

E.W. Blom Point Loma Wastewater Treatment Plant

Facilities Location Map
E.W. Blom Point Loma Wastewater Treatment Plant
and Point Loma Ocean Outfall



**PACIFIC
OCEAN**

North Diffuser Leg
Length: 2,496 feet
Orientation: N 14° 26' 57.8"W

Point Loma Ocean Outfall
Length: 23,476 feet
Orientation: S 78° 40' 17.3" W

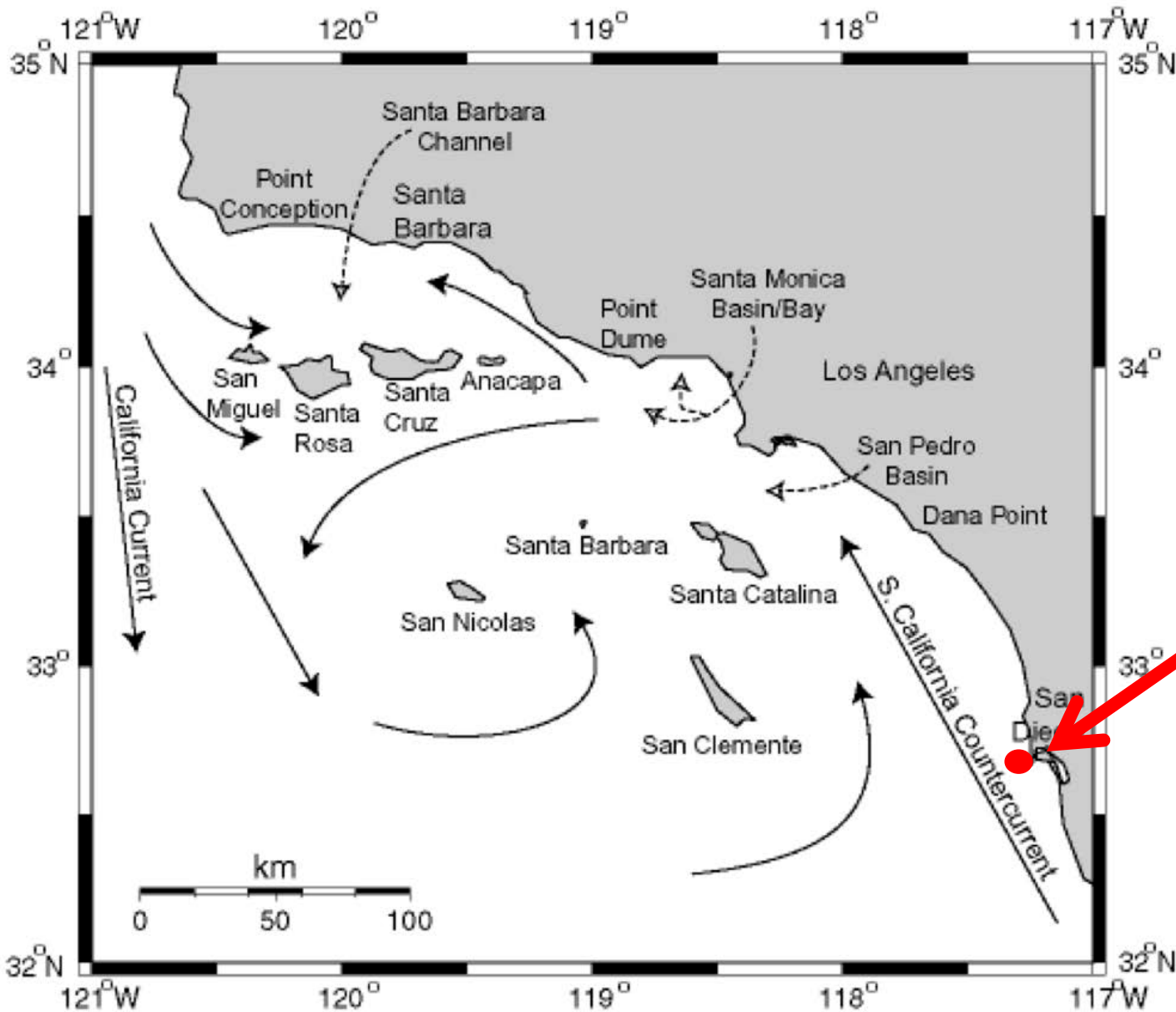
South Diffuser Leg
Length: 2,496 feet
Orientation: S 9° 33' 58.6"W

**E.W. Blom Point Loma
Wastewater Treatment Plant**



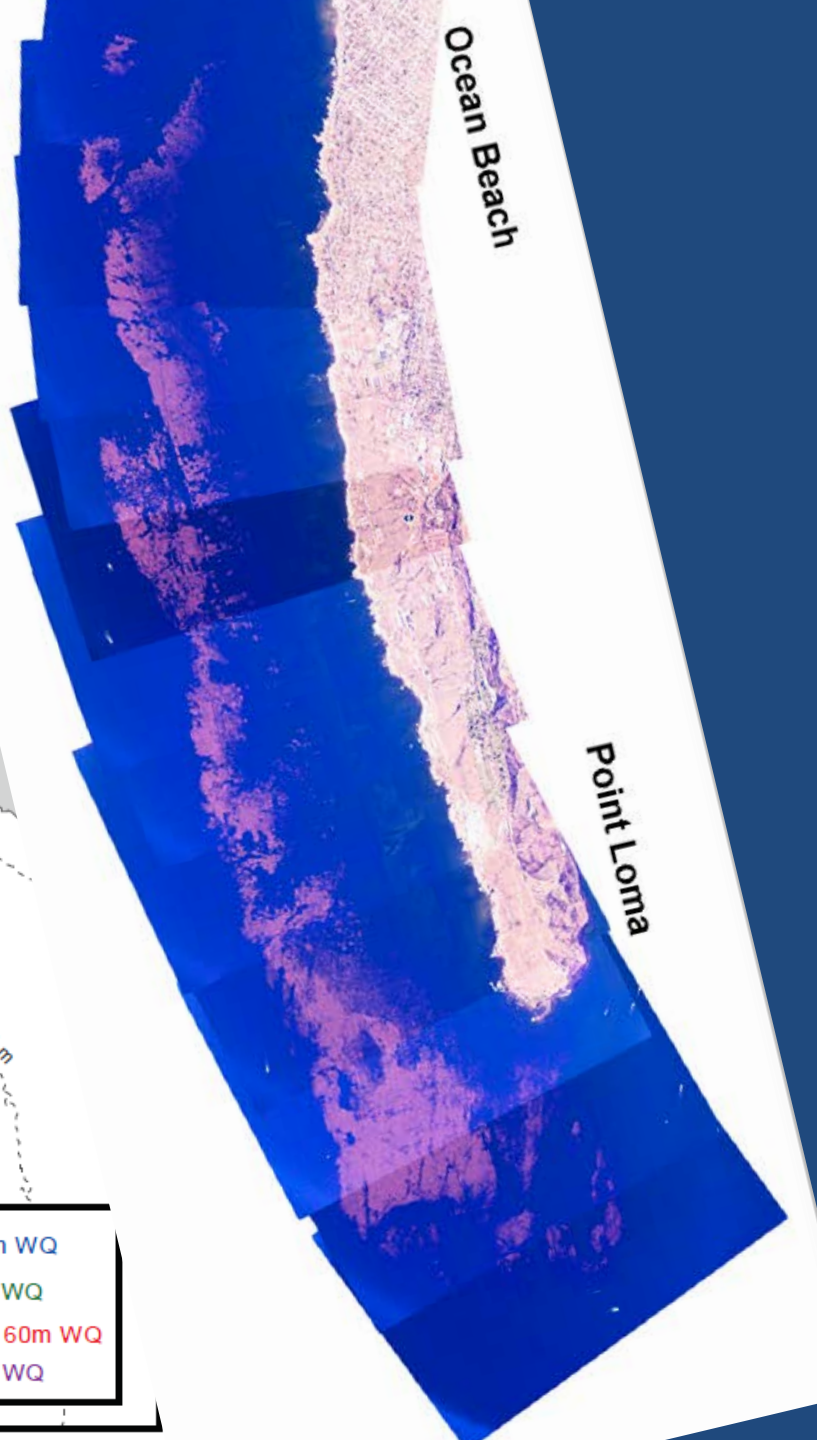
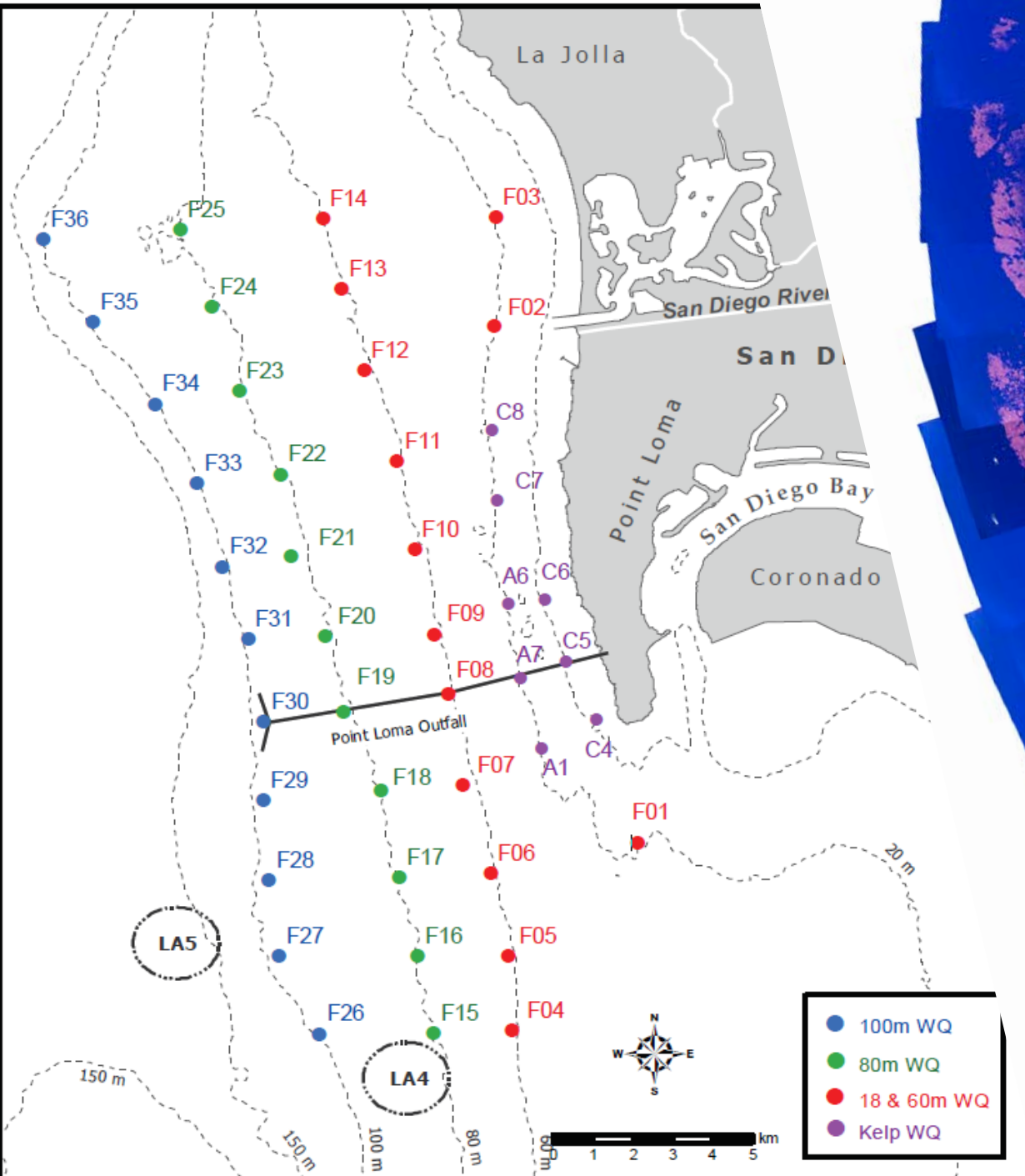
Adapted from U.S. Geological Survey Quad Sheet
Scale: (statute miles)
0 0.5 1.0

Southern California Bight



Point
Loma
Ocean
Outfall

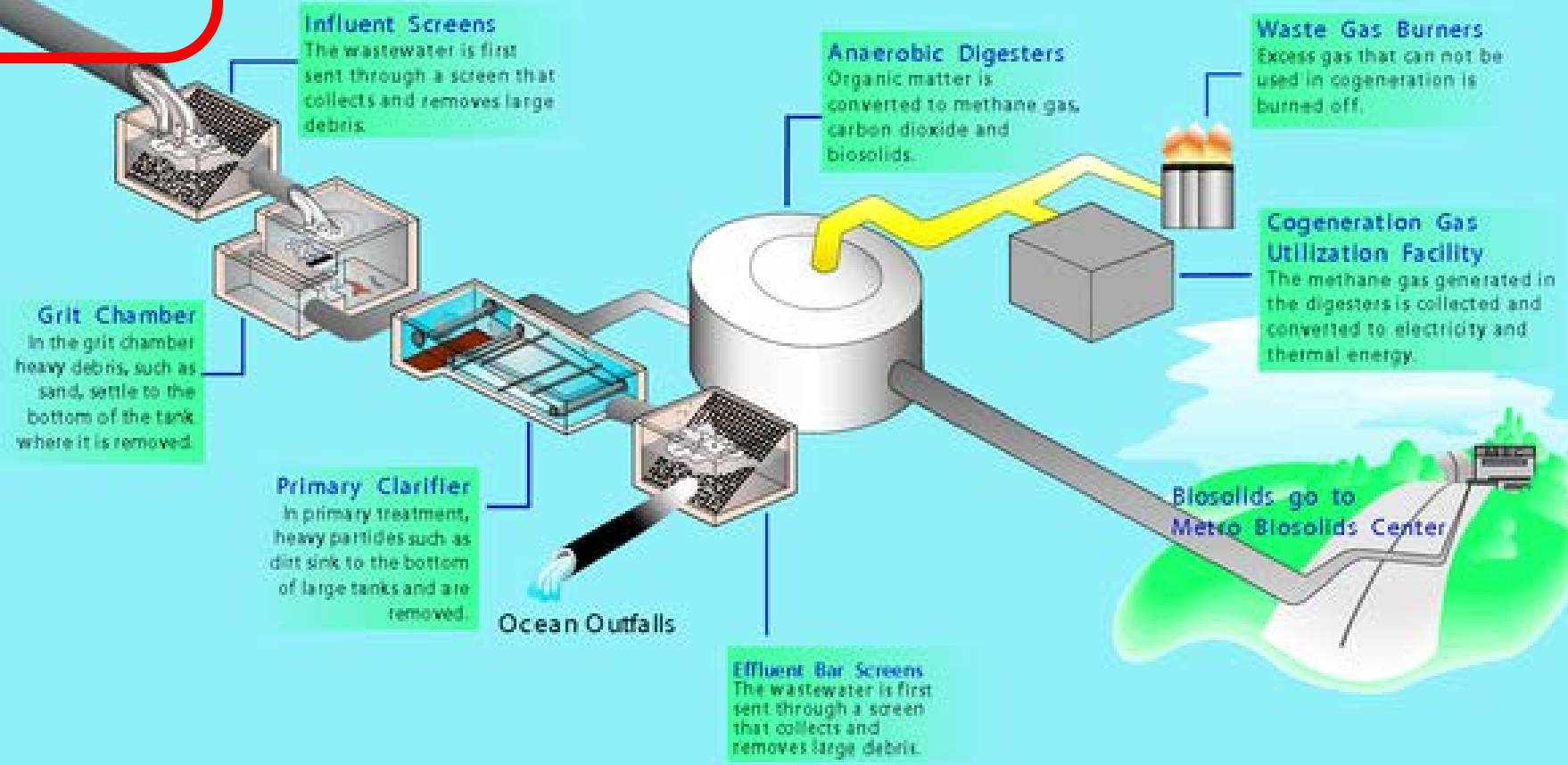




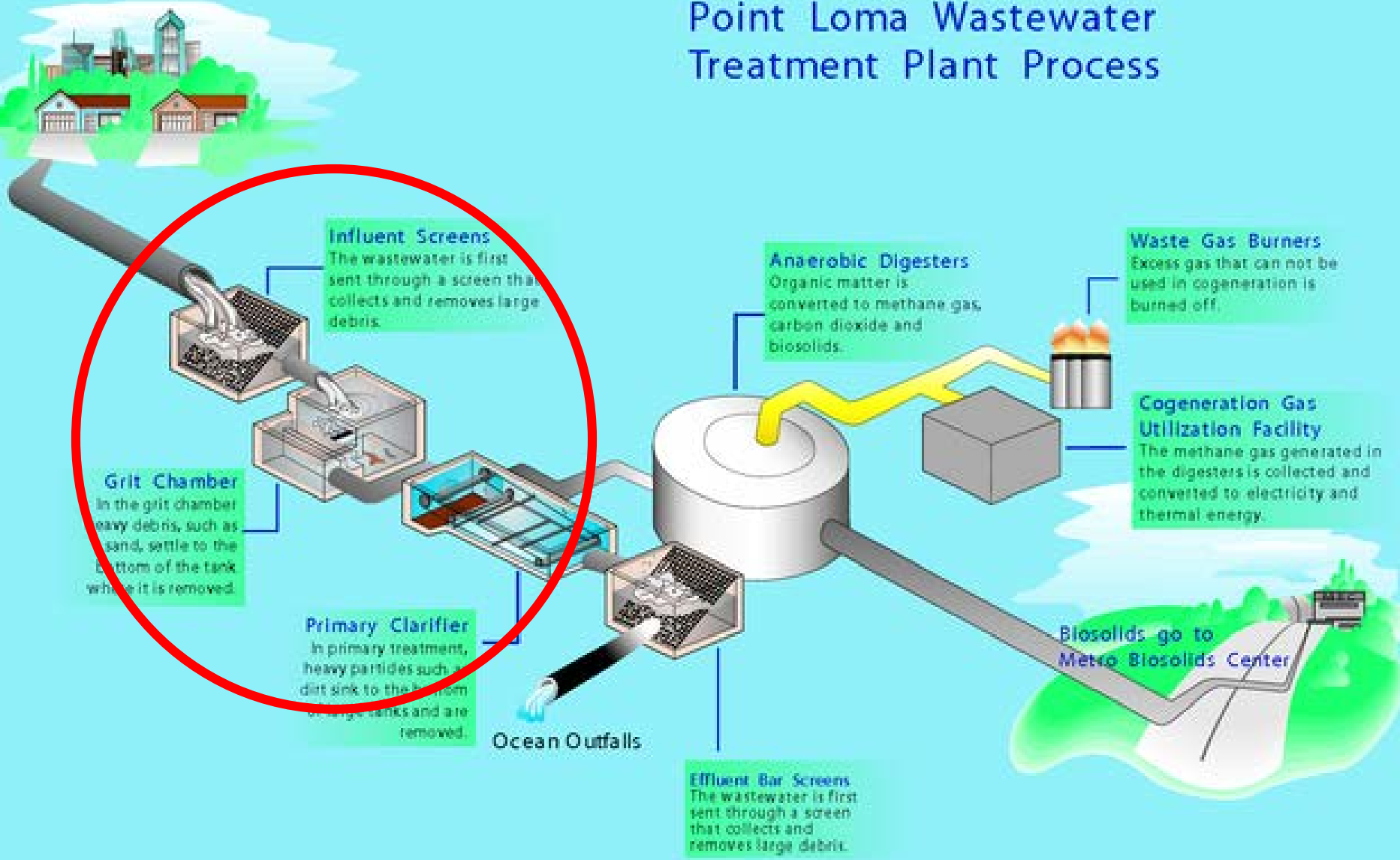


- City of San Diego
- City of Chula Vista
- City of Coronado
- City of Del Mar
- City of El Cajon
- City of Imperial Beach
- City of La Mesa
- City of National City
- City of Poway
- Otay Water District
- Padre Dam MWD
- Lemon Grove SD
- San Diego County

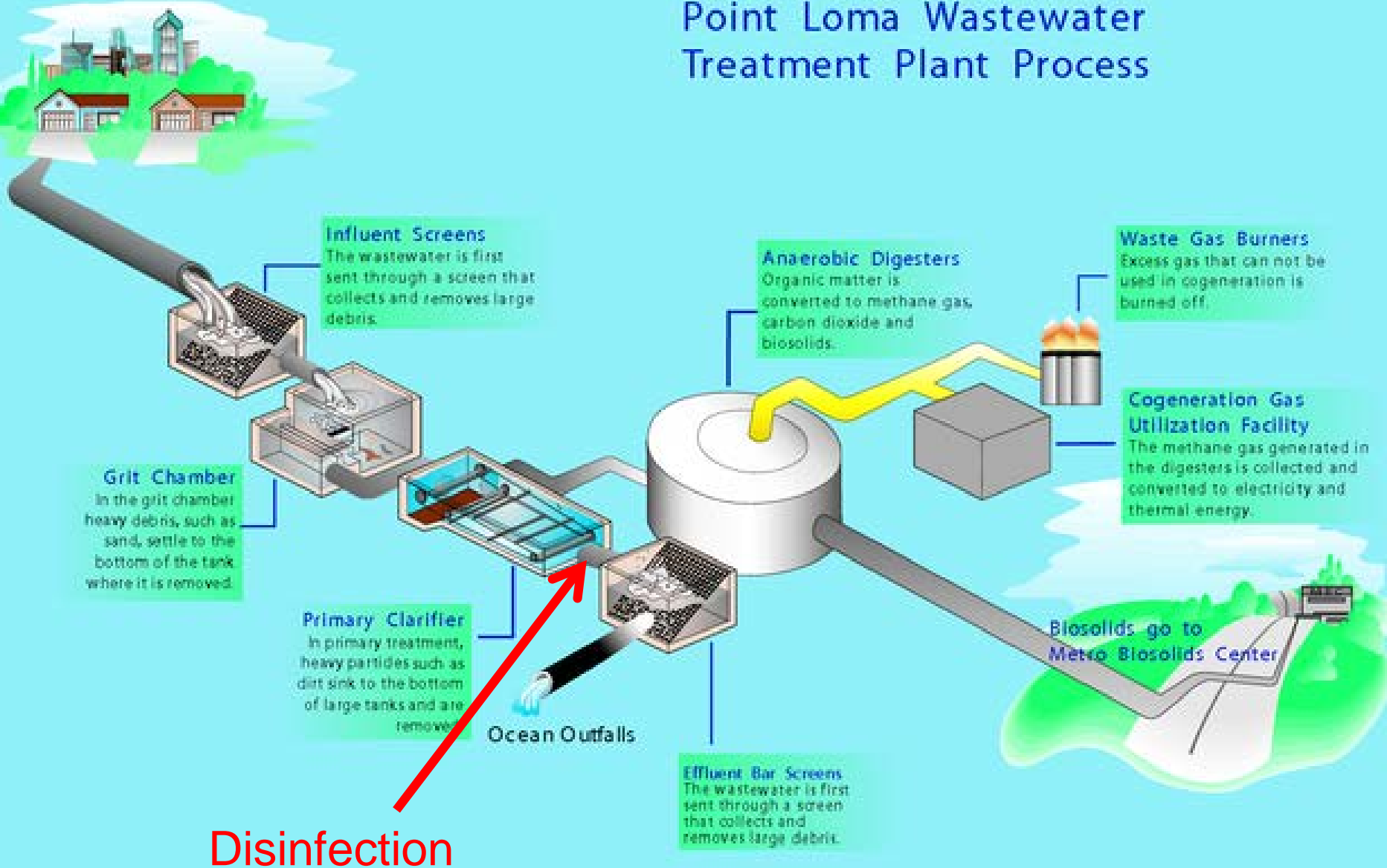
Point Loma Wastewater Treatment Plant Process



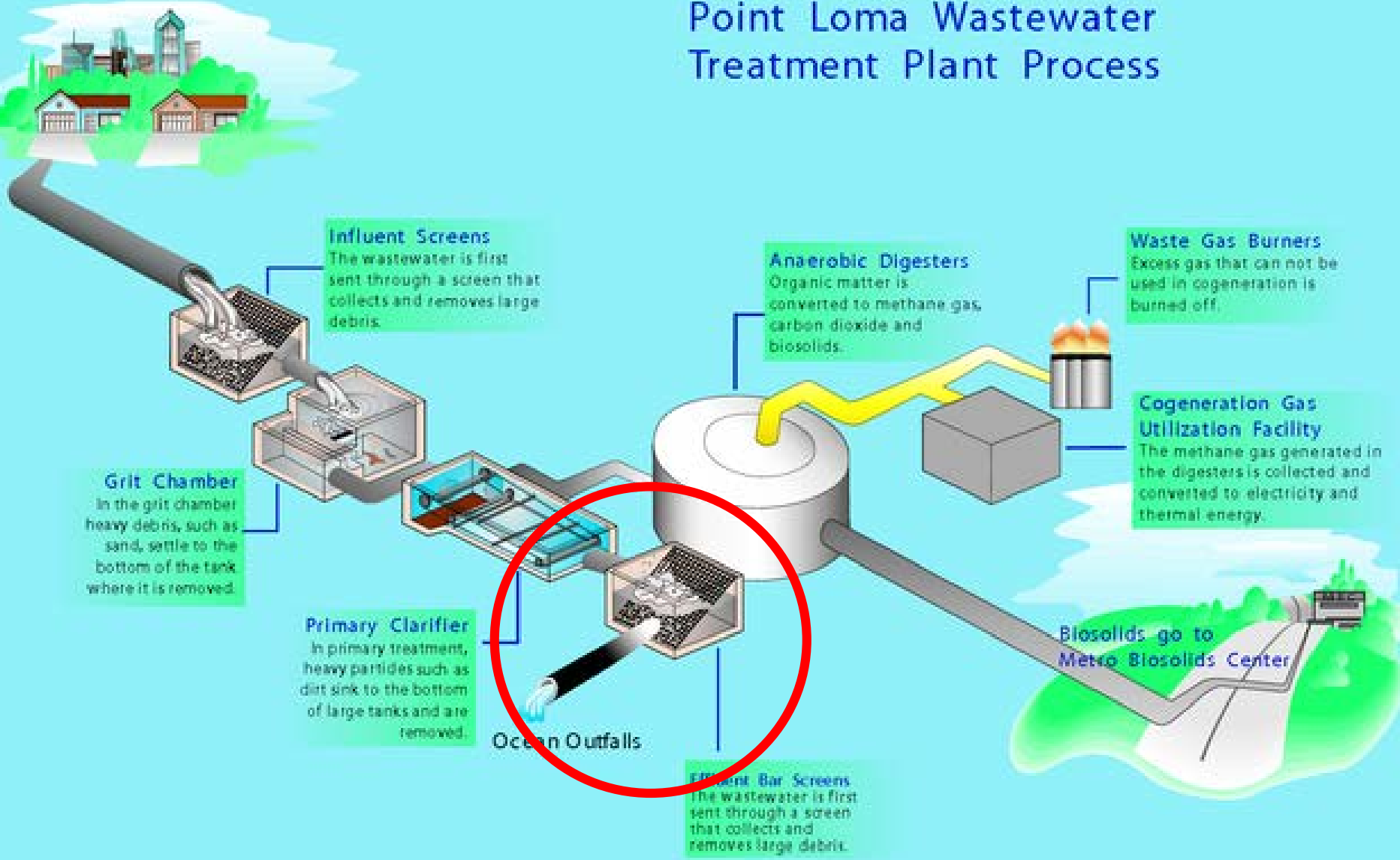
Point Loma Wastewater Treatment Plant Process



Point Loma Wastewater Treatment Plant Process



Point Loma Wastewater Treatment Plant Process



Influent Screens
The wastewater is first sent through a screen that collects and removes large debris.

Grit Chamber
In the grit chamber heavy debris, such as sand, settle to the bottom of the tank where it is removed.

Primary Clarifier
In primary treatment, heavy particles such as dirt sink to the bottom of large tanks and are removed.

Ocean Outfalls

Effluent Bar Screens
The wastewater is first sent through a screen that collects and removes large debris.

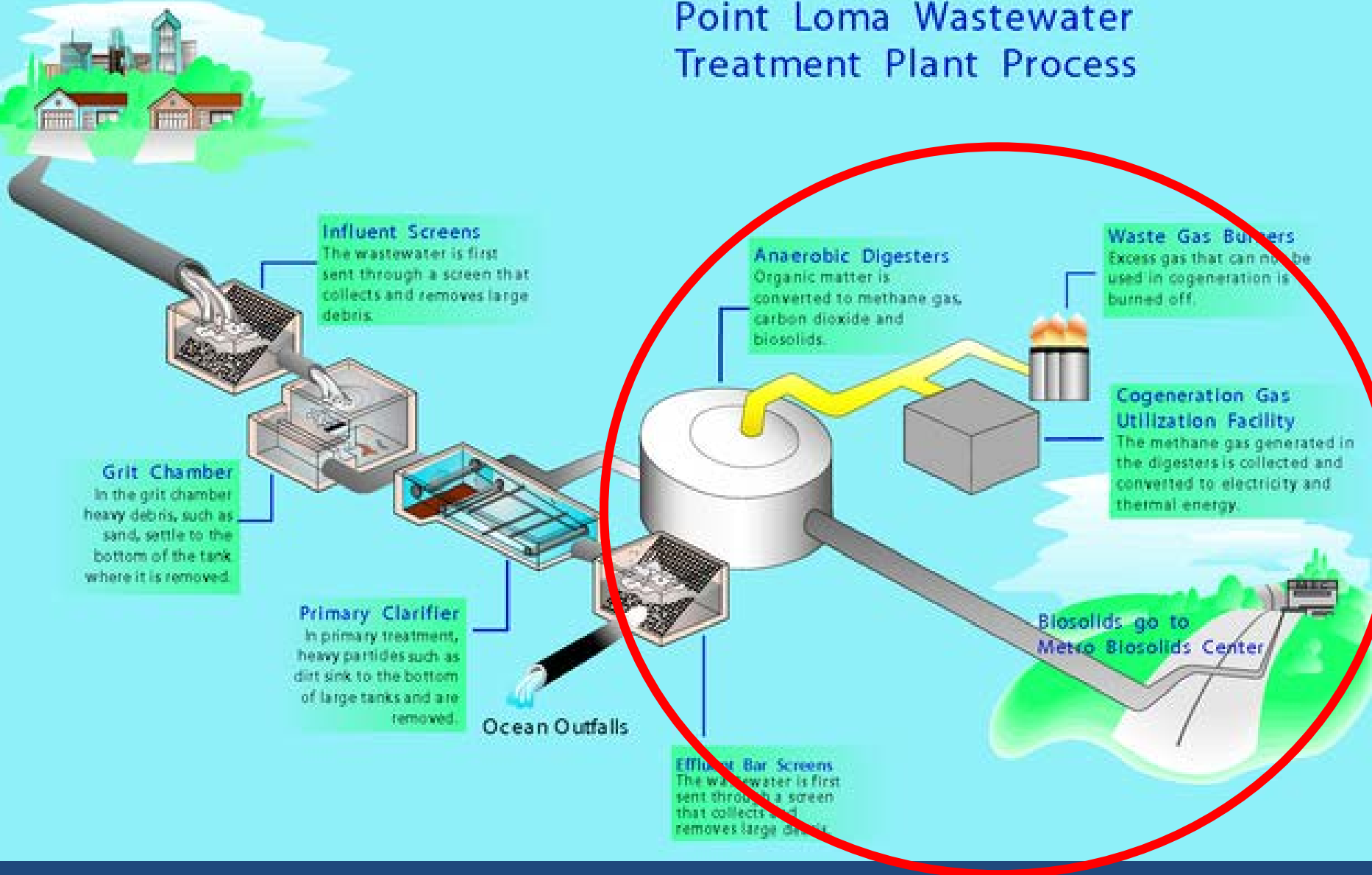
Anaerobic Digesters
Organic matter is converted to methane gas, carbon dioxide and biosolids.

Waste Gas Burners
Excess gas that can not be used in cogeneration is burned off.

Cogeneration Gas Utilization Facility
The methane gas generated in the digesters is collected and converted to electricity and thermal energy.

Biosolids go to Metro Biosolids Center

Point Loma Wastewater Treatment Plant Process



301(h) waiver for Point Loma WWTP

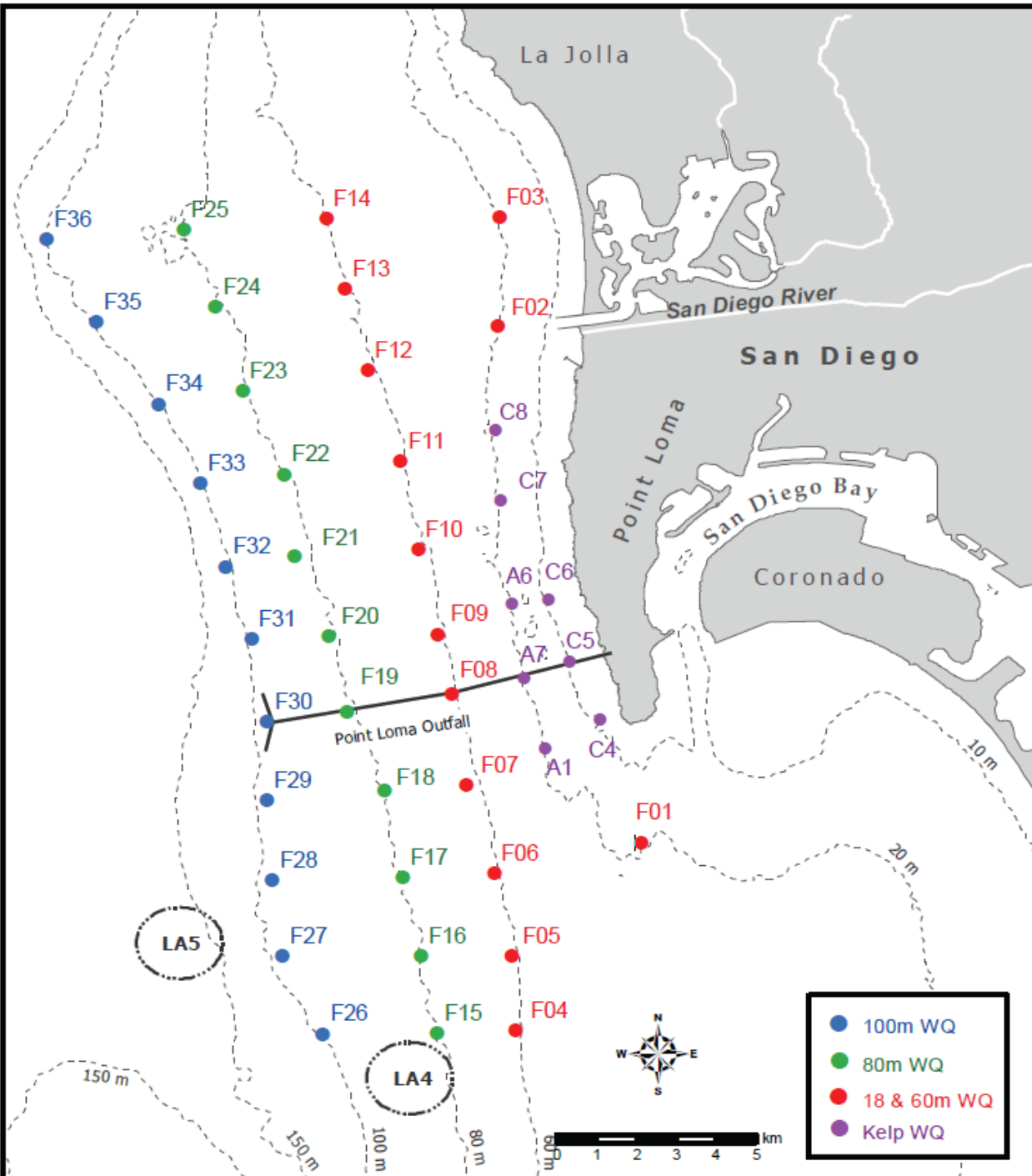
Peter Kozelka, USEPA
Water Division

<u>TSS</u>	<u>BOD</u>
<u>301(h) criteria</u>	
<ul style="list-style-type: none"> • must < 75 mg/L conc. • must ≥ 80% removal 	<ul style="list-style-type: none"> • must ≥ 58% removal
<u>Facility performance</u>	
<ul style="list-style-type: none"> • 25-50 mg/L (mos. avg.) • 90% removal 	<ul style="list-style-type: none"> • 65-68% removal
<u>Secondary treatment level</u>	
<ul style="list-style-type: none"> • meet 30 mg/L • 85% removal 	<ul style="list-style-type: none"> • meet 30 mg/L • 85% removal

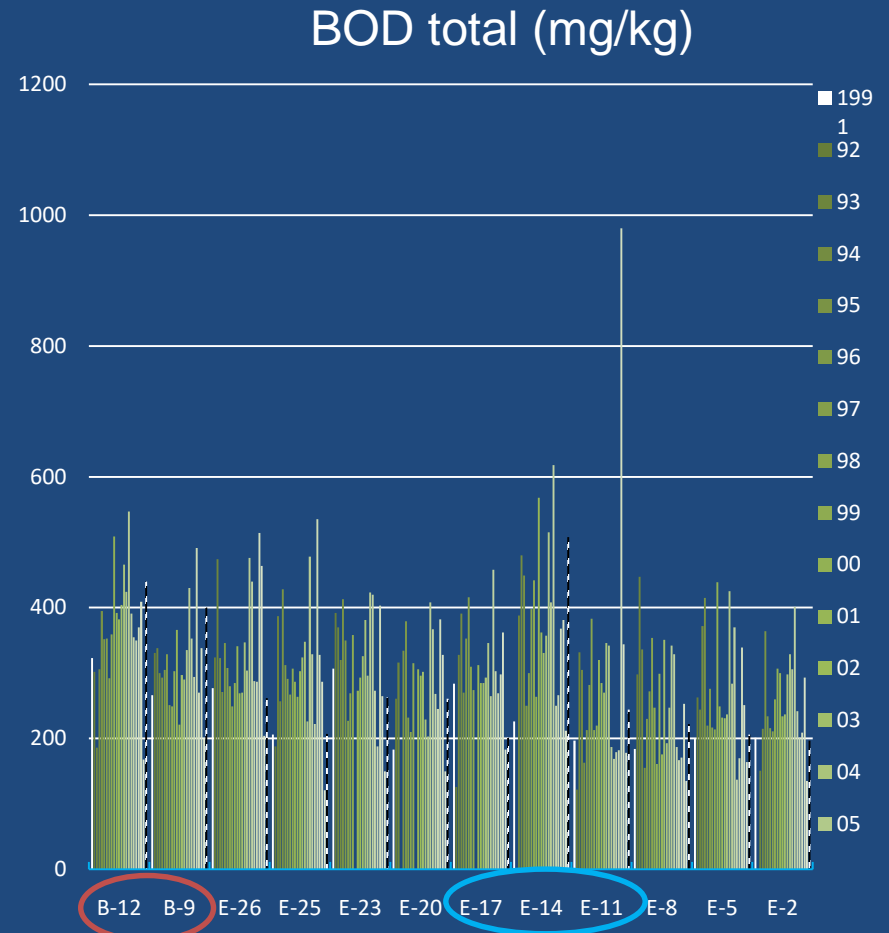
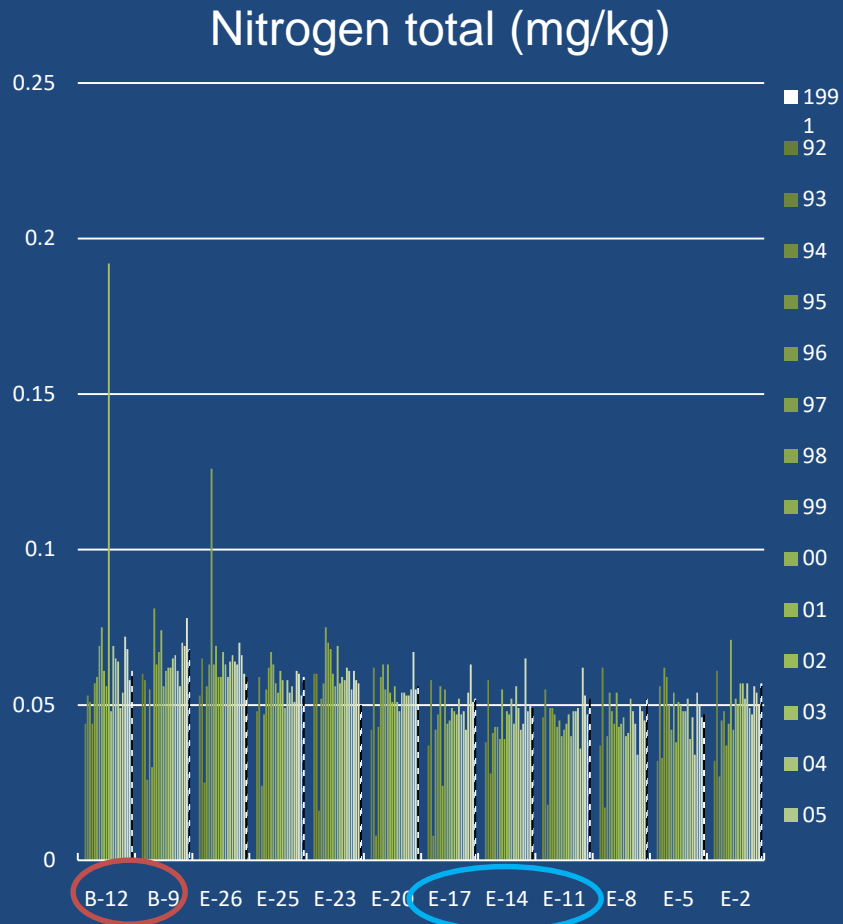
CWA 301(h) Criteria

- Adequately remove toxics prior to WWTP
 - City has effective pretreatment program
 - Adequate effluent and ocean monitoring
 - City has extensive monitoring program—many parameters in water(s), sediment and fish
 - Robust data set over 2 decades
- OPRA requires reuse program

Monitoring Near Pt. Loma Ocean Outfall

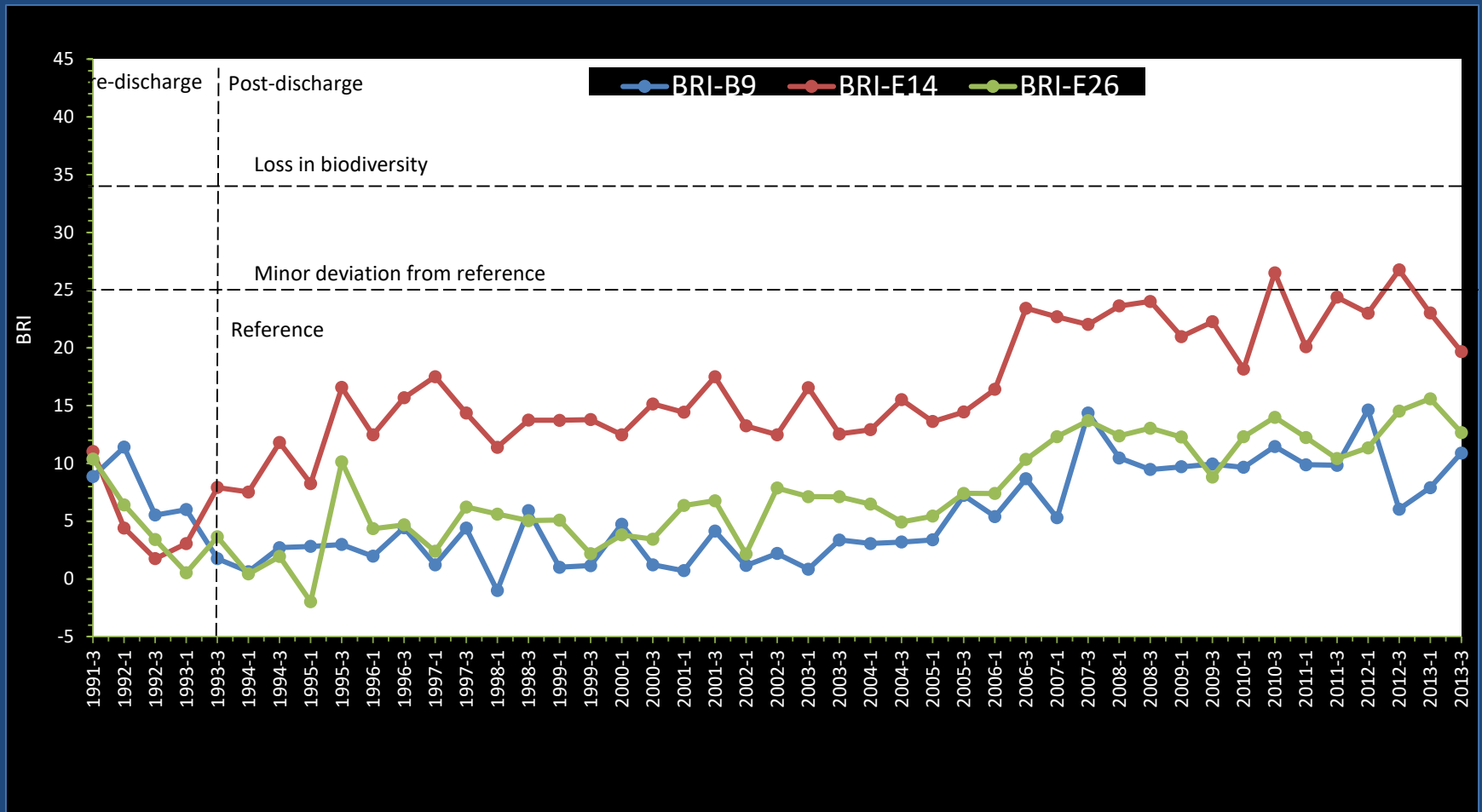


Sediment chemistry ('95-'15)



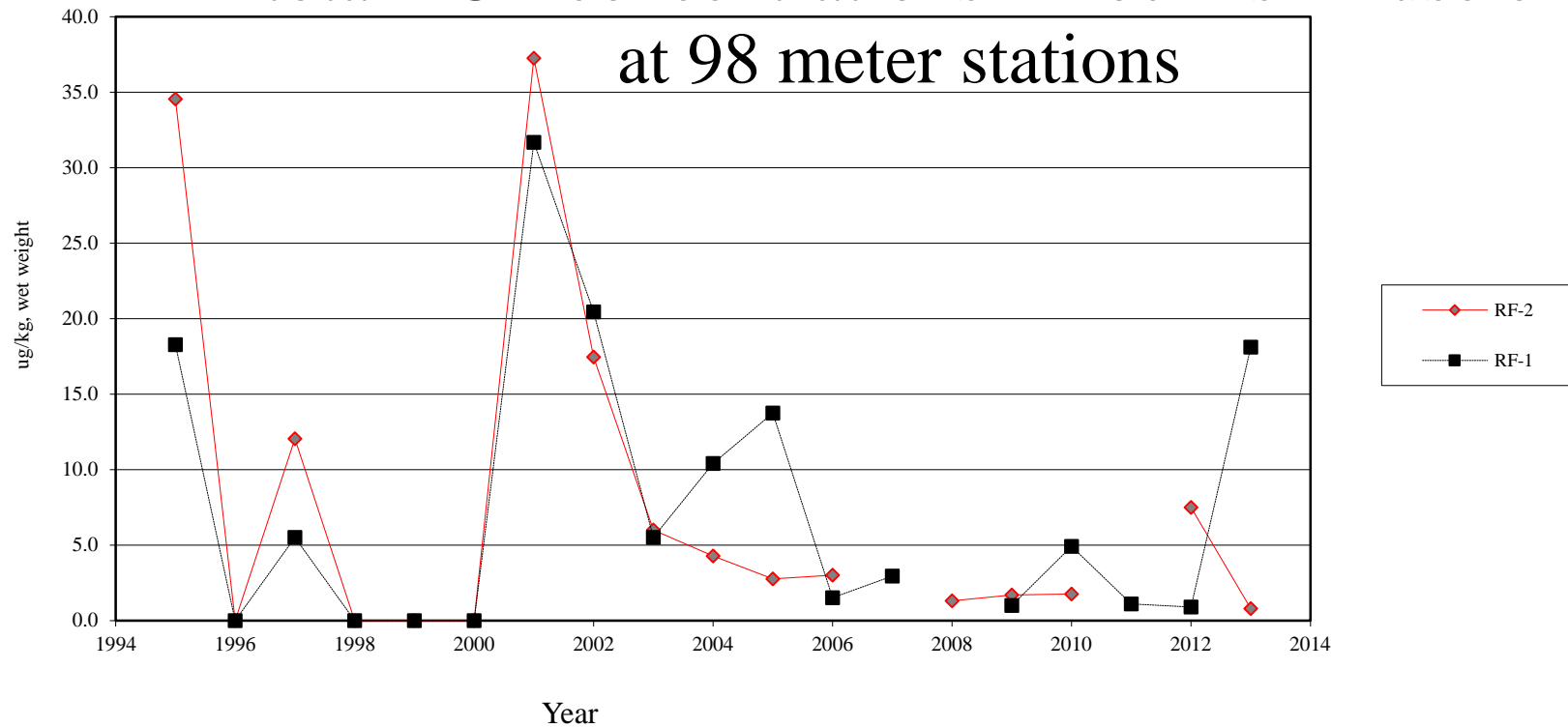
Benthic Community ('91-'13)

(benthic response index values)



Fish tissue conc. ('95-'13)

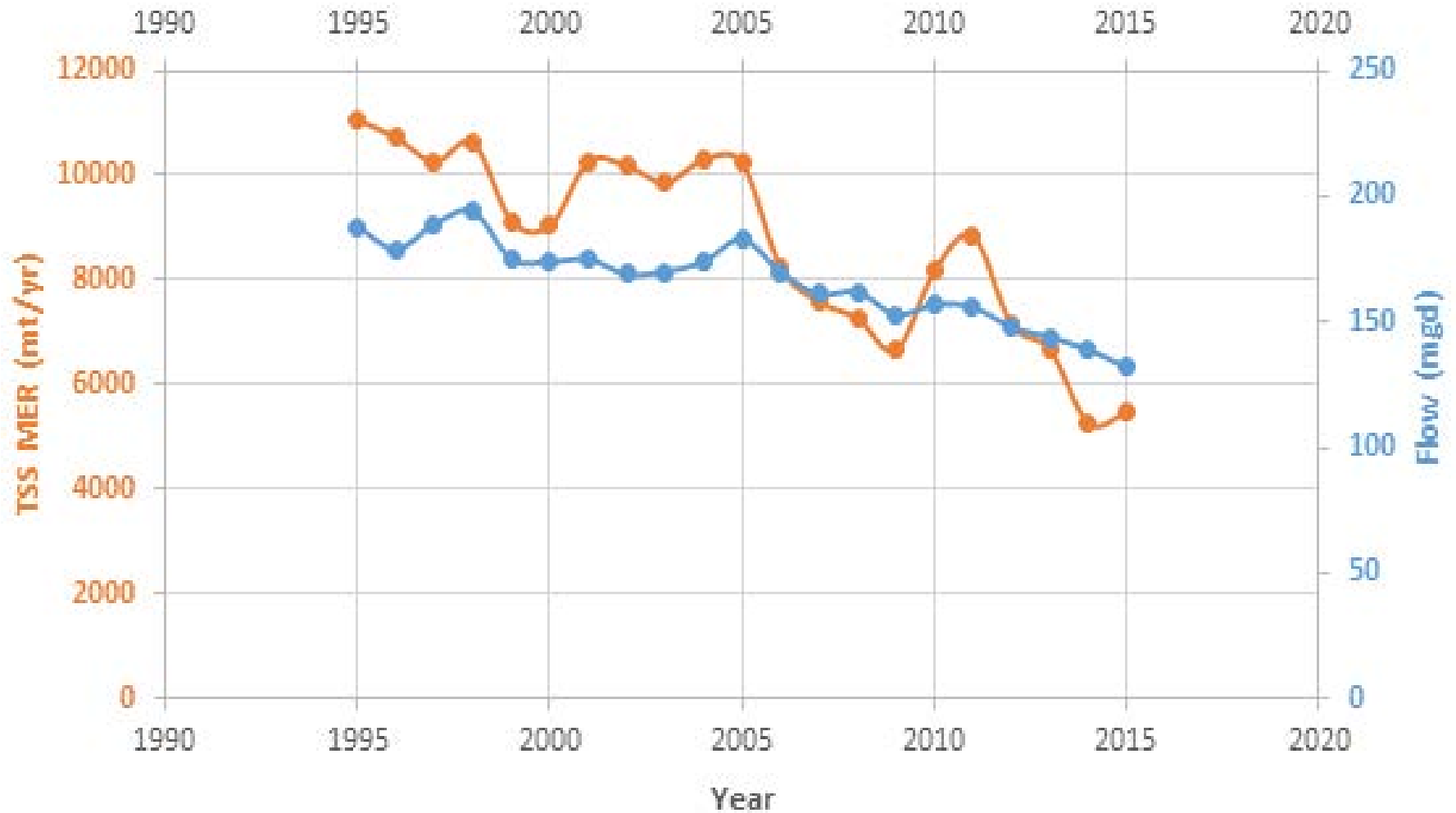
total PCB concentrations in rockfish muscle
at 98 meter stations

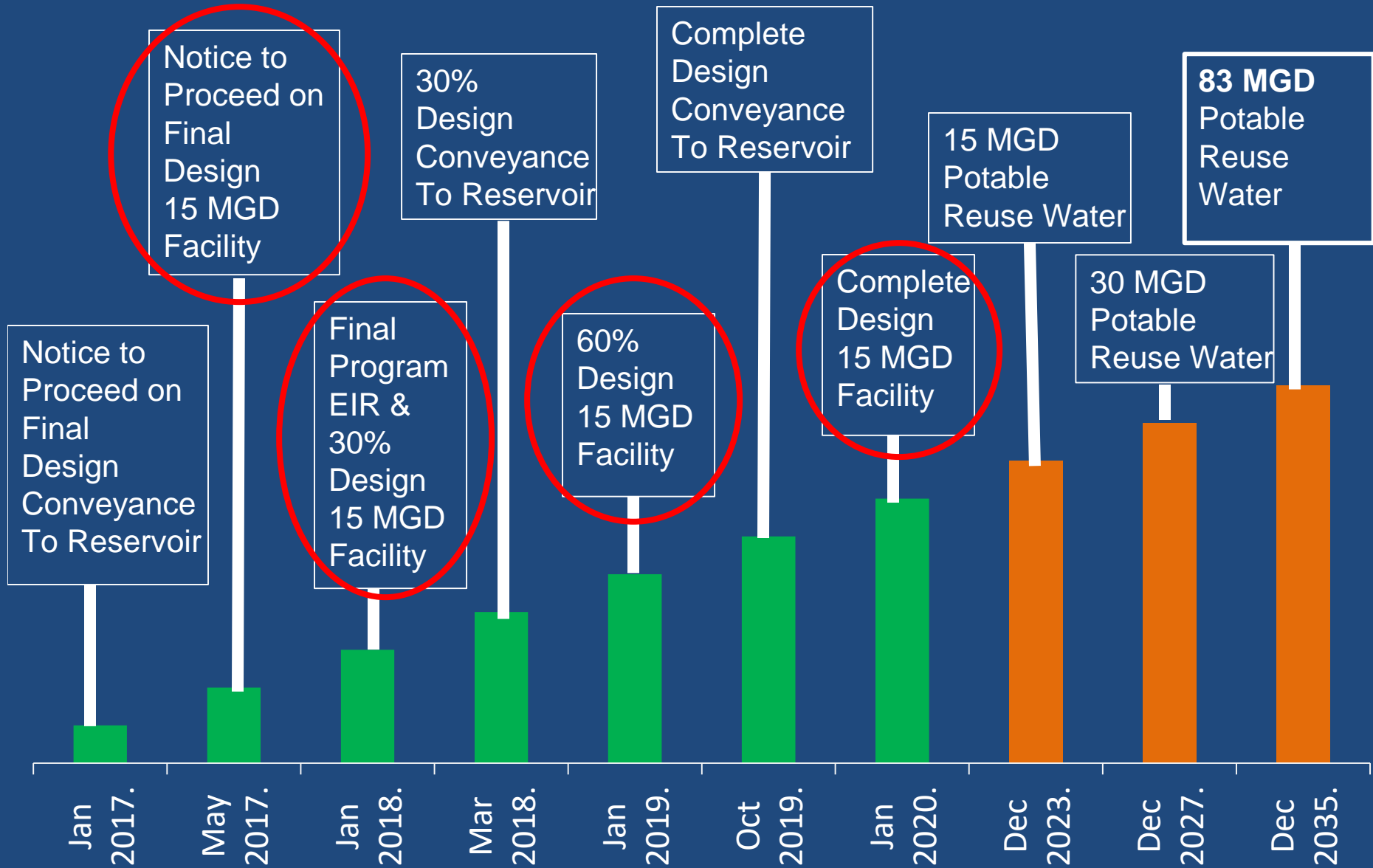


Secondary Equivalency for Total Suspended Solids

Current Mass Emission Limitation	13,598 metric tons/year (mt/yr)
Proposed Mass Emission Limitation	12,000 mt/yr (years 1-4) 11,999 mt/yr (by year 5)
Mass Emission Goal for Year 2028	9,942 mt/yr
Mass Emission at full capacity and secondary standard	9,942 mt/yr

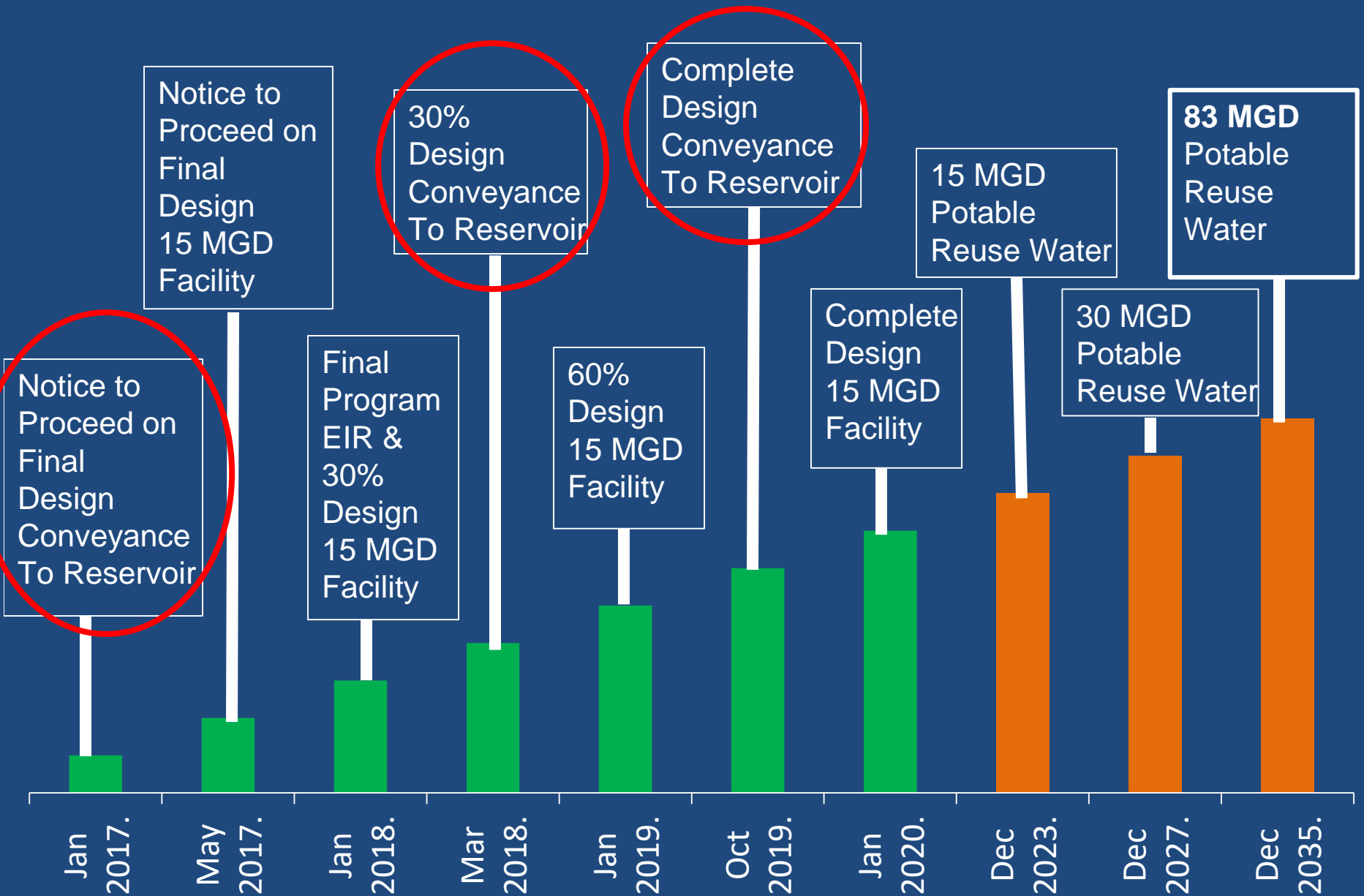
Mass Emissions Rate and Flow





Tasks in Timeframe Tentative Order

Goals Beyond Tentative Order



Tasks in Timeframe Tentative Order

Goals Beyond Tentative Order



Tasks in Timeframe Tentative Order

Goals Beyond Tentative Order

Water Quality-Based Effluent Limitations

- Total Chlorine Residual
- Chronic Toxicity
- Aldrin



Effluent
limitations
carried over

Water Quality-Based Effluent Limitations

- Total Chlorine Residual
- Chronic Toxicity
- Aldrin - New effluent limitations

Water Quality-Based Effluent Limitations

- Total Chlorine Residual
- Chronic Toxicity
- Aldrin
- TCDD Equivalency

Error:

No new effluent limitation
Keep performance goal

Expanded Receiving Water Monitoring Program

Plume Tracking

Expanded Receiving Water Monitoring Program

Sediment Toxicity

Receiving Water Monitoring Reports

Current Reporting (6 reports every 2 years)	Proposed Reporting (2 reports every 2 years)
<p>Annual Full Assessment</p> <ul style="list-style-type: none">• Point Loma Ocean Outfall• South Bay Ocean Outfall (City of San Diego)• South Bay Ocean Outfall (International Boundary and Water Commission)	<p>Biennial Full Assessment</p> <ul style="list-style-type: none">• Point Loma Ocean Outfall and South Bay Ocean Outfall <p>Interim Report/Executive Summary</p> <ul style="list-style-type: none">• Point Loma Ocean Outfall and South Bay Ocean Outfall

Special Study – Climate Change

Oct 28, 2016: Public Notice/Tentative Documents

Dec 14, 2016: Joint Public Hearing

Dec 21, 2016: Comment Due on Tentative Documents

City of San Diego Comment Letter

- Typographical errors and request for clarification
- Error on TCDD equivalency reasonable potential analysis

Lemon Grove Sanitation District Comment Letter

- Support waiver
- Support Pure Water San Diego

- Joint Adoption of Tentative Order by
 - USEPA and
 - San Diego Water Board
- Endangered Species Act consultation
 - US Fish and Wildlife Services and
 - National Marine Fishery Service
- Determination from
 - California Coastal Commission
- Final 301(h) Waiver Decision Document
 - USEPA Region 9 Administrator

Questions?

