

DAILY

1. Ensure lights work.
2. Ensure vent fan is working.
3. Inspect general condition of electrical panels.
4. Inspect Hydro Ranger for correct set points.
5. Pump wet well below shut off point.
6. Inspect non running drive shafts for security and ease of turning.
7. Inspect pump packing for leakage and gland nut security. (adjust as necessary)
8. Inspect check valve operation on duty pump.
9. Inspect sump pump for proper operation.
10. Inspect trouble light for proper operation.
11. Log hour meter readings and sign off check sheet.
12. Turn off lights on departure.

WEEKLY

1. Exercise all gate valves.
2. Inspect drive units for condition and operation of fans.
3. Clean station.

MONTHLY

1. Wash down station.

SEMI-ANNUALLY

1. Grease motors and "U" Joints/Pillow Blocks.

# # #

PREVENTIVE MAINTENANCE SCHEDULE PS 10

DAILY

1. Ensure lights are working.
2. Inspect general condition of electrical panel.
3. Inspect trouble light for proper operation.
4. Turn both pump switches to the **OFF** position.
5. Turn #1 pump switch to **MANUAL** and observe water level indicator for proper operation (turn back to the **OFF** position).
6. Repeat Step 6 with pump #2.
7. Return all switches to **AUTO**.
8. Inspect proper operation of air pump.
9. Inspect valves and piping for leaks.
10. Inspect south wet well and manhole 221 for proper levels.
11. Turn off lights on departure.

WEEKLY

1. Run emergency engine on Monday, Wednesday, and Friday.
2. Water grass on Monday, Wednesday, and Friday.
3. Clean station.
4. Pump wet well below set level

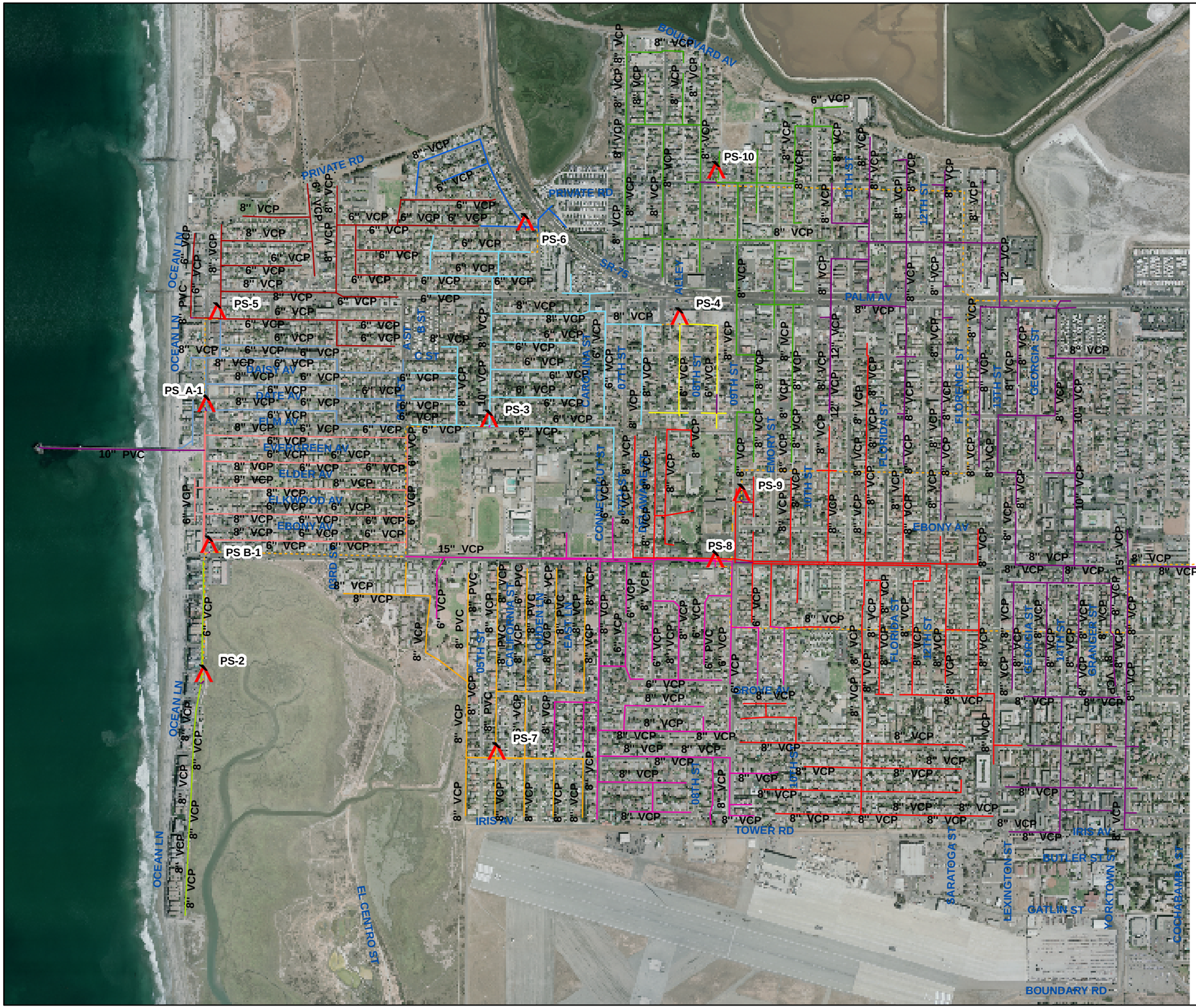
MONTHLY

1. Wash Down Station.
2. Test alarm

SEMI-ANNUALLY

1. Adjust impeller to wear plate clearance. (depending on application, this may need to be done quarterly)
2. Grease Motors
3. Replace air pump filter

# # #



970 485 0 970 Feet

Data Source

Manhole locations determined by GPS land survey by RBF Consulting, June 2007
Pipeline information from previous system maps
with selected CCTV verification.
Datum: NGVD 29, NAD 83

Legend

Pump Stations

SewerLines

<all other values>

PUMPS_TO

- PS10
- PS1A
- PS1B
- PS2
- PS3
- PS4
- PS5
- PS6
- PS7
- PS8
- PS9

SewerLines

TYPE

- Force Mains
- Dual Flat Line

June 2008

Imperial Beach Sewer System
Map of Pump Stations

APPENDIX D
Rehabilitation and Replacement Plan

This Section Contains

Prioritized Repair Recommendations for Structural Defects

Project Name	CIP No	NOC	Pipes and Manholes
Date Ave Diverter	D03-101	10/6/2004	Install new storm drain diverter on Seacoast & Date Ave South-West corner
Palm Ave Diverter	D03-102	1/1/2008	Palm Ave west street end north side
Pump Station No. 8 & 9	W03-102	4/21/2006	Complete rebuild of PS 9 and some rehabilitation to PS 8
Pump Station 1B Upgrade	W05-103	8/15/2006	Replace 2 existing pumps with Gorman Rupp Super T Series Pumps and GRT-6 A3SB with Tungsten titanium seals.
Pump Station No. 6 Force Main and PS No. 4	W05-102	9/18/2006	Work included in the St Improvements Phase 2 project. PS6 construct a new force main, clean outs. Installed PVC conduit in PS6 &PS4
Sewer System Capacity Study/Sewer Master Plan	W05-902	7/22/2008	Evaluation of the City's Sewer System with complete report and 5- year CIP projects
Pump Station 3 Upgrade	W05-104	7/24/2008	This project was part of W05-401
09/10 Televise Pipe Sections/Sewer Mains 53 pipes, 13,668.66 LF of pipes CCTV (see Downstream report	W10-202	4/12/2011	4, 5, 10, 12, 19, 24, 27, 31, 60, 97, 119, 123, 127, 137, 147, 148, 192, 193, 197, 204, 205, 231, 552, 238, 239, 250, 251, 292, 293, 297, 727, 740, 316, 317, 338, 355, 366, 463, 498, 595, 596, 620, 624, 650, 669,
Sealing & Repair Wet Wells & Manholes 54 MH, 7 wet wells, 2 drywells, 1 new manhole and new	W05-401	8/13/2011	Repair MH#'s 6, 32, 44, ~~50~~, 59,81,82,83,122,126,130,177, 181, 182, 190, 221, 222, 238, 239, 241, 243, 244, 248, 262, 263, 278, 279, 280, 281, 323, 326, 341, 400, 409, 456 ,457, 457A, 469, 470, 512, 523, 524,
PS 7 Wet Well Replacement	W06-101	9/21/2011	This work done with Sealing & Repair Wet Wells & Manholes W05-401 project.
No. 1 Annual Main Line Repairs FY 9-10 (pipe replacement) RBF-1	W10-101	10/14/2011	Imperial Beach Blvd install a new pipe between MH 358 and 689, cut vertical pipe on MH 358 and abandon
No. 1 Annual Main Line Repairs RBF-1	W10-201	10/14/2011	Grouting & Lining pipes 353, 365, 343, 429, 578, 579
Tran CCTV Inspection (Task Area 1) & Conditions Assessment Report	W10-202	12/1/2011	CCTV 13,632 feet of 6" & 8" Sewer lines and provide report
PS1B Odor Control (part of St Imp 3B)	S04-108	1/13/2014	Redesign of odor control for PS1B relocated vent on south east corner of Imperial Beach Blvd
No.2 Annual Main Line Repairs FY 10-11 RBF-2	W11-201	3/11/2014	Patch lines 286, 410, 547, 548 MH repairs 194, 195, 196, 50, 228 CIPP Lines 108, 109, 55, 401
Annual Main Line Repairs FY 11/12 (Tran Red Flag Rpt 2011)	W12-201	Active	Open Trench pipe repair 151, 231, 669, 740, 896, 2046 CIPP Patch 251, 463, 650, 700
Annual Main Line Repairs by Microtunneling FY 11/12	W12-202	Active	Replace all of the following Pipe 192-8", MH 145, 750, 751, pipe 204 6" & MH 154 with new
Tran CCTV Inspection (Task Area 2) FY 12/13 Conditions Assessment Report	W14-201	4/1/2014	CCTV of 5,330 LF Pipe 5, 10, 19, 55, 60,98, 99, 127, 147, 197, 231, 238, 251, 401, 463, 756, 796 verify conditions

RESOLUTION NO. 2014-7451

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF IMPERIAL BEACH, CALIFORNIA, APPROVING CITY OF IMPERIAL BEACH FIVE YEAR CAPITAL IMPROVEMENTS PROGRAM (CIP) AND THE INITIAL FUNDING NECESSARY TO IMPLEMENT THE TWO YEAR IMPLEMENTATION SCHEDULE

WHEREAS, the City Council has adopted City Council Policy 616 creating an Imperial Beach Capital Improvement Program containing a Capital Improvements List, a Major Maintenance Inventory, a Professional Services and Planning Documents List and a Two Year Implementation Schedule; and

WHEREAS, the City Council has reviewed the proposed capital and major maintenance projects and caused a comprehensive list of projects and professional services to be organized into the Imperial Beach Capital Improvements Program as directed in City Council Policy 616; and

WHEREAS, the City Council has identified the high priority maintenance and capital improvement projects and the funding necessary to complete the high priority projects; and

WHEREAS, commencement of the high priority maintenance and capital improvement projects will require the allocation of funding from the funding source(s) identified for each high priority project and it has been determined that there are sufficient funds in the respective accounts to design, construct and / or study the projects included in the Two Year Implementation Schedule;

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

SECTION 1 Capital Improvement Program

In accordance with City Council Policy 616, the City Council adopts the Imperial Beach Capital Improvement Program attached hereto as:

1. Exhibit A: Major Maintenance Inventory and Capital Improvement Projects List
2. Exhibit B: Two Year Major Maintenance and Capital Improvement Implementation Schedule

SECTION 2 Funding Allocations

Funding for all projects identified in the Two Year Implementation Schedule will require a funding allocation approved by the City Council. In some instances, until more detailed project information is available, only a portion of the anticipated project funding needs to be initially allocated. The funds will be drawn from the funding source identified in Exhibit B: Two Year Major Maintenance and Capital Improvements Implementation Schedule. The following projects (for additional detail refer to Exhibit C: Two Year Implementation Schedule Detail Sheet) have been identified as high priority projects and this resolution authorizes allocation of funding for implementation of the projects as indicated:

Project	Funding Allocation
1. Bikeway Village	$1.7 million
2. Public Improvements at 9th and Palm	$2.16 million

	Project	Funding Allocation
3.	Eco Tourism Wayfinding and Placemaking	$50,000
4.	Revolving Loan Fund	$100,000
5.	Regional Communication System	Staff will present future Resolution
6.	Technology Upgrades	Internal Committee to define Scope
7.	Alley Improvements	$50,000 to conduct engineering
8.	Elm Avenue Enhancements	$40,000 to complete pre-engineering
9.	Seacoast Aesthetics	$300,000
10.	Demonstration Roundabout	$19,000 to augment current funding
11.	New Park – Eastern Portion of Community	$5,000 to develop concept
12.	Residential Citywide Street Lighting	$150,000
13.	Installation of Sidewalks on Delaware	$100,000 to complete engineering
14.	Update the "Big Picture" Planning Document	$50,000

Additional funding allocations to complete high priority projects will be presented to the City Council for consideration after project details have been developed.

SECTION 3 Directions to Proceed

Adoption of this resolution authorizes the City Manager to commence appropriate action on the projects identified in Exhibit B: Two Year Major Maintenance and Capital Improvements Implementation Schedule which is attached hereto. It is noted that several of the projects will require additional action from the City Council for funding and approval.

PASSED, APPROVED, AND ADOPTED by the City Council of the City of Imperial Beach at its meeting held on the 19th day of February 2014, by the following vote:

AYES: COUNCILMEMBERS: BRAGG, SPRIGGS, BILBRAY, PATTON, JANNEY
NOES: COUNCILMEMBERS: NONE
ABSENT: COUNCILMEMBERS: NONE

[redacted]

JAMES C. JANNEY, MAYOR

ATTEST:

[redacted]

JACQUELINE M. HALD, MMC
CITY CLERK

Capital Improvements Program (CIP)

Project Number	Priority	M-Maint. N-New	Dept. Type	Capital Projects List (NEW), Major Maintenance Inventory (MAINT) and Professional Services and Planning Documents List (STDY) Project Name	Project Scope of Work	Estimated Costs	Fund Source
				CIP FY 13-14 Projects on Hold			
S14-104	High	N-New	PW FY13/14	Alley Improvements	This project will complete the alley paving of all dirt alleys in the City as directed by City Council. There are 34 dirt alley blocks or partial blocks in the City. The estimated construction cost for paving these alleys to Regional Standard Drawings - San Diego Region is $2,500,000 plus another $100,000 for design and administration costs. It has been suggested that the alley construction costs could be reduced by 1/3 by installing asphalt paving instead of concrete paving. The alley paving would need to include a storm water BMP design that will reduce or eliminate water discharge into the adjacent receiving waters. It is recommended that the alley paving be scheduled over a number of years with paving being accomplished in segments of $400,000 to $500,000 per segment.	$ 500,000	New Strategic Capital Improvement GF Reserve
S13-309	High	M-Maint.	PW FY13/14	RTIP FY 13/14 Elm Ave (Seacoast to 7th) Asphalt Overlay and associated sidewalk, curb & gutter and crosswalk improvements. This project will also install a raised intersection at 5th Street.	Overlay roadway; replace rolled curb with G-Curb; Streets portion funded by TRANSNET and Gas Tax; Raise the intersection at 5th Street to raise the below ground Sewer Lift Station No. 3 access above street grade to minimize flooding of lift station. A below ground storm drain system will be installed to reduce street flooding on Elm between MVHS east side alley to 5th Street and underneath the new raised intersection.	$750,000	$600,000 TRANSNET & $100,000 Gas Tax & $50,000 Sewer Enterprise Fund CIP
S13-309	High	N-New	PW FY13/14	Elm Avenue (7th to 4th Streets) Pedestrian, Bicycle and Traffic Calming Accommodations	Construct bike lane between Connecticut and 4th Streets; widen sidewalk on south side between 7th and 4th replace most of the MVHS parking in front of H.S. with student drop off zone; eliminate parking on south side between Connecticut and 4th Street;	$300,000	Gas Tax (Note: staff will actively seek grant funding for some or all of this project).

Capital Improvements Program (CIP)

Project Number	Priority	M-Maint. N-New	Dept. Type	Capital Projects List (NEW), Major Maintenance Inventory (MAINT) and Professional Services and Planning Documents List (STDY) Project Name	Project Scope of Work	Estimated Costs	Fund Source
SP1-310	High	N-New	PW FY13/14	Seacoast Dr Aesthetic Project	The Seacoast Drive Aesthetic Project has three main goals: 1) improve lighting in pedestrian settings such as sidewalks, plazas and parks; 2) enhance the walking experience physically and visually along Seacoast Drive; 3) create a special identity thus making Seacoast DRive a destination for residents and visitors. The methods to be considered to improve Seacoast Drive aesthetics are: 1) make Seacoast Drive appear "brighter" by creating a heiracrchy of lighting 2: improve places for people to walk and gather; and 3) create a street "brand" or visual identity.	$300,000	New Strategic Capital Improvement GF Reserve
S14-105	High	N-New	PW FY13/14	Demonstration Round about	Reolution No. 2013-7407 adopted October 16, 2013 appropriated funding for and authorized design and construction of a 9th & Donax Street demo round about. Resolution No. 2013-7407 appropriated $12,000 from Gas Tax Undesignated Reserve for this purpose. The design cost for this project was $7,000. The construction materials cost is estimated at $23,000 with City forces performing the construction. City employee labor is estimated at 200 person hours. Thus the total cost of the project, less City labor, is $30,000. Since the appropriate amount is $11,000, it is necessary to appropriate an additional $19,000 to complete the project using City forces.	$19,000	Gas Tax

Capital Improvements Program (CIP)

Project Number	Priority	M-Maint. N-New	Dept. Type	Capital Projects List (NEW), Major Maintenance Inventory (MAINT) and Professional Services and Planning Documents List (STDY) Project Name	Project Scope of Work	Estimated Costs	Fund Source
				CIP FY 10-14 Project List Unfunded			
			CD	COMMUNITY DEVELOPMENT PROJECTS			
	High	N-New	CD	Bikeway Village	Construct public improvements to a new commercial development project at the property at the intersection of 13th St and Cypress Ave. Including new access to Bayshore Bikeway. Developer will do this work.	$1,700,000	2010 Bond Fund
	High	N-New	CD	9th & Palm Avenue / State Route 75 Public Improvements	Construct public improvements to a new commercial development project at the properties west of 9th Street, south of State Route 75/Palm Avenue, east of Delaware Street and north of adjacent alley. Developer will do this work.	$2,160,000	2010 Bond Fund
	High	N-New	CD	Eco Tourism Infrastructure	This project is intended to increase the number of visitors to Imperial Beach through ecological tourism. This project will focus on the development of a placemaking and waymaking system (including public art) and visitor serving facilities. The funding recommended with this effort is to study and design these elements. Additional funding may be required for actual construction or installation.	$50,000	Public Works GF Reserve
	High	N-New	CD	Revolving Loan Fund	An appropriation of funding to be used as a revolving loan fund for commercial building façade renovation. Low interest loans will be provided to business owners, not to exceed $10,000, to be paid back over a defined period of time (typically 5 years). This is a one-time allocation and it is anticipated that the funding will be used on an ongoing revolving loan issued on a first come first served basis	$100,000	New Strategic Capital Improvement GF Reserve

Capital Improvements Program (CIP)

Project Number	Priority	M-Maint. N-New	Dept. Type	Capital Projects List (NEW), Major Maintenance Inventory (MAINT) and Professional Services and Planning Documents List (STDY) Project Name	Project Scope of Work	Estimated Costs	Fund Source
			PW	PUBLIC WORKS PROJECTS			
			PW-F	FACILITIES			
	Medium	N-New	PW-F	Construction of Vehicle Wash Pit	This project will construct a wash pit at Public Works Facility separate from the waste water pit to enhance public health of employees	$ 30,000	Not Identified
	Medium	N-New	PW-F	Addition to P.W.s office facility	Pour concrete slab on NW corner of existing building and erect a steel building to add approximately 800 sq. ft. of office space.	$100,000	Not Identified
	Medium	M-Maint.	PW-F	Fire Station - lighting and plumbing	Upgrade windows, lighting and plumbing to current building codes	$20,000	Not Identified
	Low	N-New	PW-F	Fire Station - Metal Building	Metal Extension Building behind the apparatus floor ($300,000); Fire Station Drying Lockers ($33,000)	$333,000	Not Identified
	Medium	M-Maint.	PW-F	City Hall / Community Room (EOC)	Upgrade windows and lighting to current building codes. Refurbish parking lot, upgrade the irrigation & landscape throughout	$100,000	Not Identified
	Medium	M-Maint.	PW-F	Marina Vista Center / Senior Center. This project is 50% designed from previous funding which was removed in 2008.	Upgrade lighting to current building code; replace flooring throughout; refurbish both kitchens; refurbish arts & craft room. Install HVAC; Refurbish lobby and hall.	$150,000	Not Identified
	Low	N-New	PW-F	Dempsey Holder Safety Center - phase 1	Replace carpet on 2nd floor mezzanine; complete gas fireplace installation; create additional locker room area; custom fit new window blinds @ 3rd and 4th floors; replace all hardware on exterior pedestrian doors; replace flooring @ 1st floor Life Guard area; tint all lifeguard area windows; new outdoor shower; new stingray wound area	$300,000	Not Identified
	Low	N-New	PW-F	Dempsey Holder Safety Center - phase 2	Dempsey Center 2nd floor Weight Room - $75,000 Dempsey Center 1st floor kitchen - $30,000 Dempsey Center 1st floor Outside Medical Aid Station - $15,000 Dempsey Center 1st floor Tidelands Office in the north garage bay - $5,000 Dempsey Center 2nd floor Event Planning Event Planning Center - $10,000	$135,000	Not Identified
			PW-V	VEHICLE REPLACEMENT			
	Low	N-New	PW-V	Fire Station - Response Vehicle	Fully Equipped Squad Response Vehicle	$275,621	Vehicle Replacement and Maintenance Fund
	Low	N-New	PW-V	Fire Station - Communications vehicle	Communications Vehicle / Mobile EOC	$200,000	Vehicle Replacement and Maintenance Fund

Capital Improvements Program (CIP)

Project Number	Priority	M-Maint. N-New	Dept. Type	Capital Projects List (NEW), Major Maintenance Inventory (MAINT) and Professional Services and Planning Documents List (STDY) Project Name	Project Scope of Work	Estimated Costs	Fund Source
			PW-P	PARKS			
	High	N-New	PW-P	New Park: Southeast Imperial Beach	The intent of this project is to provide a neighborhood park in the southeast quadrant of the City. The location and infrastructure for this park are yet to be identified. It is estimated that the cost for this new park will range between $500,000 and $2,500,000. It is suggested that up to $5,000 be appropriated to initiate the search and identify the project parameters. Once a project site and infrastructure are approved, it is suggested that the City seek grant funds to include Prop 84.	$5,000	New Strategic Capital Improvement GF Reserve
	Low	N-New	PW-P	Skate Spot (North of SR-75)	This project proposes to construct a skate "spot" north of S.R. 75. Location has not been identified, however possible locations include Teeple Park, area west of City's public works facility, and Bayside Elementary school	$ 100,000	Not Identified
	Medium	M-Maint.	PW-P	Sports Park Master Plan Phase 2 approx. This project 80% designed from previous funding which was removed in 2008.	4' and 6' perimeter outer fence at fields E/F, 8' perimeter outer fence at field D, backstops at field B & D, Benchs/Bleachers and dug outs on concrete pads at fields B & D, Bleachers safety barrier at field D, Concrete curb under fence at field E & F, Construction of ball field E/F fence, Install electrical outlets at field F, new bleachers at field D, Permeable concrete south of field A and north of field E/F including new tree planters, reshape outfield fence at field D	$ 350,000	Not Identified
	Medium	M-Maint.	PW-P	Sports Park Master Plan Phase 3	Construct additional trash enclosures; Clean up/tidy up the area west of field C; Concession Stand Remodel; Fencing around storage containers by field C; Install drinking fountain by trellis/picnic area; Install parking lot gate South of Caspian Way and 4th Street Intersection; **Remodel or replace outside restrooms adjacent to field A (outfield)**; Replace retaining wall brick cap around picnic area; Replace & modernize to tot lot equipment; Replace 4" backflow device with 3" device; Replace entire tot lot surface with rubberized materials; Replace/rebuild seat wall at tot lot with like walls (similar to Teeple or Reama Park); Resurface alley parking lot between rec center & church; Replace missing /removed and other damged trees within the park.	$ 400,000	Not Identified
	Low	M-Maint.	PW-P	Sports Park Recreation Center Master Plan	Game/Staff Room--add café-style seating, Game/Staff Room--add window access to Café, Teen room--add pool/air hockey table, Teen room--new furniture & equipment	$ 30,000	Not Identified

Capital Improvements Program (CIP)

Project Number	Priority	M-Maint. N-New	Dept. Type	Capital Projects List (NEW), Major Maintenance Inventory (MAINT) and Professional Services and Planning Documents List (STDY) Project Name	Project Scope of Work	Estimated Costs	Fund Source
	Low	N-New	PW-P	Cherry Avenue Open Space east of 11th Street Eehancements	To provide Bayshore Bikeway amenities at the north end of Florida Street. Project will include an Environmental review; fencing, park furniture; irrigation, etc.	$ 150,000	Not Identified
	Low	N-New	PW-P	Tennis Courts	It has been discussed that this project could possibly be considered jointly with a school district. The Courts would be most useful if located within easy access to school kids as part of their school curriculum. The estimated construction cost is $70,000 per court. This project suggests at least 4 to 6 courts should be construction.	$ 420,000	Not Identified
	Low	N-New	PW - P	Municipal Swimming Pool	As part of the 2004 RDA community workshops, there was much discussion from members of the public regarding the need/desire of a community swimming pool. This project is being included for consideration as a future project with no known location or construction and maintenance funding source.	$ 6,000,000	Not Identified
	Low	N-New	PW - P	Carnation & Silver strand Open Space	Approximately 1.5 acres of open space adjacent to Camp Surf. This area is being held available for a future recreational opportunity.	$ 400,000	Not Identified
	Low	N-New	PW-P	Triangle Park Phase 2	Attributes and infrastructure unspecified, Modernized irrigation system.	$ 100,000	Not Identified
	Low	M-Maint.	PW-P	Reama Park Master Plan	Rehab the park infrastructure (tot-lot, ADA surface, irrigation, lighting etc.)	$ 100,000	Not Identified
	Medium	N-New	PW-P	Veterans Park Master Plan	Remodel & replace outside restrooms, Replace & modernize tot lot equipment	$ 200,000	Not Identified

Capital Improvements Program (CIP)

Project Number	Priority	M-Maint. N-New	Dept. Type	Capital Projects List (NEW), Major Maintenance Inventory (MAINT) and Professional Services and Planning Documents List (STDY) Project Name	Project Scope of Work	Estimated Costs	Fund Source
			PW-W	SEWER			
	High	M-Maint.	PW-W	FY 14/15 Annual Main Line Work Identified in previous CCTV	New work identified via the most recent CCTV reports showing greatest need to maintain the sewer mainlines and to reduce infiltration	$ 250,000	Sewer Enterprise Fund
	High	M-Maint.	PW-W	FY 15/16 Annual Main Line Work Identified in previous CCTV	New work identified via the most recent CCTV reports showing greatest need to maintain the sewer mainlines and to reduce infiltration	$ 400,000	Sewer Enterprise Fund
	High	M-Maint.	PW-W	FY 16/17 Annual Main Line Work Identified in previous CCTV	New work identified via the most recent CCTV reports showing greatest need to maintain the sewer mainlines and to reduce infiltration	$ 400,000	Sewer Enterprise Fund
	High	M-Maint.	PW-W	FY 17/18 Annual Main Line Work Identified in previous CCTV	New work identified via the most recent CCTV reports showing greatest need to maintain the sewer mainlines and to reduce infiltration	$ 400,000	Sewer Enterprise Fund
	High	M-Maint.	PW-W	Pump Station No. 4 Rehabilitation (FY 14/15)	replace pumps, stands, and foundations; remove and replace vertical brace for piping; replace wet well inlet valves;	$ 75,000	Sewer Enterprise Fund
	Low	M-Maint.	PW-W	Pump Station No. 5 Rehabilitation	Renovate or replace the pump station to include pump foundations, new pumps, new valves, and wall casing. Prepare construction plans and specifications. Award a contract to replace or modify pumping station and/or wet well to eliminate surcharging of incoming lines.	$ 300,000	Sewer Enterprise Fund
	High	M-Maint.	PW-W	Pump Station No. 6 Rehabilitation (FY 14/15)	Renovate pump station to include station floor, pump foundations, valves and piping	$ 75,000	Sewer Enterprise Fund
	Low	M-Maint.	PW-W	Pump Station No. 8 Rehabilitation	Replace all three pumps' foundations and repair / float floor	$ 30,000	Sewer Enterprise Fund
	High	M-Maint.	PW-W	Televised Pipe Sections/Sewer Mains 161,000 of remaining lines	This project will televise the remaining 142,000 linear feet of sewer main in the City. The first 82,000 linear feet was televised in fiscal years 2007/2008 and 2010/2011. The CCTV will help direct the City towards making sewer main repairs towards the most severe main failures.	$ 160,000	Sewer Enterprise Fund
	Low	N-New	PW-W	Pump Station No. 8 Odor Control	Design and construct an Odor Control system for Pump Station No. 8	$ 100,000	Sewer Enterprise Fund

Capital Improvements Program (CIP)

Project Number	Priority	M-Maint. N-New	Dept. Type	Capital Projects List (NEW), Major Maintenance Inventory (MAINT) and Professional Services and Planning Documents List (STDY) Project Name	Project Scope of Work	Estimated Costs	Fund Source
			PW-D	STORM DRAIN			
	Low	N-New	PW-D	Carnation & Seacoast Intersection Flooding Project	As part of the Palm Avenue street-end storm water pump station improvements, a stub line was extended from the Palm Avenue lift station wet well to Seacoast Drive at Palm Avenue. This project would provide for a connection between Carnation Avenue / Seacoast Drive intersection to the new stub out at Palm and Seacoast Drive. The purpose of this connection would be to alleviate or reduce storm water ponding at the intersection of Carnation and Seacoast Drive when the Camp Surf detention pond is full and will not take in additional street water. The new storm drain line is approximately 600-feet long @ a cost of $100 per liner foot.	$ 60,000	Not Identified
	Medium	N-New	PW-D	Storm Drain Channel Upgrade Thorn to 5th; Spruce to Carolina; Essex to 9th; and 1200 blk Holly to Grove	This project will improve the easement infrastructure at these locations to improve drainage and improve storm water and nuisance water infiltration. The exact design of these improvements will need further study by City Engineer.	$ 300,000	Not Identified
	Low	N-New	PW-D	Underground Storm Drain: Bayside Elementary	Improve drainage at Bayside Elementary School to drain playground area at Southwest Corner. Add 2-manholes in Bayside Elementary School line. Requires permission from school district for maintenance access.	$ 120,000	Not Identified

Capital Improvements Program (CIP)

Project Number	Priority	M-Maint. N-New	Dept. Type	Capital Projects List (NEW), Major Maintenance Inventory (MAINT) and Professional Services and Planning Documents List (STDY) Project Name	Project Scope of Work	Estimated Costs	Fund Source
			PW-S	STREETS			
	Medium	M-Maint.	PW-S	Bayshore Bikeway Slurry Seal	To Lay down a slurry seal to increase the life of the Bayshore Bikeway.	$ 15,000	Not Identified
	High	M-Maint.	PW-S	Annual Slurry Seal - FY14/15	An annual slurry seal program will extend the life of the streets and reduced the long term maintenance cost of the streets by extending the time between major street repairs/asphalt overlay/reconstruction.	$ 100,000	Gas Tax Reserve
	Medium	M-Maint.	PW-S	Annual Slurry Seal - FY15/16	An annual slurry seal program will extend the life of the streets and reduced the long term maintenance cost of the streets by extending the time between major street repairs/asphalt overlay/reconstruction.	$ 100,000	Gas Tax Reserve
	Medium	M-Maint.	PW-S	Annual Slurry Seal - FY16/17	An annual slurry seal program will extend the life of the streets and reduced the long term maintenance cost of the streets by extending the time between major street repairs/asphalt overlay/reconstruction.	$ 100,000	Gas Tax Reserve
	Medium	M-Maint.	PW-S	Annual Slurry Seal - FY17/18	An annual slurry seal program will extend the life of the streets and reduced the long term maintenance cost of the streets by extending the time between major street repairs/asphalt overlay/reconstruction.	$ 100,000	Gas Tax Reserve
	High	M-Maint.	PW-S	RTIP FY14/15 Street Improvements	Annually the City receives approximately $450,000 of TransNet funds that can be used for major street maintenance. This is an ongoing annual funded program that should be used on a capital street improvement projects annually or bi-annually if combining yearly allocations.	$ 450,000	TransNet funded
	High	M-Maint.	PW-S	RTIP FY15/16 Street Improvements	Annually the City receives approximately $450,000 of TransNet funds that can be used for major street maintenance. This is an ongoing annual funded program that should be used on a capital street improvement projects annually or bi-annually if combining yearly allocations.	$ 450,000	TransNet funded
	High	M-Maint.	PW-S	RTIP FY16/17 Street Improvements	Annually the City receives approximately $450,000 of TransNet funds that can be used for major street maintenance. This is an ongoing annual funded program that should be used on a capital street improvement projects annually or bi-annually if combining yearly allocations.	$ 450,000	TransNet funded
	High	M-Maint.	PW-S	RTIP FY17/18 Street Improvements	Annually the City receives approximately $450,000 of TransNet funds that can be used for major street maintenance. This is an ongoing annual funded program that should be used on a capital street improvement projects annually or bi-annually if combining yearly allocations.	$ 450,000	TransNet funded

Capital Improvements Program (CIP)

Project Number	Priority	M-Maint. N-New	Dept. Type	Capital Projects List (NEW), Major Maintenance Inventory (MAINT) and Professional Services and Planning Documents List (STDY) Project Name	Project Scope of Work	Estimated Costs	Fund Source
	Low	N-New	PW-S	Bayshore Bikeway Spur	Design and construct a new bikeway from existing Bayshore Bikeway across S.R. 75 that will provide access to the City's ocean front area via one of the concepts included in the current Bicycle Transportation Plan (BTP).	$ 3,000,000	Not Identified
	Low	N-New	PW-S	Carnation Avenue Street End Plaza	This project has been designed by the Port of San Diego and approved by City Council. The Port of San Diego's funds for this project are no longer available. The design widens the street end by 20 feet to the north, constructs a wall/fence along the northern perimeter, provides beach access, includes handicap parking and a plaza for an ocean view.	$ 1,200,000	Port of San Diego
	Low	N-New	PW-S	Regional Transportation Congestion Improvement Plan (RTCIP)	This project will design and construct vehicle, bicycle and public transportation circulation and pedestrian improvements in that segment of SR75 between 7th Street and 9th Street, including the intersections of 7th Street and 9th Street. This project is consistent with and required by the Prop A Extension Ordinance.	$ 23,000	TRANSNET transportation impact fee - exaction
	High	N-New	PW-S	Residential Citywide Lighting Improvements	Install street lights in neighborhoods that currently have inadequate street lighting. A 2005 study by a Lighting Assessment Engineer proposed that to provide a minimum of pedestrian and street lighting throughout the City an additional 270 additional street lights should be installed in the residential neighborhoods. There are currently approximately 340 residential street lights installed. Most of the new lights could be installed on existing SDG&E utility poles. Although some locations within the City would require new poles installed (approximately 80 new poles to be installed) to provide adequate coverage. The Assessement Engineer estimated the installation of lighting on existing poles plus the installation of the new poles would cost $500,000. The annual maintenance costs for the additional lights were estimated at $50,000. If City Council desires to move forward with this effort, Council may desire to consider proceeding in smaller increments over a number of years. For this implementation plan, appropriating $50,000 will initiate a small project that if continued over succeeding years, will lead to street lighting throughout the City.	$ 50,000	Public Works GF Reserve

Capital Improvements Program (CIP)

Project Number	Priority	M-Maint. N-New	Dept. Type	Capital Projects List (NEW), Major Maintenance Inventory (MAINT) and Professional Services and Planning Documents List (STDY) Project Name	Project Scope of Work	Estimated Costs	Fund Source
	High	N-New	PW-S	Sidewalk Infill	This project would work to complete the construction of new sidewalk where none exist currently, to include: 600-700 Blocks of Grove Avenue; 1100-1200 blocks of 7th Street; 600-700 blocks of Delaware; 100 block of Carnation Avenue; 300 block of Bonito Avenue; 300 to 500 blocks of Citrus Avenue; etc. For many of these sidewalk installations, a new G-Curb and gutter must be installed coincident with the sidewalk. For efficiency and reduction in costs, it is suggested that the sidewalk installation be performed when the adjacent street block(s) are due for an asphalt street restoration / overlay.	$ 1,000,000	Not Identified
	Medium	M-Maint.	PW-S	South Seacoast Sidewalk	There are sections of sidewalk adjacent to the Estuary along South Seacoast Drive sliding or tilting toward the estuary. This project is to reinforce or reconstruct the sidewalk in a manner that corrects or stabilizes the sidewalk slide.	$ 200,000	Not Identified
	Low	N-New	PW-S	State Route 75 Irrigation Upgrade	The State Route 75 median landscape was installed in 1998 with a drip irrigation system. The system is high maintenance because the drip tubes are easily damaged and broken by the pedestrian cross traffic. This project would replace the drip system with a more durable system and will replace the plants that are disturbed or removed as the result of the new irrigation system.	$ 100,000	Not Identified
	Low	N-New	PW-S	State Route 75 @ Rainbow Drive-Landscaping Project	The intersection of Rainbow Drive & S.R. 75 is cluttered with utility boxes and weeds. This is a primary entrance to the City beaches coming south on S.R. 75. This project would landscape the corners of Rainbow Drive and S.R. 75 intersection and the adjacent median to include irrigation, plants, trees and possible signage to the beachfront.	$ 120,000	not Identified
	Low	N-New	PW-S	State Route 75 Sound Wall	Construct masonry block wall from Rainbow Drive to the northwest city limits on the west side of State Route 75	$ 500,000	Not Identified

Capital Improvements Program (CIP)

Project Number	Priority	M-Maint. N-New	Dept. Type	Capital Projects List (NEW), Major Maintenance Inventory (MAINT) and Professional Services and Planning Documents List (STDY) Project Name	Project Scope of Work	Estimated Costs	Fund Source
			STDY	STUDIES / PROFESSIONAL SERVICES			
	High	N-New	STDY	Public Restroom and shower - South Seacoast	Investigate alternative locations for the construction of public restroom(s) and outdoor shower facility south of Imperial Beach Blvd. preferably near South Seacoast southern cul-de-sac. This would include public outreach and public meetings to obtain consensus of location and cost. The cost within this scope of work does not include design or construction.	$ 75,000	Port of San Diego
	Medium	N-New	STDY	Storm Drain Treatment Control BMP's at Selected Outfalls	A study needs to be performed to determing what treatment control BMPs should be or can be constructed at the City's three major storm water outfalls in accordance with the Best Available Technologies (BAT's) to reduce the pollutant flow into the receiving waters. Those outfalls being Outfall K (12th Street into Otay River), Outfall H (immediately north of Bayside Elementary School into Otay River) and Outfall E/F (Grove Avenue discharge into Tijuana Estuary)	$ 50,000	Not Identified
	High	N-New	STDY	Complete Streets Plan / Policy	Develop a Complete Streets / Active Transportation Plan with a circulation element update supported by an environmental study. This first element would be to engage a consultant to seek grant funding and develop a grant package for this effort. The consultant cost for the project's first element is estimated at $5,000. The second element, to develop the Complete Streets, ... , is estimated to cost $200,000 to $500,000. This would be funded primarily through a grant.	$ 5,000	Gas Tax Fund
	Medium	N-New	STDY	Municipal Code Update	Modernizing and updating the Municipal Codes to current standards	$ 500,000	Not Identified
	Medium	N-New	STDY	Pavement Management Plan	Prepare an update to the Pavement Management Study completed in 2008. Propose a study to be conducted in FY 2015/2016 that will provide a report of the pavement conditions and rehabilitation strategies.	$ 40,000	Not Identified
			IT	TECHNOLOGY			
	High	N-New	IT	Technology Upgrades	Investigate and purchase A software package that provides for Website upgrades, advanced accounting protocols, telephone upgrades, advanced agenda management, minutes creation, web streaming technology and citizen engagement tools for government transparency. The software package will promote staff efficiency, citizen participation, meeting efficiency, and legislative management solutions.	$ 425,000	Technology / Communications Fund Balance

Capital Improvements Program (CIP)

Project Number	Priority	M-Maint. N-New	Dept. Type	Capital Projects List (NEW), Major Maintenance Inventory (MAINT) and Professional Services and Planning Documents List (STDY) Project Name	Project Scope of Work	Estimated Costs	Fund Source
	High	N-New	IT	RCS purchase.	The Public Safety Department in company with County Sheriff will be upgrading the county wide Regional Communication System (RCS) in the next few years. The City is a participating member in this system and must pay its share of the installation and equipment purchase cost. The City has allocated approximately $270,000 to towards the purchase of a new system that is expected to cost the City approximately $750,000 when this program is implemented. In subsequent fiscal years additional funds are proposed to be placed towards this purchase.	$ 750,000	Not identified. $270,000 currently appropriated. Remaining fund source to be identified in subsequent years.

Exhibit B

TWO YEAR IMPLMENTATION SCHEDULE

	Unidentified	GENERAL FUND BALANCE	RESTRICTED ECONOMIC UNCERTAINTY RSRV	RESTRICTED STRATEGIC CAPITAL RSRV	RESTRICTED PUBLIC WORKS PROJECTS	RESTRICTED PUBLIC SAFETY COMMUNICATI	GAS TAX FUND	PROP "A" (TRANSNET) FUND	2010 BOND	VEHICLE REPLACEMENT/ MAINT	TECHNOLOGY/COM MUNICATIONS	FACILITY MAINT/ REPLACEMNT	SEWER ENTERPRISE FUND	PARKS MAJOR MAINTENAN CIP	PORT OF SAN DIEGO
Current Fund Balance		$ 6,056,000	$ 1,800,000	$ 1,180,000	$ 2,013,000	$ 270,000	$ 2,025,706	$ 841,000	$ 4,604,465	$ 384,310	$ 400,000	$ 275,400	$ 3,540,000	$ 300,000	
Reserve Minimum Requirement					$ (1,000,000)								$ (2,000,000)		
FY15 Additional Fund Balance						$ 100,000		$ 450,000			$ 25,000	$ 100,000	$ 400,000	$ 50,000	

DEPARTMENT	PROJECT	New/ Maint	Priority	Est Costs																
PW FY13/14	RTIP FY 13/14 Elm Ave (Seacoast to 7th) Asphalt Overlay and associated sidewalk, curb & gutter and crosswalk improvements. This project will also install a raised intersection at 5th Street.	M-Maint.	High	$ 750,000								$ 100,000	$ 600,000					$ 50,000		
PW-S	Annual Slurry Seal - FY14/15	M-Maint.	High	$ 100,000								$ 100,000								
PW-S	RTIP FY14/15 Street Improvements	M-Maint.	High	$ 450,000									$ 450,000							
PW-W	FY 14/15 Annual Main Line Work Identified in previous CCTV	M-Maint.	High	$ 250,000														$ 250,000		
PW-W	Pump Station No. 4 Rehabilitation (FY 14/15)	M-Maint.	High	$ 75,000														$ 75,000		
PW-W	Pump Station No. 6 Rehabilitation (FY 14/15)	M-Maint.	High	$ 75,000														$ 75,000		
PW-W	Televised Pipe Sections/Sewer Mains 161,000 of remaining lines	M-Maint.	High	$ 160,000														$ 160,000		
				$ 1,860,000	$ -	$ -	$ -	$ -	$ -	$ -	$ 200,000	$ 1,050,000	$ -	$ -	$ -	$ -	$ 610,000	$ -	$ -	
CD	Bikeway Village	N-New	High	$ 1,700,000												$ 1,700,000				
CD	9th & Palm Avenue / State Route 75 Public Improvements	N-New	High	$ 2,160,000												$ 2,160,000				
CD	Eco Tourism Infrastructure	N-New	High	$ 50,000					$ 50,000											
CD	Revolving Loan Fund	N-New	High	$ 100,000				$ 100,000												
IT	RCS purchase.	N-New	High	$ 750,000	$ 480,000					$ 270,000										
IT	Technology Upgrade	N-New	High	$ 425,000													$ 425,000			
PW FY13/14	Alley Improvements	N-New	High	$ 500,000				$ 500,000												
PW FY13/14	Elm Avenue (7th to 4th Streets) Pedestrian, Bicycle and Traffic Calming Accommodations	N-New	High	$ 300,000							$ 300,000									
PW FY13/14	Seacoast Dr Aesthetic Project	N-New	High	$ 300,000				$ 300,000												
PW FY13/14	Demonstration Round about	N-New	High	$ 19,000							$ 19,000									
PW-P	New Park: Southeast Imperial Beach	N-New	High	$ 5,000				$ 5,000												
PW-S	Residential Citywide Lighting Improvements	N-New	High	$ 50,000					$ 50,000											
STDY	Complete Streets Plan / Policy	N-New	High	$ 5,000							$ 5,000									
				$ 6,364,000	$ 480,000	$ -	$ -	$ 905,000	$ 100,000	$ 270,000	$ 324,000	$ -	$ 3,860,000	$ -	$ 425,000	$ -	$ -	$ -	$ -	
	Project Total			$ 8,224,000	$ 480,000	$ -	$ -	$ 905,000	$ 100,000	$ 270,000	$ 524,000	$ 1,050,000	$ 3,860,000	$ -	$ 425,000	$ -	$ 610,000	$ -	$ -	
	Ending Fund Balance					$ 6,056,000	$ 1,800,000	$ 275,000	$ 913,000	$ 100,000	$ 1,501,706	$ 241,000	$ 744,465	$ 384,310	$ -	$ 375,400	$ 1,330,000	$ 350,000	$ -	

TRAINING PROGRAM

1. Technical Training Program

MAINTENANCE WORKER

As an entry-level position, Maintenance Workers are only required to have an aptitude for the work to fill the position. Training shall commence upon assuming the position to ensure that the appropriate level of technical knowledge and ability is obtained prior to fulfilling responsibilities. The following are the basic technical training goals for a Maintenance Worker:

a. Operation and Maintenance of Combination Trucks
b. Obtain a Class B Drivers License, with tanker and airbrake endorsements
c. Operation and Maintenance of Portable Pumps
d. Operation and Maintenance of Portable Generators
e. Operation and Maintenance of Blowers and Air Compressors
f. Operation and Maintenance of Pump Stations
g. Operation and Maintenance of Backhoe
h. Operation and Maintenance of Dump truck
i. General Equipment Maintenance
j. Obtain a California Water Environment Association (CWEA) Grade 1 Collections Systems Maintenance Certification
k. Attend technical training conferences as appropriate

MAINTENANCE WORKER I

As an experienced sewer maintenance worker, the Maintenance Worker I has the same technical training goals of the Maintenance Worker with the further goals of being able to work independently with minimal supervision, to obtain an in-depth knowledge of each area of expertise, and to obtain a CWEA Grade II Collections Systems Maintenance Certification.

MAINTENANCE WORKER II

As an experienced sewer maintenance worker, the Maintenance Worker II has the same technical training goals of the Maintenance Worker I with the further goals of being able to teach technical training courses as a subject matter expert, and to obtain a CWEA Grade III Collections Systems Maintenance Certification.

SEWER DIVISION SUPERVISOR

As a supervisor, the Sewer Division Supervisor has the technical training goal of obtaining a thorough conceptual knowledge of each piece of equipment that is within the span of control of the Sewer Division (Including stationary equipment such as pump stations). This knowledge should include a detailed understanding of the capabilities and limitations of each piece of equipment and how they can be used in conjunction with each other to achieve greater capabilities and performance. The Sewer Division Supervisor should understand the costs

associated with operation and maintenance of each piece of equipment. They should understand how to obtain the greatest efficiencies from each piece of equipment. The Sewer Division Supervisor should understand the required maintenance schedule for each piece of equipment and be able to calculate the impacts to the work schedule of performing this maintenance. The Sewer Division Supervisor should have a detailed understanding of what procedures to follow in the event of equipment failure. The Sewer Division Supervisor should also have the goal of obtaining a CWEA Grade IV Collections Systems Supervisor Certification.

2. Skills Training Program

MAINTENANCE WORKER
Skills training shall commence upon assuming the position to ensure that the appropriate skills are obtained prior to fulfilling responsibilities. The following are the basic skills goals for a Maintenance Worker:

a. Line Cleaning Operations
b. Operation and Maintenance of Valves
c. Pipe repair Methods
d. Emergency Response Procedures
e. Pump Station Maintenance
f. Attending Skills Training Workshops as appropriate

MAINTENANCE WORKER I
As an experienced sewer maintenance worker, the Maintenance Worker I has the same skills training goals of the Maintenance Worker with the further goals of being able to work independently with minimal supervision and to obtain an in-depth knowledge of each skill area of expertise.

MAINTENANCE WORKER II
As an experienced sewer maintenance worker, the Maintenance Worker II has the same skills training goals of the Maintenance Worker I with the further goals of being able to teach skills training courses as a subject matter expert.

SEWER DIVISION SUPERVISOR
The Sewer Division Supervisor has the skills training goals of being able to direct each of the tasks, understanding the expected production rates for each task and procedure, and the associated costs of materials and labor.

3. Safety Training Program

MAINTENANCE WORKER
Safety training shall commence upon assuming the position to ensure that safety regulations are understood and adhered to while fulfilling responsibilities. The following is a list of recommended safety training for a Maintenance Worker:

a. First Aid Certification
b. CPR Certification
c. Confined Space Certification (8 hour)
d. Traffic Safety
e. Trench Safety
f. Fire Safety
g. Hose Safety
h. Chemical Safety / Material Safety Data Sheets (MSDS)
i. Personal Protection Equipment Training
j. Additional Safety Training for Job Hazards
k. Additional Safety Training as appropriate
l. Attending Safety Workshops as appropriate

MAINTENANCE WORKER I
The Maintenance Worker I has the same safety training requirements as the Maintenance Worker

MAINTENANCE WORKER II
The Maintenance Worker II has the same safety training requirements as the Maintenance Worker. The Maintenance Worker II should be able to teach safety classes as a subject matter expert.

SEWER DIVISION SUPERVISOR
The Sewer Division Supervisor has the safety training goals of understanding and implementing Federal, State, and local safety regulations.

4. Additional Cross Training
Cross training will be made available to all maintenance workers to provide an understanding of the equipment, procedures, and safety precautions involved in the work of other City departments.

5. Training Records
The City shall maintain records documenting training and safety classes completed by each employee, including on-the-job training, on-site training, conferences and workshops attended, and other off-site training.

6. Contracted Services
Any contracted worker shall be required meet or exceed the City's training standards. All workers are to have the appropriate level of technical, skills, and safety training and certification as required for the work contracted.

APPENDIX F
Contingency Equipment And Replacement Inventory

This Section Contains:

Recommended Parts and Materials to Keep in Stock

PUMPS & PARTS INVENTORY

Pump Stations

Pump Station	Address	Pump Manufacturer	Model Number	Serial Number	Impeller Size	Start	Stop	FM Size
1A	862 Seacoast	Wemco	4X11 EVS		9"	1.6	0.04	12"
1B	1098 Seacoast	Gorman Rupp	Super T-6			2.5	1.4	12"
2	1306 Seacoast	Gorman Rupp	T4A3-B	88-2765-A		3.5	2	12"
3	501 Elm	Wemco	4X11 EVS	07DW06782-01&02	9" SS	3.4	2	10"
4	755 Delaware	Fairbanks Morse	5432	760092		3	1.5	8"
5	133 Dahlia	Paco Pump	495-31 NCF	(Obsolete Pump)	9.5	5	2	12"
6	498 Rainbow	Fairbanks Morse	5432K		9.75	1.8	0.09	12"
7	504 Oneonta	Paco Pump	495-31 NCF	(Obsolete Pump)	6 7/8	4	2	8"
8	895 Imperial Beach Bl.	Krogh/Peerless	NCV	U04T3610495R-2	16.5"	VFD	VFD	12"
9	1025 9th St.	Krogh/Peerless	NCV		16.5"	VFD	VFD	12"
10	814 Cypress	Gorman Rupp	Super T-6			6.5	5.5	12"

	Gorman Rupp	T-4A3-B	88-2765-A	
Item No.	Pump Part Name	Part Number	Material Code	Quanity
2	Repair Potating assy	10537C	--	1
5	Suction Flange Gasket	11389G	19370	1
10	Disch Flange Gasket	25113-034	--	1
13	Rotation Assy O-ring	S1674	--	2
17	Rot Assy Shim Set	13130	17040	2
18	Seal Plate O-Ring	25154-273	--	2
19	Wear Plate Assy	10532A	15990	1
21	Back Cover O-Ring	S1674	--	1
35	Suct Check Valve Assy	46411-062	--	1

	Parts List	**10537C Repair Rotating Assembly**		
Item No.	Pump Part Name	Part Number	Material Code	Quantity
1	Impeller	10928	11010	1
2	Seal Plate Gasket	10959G	20000	1
3	Seal Assembly	46513-150	--	1
4	Inboard Ball Bearing	23276-009	--	1
9	Outboard Ball Bearing	S1040	--	1
11	Impeller Shaft	10529	16040	1
12	Shaft Key	N0608	15990	1
13	Bearing Cap Oil Seal	S1352	--	1
18	Inboard Oil Seal	S1352	--	1
22	Seal Plate O-Ring	25154-273	--	1
29	Impeller Adj Shim Set	25154-022	17090	2
30	Seal Sleeve O-Ring	25154-022	--	2
33	Rotating Assy Adj Shim Set	13130	17000	4
34	Rotating Assy O-Ring	S1674	--	1

	Gorman Rupp	**T-6A3-B**	**1010691std**	
Item No.	Pump Part Name	Part Number	Material Code	Quanity
2	Repair Potating assy	10956F	--	1
5	Suction Flange Gasket	11402G	19370	1
10	Disch Flange Gasket	25113-036	--	1
13	Rotation Assy O-ring	S1676	--	2
17	Rot Assy Shim Set	13131	17040	2
18	Wear Plate Assy	10532A	15990	1
20	Back Cover O-Ring	S1676	--	1
34	Suct Check Valve Assy	46411-064	--	1
38	Fill Cover Gasket	50G	19210	1

	Parts List	**10537C Repair Rotating Assembly**		
Item No.	Pump Part Name	Part Number	Material Code	Quanity
1	Impeller	10928	11010	1
2	Seal Plate Gasket	10959G	20000	1
3	Seal Assembly	46513-150	--	1
4	Inboard Ball Bearing	23276-009	--	1
9	Outboard Ball Bearing	S1040	--	1
11	Impeller Shaft	10529	16040	1
12	Shaft Key	N0612	15990	1
13	Bearing Cap Oil Seal	S1352	--	1
18	Inboard Oil Seal	S1352	--	1
28	Impeller Adj Shim Set	37J	17090	2
29	Seal Sleeve O-Ring	25154-022	--	2
32	Rotating Assy Adj Shim Set	25154-022	17000	4
33	Rotating Assy O-Ring	S1676	--	1
	Seal Plate O-Ring	25154-273		

	Krogh	**Model NCV**	
Item No.	Pump Part Name	Part Number	Quanity
1	Oil Seal		1
7	Gasket		1
11	Gland Clamp		1
15	Gasket, Spacing		1
16	Seal Gasket		1
23	Shaft		1
25	Gasket		1
28	Gasket Fitting		1
33	Oil Seal		1
35	Deflector Ring		1
38	Key, Sleeve		1
41	Gasket		1
42	Key, Impeller		1
43	Impeller		1
45	Gasket		1
48	Gasket		1

	Dakota		
Item No.	Pump Part Name	Part Number	Quanity
	Impeller		1
	Shaft		1
	Double Mechanical Seal		1
	Key, Impeller		1
	Seal Head Compressed Length		1
	Seal O.D.		1
	Ball Bearings		

	Wemco	**4x11 EVMS**	**52443**	
Item No.	Pump Part Name	Part Number	Material Code	Quanity
3	Impeller		CI	1
7	Shaft		SAE 1141	1
10	Impeller Key		STL	1
11	Case Gasket		Asbestos	1
12	Lantern Ring		Tiflon / Bronze	1
13	Packing Rings		Graph Impr Asbestos	Ref
18	Shaft Sleeve Gasket		Teflon	1
56	Inpection Hole Gasket		NEOP	1
58	Gasket, Suction Piece		Asbestos	1

	Fairbanks Morse	**SVNC**	
Item No.	Pump Part Name	Part Number	Quanity
1	Impeller		1
4	Shaft, Dry Pit		1
14	Sleeve		1
98	Bushing, Upper Bearing		1
98A	Bushing, Lower Bearing		1
102	Key, Impeller		1
111	Bushing, Floorplate		1
115	Bushing, Column Bearing		1
156	Gasket, Suction Elbow or Bell		1
157	Gasket, Casing		1
162	Washer, Impeller Nut		1
163	Bearing, Lower		1
166	Shim, Impeller Hub		Ref
168	Bearing, Upper		1
186	Shim, Lower Bearing		Ref
186A	Shim, Upper Bearing - Expandable		Ref
186B	Shim, Upper Bearing Cover		Ref
206A	Closure Seal, Bearing Bushing		1
272	Key, Coupling		1
291	Gasket, Suction Elbow Plug		1
433	Gasket, Stuffing Box		1

	Fairbanks Morse	**Model 5430**	
Item No.	Pump Part Name	Part Number	Quanity
1	Impeller		1
9A	Washer, Impeller		1
14	Sleeve, Shaft		1
31A	Screw, Gland		1
154	Gasket, Suction		1
156	Gasket, Volute		1
156A	O-Ring Adapter		Ref
203	Gasket, Volute Handhole		1
291	Gasket, Suction Handhole		1
433	Gasket, Seal Housing		1
431	Housing, Seal		1
456	Mechanical Seal		1
B	Rotary Bellows		1
E	Stationary Seal		1
G	Filter		1

Collection System Spot Repairs

Fernco Coupling		
Size	Part#	Quantity
6" Clay to Plastic	1002-66	4
8" Clay to Plastic	1002-88	4
8" Plastic to Plastic	1056-88	2
10" Clay to Plastic	1002-1010	2
12" Clay to Plastic	1002-1212	2

Fernco Clamps		
Size	Part#	Quantity
6" Plastic	116-300	4
6" Clay	128-300	4
8" Plastic	152-300	4
8" Clay	164-300	4
10" Plastic	184-300	2
10" Clay / 12" Plastic	212-300	4
12" Clay	248-300	2

Bedding & Trench Cap		
Material	Unit	Quantity
1/2" Crushed Rock	CY	3
3/4" Crushed Rock	CY	2
Clean Fill	CY	3
Warning Tape	Roll	2
Filter Fabric		
Cold Mix		
Concrete		

Sewer Division Fixed Asset List
October 21, 2014

Fund 601 Sewer

	Description
1179	PS # 8 & 9
1179A	2nd PHASE # 8 & 9
520001	Pump Station #8
520002	Pump Station #8
520008	Pump Station #8
520076	Manholes 2" Diameter
520090	Sewer Line-Vitrified
520107	Pump Station #5
520108	Pump Station #5 Wet
520109	Pump Station #5 Pump
520111	Pump Station #7 Lift
520112	Pump Station #7 Wet
520113	Pump Station #7 Pump
520115	Pump Station #2
520120	Pump Station #2 Pump
520121	Pump Station #10
520125	Pump Station #10
520130	Sewer Force Main-Sea
520132	Sewer Line-1445 Elder
520133	Pump Station #8 Flow
520139	Pump Station #8 Cont
520143	Tripod
520147	Pump Station #1B
520148	Sewer Line-S. Seacoast
520149	Sewer Upgrade N. Seacoast
520150	Manholes
520151	Honeywell UDC Digital
520152	Telmar Pneumatic Tra
520153	Pump Station #8-Driv
520154	Pump Station #1B Con
520157	Pump Station #8 Force
520158	Pump Station #3 Capa
520160	Pump Station #10-Pum
520161	Pump Station #8-Addi
520162	Sewer Line-Rehabilitation
520165	Western Mule Truch Portable Cr
520168	Pump Station #8 Force
520169	Sewer Infiltration
520170	Pump Station #9 Upgrade
520171	Pump Station #1A
520172	Pump Station #9 Manhole
520176	Pump Station #6 Upgrade
520177	Sewer Line Relining
520181	Pump Station #3 Pump
520183	Ramjeter Pump (Trail
520184	Pump Sewer Locator
520187	Dry Pip Pump
520188	Pump Station #10 Force
520189	Manhole Rehab
CIP S04107	From Streets II Sewer

CIP S04107	From Streets II Storm Drain
CIP W05103	Pump Station 1B
CIP P03-502	5th Street Storm Drain
CIP P03-502	5th Street Storm Drain
CIP W03101	Alarms Pump Sta 4 & 6
CIP W03101	Pump Sta's 8 & 9 Rebuild
D05105	Oneonta To Nolf Dvtr
W03101	Sewer Pump Station Alarms
W05102	Pump Stations #6 Force Main
D05105	Oneonta To Nolf Dvtr ADD'l
W05401	SEALING WET WELLS/MANHOLE
	Yeomans Sub. Pump 9100-4103S
	Conversion Part GR-48313-799
	Sapre Motor Pump 7.5 HP 200 Volt
	Generator - Baldor TS130
	PS8 REBUILD PARTS
	Paco Model 78-49531-046D30
	Paco Model 78-49531-046D30
	Paco Model 78-49531-046D30
	VERTICAL SOLID SHAFT MOTO
	CONTROLLER EPS 21000
	Palm Ave Storm Sewer D03102
	Gorman Pump T4A36-B
	GR-27781-044 Controller
Additions 2012	CENTRIFUGAL PUMP "T' SR
Additions 2012	SUBMERSIBLE PUMP
Additions 2012	VFD PURCHASE/INSTALL PS8
1429	Pedestal Chopper Pump
1429	Pedestal Chopper Pump
Additions 2013	
W05401	SEALING WET WELLS/MANHOLE
W06101	WET WELL REPLACE PS #7
W10101	Sewer Impr IB Blvd & 9th
	Adjustment 2013

Sewer Division Fixed Asset List
October 21, 2014

SEWER WIP FY 2013-2014

Program	Project Nu	Project Description
	W10201	Annual 1 Main Line Repair
	W11201	Annual 2 Main Line Repair
	W12201	ANNUAL 3 MAIN LINE REPAIR
	W12202	ANNUAL MAIN LINE REPAIR
	W13101	Pump Station No. 10 Rehabilitati
	W15201	FY 14-15 ANNUAL MAIN LINE F
	W14201	ANNUAL MAIN LINE REPAIR FY
	W05401	SEALING WET WELLS/MANHO
SEWER Total		
	D08901	TJ River Source Study
STORM DRAINS Total		
	S04108	STREET IMPROVE PHASE III
	S09102	Crosswalk IB Blvd
STREETS Total		
	D08101	S/D Interept @ 8th Calla
	Total	

APPENDIX G
Design and Performance Standards

This Section Contains:

Resolution No. 2007-6471 adopting The 2006 Edition of *The Standard Specifications for Public Works Construction (Greenbook)*, and The 2006 Regional Supplements to The Greenbook 2006, and the 2006 Edition of the San Diego Area Regional Standard Drawings.

RESOLUTION NO. 2014-7499

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF IMPERIAL BEACH, CALIFORNIA, TO SUPPLEMENT OR REPLACE SELECTED CITY CONSTRUCTION STANDARD REFERENCE DOCUMENTS, TO WIT: 2014 CUMULATIVE SUPPLEMENT TO "GREENBOOK", AND 2012 STANDARD PLANS FOR PUBLIC WORKS CONSTRUCTION

WHEREAS, on June 5, 2013 City Council, City of Imperial Beach, adopted resolution 2013-7339 approving public works governing construction documents as follows:

- 2012 Edition "Greenbook" Standard Specifications for Public Works Construction
- 2013 Edition of the Supplement to the Greenbook
- 2009 Edition Standard Plans for Public Works Construction
- 2012 Edition San Diego Regional Standard Drawings with the following exemptions previously adopted:
    - Trench Repair Design Resolution No. 2004-5913
    - Regional Standard Drawing G-4 "Curb and Butters – Rolled" Resolution No. 2011-7050
    - Regional Standard Drawing G-14D "Concrete Driveway (confined Right-of-Way)" Resolution No. 2011-7050; and

WHEREAS, two standard reference documents have been supplemented or replaced, specifically 1) 2014 Supplement to "Greenbook" Standard Specifications for Public Works Construction 2012 Edition and 2) 2012 Edition Standard Plans for Public Works Construction; and

WHEREAS, City Council has the authority to establish appropriate reference documents as the construction standards within the City of Imperial Beach for public works construction projects; and

WHEREAS, the following list is the recommended revised list of public work standards governing documents:

- 2012 Edition: "Greenbook" Standard Specifications for Public Works Construction Resolution No. 2013-7339
- **"Revision"** 2014 Supplement to "Greenbook" Standard Specifications for Public Works Construction 2012 Edition of the Greenbook
- **"Revision"** 2012 Edition Standard Plans for Public Works Construction
- 2012 Edition San Diego Regional Standard Drawings with the following exceptions:
    - Trench Repair Design Resolution No. 2004-5913
    - Regional Standard Drawing G-4 "Curb and Butters – Rolled" Resolution No. 2011-7050
    - Regional Standard Drawing G-14D "Concrete Driveway (confined Right-of-Way)" Resolution No. 2011-7050;

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 adopts the 2014 Supplement to "Greenbook" Standard Specifications for Public Works Construction 2012 Edition of the Greenbook.
3. This legislative body adopts the 2012 Edition Standard Plans for Public Works Construction.

PASSED, APPROVED, AND ADOPTED by the City Council of the City of Imperial Beach at its meeting held on the 18th day of June 2014, by the following vote:

AYES: COUNCILMEMBERS: SPRIGGS, BILBRAY, PATTON, JANNEY
NOES: COUNCILMEMBERS: NONE
ABSENT: COUNCILMEMBERS: BRAGG

[redacted]

JAMES C. JANNEY, MAYOR

ATTEST:

[redacted]

JACQUELINE M. HALD, MMC
CITY CLERK

APPENDIX H
Overflow Emergency Response Plan

This Section Contains:

City of Imperial Beach Sewer Overflow Emergency Response Plan (SORP)

Sewer Overflow Response Plan

City of Imperial Beach

June 2008,
Updated April 2010 Chris Helmer
Updated September 2011 Chris Helmer
Updated October 2014 Chris Helmer

Prepared by:

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RBF JN 25-102462.001

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Attachment E Sewer Spill Estimating

ABBREVIATIONS

CIWQS	California Integrated Water Quality System
NPDES	National Pollutant Discharge Elimination System
OES	Office of Emergency Services
SDCDEH	San Diego County Department of Environmental Health
SDRWQCB	San Diego Regional Water Quality Control Board
SORP	Sewer Overflow Response Plan
SSMP	Sewer System Management Plan
SSO	Sanitary Sewer Overflow

1. PURPOSE

The City of Imperial Beach has developed this Sewer Overflow Response Plan (SORP) in order to protect the public and the environment, and to conform to the Orders set forth by California's State Water Resources Control Board and the San Diego Region of California's Regional Water Quality Control Board. The following specific Orders have been addressed in this document:

-STATE WATER RESOURCES CONTROL BOARD ORDER NO. 2006-0003
Statewide General Waste Discharge Requirements for Sewer Systems
-CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD REGION 9, SAN DIEGO REGION ORDER NO. R9-2007-0005
Waste Discharge Requirements for Sewage Collection Agencies in the San Diego Region
-STATE OF CALIFORNIA STATE WATER RESOURCES CONTROL BOARD ORDER NO. WQ 2013-0058-EXEC ADOPTING AMENDED MONITORING AND REPORTING REQUIREMENTS FOR STATEWIDE GENERAL WASTE DISCHARGE REQUIREMENTS FOR SEWER SYSTEMS.

In the event of an overflow of the sewage system, this document will provide direction and guidance to the City in order to respond promptly and effectively. The City of Imperial Beach shall keep this report current as regulations change.

2. SPILL RESPONSE ORGANIZATION

a. *Sewer Division Supervisor/On-Call Duty Personnel*

The primary role of the Sewer Division Supervisor/On-Call Duty Personnel is to take responsibility for effectively coordinating the overall response to the sewer overflow event once it has occurred. His/her responsibilities include:

1) Assume primary management and coordination of all overflow response actions
2) Assist in evacuations if necessary
3) Mobilize staff and equipment for spill abatement activities
4) Request assistance or resources from other agencies within the greater Imperial Beach area, as necessary
5) Direct immediate spill control and containment measures
6) Delegate assignments to staff members in order to achieve spill containment and control
7) Assess the sewer overflow situation and establish the spill abatement priorities
8) Maintain security control at the spill site
9) Provide input regarding the appropriate technical specifications for

emergency repairs and materials
10) Set up emergency power sources if needed and / or bypass pumps as needed
11) Oversee contractor work and cleanup activities, as needed
12) Document all spill response and abatement activities, as necessary
13) Perform an initial assessment of the extent of the onsite and off-site impacts
14) Provide assistance is assessing possible damage to facilities
15) Conduct the initial notification to the SDRWQCB, OES and SDCDEH (see Chain of Communication for working or after hour instructions)
16) Ensure that the details of the spill event are accurately entered into the Imperial Beach Spill Overflow Report Log.
17) Update the Sewer Overflow Response Plan and provides staff training

b. *Public Works Superintendent (Operations and Construction Manager)*

The duties of the Public Works Superintendent consist of organizing the activity of the public works crew in order to mitigate the sewer overflow event. His/her responsibilities include:

1. Provide overall supervision and coordination in support of the Division Supervisor.
2. Act on behalf of the Division Supervisor if the Division Supervisor is not on scene.
3. Assist the Public Works Director in completing online reports.

c. *Public Works Director*

The duties of the Public Works Director consist of providing oversight of response personnel and equipment in order to mitigate the sewer overflow event. His/her responsibilities include:

1. Ensure that all online and written reports are finished and certified within the allotted time requirements
2. Review and certify reports to CIWQS
3. Review the preliminary and final spill reports to SDRWQCB, OES, SDCDEH, and the other local notification recipients for accuracy
4. Provide media and public information

d. *Environmental Programs Manager*

The Environmental Programs Manager supports the response activities, reporting, and assessment of spill events. His/her responsibilities include:

1) Provide coordination in support of the Division Supervisor
2) Mobilize the laboratory staff for the monitoring of receiving waters
3) Communicate and coordinate with regulatory agencies
4) Verify all laboratory reports. Provide laboratory results to the Public Works

Director

5) Assist the Public Works Director in completing online reports
6) Coordinate code enforcement response and cost recovery effort for private lateral spills

3. OVERFLOW RESPONSE PROCEDURES

All procedures listed in this section may be performed by any of the members of the spill response team, unless otherwise noted.

a. *Call Routing*

See Chain of Communication

b. *"First Responder" – Response and Initial Assessment (Sewer Division Supervisor/On-Call Duty Personnel*

It is the responsibility of the first City of Imperial Beach employee arriving at the scene of the sewer overflow to take the following steps to protect the health and safety of the public:

1) Re-assess the situation upon arrival.

2) Evacuate anyone in the flow or in the path of the flow

3) Determine the immediate destination of the overflow, for example, the street curb gutter, storm drain, body of water, streambed, etc.

4) Determine if spill is Public or Private

5) Determine if hazardous substances are present as stated in Paragraph C of this section.

6) Identify and request any additional City personnel and equipment or private contractors necessary to contain the flow, mitigate the cause, and secure the site.

7) Take immediate steps to contain the overflow as detailed in Paragraph D of this section.

c. *Coordination with Hazardous Material Response, If Needed*

1) Upon arrival at the scene of an SSO, should a suspicious substance (e.g. oil sheen, foamy residue) be found on the ground surface, or should a suspicious odor (e.g. the strong smell of gasoline) not common to the sewer system be detected, the Sewer Division Supervisor/On-Call Duty Personnel should contact the local fire department. See Communication Plan for contact information.

2) If containment can be done without harmful exposure or contact, then containment shall be performed immediately. The response crew shall then wait for the arrival of the local fire department.

3) After arrival of the local fire department, sewer response crewmembers will take direction from the fire department's on scene commander. Only when the on scene commander determines it is safe and appropriate for the sewer response crew to proceed, can they then carry on with containment and cleanup activities in accordance with the SSMP and SORP.

* **<u>CAUTION:</u> Vehicle engines, portable pumps, or open flames (e.g. cigarette lighters) can provide the ignition for an explosion or fire should flammable vapors or fluids be present at the site. Maintain a safe distance and observe caution until and after assistance arrives.**

d. *Spill Containment and Site Isolation*

The primary objective of the responders to a sewer overflow incident is to protect the public's health. This can be achieved by working to achieve both containment of the overflow and the isolation of the spill site in an effort to avoid any human contact. Although these two tasks can be done simultaneously, the initial effort should be focused on the containment of the spill. Expeditious attempts must be made to prevent sewage from contaminating storm drains, drainage channels and surface waters by performing the following:

1) Determine the immediate destination of the overflow, e.g. storm drain, street curb gutter, body of water, culvert, landscaped area, et cetera.

2) Take immediate steps to contain the overflow, e.g.:

   a. Place sand bags and rubber mats around the storm drain inlet.
   b. Direct overflow to a natural low point, if possible, or construct a containment pond.
   c. Recover the ponded material utilizing a combination truck.

3) In the event of a prolonged line blockage, breakage or collapse, a

determination must be made to set up a portable bypass pumping operation around the problem area. If this becomes the case, personnel should continuously monitor the bypass pumping operation.

4) Control perimeter of overflow site with barricades, cones, vehicles, or other barrier to restrict access.

5) Establish required traffic control, per Regional Standard Drawings, to divert traffic around the spill area and work zone.

e. *Determine the Cause and Responsible Party of the Overflow*

Primary causes of a sewage overflow may include:

Public Causes:

1) Sewer main pipe blockage

2) Sewer main pipe failure

3) Pump station failure

Private Causes:

1) Private lateral pipe blockage

2) Private lateral failure

3) Grease trap overflow.

If the cause is found to be at a pump station or in a sewer main, the responsibility lies with the City of Imperial Beach to mitigate the sewer overflow and make the appropriate notifications. The service lateral that stems from the sewer main line, with the exception of the saddle connection to the main line, is owned by the associated private property owner(s). The City of Imperial Beach is required to respond to a private sewer spill and notify the proper authorities, but it is the responsibility of the property owner to mitigate and repair any damages resulting from that spill. If the property owner is not present, the City shall contain the spill and contact a plumbing contractor to make the necessary repairs. The property owner will then be accountable for the plumber's work and for the

time and materials expended by City Crews.

f. *Devise and Initiate a Remedy Plan of Action to Mitigate a Public Sewer Overflow (Sewer Division Supervisor/On-Call Duty Personnel)*

1) Gather any additional staff and/or equipment needed to put the plan of action into effect

2) Determine the flow path, width, length and depth in order to document the volume of the spill

3) If possible, take pictures to document the spill and your efforts to contain the flow and restore the area

4) Utilize the SSO Response Flow Chart to aid in decision making

g. *Correct Cause of the Overflow*

1) If overflow out of a manhole lid occurs, the spill response staff should work to remove the obstruction in the length of pipe downstream of that overflowing manhole.

2) If an attempt at cleaning the downstream pipe does not remedy the problem, the pipe flow shall be diverted around the overflowing manhole to allow the inspection of the suspected length(s) of pipe with a Closed Circuit Television unit.

3) In the event of a pipe breakage, that portion of the sewer conveyance system shall be bypassed in order to facilitate necessary repairs.

4) If there is an overflow out of a private cleanout, or a breakage in a private lateral, the City of Imperial Beach shall respond. If the property owner is unavailable to correct the cause of the spill, the City of Imperial Beach shall contain the spill and hire a private plumbing contractor to perform the necessary cleaning or repairs.

h. *Spill Cleanup*

Sewer overflow sites are to be thoroughly cleaned as soon as possible after the overflow incident is mitigated. No residue is to be left for future rains to carry away or for public contact to occur. The following steps should be taken to ensure that the overflow sites are returned to their former conditions:

1) Wash down and clean up all areas of the spill. Recover the wash down water and return it back into the system.

2) Solids and debris are to be flushed, swept, raked or picked up by combination truck, brought to the City's Public Works yard and contained in order to dry. The City's waste management contractor will then transport the dried solids from the Public Works yard to a landfill.

3) On impervious areas, the overflow site is to be disinfected with bleach with a 6:1 water to bleach concentration ratio. **Never** flush any disinfectant into a storm drain or body of water.

4) In the event of a grease trap spill, apply simple green with push broom. The simple green will break up the grease if left to soak. Then pressure wash and collect.

5) If sewage has resulted in ponding, the pond should be vacuumed dry with the combination truck and the residue and site cleanup managed as previously mentioned

i. *Spill Classification and Quantification (Sewer Division Supervisor/On-Call Duty Personnel*

Order 2006-0003 has identified three general classifications of spills based on volume, spill location, and flow path.

Category 1:

- Spills that reach surface waters, drainage channels or storm drain systems.
- Spills that are ∃ 1,000 gallons in volume.

Category 2:

- Spills which are < 1,000 gallons in volume.

Category 3:

- Private spills.

Spill quantification requires careful documentation and close observation of discharges. Staff should make every effort to maintain a careful chronology of the events during a spill and make every attempt to conduct linear measurements of the discharge streams and flow velocities in order to effectively quantify the spill volumes. Photo documentation of the spill event should become a routine procedure in the spill documentation process. Official estimates of the spill volume will be the responsibility of the Sewer Division Supervisor/On-Call Duty Personnel.

j. *Spill Documentation*

Aside from the "Sewer Overflow Report", which is the official report sent to the regulatory agencies and the local recipients, City of Imperial Beach employees shall also compile and document the SSO in the Quarterly Report spreadsheet.

Records shall be maintained by the City of Imperial Beach for a minimum of five years. The Regional Water Board Executive Officer may request for the five-year period to be extended.

k. *Posting*

Order 2006-0003 requires the posting of the spill location and quarantine area with contaminated water signs. The SDCDEH is the responsible authority for directing the closure of areas and the posting of signs, but the City of Imperial Beach will provide assistance if the request is made. The City of Imperial Beach does have the final authority though, and will conduct the posting under the following guidelines:

1. If posting at the beach is required, the signs shall be placed at 50-foot intervals for a minimum of 600 feet on each side of the point of ocean entry.

2. If posting at lagoons, wetlands, or creek beds is required, the signs shall be placed at 50-foot intervals for high use areas and 600-foot intervals for low use areas. Both sides of creek beds must be posted.

Whenever posting of any areas is conducted by the SDCDEH, it should be the responsibility of the Sewer Division Supervisor/On-Call Duty Personnel to remain in contact with the SDCDEH until such time as the signs are removed, so that answers about the impacts to the receiving waters can be provided to the Regional Board, the public and the Board of Supervisors, if appropriate.

l. *Spill Sampling and Monitoring*

The SDCDEH shall perform sampling of water impacted by the spill. Conducting sampling at the appropriate locations will allow staff to establish and

monitor the levels of contamination as well as to establish or compare with the natural background levels of bacteria in the receiving waters. The Environmental Program Manager will review the sampling reports.

The sampling regimen is to be continued until a determination is made that contamination resulting from the spill event no longer exists and no longer poses danger to the public. All final summary sampling and monitoring reports will be shared with the California Department of Fish and Game.

m. *Complete Loss of Power Plan*

This plan is for a complete loss of power that is expected to last for a period of time lasting more than eight hours but less than one month. At the initial loss of power, all Public Works personnel will report to the Public Works yard for assigned tasks and to gather needed equipment. Modifications to this manning schedule may be made with the Director's concurrence as the situation dictates.

The emergency response will consist of two seven-person teams that rotate on three eight-hour shifts with one half hour provided for turnover. (Turnover may be extended for sewer personnel but not to exceed two hours). The first team on assignment may require additional sewer personnel to set up the response plan. Any additional sewer personnel on the first response team will depart after three hours once the response plan is established and then return five hours later with Team Two. The management personnel on assignment is expected oversee multiple emergency response tasks for Public Works and dedicate time where need is the greatest.

Emergency Response Teams

Team 1	Team 2
Two sewer personnel	Two sewer personnel
Four non-sewer personnel	Four non-sewer personnel
One management personnel	One management personnel

Emergency Response Equipment

- One-Generator (130 kw)
- One-Generator (150 kw)
- Two-Bypass Pumps (4")
- Two-Bypass Pumps (3")
- One-Vactor Truck

Sewer Pump Stations

Pump Station ID	Location
1A	Seacoast Drive and Elm Avenue
1B	Seacoast Drive and I.B. Avenue
2	1300 block of Seacoast Drive
3	Fifth Street and Elm Avenue
4	Staples Alley
5	100 block of Dahlia Avenue
6	Calla Avenue and Rainbow Drive
7	Oneonta Avenue and California Street
8	Main Station, 800 block of I.B. Blvd
9	Ninth Street and Ebony Avenue
10	Cypress Avenue and Ninth Street
11 (Storm Water)	100 ½ Palm Ave

Emergency Response Team Responsibilities

Pump Station	Staff Assignment	Equipment
1B	1 Non-Sewer	Generator
3	1 Non-Sewer	Bypass Pump
5	1 Non-Sewer	Bypass Pump
8	1 Non-Sewer	Generator
2, 4, 6, and 7	2 Sewer	Bypass Pump
All	1 Management	Various
10	1 Sewer	Auxiliary Natural Gas

Notes:

- This plan assumes that no outside resources are used.
- Pump station 1A will bypass to pump station 5 and therefore does not need to be monitored.
- Pump station 8 and 9 bypass with each other and therefore only pump station 8 will need to have a generator.
- Pump station 10 has a natural gas generator and operates independently and only needs to be verified in operation.
- Pump station 11 wet well collects storm water runoff and has an ample amount of capacity and does not need to be manned under non-storm conditions. It will be pumped during low flow times on an as needed basis.
- If pump station 11 loses power during a storm then a generator will be needed or a bypass pump will be used at pump station 1B.

4. NOTIFICATION AND REPORTING OF A SPILL

The City of Imperial Beach has a responsibility to report and monitor all spills according to the requirements of Orders 2006-0003, R9-2007-0005, WQ 2008-0002-EXEC and its NPDES permits. Individual NPDES permit holders and enrollees under the statewide general sewer overflow (SSO) order are able to submit information to the Water Boards via the CIWQS online database. In order to prevent re-registration, the "Collection System Questionnaire" must be up-dated at least every 12 months. The Sewer Division Supervisor/On-Call Duty Personnel, or a delegated staff member shall submit the draft report of the spill to the CIWQS digital database. The draft report also needs to be certified by the Public Works Director in accordance with the timelines listed below and in the Response Flow Chart. All notification deadlines listed are to be met only if there is no substantial impact on mitigation, containment, cleanup or other emergency services. For specific contact information, see Section 2.0 of the City of Imperial Beach Sewer Maintenance Plan, by RBF Consulting. Refer to **Attachment D** for a notification report form that can be faxed to the Regional Board in case the CIWQS is not working. A spill notification matrix is located in **Attachment B**.

a. *Category 1 Spills That Reach Surface Waters, Drainage Channels or Storm Drain Systems*

1) The SDRWQCB, OES and SDCDEH shall all be notified via telephone, voice mail, written report or facsimile **within 2 hours** of contamination, if practicable.

2) Enter the notification data into CIWQS **within 24 hours** (no need to certify or enter all info).

3) Enter the draft report into CIWQS **within 3 days** and certify **within 15 days**.

b. *Category 1 Spills That Are ≥ 1,000 Gallons in Volume*

1) Notify the SDRWQCB by phone via telephone, voice mail, written report or facsimile **within 24 hours** of knowledge of the event.

2) Enter the draft report into CIWQS **within 3 days** and certify **within 15 days**.

c. *Category 2 Spills Which Are < 1,000 Gallons in Volume*

- Enter a certified report into CIWQS **within 30 days** after the month that the spill occurred

d. *Category 3 Spills*

e. *Non-Event Reporting Information*

- If there are no SSOs during the calendar month, a statement through the online CIWQS database is required to be submitted within 30 days of the end of that calendar month.

5. REVISIONS AND EMPLOYEE TRAINING

a. *SORP Revisions & Record Updating*

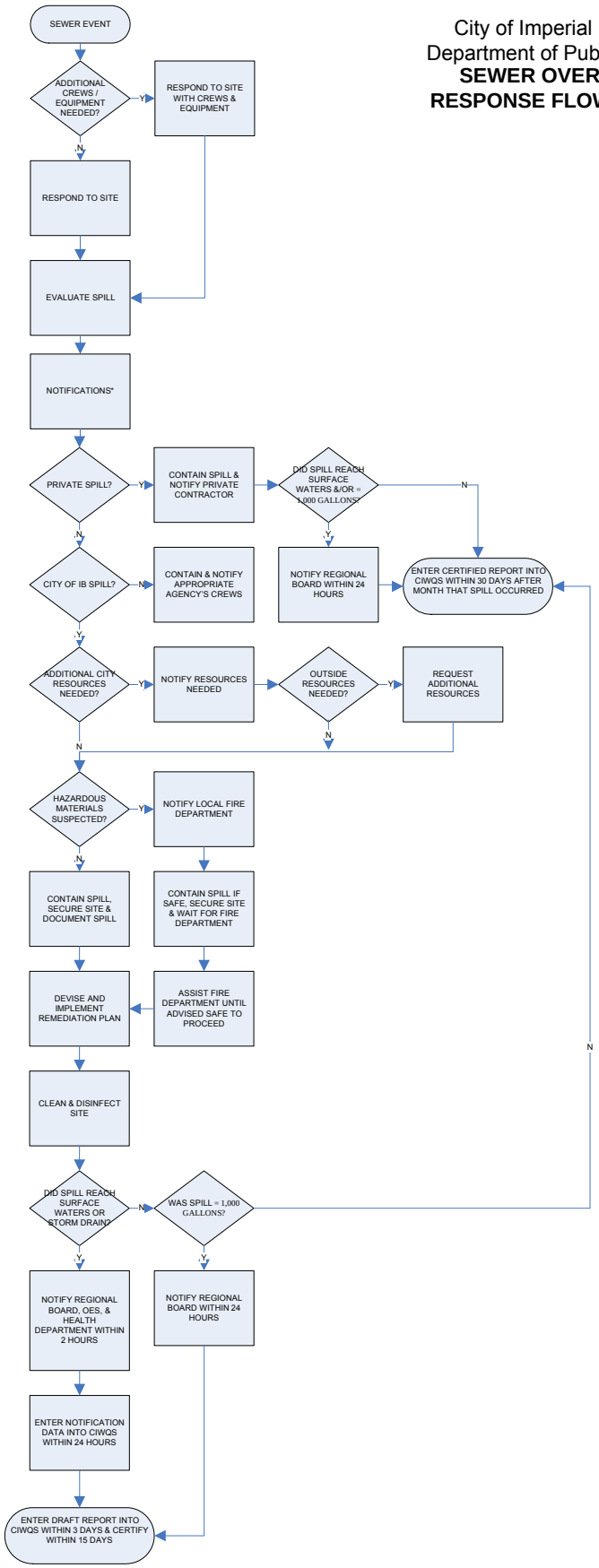
The City of Imperial Beach Sewer Overflow Response Plan shall be reviewed and revised, as necessary, specifically after events that do fall into the standard operating procedures that will allow the expansion of these instructions to include new circumstances or more efficient procedures. The Sewer Division Supervisor/On-Call Duty Personnel will conduct an annual review of the SORP in order to maintain a document that remains up-to-date. All relevant in-house records of spreadsheets and shape files shall be updated.

b. *Annual Training*

The Sewer Division Supervisor/On-Call Duty Personnel, or his/her designee, shall schedule annual training designed to identify resource shortcomings, clarify roles and responsibilities, improve response performance and reveal any response weaknesses. The training may consist of:

- **Response training-** An annual awareness training meeting will be conducted with respect to the details of the SORP and the responsibilities of each employee. All employees will attend this meeting. Additional training sessions may also be conducted at the discretion of the Public Works Director or Public Works Superintendent, to further familiarize their employees with the response procedures.
- **Tabletop exercise-** A simulated spill event may be scheduled, according to need, to allow the exercise participants to discuss and understand the necessary response actions, test equipment and gauge the response ability of the employees. Scheduling a simulate Tabletop exercise will be at the discretion of the Public Works Director.
- **Spill Review Committee-** After each spill event, the City of Imperial Beach Spill Review Committee will meet in order to review the event's cause, the procedural response of the employees, the regulatory and compliance documentation and whether additional issues and/or resources have to be addressed. The Spill Review Committee is comprised of the Sewer Division Supervisor/On-Call Duty Personnel, the Public Works Director, and the Public Works Superintendent.

City of Imperial Beach
Department of Public Works
SEWER OVERFLOW
RESPONSE FLOW CHART



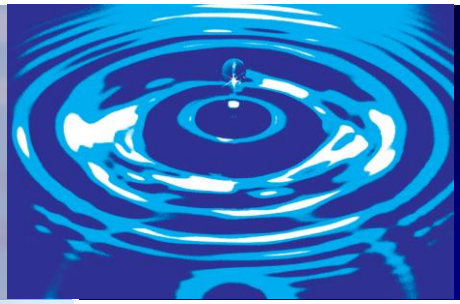
NOTIFICATIONS

NOTIFY LIFEGUARDS FOR ALL SPILLS THAT REACH STORM DRAINS OR SURFACE WATERS OR ARE AT THE BEACH

NOTIFY TIJUANA ESTUARY FOR SPILLS TRIBUTARY TO THE ESTUARY INCLUDING STORM DRAINS

NOTIFY THE PORT OF SAN DIEGO FOR SPILLS ON THE PIER

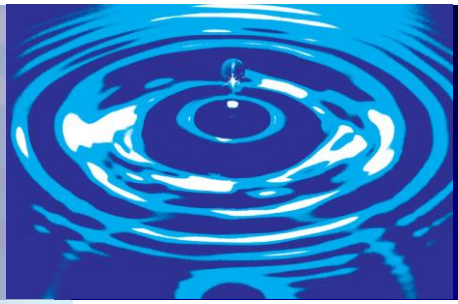
NOTIFY FIRE DEPARTMENT & COUNTY DEPARTMENT OF ENVIRONMENTAL HEALTH FOR SUSPECTED HAZARDOUS MATERIALS



ATTACHMENT B –
Spill Notification Matrix

Spill Notification Matrix

Situation	RWQCB Notification by Phone, Voice Mail or Facsimile within 24 Hours	RWQCB Sanitary Overflow Reporting for within 5 days	SDCDEH notification	Office of Emergency Services (OES) Notification	Notification to Other Recipients and Spill Entry Into the City of Imperial Beach Overflow Log
Untreated or secondary treated spills resulting in a discharge of greater that 1000 gallons to surface waters	YES	YES	YES	YES	YES
Untreated or secondary treated spills that do not result in a discharge to surface waters or are less than 1000 gallons	NO	NO	YES	NO	YES
Untreated or secondary treated spills that impact surface waters regardless of volume	YES	YES	YES	YES	YES



Attachment C

Sanitary Sewer Overflow Report

☐ Preliminary report ☐ Final report ☐ Revised final report

Sanitary Sewer Overflow Report

(Revised January 2003)

Sanitary Sewer Overflow Tracking Number:_____

Reported to: ☐ Sent Regional Board a fax ☐ Left Regional Board a voice mail message

☐ Spoke with RB staffer: _____

Date & Time reported: _____

Reported by: _____

(include a phonenumber where individual can be reached)

Reporting sewer agency: _____

Responsible sewer agency: _____

Overflow Start Date/Time _____**(AM/PM)**

Overflow End Date/Time _____**(AM/PM)**

Estimated overflow volume (gpm) _____

Total overflow volume recovered (gallons) _____

Estimated overflow volume recovered (gallons) _____

Volume released to the enviornment (gallons) _____

Overflow location _____

(Name of structure, e.g. pumpstation, etc. if applicable)

Street address: _____

City & Zip: _____

County: _____ **State:** _____

Number of overflows within 1000 feet of this location in last 12 months: _____

Dates of overflows within 1000 feet of this location in last 12 months: _____

Overflow cause: (check appropriate box)

☐ Roots ☐ Blockage ☐ Construction

☐ Rocks ☐ Flood damage ☐ Manhole failure

☐ Debris ☐ Line Break ☐ Pump Station failure

☐ Grease ☐ Infiltration ☐ Power Failure

☐ Vandalism ☐ Other _____

Overflow type: (check appropriate box)

☐ Untreated Sewage ☐ Secondary treated

☐ Recalimed water ☐ Other

RBF

Detailed explaination of the cause:

_____

_____

_____

_____

_____

_____

Overflow correction: (describe preventative and/or corrective measures taken/planned)

_____

_____

_____

_____

Was there measureable precipitation during the 72-hour period prior to the overflow?

☐ Yes ☐ No

Initial/Secondary receiving water impacted (check appropriate boxes)

Did the overflow reach a storm drain? ☐ Yes ☐ No

Did the overflow reach surface water other than a storm drain? ☐ Yes ☐ No

Name or Description of initial receiving waters

_____

_____

(e.g., stream, river, lake, pond, etc., if applicable)

Description of secondary receiving waters

_____

_____

(e.g., next impacted receiving water after first passin through the initial waters, if applicable)

Description of overflow's final destination if receiving water were not impacted

_____

(e.g., Vactor truck, etc.)

NOTIFICATION CHECKLIST

AGENCY	DATE	TIME	PHONE/FAX/VOICE (Indicated which)
Regional Water Qualtiy Control Board - San Diego (9) (858) 467-2952 (858) 571-6972 - Fax			
Regional Water Qualtiy Control Board - San Ana (8) (909) 782-4130 (909) 781-6288			
Office of Emergency Services (800) 852-7550			

Affected area posting (check appropriate boxes)

Were signs posted to warn of contamination? ☐ Yes ☐ No

How many days were signs posted? _____

(This information should be verified)

Additional remarks or comments

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

NOTES:

1. **For descriptions and clarifications of all items on this form, refer to the San Diego Regional Water Quality Control Board Order 96-04 as amended, including the document entitled, "Required Fields for Order 96-04 Quarterly Summary Report".**

2. **If the sanitary overflow event results in a discharge of 1,000 gallons or more, or in a discharge to surface waters, this form must be received by the San Diego Regional Water Quality Control Board no later than 5 days after the overflow start date.**

The following certification must be completed with the 5-day notice:

Certification statement:

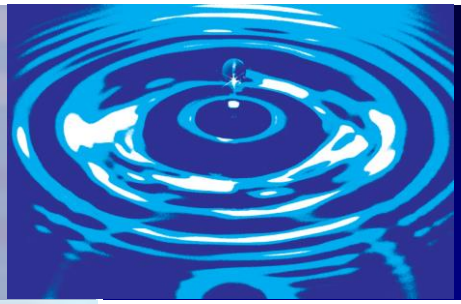
I swear under penalty of perjury that the information submitted in this document is true and correct. I certify under penalty of perjury that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

Signature

Name

Title

Date



Attachment D –
Sanitary Sewer Overflow Notification Form

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD –
SANITARY SEWER OVERFLOW 24-HOUR NOTIFICATION REPORT FORM
FOR CATEGORY 1 SPILLS IN THE SAN DIEGO REGION
ORDER No. R9-2007-0005

If CIWQS is not working , the 3-day draft report may be faxed in using this form. Please provide the following information, if available.

RWQCB STAFF CONTACT _____

DATE OF NOTIFICATION ___ / ___ / ___ TIME OF NOTIFICATION __ __ : __ __ AM / PM

REPORTED BY _____ PHONE: (_____) _____

REPORTING AGENCY: _____

AGENCY ADDRESS: _____

RESPONIBLE PARTY (if not the Reporting Agency): _____ O

O PUBLIC SPILL O PRIVATE SPILL

ESTIMATED TOTAL SSO VOLUME (GALLONS): _____

ESTIMATED RECOVERED VOLUME (GALLONS): _____

LOCATION OF SSO: _____ START DAY/TIME: _____

_____ O CONTAINED O ON-GOING

CITY: _____ END DAY/TIME: _____

ZIP: _____

WATERS OF STATE IMPACTED? O YES O NO

STORM DRAIN: _____

PRIMARY SURFACE WATER: _____

SECONDARY SURFACE WATER: _____

OTHER IMPACTED WATER: _____

BEACH CLOSURE? O YES O NO LOCATION: _____

LOCAL HEALTH AGENCY NOTIFIED IMMEDIATELY? O YES O NO DATE/TIME _____

OFFICE OF EMERGENCY SERVICES NOTIFIED? O YES O NO DATE/TIME _____

OES CONTROL # _____

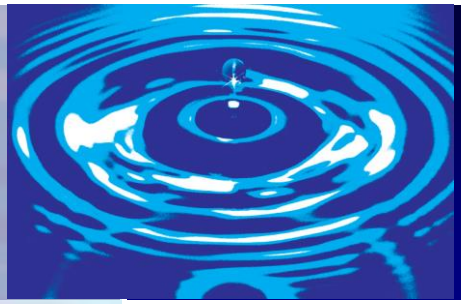
CAUSE / COMMENTS / OTHER DETAILS:

_____

_____

_____

RBF



Attachment E –
Sewer Spill Estimating

Spill Volume Estimating

A variety of approaches exist for the estimation of the volume of a sanitary sewer overflow. This appendix documents the three methods that are most often employed by the City of San Diego. The person preparing the estimate should use the method most appropriate to the sewer overflow in question using the best information available. Every effort should be made to make the best possible estimate of the volume. Assistance from the WWC Engineering Section should be sought for larger sewer overflows.

Method 1 Eyeball Estimate

The volume of very small spills can be estimated using an "eyeball estimate." To use this method imagine the amount of water that would spill from a bucket or a barrel. A bucket contains 5 gallons and a barrel contains 50 gallons. If the spill is larger than 50 gallons, try to break the standing water into barrels and then multiply by 50 gallons. This method is useful for contained spills up to 100 gallons.

Method 2 Measured Volume

The volume of most small spills can be estimated using this method. The shape, dimensions, and the depth of the spilled wastewater are needed. The shape and dimensions are used to calculate the area of the spills and the depth is used to calculate the volume.

Step 1 Sketch the shape of the contained sewage
Step 2 Measure or pace off the dimensions.
Step 3 Measure the depth at several locations
Step 4 Convert the dimensions, including depth to feet.
Step 5 Calculate the area using the following formulas:

Rectangle	Area = length x width
Circle	Area = $0.785 \times D^2$ (where D is diameter of pipe)
Triangle	Area = base x height x 0.5

Step 6 Multiply the area times the depth
Step 7 Multiply the volume by 7.5 to convert it to gallons

Method 3 Duration and Flow Rate

Calculating the volume of spills where it is difficult or impossible to measure the area and depth requires a different approach. In this method a separate estimate is made of the duration of the spill and the flow rate. The methods of estimating duration and flow rate are:

Duration: The duration is the elapsed time from the start time to the time the spill stopped.

Start time is sometimes difficult to establish. Here are some approaches:

Local residents can be used to establish start time. Inquire as to their observations. Spills that occur in rights-of-way are usually observed and reported in short order. Spills that occur out of the public view can go on longer. Sometimes observations like odors or sounds (e.g. water running in a normally dry creek bed) can be used to estimate the start time.

Changes in flow on a downstream flowmeter can be used to establish the start time. Typically the daily flow peaks are "cut off" or flattened by the loss of flow. This can be identified by comparing hourly flow data, when available.

Conditions at the spill site change with time. Initially there will be limited deposits of grease and toilet paper. After a few days to a week, the grease forms a light colored residue. After a few weeks to a month the grease turns dark. In both cases the quantity of toilet paper and other materials of sewage origin increase in amount. These changes with time can be used to estimate the start time in the absence of other information.

End time is usually much easier to establish. Field crews on-site observe the "blow down" that occurs when the blockage has been removed. The "blow down" can also be observed in downstream flowmeters.

Flow Rate: The flow rate is the average flow that left the sewer system during the time of the spill. There are three ways to estimate the flow rate:

San Diego Manhole Flow Rate Chart: This chart shows the sewage flowing from a manhole cover for a variety of flow rates. The observations of the field crew are used to select the approximate flow rate from the chart.

Flowmeter: Changes in flows in the downstream flowmeters can be used to estimate the flow rate during the spill.

Estimate based on up-stream connections: Once the location of the spill is known, the number of upstream connections can be determined from the field books. Multiply the number of connection by 200 to 250 gallons per day per connection or 8-10 gallons per hour per connection.

Once duration and flow rate have been estimated, the volume of the spill is the product of the duration in hours or days times the flow rate in gallons per hour or gallons per day.

City of San Diego
Metropolitan Wastewater Department

Reference Sheet for Estimating Sewer Spills from Overflowing Sewer Manholes

All estimates are calculated in gallons per minute (gpm)

Wastewater Collection Division
(619) 654-4160

5 gpm

25 gpm

50 gpm

100 gpm

150 gpm

200 gpm

225 gpm

250 gpm

275 gpm

All photos were taken during a demonstration using metered water from a hydrant in cooperation with the City of San Diego's Water Department.

rev. 4/99

APPENDIX I
Fats Oil & Grease Control Program

This Section Contains:

Fats Oil & Grease Control Program

City of Imperial Beach
Fats Oil and Grease Source Control Program

The Environmental Program Division will inspect all Food Service Establishments (FSE). The inspections will determine if the establishment is in compliance with the Uniform Plumbing Code, training their staff, following best management practices for grease elimination, and properly maintaining their pre-treatment devices. The inspections will consist of the following

Evaluation of the Establishment

This stage of the inspection is used to determine whether or not pre-treatment devices are needed and are in use, and that existing plumbing is properly connected and meets the Uniform Plumbing Code.

Pre-treatment Device Inspection

Inspections of all grease interceptors, grease traps or other pre-treatment devices to insure that they are sufficient for the facility, are properly maintained and are working properly.

Documentation Inspection

Review employee-training records, grease removal equipment maintenance records, and grease pumping records or receipts.

Follow Up Inspections

Written notices will be given to business that are not currently meeting the program standards. A timetable to become compliant will be on a case-by-case basis. Follow up inspections will insure that FSEs are correcting violations.

In order to lessen the immediate financial hardship waivers will be given to existing FSEs that implement Best Management Practices that effectively control grease discharge. Some phasing will be needed to allow businesses to spread out the cost of compliance. The type of business and the impact on the sewer system will be considered when developing the timetable for compliance. New businesses, businesses that change ownership, or remodel the kitchen are required to meet the program standards.

ORDINANCE NO. 2012-1131

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF IMPERIAL BEACH, CALIFORNIA ADDING CHAPTER 13.14 OF THE IMPERIAL BEACH MUNICIPAL CODE RELATED TO THE REGULATION OF FATS, OILS AND GREASE DISPOSAL IN THE SEWER COLLECTION SYSTEM AND AMENDING SECTION 13.04.040 OF THE IMPERIAL BEACH MUNICIPAL CODE

WHEREAS, on May 2, 2006, the State Water Resources Control Board (SWRCB) adopted and implemented Order No. 2006-0003 Statewide General Waste Discharge Requirements (WDR) for Sanitary Sewer Systems; and

WHEREAS, the WDR requires the City to control the impacts of fats, oils, and grease (FOG) on the collection system and to establish the legal authority to implement and enforce a FOG control program; and

WHEREAS, the City Council finds that an ordinance for regulating the disposal of FOG from commercial kitchens is necessary to protect public health, safety, and environment; to reduce the required maintenance effort by City staff to prevent sewer system overflows; to establish best management practices for commercial kitchens operating in the City; and to provide for the legal authority for the City to enforce its FOG control program; and

WHEREAS, Chapter 13.14 of the Imperial Beach Municipal Code will provide the necessary direction and authority to manage the discharge of grease from commercial kitchens and help prevent sanitary sewer overflows from the accumulation of grease in the municipal sewer system; and

WHEREAS, an update to Section 13.04.040 E. of the Imperial Beach Municipal Code is also necessary to reference the most recently adopted edition of the California Plumbing Code.

NOW, THEREFORE, IT IS ORDAINED BY THE CITY COUNCIL OF THE CITY OF IMPERIAL BEACH AS FOLLOWS:

Section 1: Section 13.04.040 of Chapter 13.04 of the Imperial Beach Municipal Code is hereby amended to read as follows:

13.04.040. Connection to public sewer required—Design specifications.

A. No person whose premises are so located that a public sewer is within two hundred feet of the place of origin of sewage on the premises shall install any septic tank or use any means of disposing of such sewage other than through a connection with the City sewer facility. Each such person shall be required to connect such premises with the sewer system and to pay all costs and charges provided for under this chapter.

B. All persons whose premises are connected to the public sewer shall be responsible for the installation, maintenance and upkeep of the building sewer and the sewer lateral to the point where the lateral attaches to the saddle connection on the public sewer or sewer main.

C. New sewers and connections to the sewer system will meet all requirements of the Uniform Plumbing Code, copies of which are on file with the Department of Public Works and the Building Department; the standard plans and specifications of the City for construction in the public right-of-way; and shall also meet the design requirements as established from time to time by the City Engineer.

D. Except as expressly provided in this code, all work performed and all plans and specifications required under the provisions of this chapter shall conform to the requirements prescribed by the the editions of "The San Diego Area—Regional Standard Drawings" and "The Standard Specifications for Public Works Construction" and associated supplements, and "Standard Plans for Public Works Construction" in effect as of November 2, 2008, unless exempted or modified by the City Council of the City of Imperial Beach. To the extent possible, all designs and plans shall provide for vehicular access to all manholes and cleanouts in the sewer main system.

E. All building permit plans or designs shall comply with the currently adopted edition of the California Plumbing Code as set forth in chapter 15.32 of the Municipal Code. This compliance includes the duty to eliminate or minimize the sewer system impacts due to fats, oils, and grease discharge.

Section 2: A new Chapter 13.14 – Regulation of Fats, Oils and Grease Disposal in the Sewer Collection System - is hereby added to the Imperial Beach Municipal Code to read as shown in Exhibit "A" that is attached hereto and incorporated herein by reference.

Section 3: Severability. If any section, subsection, subdivision, paragraph, sentence, clause or phrase of this Ordinance, or its application to any person or circumstance, is for any reason held to be invalid or unenforceable, such invalidity or unenforceability shall not affect the validity or enforceability of the remaining sections, subsections, subdivisions, paragraphs, sentences, clauses or phrases of this Ordinance, or its application to any other person or circumstance. The City Council declares that it would have adopted each section, subsection, subdivision, paragraph, sentence, clause or phrase hereof, irrespective of the fact that any one or more other sections, subsections, subdivisions, paragraphs, sentences, clauses or phrases hereof be declared invalid or unenforceable.

Section 4: 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 fifteen (15) days following adoption indicating votes cast.

EFFECTIVE DATE: This Ordinance shall be effective thirty (30) days after its adoption.

INTRODUCED AND FIRST READ at a regular meeting of the City Council of the City of Imperial Beach, California, on the 7th day of November 2012;

THEREAFTER ADOPTED at a regular meeting of the City Council of the City of Imperial Beach, California, on the 21st day of November 2012, by the following vote:

AYES:	**COUNCILMEMBERS:**	**BILBRAY, BRAGG, SPRIGGS, JANNEY**
NOES:	**COUNCILMEMBERS:**	**NONE**
ABSENT:	**COUNCILMEMBERS:**	**KING**

[redacted]

JAMES C. JANNEY, MAYOR

ATTEST:

[redacted]

JACQUELINE M. HALD, MMC
CITY CLERK

APPROVED AS TO FORM:

[redacted]

JENNIFER M. LYON, ESQ.
CITY ATTORNEY

SEE EXHIBIT "A"

CHAPTER 13.14- REGULATION OF FATS, OILS AND GREASE DISPOSAL IN THE SEWER COLLECTION SYSTEM

13.14.010 – Purpose and Intent

It is the intent of this article to establish regulations for the disposal of grease and other insoluble waste discharges from commercial kitchens within the City. The City council, in enacting the ordinance codified in this article, intends to provide for the protection and maximum beneficial public use of the City's sewer system, to prevent sewer system overflows from the buildup of grease in sewer lines, to ensure the cost of maintaining the public sewer system is equitably distributed amongst users, to clarify grease disposal requirements for existing commercial kitchens, and to promote public health and safety.

13.14.020 – Definitions

"Best management practices (BMPs)" means schedules of activities, prohibitions of practices, maintenance procedures and other management practices to prevent or reduce the introduction of FOG to the sewer facilities.

"Change in operations" means any change in the ownership, food types, or operational procedures that have the potential to increase the amount of FOG generated and/or discharged by FSEs in an amount that alone or collectively causes or creates a potential for SSOs to occur.

"City Manager" means the City Manager of the City of Imperial Beach or his or her designee.

"Discharger" means any person who discharges or causes a discharge of wastewater directly or indirectly to a public sewer. Discharger shall mean the same as user.

"Effluent" means any liquid outflow from the FSE that is discharged to the sewer.

"Existing Food Service Establishment" means a FSE which legally exists and operates at the time of the effective date of this Chapter.

"Fats, oils and grease (FOG)" means any substance such as a vegetable or animal product that is used in, or is a byproduct of, the cooking or food preparation process, and that turns or may turn viscous or solidifies with a change in temperature or other conditions.

"FOG control program" means the FOG control program required by and developed pursuant to State Water Resources Control Board (SWRCB) ORDER NO. 2006-0003-DWQ.

"Food Grinder" means any device installed in the plumbing or sewage system for the purpose of grinding food waste or food preparation by products for the purpose of disposing it in the sewer system.

"ood Service Establishment (FSE)" means any food preparation establishment, restaurant, cafeteria, or any other establishment preparing food for consumption. Domestic homes are not considered food service establishments under this definition.

"Grease control device" means any grease interceptor, grease trap or other mechanism, device or process, which attaches to, or is applied to, wastewater plumbing fixtures and lines, the purpose of which is to trap or collect or treat FOG prior to it being discharged into the sewer system. "Grease control device" may also include any other proven method to reduce FOG subject to the approval of the City.

"Grease interceptor" means a multi-compartment device that is constructed in different sizes and is generally required to be located, according to the California Plumbing Code, underground between a FSE and the connection to the sewer system. These devices primarily use gravity to separate FOG from the wastewater as it moves from one compartment to the next. These devices must be cleaned, maintained, and have the FOG removed and disposed of in a proper manner on regular intervals to be effective.

"Grease trap" means a grease control device that is used to serve individual fixtures and have limited effect and should only be used in those cases where the use of a grease interceptor or other grease control device is determined to be impossible or impracticable.

"Hot spots" means areas in sewer lines that have experienced sanitary sewer overflows or that must be cleaned or maintained frequently to avoid blockages of sewer system.

"Interceptor" means a grease interceptor.

"Program Manager" means the individual designated by the City Manager to administer the FOG control program. A consultant retained under contract by the City may be designated as the FOG control program manager. The FOG control program manager is responsible for all determinations of compliance with the program, including approval of discretionary waivers, inspections and development and implementation of the best management practices and the rules and regulations for the City's FOG control program.

13.14.030 – FOG Discharge Prohibited

No FSE shall discharge or cause to be discharged FOG into the sewer system.

13.14.040 – Conditions for grease disposal at Food Service Establishments

FSEs shall comply with the following conditions:

A. If requested, the FSE shall submit pertinent information on business operations to the City in order to assess the overall impact on the sewer collection system. The FSE may be required to submit, in units and terms appropriate for evaluation, the following information:

1. Name, address and Standard Industrial Classification number of FSE;

2. Volume of wastewater to be discharged;

3. Proposed wastewater constituents;

4. Time of daily food preparation operations;

5. Average and 30-minute peak wastewater flow rates, including daily, monthly and seasonal variation if any;

6. Description of activities, facilities and plant processes on the premises including all materials which are or could be discharged;

7. Plans or diagrams depicting location of on-site sewer lines pumping stations and any reclamation or pretreatment facilities;

8. Description of food preparation, type, number of meals served, cleanup procedures, dining room capacity, number of employees and size of kitchen;

9. Any other information required by the Program Manager to evaluate the FOG disposal of the FSE. The Program Manager will evaluate the data submitted and may require additional information.

B. The Program Manager will evaluate the data furnished by the applicant and may require additional information. Prior to or after evaluation and acceptance of the data furnished, an on -site inspection of the waste discharge system, treatment systems or other systems relating to the waste discharge may be required. The Program Manager may then permit FOG discharge subject to terms and conditions provided herein.

C. FSE grease disposal shall be allowed only for specific use for a specific operation. Re-evaluation may be required for any sale, lease, transfer or assignment of the premises or business or any change in operations.

3.14.050 – Prohibitions. The following prohibitions shall apply to all Food Service Establishments

A. Installation of food grinders in new constructions of Food Service Establishments shall be prohibited. Furthermore, all food grinders shall be removed from existing Food Service Establishments within 180 days of the effective date of these regulations.

B. Introduction of any additives into a Food Service Establishment's wastewater system for the purpose of emulsifying FOG is prohibited, unless a specific written authorization from the Program Manager is obtained based upon evidence showing that such additives will not cause or contribute to interference and/or a sewer system overflow.

C. Discharge of wastewater with temperatures in excess of 140°F to any grease control device, including interceptors is prohibited.

D. The use of biological additives to treat or reduce FOG or as a supplement to interceptor maintenance, without prior authorization from the Program Manager, is prohibited. Such authorization shall be based upon evidence showing that such biological additives will not cause or contribute to interference and/or a sewer system overflow.

E. No waste removed from a grease control device may be discharged to the sewer system.

13.14.060 – Grease control for new and existing food service establishments

All building permit plans or designs shall comply with applicable sections of the Plumbing Code of the City of Imperial Beach to eliminate or minimize the sewer system impacts due to fats, oils, and grease discharge.

A. Food Service Establishments are required to install, operate and maintain an approved type and adequately sized grease control device necessary to maintain compliance with the objectives of this Chapter.

1. New Food Service Establishments.

a. Food Service Establishments which are newly constructed shall install, operate, and maintain a grease control device prior to and following commencement of wastewater discharges to the sewer system.

b. Newly constructed Food Service Establishments shall size grease control devices according to the Plumbing Code of the City of Imperial Beach.

c. New Food Service Establishments opening a new business in the location of a previous FSE without remodeling the facility shall be required to install a grease control device.

2. Existing Food Service Establishments.

    a. Existing Food Service Establishments shall be required to install and commence proper operation of a grease control device upon notification by the City if in the determination of the Program Manager any of the following apply:

        (1) The Existing Food Service Establishment has caused or contributed to a grease-related blockage in the sewer system including private laterals, or which have sewer laterals connected to hot spots deemed to have significant potential to adversely impact the sewer system.

        (2) The Existing Food Service Establishment has contributed to the buildup of FOG in the sewer collection system, which may be determined through observation of kitchen equipment or operations, observation of grease in the sewer lateral, or testing of effluent shall be deemed to have a reasonable potential to adversely impact the sewer system.

        (3) The Existing Food Service Establishment has (a) made any change in food preparation or business operations that is different than the original business application and (b) those changes will lead to an increase in grease disposal which have been deemed to have reasonable potential to adversely impact the sewer system.

    b. Existing Food Service Establishments without a current California Plumbing Code compliant grease control devise that remodels the facility or expands kitchen area shall be required to install a grease control device.

    c. Existing Food Service Establishments which have already installed a grease control device at the time of adoption of this Chapter will be allowed to continue using said device provided it is in proper working order and meets the standards of the Plumbing Code of the City of Imperial Beach.

B. The grease control device shall be connected to all grease bearing fixtures and adequate to separate and remove FOG contained in wastewater discharges from any establishment prior to discharge to the sewer system.

C. Property owners of commercial developments or their official designee shall be responsible for the installation and maintenance of the grease control device serving multiple establishments that are located on a single parcel.

D. Conditional Waiver

1. Any FSE may obtain a conditional waiver from the Program Manager, in order to avoid compliance with the grease removal device installation requirement. The FSE bears the burden of demonstrating, to the Program Manager's reasonable satisfaction, that the installation of a grease removal device is not necessary and that acceptable alternatives such as, but not limited to, installation of alternative technologies or implementation of BMPs will be sufficient to prevent significant FOG discharges from

the applicant. Upon determination by the Program Manager that a conditional waiver may be granted, the FSE will be given notice in writing that a waiver has been approved and that the FSE is relieved of the requirement to install a grease removal device. So long as the waiver remains effective the Program Manager may impose terms and conditions on the issuance of a waiver and may impose conditions on the FSE's business license in accordance with any approved waiver.

2. A conditional waiver may be suspended or revoked at any time when any of the terms and conditions for its issuance is not satisfied or if the conditions upon which the conditional waiver was based change so that the justification for the exception no longer exists. Appeal of any suspension or revocation may be made, as provided in this Chapter.

3. Period of Validity. The conditional *waiver* shall be valid only so long as the FSE remains in compliance with all requirements of this Chapter, including, but not limited to, the requirements to apply for a new or renewed business license and to implement BMPs. The conditional *waiver* may be suspended or revoked if any of the terms and conditions for its issuance are not satisfied. Appeal of any suspension or revocation may be made as provided in this Chapter.

4. Appeals. The applicant or any interested person may appeal the decision of the Program Manager in accordance with the provisions of this Chapter.

13.14.070 – Grease control device maintenance requirements

A. Each commercial kitchen with a grease control device shall be required to employ an appropriate service or procedures for periodic collection of accumulated grease from any grease control device. The collection schedule shall be determined by the following criteria:

   1. Twenty Five Percent Rule. Grease control devices shall be fully pumped out and cleaned at a frequency such that the combined FOG and solids accumulation does not exceed 25% of the total designed hydraulic depth of the grease control device. This is to ensure that the minimum hydraulic retention time and required available hydraulic volume is maintained to effectively intercept and retain FOG discharged to the sewer system.

   2. Each Food Service Establishment with a grease control device shall fully pump out and clean its grease control device not less than every 6 months, unless required sooner by the 25% Rule in section 13.14.070(A)(1).

B. Maintenance Records. Each commercial kitchen with a grease control device shall be required to keep records of cleaning, maintenance and grease removal. All such records must be retained on site by the permitted facility for a minimum of three (3) years. A separate maintenance log shall be maintained for each grease control device and posted in the immediate vicinity of each device. Maintenance logs shall include the following information: Grease control device location and volume; maintenance dates; volume removed (gallons); disposal methods; and name of person performing maintenance and, if the person is not employed by the commercial kitchen, the name, address and phone number of the person or company performing the maintenance activities.

C. Inspection. Each commercial kitchen with a grease control device shall allow City representatives access to the premises during normal business hours and at reasonable times, for purposes of sampling, inspections and review of records relating to commercial kitchen grease disposal.

13.14.080 – Best management practices

All Food Service Establishments must install, implement and maintain the following minimum best management practices:

A. Drain screens. Drain screens shall be installed on all drainage pipes in food preparation areas.

B. Waste cooking oil.

1. All waste cooking oil shall be collected and stored properly in recycling barrels or drums.

2. Such recycling barrels or drums shall be maintained appropriately to ensure they do not leak.

3. Licensed haulers or an approved recycling facility must be used to dispose of waste cooking oil.

C. Food waste. All food waste shall be properly disposed of as organic waste or placed in enclosed plastic bags and disposed directly into the trash or garbage, and not in sinks.

D. Employee training.

1. Employees of the food service establishment shall be trained at the beginning of their term of employment, and once each calendar year thereafter, on the following subjects:

a. How to "dry wipe" pots, pans, dishware and work areas before washing, to remove grease.

b. How to properly dispose of food waste and solids.

c. The location and use of absorption products to clean under fryer baskets and other locations where grease may be spilled or dripped.

d. How to properly dispose of grease or oils from cooking equipment into a grease barrel or drum without spilling.

2. Kitchen exhaust filters and hoods shall be cleaned at least annually to be maintained in good operating condition

3.14.090 – Enforcement

Any violation of this Chapter is hereby deemed a public nuisance and may be abated under Chapter 1.16 of this Imperial Beach Municipal Code or as otherwise provided therein. Authorized enforcement officials and authorized enforcement staff may also enforce violations of this Chapter as follows:

A. Administrative Penalties. Administrative penalties may include, but not be limited to, the recovery of fines assessed against the City of Imperial Beach by the RWQCB.

B. Cease and Desist Orders. Written and/or verbal orders may be issued to stop illegal discharges and/or remove illegal connections.

C. Notice and Order to Clean, Test, or Abate. Written and/or verbal orders may be issued to perform any act required by this Chapter where conditions warrant.

D. Public Nuisance Abatement. Violations of this Chapter are deemed a threat to public health, safety, and welfare, and are identified as a public nuisance. If actions ordered pursuant to this Chapter are not performed, the authorized enforcement official may abate any public nuisance. City costs for pollution detection and abatement, if not paid in full by the discharger in addition to any other penalties, may be made a lien against the property in accordance with this procedure.

E. Stop Work Orders. Whenever any work is being done contrary to the provisions of this Chapter, an authorized enforcement official may order the work stopped by notice in writing served on any person engaged in the doing or causing such work to be done, and any such person shall immediately stop such work until authorized by the authorized enforcement official to proceed with the work.

F. Permit Suspension or Revocation. Violations of this Chapter may be grounds for permit and/or other City license suspension or revocation in accordance with applicable sections of the Imperial Beach Municipal Code.

G. Legal action. The City may pursue any other legal remedies available, including but not limited, filing civil, criminal and/or injunctive relief actions in Superior Court. Any violation of this Chapter shall constitute a misdemeanor, unless otherwise charged as an infraction, at the discretion of the City Attorney.

H. Penalties and Remedies Not Exclusive. Penalties and remedies under this article may be cumulative and in addition to other administrative, civil or criminal remedies.

I. Appeals of fines, penalties or requirements to install grease control devices.

1. Appeals of fines, penalties, or requirements to install grease control devices shall be submitted to the city manager within thirty days after the FSE has been notified of the penalty and/or corrective actions. The decision of the city manager shall be in writing.

2. The decision of the city manager can be appealed to the city council by submitting a written request to the city clerk within fifteen days of the issuance of the city manager's decision, and payment of the appropriate fee, if any, as set by resolution of the city council.

3. Upon appeal, the appellant shall, upon written request to the city manager, be provided within fifteen days of said request, at reasonable cost to the appellant, copies of all reports, data or other documentary evidence upon which the citation is based.

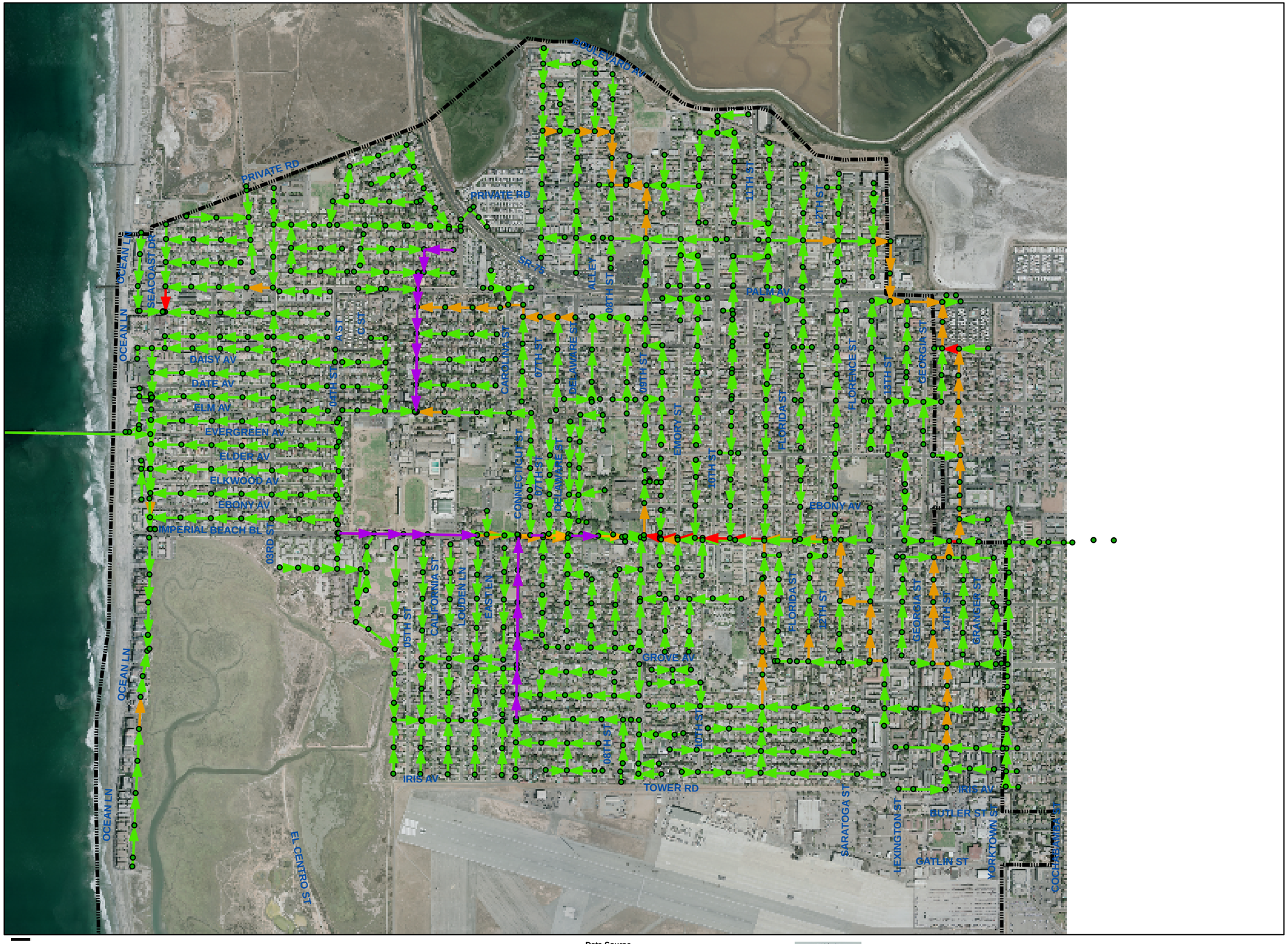
APPENDIX J
System Evaluation & Capacity Assurance Program

This Section Contains:

Hydraulic Model Generated Maps Showing:

1. Current Dry Weather Peak Flow
2. Current Wet Weather Flow
3. Future Dry Weather Peak Flow
4. Future Wet weather Flow

Wet Well Sizing Analysis



Legend

- Mains Over Capacity Pumped Flow
- Manholes

Mains 18" or Greater

d_D_Current

- 0.284119 - 0.500000
- 0.500001 - 0.750000
- 0.750001 - 0.642090

Mains Less Than 18"

d_D_Current

- 0.000000 - 0.300000
- 0.300001 - 0.500000
- 0.500001 - 1.000000
- Boundary

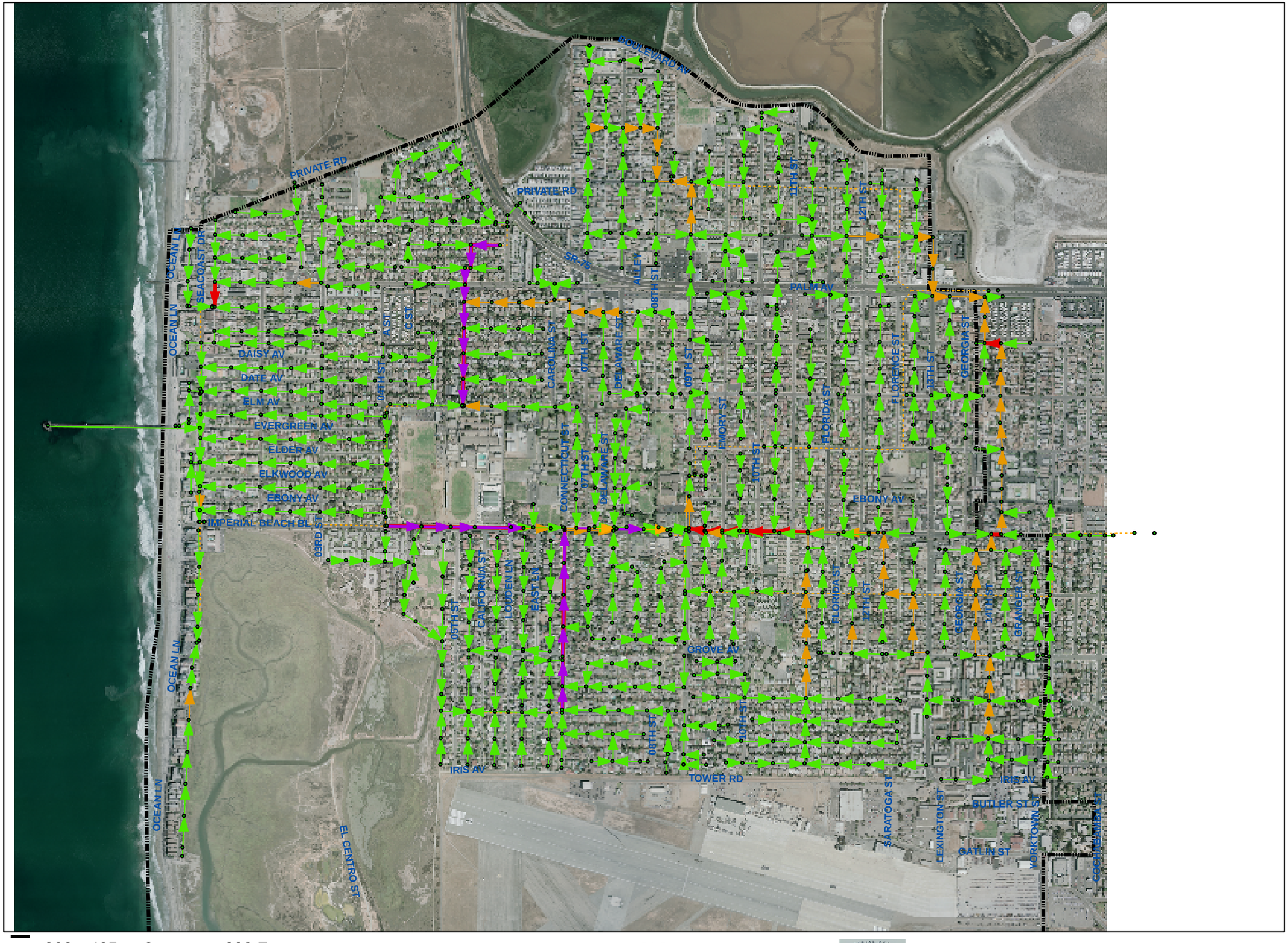
June 2008

970 485 0 970 Feet

Data Source

Manhole locations determined by GPS land survey by RBF Consulting, June 2007
Pipeline information from previous system maps
with selected CCTV verification.
Datum: NAD 83 Feet, California State Plane Zone VI

MAX d/D Capacity Current



Legend

- Manholes
- Mains Over Capacity Pumped Flow selection

Mains 18" or Greater

d_D_Current

- 0.284119 - 0.500000
- 0.500001 - 0.750000
- 0.750001 - 0.642090

Mains Less Than 18"

d_D_Current

- 0.000000 - 0.300000
- 0.300001 - 0.500000
- 0.500001 - 1.000000

SewerLines

TYPE

- Force Mains
- Dual Flat Line
- Boundary

June 2008

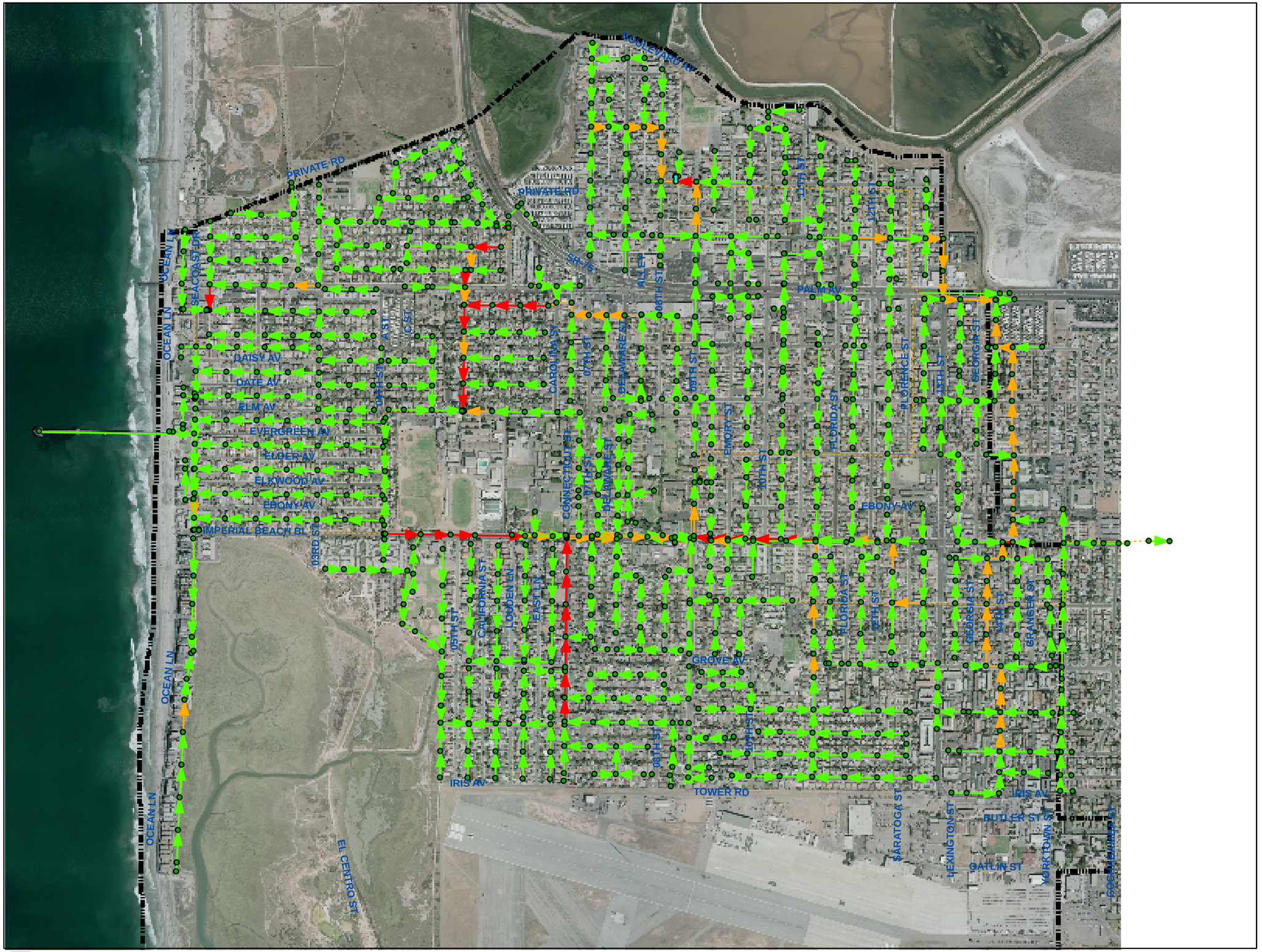
990 495 0 990 Feet

Scale 1" = 200'

Data Source

Manhole locations determined by GPS land survey by RBF Consulting, June 2007
Pipeline information from previous system maps
with selected CCTV verification.

MAX d/D 10 YEAR STORM



Legend

- Manholes

SewerLines 18" or greater

Future.MAX_DD

- 0.010551 - 0.500000
- 0.500001 - 0.750000
- 0.750001 - 1.000000

SewerLines less than 18"

Future.MAX_DD

- 0.000000 - 0.330000
- 0.330001 - 0.500000
- 0.500001 - 1.000000

SewerLines

TYPE

- Force Mains
- Dual Flat Line

June, 2008

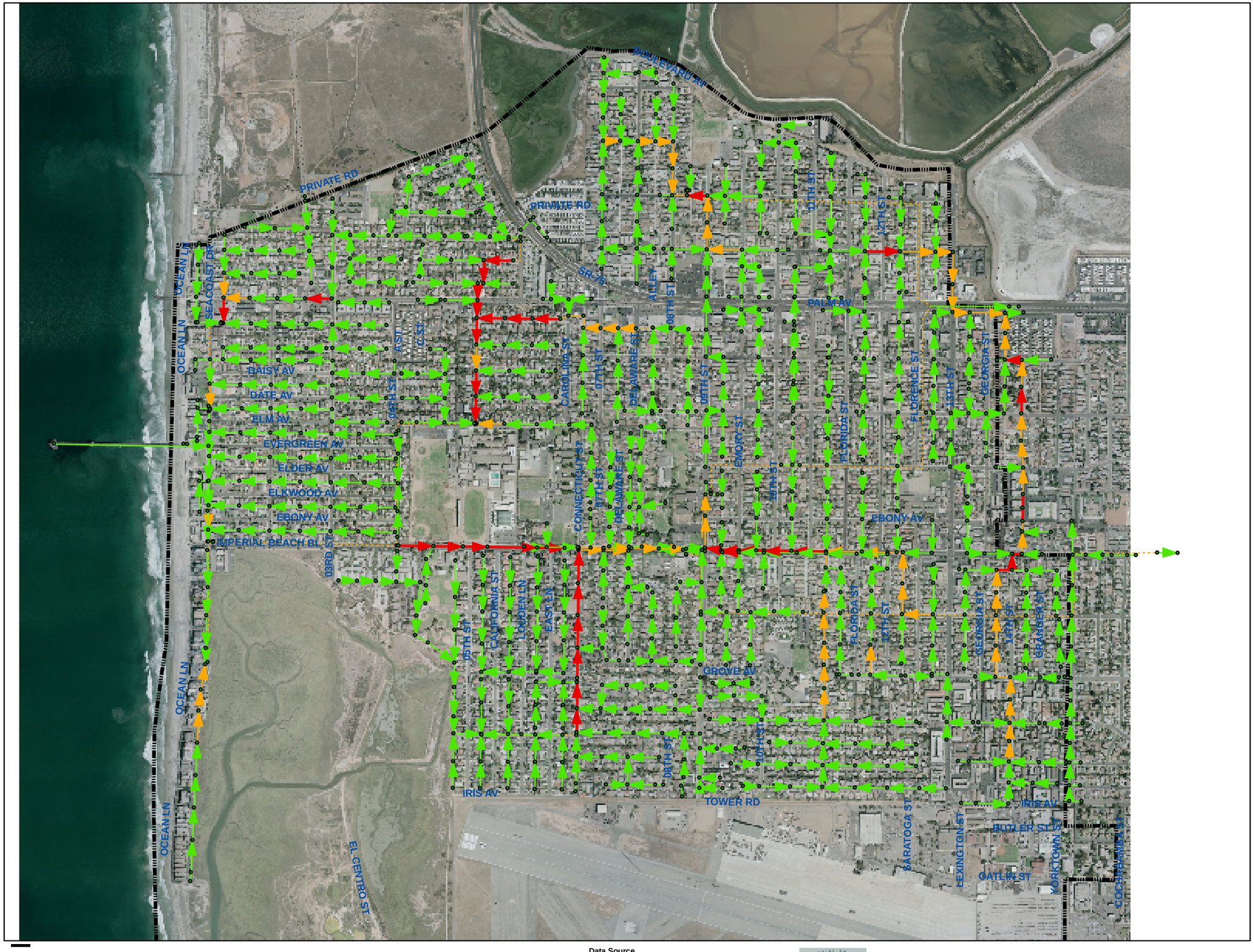
960 480 0 960 Feet

Scale 1" = 200'

Data Source

Manhole locations determined by GPS land survey by RBF Consulting, June 2007
Pipeline information from previous system maps
with selected CCTV verification.

MAX D/D Future Capacity



Legend

- Manholes

Mains>18"

d_D_Ftr_10yrSt

- 0.308929 - 0.500000
- 0.500001 - 0.750000
- 0.750001 - 1.000000

Mains<18"

d_D_Ftr_10yrSt

- 0.000000 - 0.320000
- 0.320001 - 0.500000
- 0.500001 - 1.000000

SewerLines

TYPE

- Force Mains
- Dual Flat Line

June 2008

950 475 0 950 Feet

Data Source

Manhole locations determined by GPS land survey by RBF Consulting, June 2007
Pipeline information from previous system maps
with selected CCTV verification.
Datum: NAD 83 Feet, California State Plane Zone VI

MAX d/D Future/10 Year Storm

Wet Well Sizing

Pump Station	Pump Manufacturer	Model Number	Serial Number	Impeller Size	Start	Stop	FM Size
1A	Wemco	4X11 EVS	52443	9	1.6	0.04	12"

Existing Flow

	Low Flow	High Flow	Average Flow
	0.03 MGD	0.16 MGD	0.08 MGD
	20.65 GPM	111.81 GPM	55.14 GPM
	0.05 CFS	0.25 CFS	0.12 CFS

Design Pump Flow
0.67 CFS

Cross-Sectional Area
62.11 ft^2

Required operating capacity for 5 min of runtime at low flow (Ref SDG 7.2.6.4).
186.60 ft^3

Height required to store the 5 min of run time at low flow.
1.33 ft

	Elevation	Change in Elev.	Units
Pipe Invert	-7.00	0.00	ft
High Alarm	-7.50	0.50	ft
Lag Pump On	-8.00	0.50	ft
Lead Pump On	-8.50	0.50	ft
5 min at Low flow	-9.83	1.33	ft
NPSHA	-10.33	0.50	ft

-10.33 ft **Elevation at the floor of wet well 1A.**
WW-1A needs to increase its capacity by 217 cubic feet.

Wet Well Sizing

Pump Station	Pump Manufacturer	Model Numbe	Serial Number	Impeller Size	Start	Stop	FM Size
1B	Gorman Rupp	T-6A3-B	1010691std	12 3/8	2.5	1.4	12"

Existing Flow

Low Flow		High Flow		Average Flow	
0.06	MGD	2.03	MGD	0.45	MGD
38.33	GPM	1407.64	GPM	309.03	GPM
0.09	CFS	3.14	CFS	0.69	CFS

Design Pump Flow: 1.34 CFS

Cross-Sectional Area: 140.00 ft^2

Required operating capacity for 5 min of runtime at low flow (Ref SDG 7.2.6.4).

375.48 ft^3

Height required to store the 5 min of run time at low flow.

2.68 ft

	Elevation	Change in Elev.	Units
Pipe Invert	0.80	0.00	ft
High Alarm	0.30	0.50	ft
Lag Pump On	-0.20	0.50	ft
Lead Pump On	-0.70	0.50	ft
5 min at Low flow	-3.38	2.68	ft
NPSHA	-3.88	0.50	ft

-3.88 ft **Elevation at the floor of wet well 1B.**

WW-1B needs to increase capacity by 238 cubic feet.

Wet Well Sizing Double Chamber

Pump Station	Pump Manufacturer	Model Number	Serial Number	Impeller Size	Start	Stop	FM Size
2	Gorman Rupp	T-4A3-B	88-2765-A	9 3/4	3.5	2	12"

Existing Flow

Low Flow	High Flow	Average Flow
0.06 MGD	0.14 MGD	0.10 MGD
43.68 GPM	93.96 GPM	67.29 GPM
0.10 CFS	0.21 CFS	0.15 CFS

Design Pump Flow: 0.56 CFS

Cross-Sectional Area: 13.35 ft^2

Required operating capacity for 5 min of runtime at low flow (Ref SDG 7.2.6.4).

137.91 ft^3

Height required to store the 5 min of run time at low flow.

10.33 ft

	Elevation	Change in Elev.	Units
Pipe Invert	-6.00	0.00	ft
High Alarm	-6.50	0.50	ft
Lag Pump On	-7.00	0.50	ft
Lead Pump On	-7.50	0.50	ft
5 min at Low flow	-17.83	10.33	ft
NPSHA	-18.83	1.00	ft

-18.83 ft **Elevation at the floor of wet well 2.**

Currently the elevation is -12.56 ft at the floor. The wet well needs to be expanded by 80 ft^3.

Wet Well Sizing

Pump Station	Pump Manufacturer	Model Number	Serial Number	Impeller Size	Start	Stop	FM Size
3	Wemco	4ES/DP	pmp not delivered	8 1/2	3.4	2	10"

Existing Flow

Low Flow	High Flow	Average Flow
0.05 MGD	0.39 MGD	0.16 MGD
31.60 GPM	271.53 GPM	110.42 GPM
0.07 CFS	0.60 CFS	0.25 CFS

Design Pump Flow: 0.80 CFS

Cross-Sectional Area: 60.00 ft^2

Required operating capacity for 5 min of runtime at low flow (Ref SDG 7.2.6.4).

219.48 ft^3

Height required to store the 5 min of run time at low flow.

1.57 ft

	Elevation	Change in Elev.	Units
Pipe Invert	2.18	0.00	ft
High Alarm	1.68	0.50	ft
Lag Pump On	1.18	0.50	ft
Lead Pump On	0.68	0.50	ft
5 min at Low flow	-0.89	1.57	ft
NPSHA	-1.39	0.50	ft

-1.39 ft **Elevation at the floor of wet well 3.**

Currently the elevation is -3.00 ft at the floor. The wet well is ok.

Wet Well Sizing

Pump Station	Pump Manufacturer	Model Number	Serial Number	Impeller Size	Start	Stop	FM Size
4	Fairbanks Morse	5432	760092	9	3	1.5	8"

Existing Flow

Low Flow	High Flow	Average Flow
0.005 MGD	0.031 MGD	0.011 MGD
3.194 GPM	21.250 GPM	7.639 GPM
0.007 CFS	0.047 CFS	0.017 CFS

Design Pump Flow: 0.446 CFS

Cross-Sectional Area: 60 ft^2

Required operating capacity for 5 min of runtime at low flow (Ref SDG 7.2.6.4).

131.66514 ft^3

Height required to store the 5 min of run time at low flow.

0.94 ft

	Elevation	Change in Elev.	Units
Pipe Invert	3.21	0	ft
High Alarm	2.71	0.5	ft
Lag Pump On	2.21	0.5	ft
Lead Pump On	1.71	0.5	ft
5 min at Low flow	0.77	0.94	ft
NPSHA	0.27	0.5	ft

0.27 ft **Elevation at the floor of wet well 4.**

Currently the elevation is -3 ft at the floor. The wet well is ok.

Wet Well Sizing

Pump Station	Pump Manufacturer	Model Number	Serial Number	Impeller Size	Start	Stop	FM Size
5	Paco Pump	495-31 NCF	FPB24897 A	9.5	5	2	12"

Existing Flow

Low Flow	High Flow	Average Flow
0.05 MGD	0.28 MGD	0.14 MGD
34.03 GPM	194.44 GPM	99.31 GPM
0.08 CFS	0.43 CFS	0.22 CFS

Design Pump Flow: 1.11 CFS

Cross-Sectional Area: 28.27 ft^2

Required operating capacity for 5 min of runtime at low flow (Ref SDG 7.2.6.4).

311.46 ft^3

Height required to store the 5 min of run time at low flow.

2.23 ft

	Elevation	Change in Elev.	Units
Pipe Invert	-6.00	0.00	ft
High Alarm	-6.50	0.50	ft
Lag Pump On	-7.00	0.50	ft
Lead Pump On	-7.50	0.50	ft
5 min at Low flow	-9.73	2.23	ft
NPSHA	-10.23	0.50	ft

-10.23 ft **Elevation at the floor of wet well 5.**

WW-5 needs to increase its capacity by 90 cubic feet.

Wet Well Sizing

Pump Station	Pump Manufacturer	Model Number	Serial Number	Impeller Size	Start	Stop	FM Size
6	Fairbanks Morse	5432K	KAB1-073026	9.75	1.8	0.09	12"

Existing Flow

Low Flow	High Flow	Average Flow
0.01 MGD	0.06 MGD	0.03 MGD
6.18 GPM	39.58 GPM	18.40 GPM
0.01 CFS	0.09 CFS	0.04 CFS

Design Pump Flow: 0.45 CFS

Cross-Sectional Area: 60.00 ft^2

Required operating capacity for 5 min of runtime at low flow (Ref SDG 7.2.6.4).

129.67 ft^3

Height required to store the 5 min of run time at low flow.

0.93 ft

	Elevation	Change in Elev.	Units
Pipe Invert	-4.50	0.00	ft
High Alarm	-5.00	0.50	ft
Lag Pump On	-5.50	0.50	ft
Lead Pump On	-6.00	0.50	ft
5 min at Low flow	-6.93	0.93	ft
NPSHA	-7.43	0.50	ft

-7.43 ft **Elevation at the floor of wet well 6.**

WW-6 needs to increase its capacity by 40 cubic feet.

Wet Well Sizing

Pump Station	Pump Manufacturer	Model Number	Serial Number	Impeller Size	Start	Stop	FM Size
7	Paco Pump	495-31 NCF	TC88DD526701	6 7/8	4	2	8"

Existing Flow

Low Flow		High Flow		Average Flow	
0.07	MGD	0.17	MGD	0.08	MGD
45.90	GPM	115.28	GPM	57.64	GPM
0.10	CFS	0.26	CFS	0.13	CFS

Design Pump Flow: 0.29 CFS

Cross-Sectional Area: 50.27 ft^2

Required operating capacity for 5 min of runtime at low flow (Ref SDG 7.2.6.4).

54.82 ft^3

Height required to store the 5 min of run time at low flow.

0.39 ft

	Elevation	Change in Elev.	Units
Pipe Invert	-2.36	0.00	ft
High Alarm	-2.86	0.50	ft
Lag Pump On	-3.36	0.50	ft
Lead Pump On	-3.86	0.50	ft
5 min at Low flow	-4.25	0.39	ft
NPSHA	-4.75	0.50	ft

-4.75 ft **Elevation at the floor of wet well 7.**

Currently the elevation is -2.43 ft at the floor. The wet well needs to increase capacity by 100 ft^3.

Wet Well Sizing Variable Speed Pumps

Pump Station	Pump Manufacturer	Model Number	Serial Number	Impeller Size	Start	Stop	FM Size
8	Krogh/Peerless	NCV	J04T3610495R-2	16.5"?	VFD	VFD	12"

Existing Flow

Low Flow		High Flow		Average Flow	
0.19	MGD	2.81	MGD	0.82	MGD
132.64	GPM	1951.39	GPM	567.85	GPM
0.30	CFS	4.35	CFS	1.26	CFS

Peak Pump Flow: 7.13 CFS

Cross-Sectional Area: 165.00 ft^2

Required operating capacity for 5 min of runtime at low flow (Ref SDG 7.2.6.4).

2050.36 ft^3

Height required to store the 5 min of run time at low flow.

12.43 ft

	Elevation	Change in Elev.	Units
Overflow Level	13.62	0.00	ft
High Alarm	13.12	0.50	ft
Lag Pump On	12.62	0.50	ft
Lead Pump On	12.12	0.50	ft
5 min at Low flow	-0.31	12.43	ft
NPSHA	-0.81	0.50	ft

-0.81 ft **Elevation at the floor of wet well 8.**

WW-8 has a floor elevation of -3.05ft. The wet well is ok.

Wet Well Sizing Variable Speed Pumps

Pump Station	Pump Manufacturer	Model Number	Serial Number	Impeller Size	Start	Stop	FM Size
9	Krogh/Peerless	NCV	U04T3610495R-2	16.5"?	VFD	VFD	12"

Existing Flow

Low Flow		High Flow		Average Flow	
0.29	MGD	0.79	MGD	0.50	MGD
197.92	GPM	551.46	GPM	348.13	GPM
0.44	CFS	1.23	CFS	0.78	CFS

Peak Pump Flow: 7.13 CFS

Cross-Sectional Area: 677.00 ft^2

Required operating capacity for 5 min of runtime at low flow (Ref SDG 7.2.6.4).

2006.73 ft^3

Height required to store the 5 min of run time at low flow.

2.96 ft

	Elevation	Change in Elev.	Units
Overflow Level	4.50	0.00	ft
High Alarm	4.00	0.50	ft
Lag Pump On	3.50	0.50	ft
Lead Pump On	3.00	0.50	ft
5 min at Low flow	0.04	2.96	ft
NPSHA	-0.46	0.50	ft

-0.46 ft **Elevation at the floor of wet well 9.**

Currently the elevation is -9.56 ft at the floor. The wet well is ok.

Wet Well Sizing Double Chamber

Pump Station	Pump Manufacturer	Model Number	Serial Number	Impeller Size	Start	Stop	FM Size
10	Gorman Rupp	T-6A3-B	1165828std	12 3/8	6.5	5.5	12"

Existing Flow

Low Flow	High Flow	Average Flow
0.12 MGD	0.46 MGD	0.20 MGD
86.16 GPM	321.04 GPM	140.97 GPM
0.19 CFS	0.72 CFS	0.31 CFS

Design Pump Flow: 1.34 CFS

Cross-Sectional Area: 78.75 ft^2

Required operating capacity for 5 min of runtime at low flow (Ref SDG 7.2.6.4).

343.52 ft^3

Height required to store the 5 min of run time at low flow.

4.36 ft

	Elevation	Change in Elev.	Units
Pipe Invert	-7.40	0.00	ft
High Alarm	-7.90	0.50	ft
Lag Pump On	-8.40	0.50	ft
Lead Pump On	-8.90	0.50	ft
5 min at Low flow	-13.26	4.36	ft
NPSHA	-14.26	1.00	ft

-14.26 ft **Elevation at the floor of wet well 10.**

Currently the elevation is -14 ft at the floor. The wet well is ok..

A private connection in the trailer park is the overflow point for PS-6.

MH-197 is the overflow point for PS-10.

MH-66 is the overflow point for PS-5 and PS-1A because of a connection between the two. A spill will occur here only when both pump stations shut down.

MH-118 is the overflow point for PS-4.

MH-94 is the overflow point for PS-3.

MH-22 is the overflow point for PS-1B.

MH-314 is the overflow point for PS-8 and PS-9. PS-8 and PS-9 anr connected and both pump stations would have to shut down for a spill to occur.

MH-1 is the overflow point for PS-2.

MH-456 is the overflow point for PS-7.

Legend

- Pump Stations
- Overflow_Points
- Manholes

SewerLines

- Gravity Mains

TYPE

- Force Mains
- Dual Flat Line
- Map_Grid

June, 2008

900 450 0 900 Feet

Scale 1" = 870'

Data Source

Manhole locations determined by GPS land survey by RBF Consulting, June 2007
Pipeline information from previous system maps
with selected CCTV verification.
Datum: NGVD 29, NAD 83

RBF CONSULTING GIS PLANNING DESIGN CONSTRUCTION

Imperial Beach Sewer System
Spill Locations if Pump Stations Fail