



# LA Sanitation & Environment Hyperion Water Reclamation Plant

## JULY 11, 2021 INCIDENT REPORT

*Board of Public Works  
Town Hall Discussion*



[www.lacitysan.org/hyperion2021recovery](http://www.lacitysan.org/hyperion2021recovery)

Wednesday, August 18, 2021





July 11, 2021 - Headworks flooded



July 11, 2021 - plant roads flooded





# SEWER SYSTEM OVERVIEW

## About LASAN

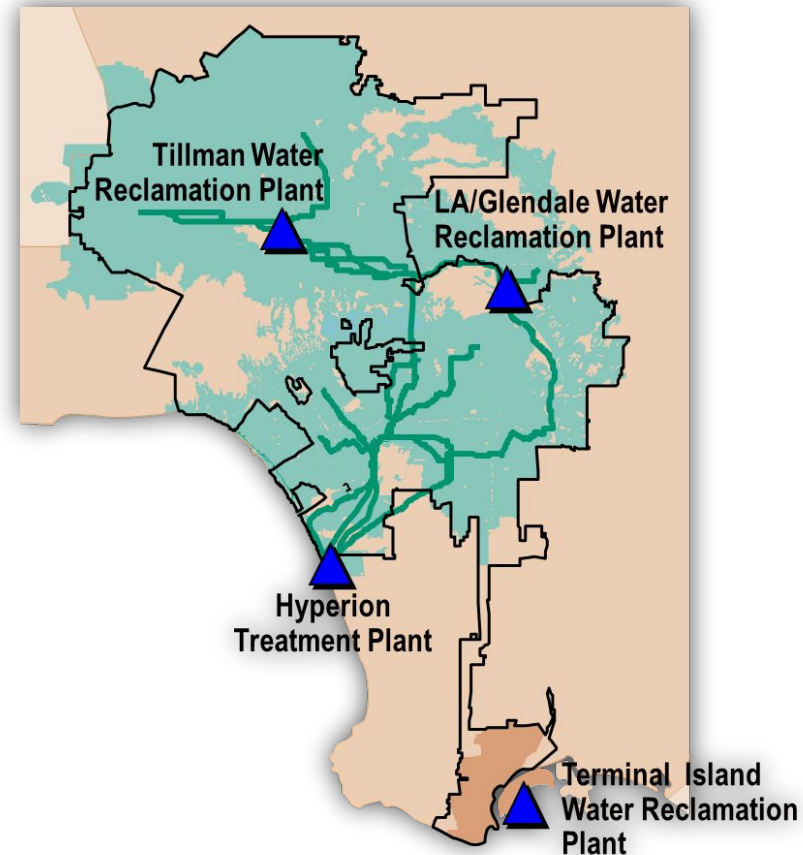
- 4.7 million people served
  - 600 square miles
  - 29 contract agencies
- 6,700 miles of sewer lines
- Average System Flow: 320 million gallons per day (MGD)

## Hyperion Service Area: 3 Interconnected Plants

- Tillman Water Reclamation Plant (WRP) (100% Recycled Flow)
- Los Angeles-Glendale WRP (100% Recycled Flow)
- Hyperion WRP (27% Recycled Flow)

## Terminal Island Service Area

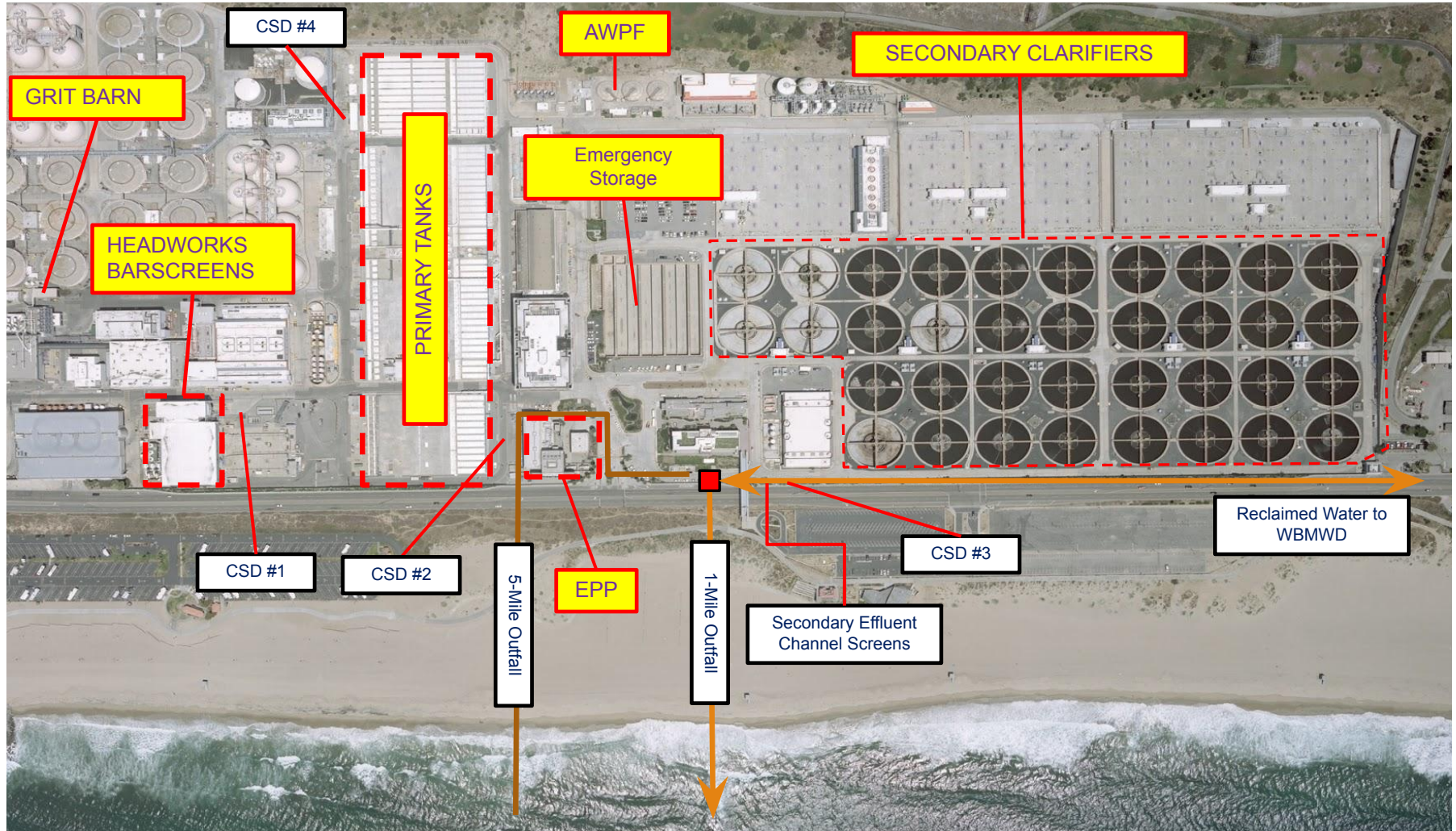
- Terminal Island WRP (100% Recycled Flow)





# HYPERION WATER RECLAMATION PLANT

## LAYOUT





# TIMELINE

July 11, 2021

- 1:00pm - Headworks bar screens begin experiencing problems - 4 were in service.
- 3:30pm - Untreated wastewater overflowed out of Headworks onto plant roadways
- 7:00pm - Untreated wastewater overflowed into 1-mile outfall
- 7:59pm - Plant notified CA Office of Emergency Services (OES)
- 8:11pm - OES notified LA County Dept. of Public Health
- 8:18pm - Plant notified National Response Center
- 9:30pm - LA County Dept. of Public Health arrived at Hyperion



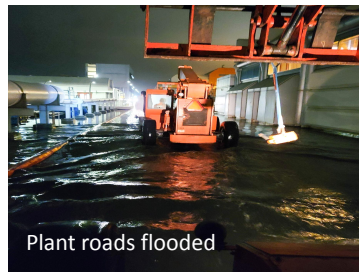
Clogged bar screens



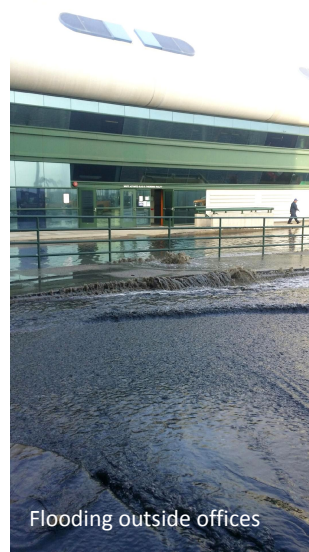
Debris Close Up



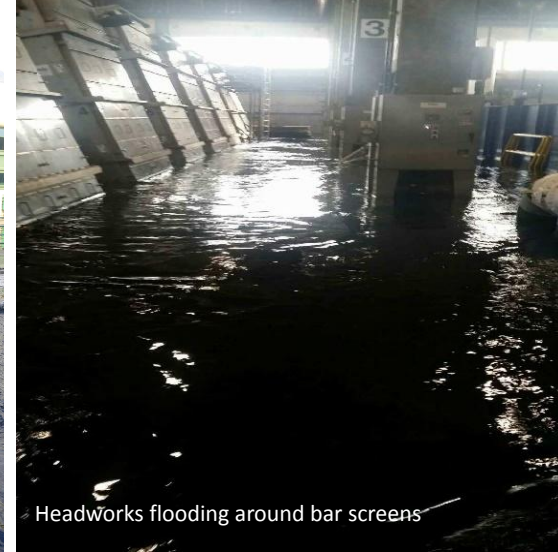
Inside of bar screen



Plant roads flooded



Flooding outside offices



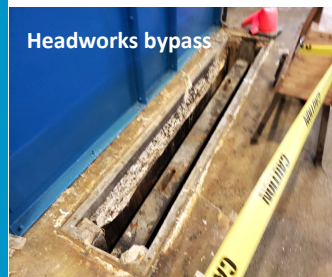
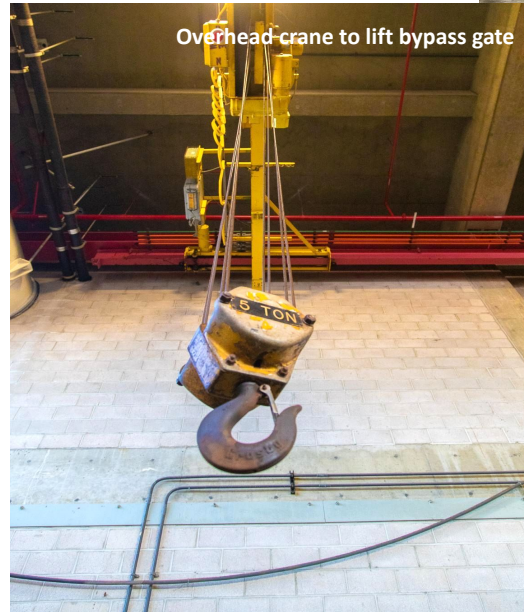
Headworks flooding around bar screens



# TIMELINE

July 12, 2021

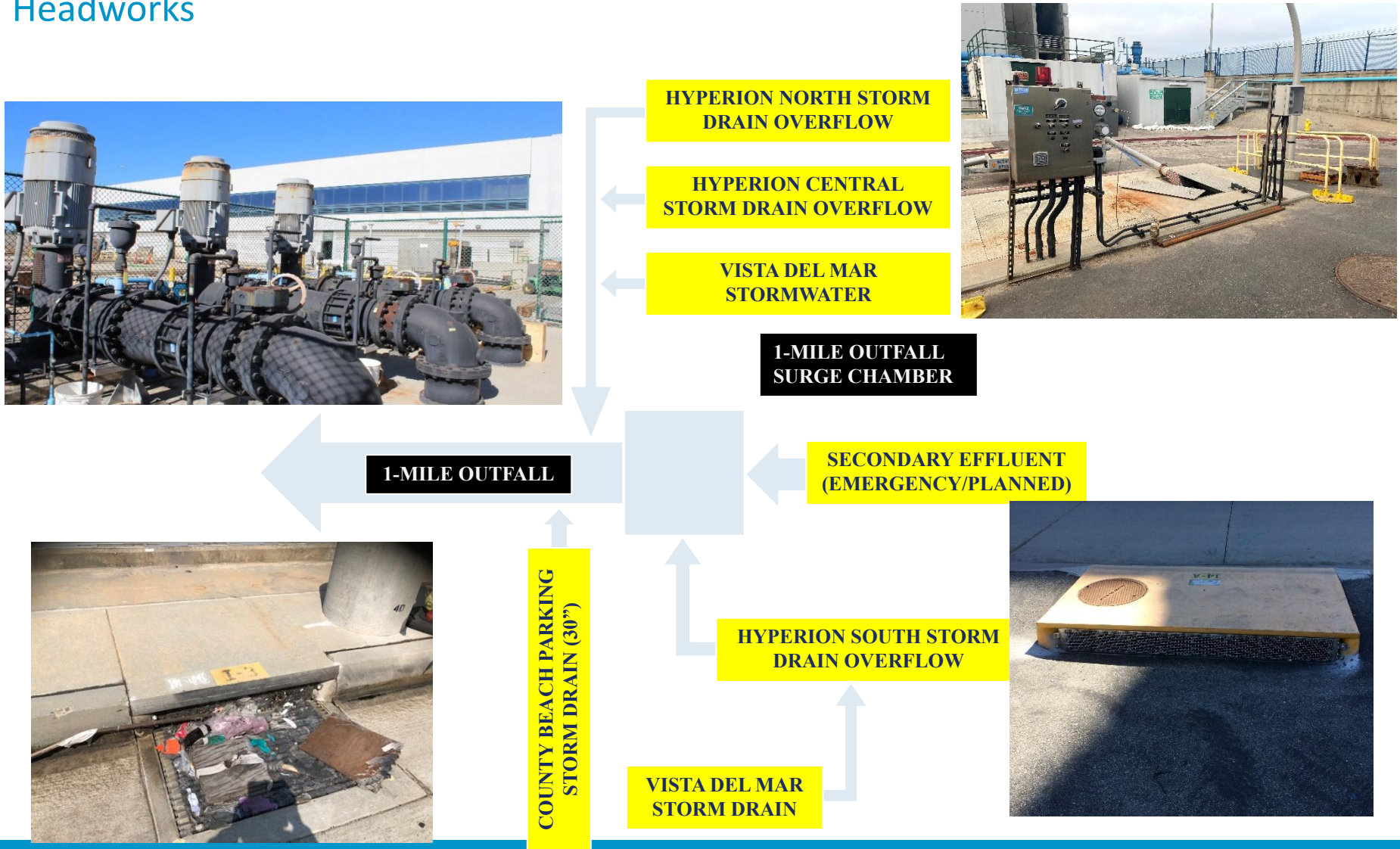
- 4:30am - Opened bypass gate to stop overflow of untreated wastewater out of Headworks building
- 8:41am - Overflow of untreated wastewater into 1-mile outfall stopped and recovery efforts began





# EMERGENCY RESPONSE MEASURES

Recirculated wastewater overflow from plant storm drain system back to the Headworks





# FLOODING DAMAGE

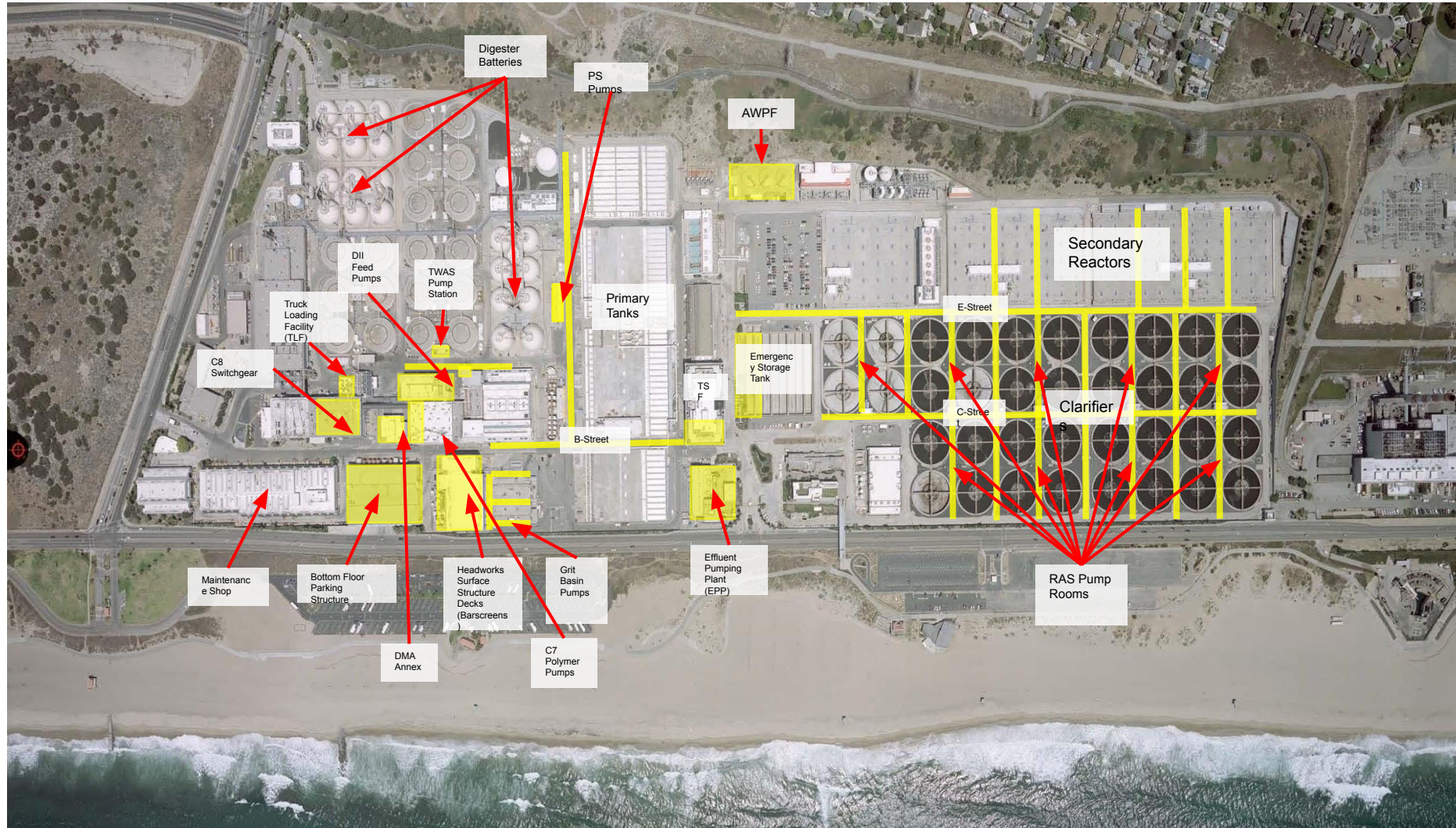
Advanced Water Purification Facility construction site flooded





# IMPACT TO HYPERION

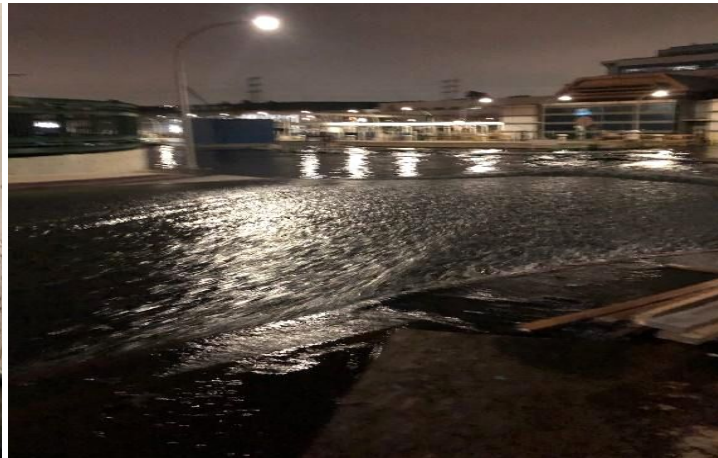
## Below Ground Flooding





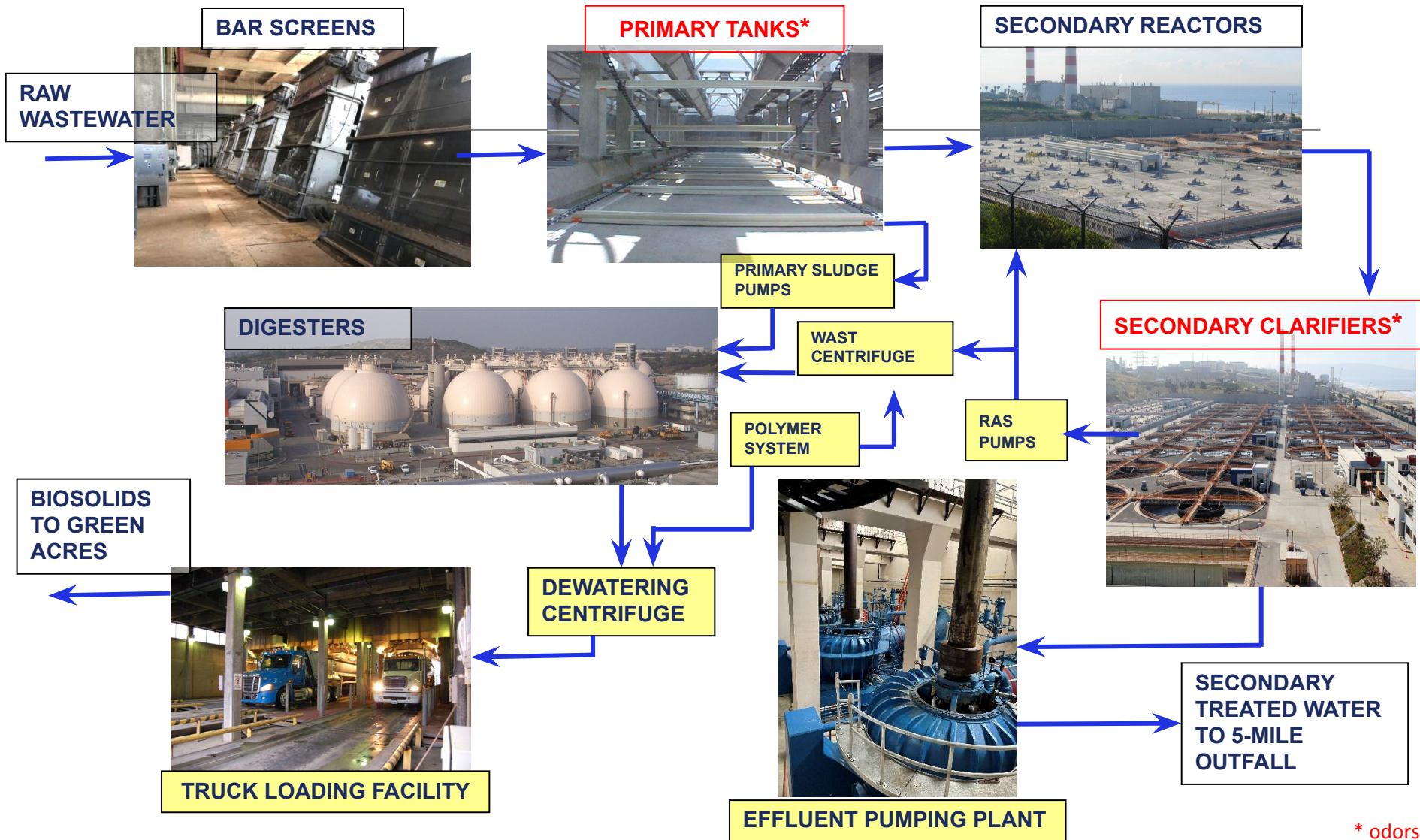
# FLOODING DAMAGE

Plant was flooded with untreated wastewater: damaging equipment and threatening the safety of staff; offices and elevators compromised





# HYPERION WATER RECLAMATION PLANT PROCESS RECOVERY EFFORTS





# HYPERION PROCESS RECOVERY EFFORTS

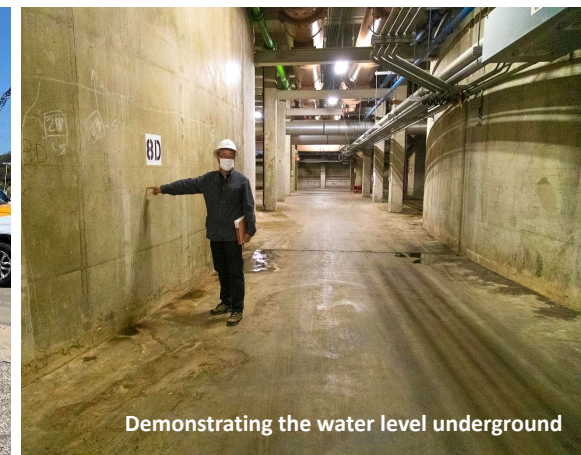
## Sludge pumping bypass system





# HYPERION PROCESS RECOVERY EFFORTS

All critical process equipment back online





# REGULATORY OVERSIGHT

## NPDES Permit

CITY OF LOS ANGELES  
HYPERION TREATMENT PLANT

ORDER R4-2017-0045  
NPDES NO. CA0109991

### CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD LOS ANGELES REGION

320 West 4<sup>th</sup> Street, Suite 200, Los Angeles, California, 90013  
(213) 578-6600 • Fax (213) 578-6783  
<http://www.waterboards.ca.gov/losangeles>

### U.S. ENVIRONMENTAL PROTECTION AGENCY REGION IX

75 Hawthorne Street, San Francisco, California 94105-3901  
Phone: (415) 947-8707 • Fax: (415) 947-3545  
<http://www.epa.gov/region09>

ORDER R4-2017-0045  
NPDES NO. CA0109991

### WASTE DISCHARGE REQUIREMENTS AND NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT FOR THE CITY OF LOS ANGELES, HYPERION TREATMENT PLANT DISCHARGE TO THE PACIFIC OCEAN

The following Permittee is subject to state Waste Discharge Requirements (WDRs) and federal National Pollutant Discharge Elimination System (NPDES) permit requirements, as set forth in this Order/Permit:

Table 1. Discharger Information

Discharger	City of Los Angeles (City, Permittee, or Discharger)
Name of Facility	Hyperion Treatment Plant (HTP or Facility)
	12000 Vista del Mar Boulevard
Facility Address	Playa del Rey, CA 90293
	Los Angeles County

Table 2. Discharge Location

Discharge Point	Effluent Description	Discharge Point Latitude (North)	Discharge Point Longitude (West)	Receiving Water
001 (1-Mile Outfall)	Secondary treated wastewater	33.918333° N	118.447500° W	Pacific Ocean
002 (Y-shaped diffuser) (5-Mile Outfall) North Leg	Secondary treated wastewater	33.911967° N	118.521450° W	Pacific Ocean
South Leg		33.919333° N	118.528483° W	
		33.900650° N	118.527267° W	

Adopted: 02/02/17

[Click here to download the full permit](#)

included in the permit application. Pursuant to 40 CFR § 122.44(j)(1), the Permittee shall annually identify and report, in terms of character and volume of pollutants, any Significant industrial Users discharging to the POTW subject to Pretreatment Standards under section 307(b) of the CWA and 40 CFR § 403.

- iv. The Permittee shall evaluate whether its pretreatment local limits are adequate to meet the requirements of this Order/Permit (including mass emission benchmarks) and shall submit a written technical report as required under section II of Attachment I. The Permittee shall submit revised local limits to the Regional Water Board and USEPA for approval, as necessary. In addition, the Permittee shall consider collection system overflow protection from such constituents as oil and grease, etc.
- v. The Permittee shall comply with requirements contained in Attachment I – Pretreatment Reporting Requirements.

#### 6. Collection System Requirements

The Permittee is subject to the requirements of, and must comply with State Water Resources Control Board (State Water Board) Order 2006-0003-DWQ, Statewide General Waste Discharge Requirements for Sanitary Sewer Systems, including monitoring and reporting requirements as amended by State Water Board Order WQ 2013-0058-EXEC and any subsequent order.

#### 7. Spill Reporting Requirements for POTWs

##### a. Initial Notification

Although State and Regional Water Board staff do not have duties as first responders, this requirement is an appropriate mechanism to ensure that the agencies that do have first responder duties are notified in a timely manner in order to protect public health and beneficial uses. For certain spills, overflows and bypasses, the Permittee shall make notifications as required below:

- i. In accordance with the requirements of Health and Safety Code section 5411.5, the Permittee shall provide notification to the local health officer or the director of environmental health with jurisdiction over the affected water body of any unauthorized release of sewage or other waste that causes, or probably will cause, a discharge to any waters of the state as soon as possible, but no later than **two hours** after becoming aware of the release.
- ii. In accordance with the requirements of CWC section 13271, the Permittee shall provide notification to the California Office of Emergency Services (Cal OES) of the release of reportable amounts of hazardous substances or sewage that causes, or probably will cause, a discharge to any waters of the state as soon as possible, but not later than two hours after becoming aware of the release. The CCR, Title 23, section 2250, defines a reportable amount of sewage as being 1,000 gallons. The phone number for reporting these releases to the Cal OES is (800) 852-7550. In addition, the Permittee shall notify Heal the Bay of any such sewage spill.
- iii. The Permittee shall notify the Regional Water Board and USEPA of any unauthorized release of sewage from its POTW that causes, or probably will cause, a discharge to a water of the state as soon as possible, but not later than **two hours** after becoming aware of the release. This initial notification



# REGULATORY OVERSIGHT

7/29/21 new order from Water Board



## Los Angeles Regional Water Quality Control Board

July 29, 2021

Barbara Romero, Director and  
General Manager  
City of Los Angeles  
LA Sanitation and Environment  
1149 South Broadway Street, 9<sup>th</sup> Floor  
Los Angeles, CA 90015-2213

Via FedEx  
**Tracking Number: 8167 1684 4743**

**REQUIREMENT FOR MONITORING AND STATUS REPORTS PURSUANT TO CALIFORNIA WATER CODE SECTION 13383 ORDER NO. R4-2021-0107 FOR AN UNAUTHORIZED DISCHARGE OF RAW SEWAGE INTO THE PACIFIC OCEAN, CITY OF LOS ANGELES LA SANITATION AND ENVIRONMENT, HYPERION TREATMENT PLANT, CALIFORNIA (NPDES NO. CA0109991, ORDER NO. R4-2017-0045)**

Dear Barbara Romero:

The California Regional Water Quality Control Board, Los Angeles Region (Regional Water Board), is the public agency with primary responsibility for the protection of ground and surface water quality within major portions of Los Angeles and Ventura Counties.

As part of our effort to protect water quality, enclosed is Order No. R4-2021-0107 (Order) issued pursuant to California Water Code section 13383. The Regional Water Board issues this Order in response to the unauthorized discharge of raw sewage that occurred from July 11, 2021 through July 12, 2021 from the Hyperion Treatment Plant (HTP). The required monitoring is necessary to assess impacts on the receiving water due to the spill event and ongoing effluent permit limit exceedances caused by HTP's reduced operational abilities because of the spill event. This Order requires the City of Los Angeles, LA Sanitation and Environment (LASAN) to submit monitoring and status reports as required in this Order.

Barbara Romero  
City of Los Angeles  
LA Sanitation and Environment

- 2 -

July 29, 2021

If you have any questions regarding this matter, please call Andrew Choi at (213) 576-6791 / [andrew.choi@waterboards.ca.gov](mailto:andrew.choi@waterboards.ca.gov) or Ching Yin To at (213) 620-6373 / [ching-yin.to@waterboards.ca.gov](mailto:ching-yin.to@waterboards.ca.gov).

Sincerely,

**R Purdy**  
Digitally signed by R Purdy  
Date: 2021.07.29 17:06:03 -07'00'  
Renee Purdy  
Executive Officer

Enclosure: Order No. R4-2021-0107

cc: [via email]  
Environmental Protection Agency, Region 9, Permits Branch (WTR-5)  
NOAA, National Marine Fisheries Service  
Department of Interior, U.S. Fish and Wildlife Service  
State Water Resources Control Board, Office of Chief Counsel  
State Water Resources Control Board, Office of Enforcement  
State Water Resources Control Board, Division of Drinking Water  
Department of Fish and Wildlife, Region 5  
California State Parks and Recreation  
California Coastal Conservancy  
California Coastal Commission, South Coast Region  
Heal the Bay  
Environment Now  
Natural Resources Defense Council  
U.S. Army Corps of Engineers  
U.S. Fish and Wildlife Service  
Los Angeles County Department of Public Works  
Southern California Coastal Water Research Project  
Los Angeles Waterkeeper  
Water Replenishment District of Southern California  
City of Los Angeles, Department of Water and Power  
Los Angeles County Sanitation Districts  
Surfrider Foundation

LAWRENCE YEE, CHAIR | RENEE PURDY, EXECUTIVE OFFICER

320 West 4th Street, Suite 200, Los Angeles, CA 90013 | [www.waterboards.ca.gov/losangeles](http://www.waterboards.ca.gov/losangeles)

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# SPECIAL MONITORING

No bacteriological exceedances attributable to the Hyperion discharge

Beaches reopened July 14

## Shoreline (5 days: July 12-16)

- Started on morning of July 12 at 9:50am
- Shoreline: 13 stations (base of outfall, 6 stations upcoast and 6 downcoast)
- Santa Monica Pier to Avenue A in Redondo Beach

## Offshore (3 days: July 12-14)

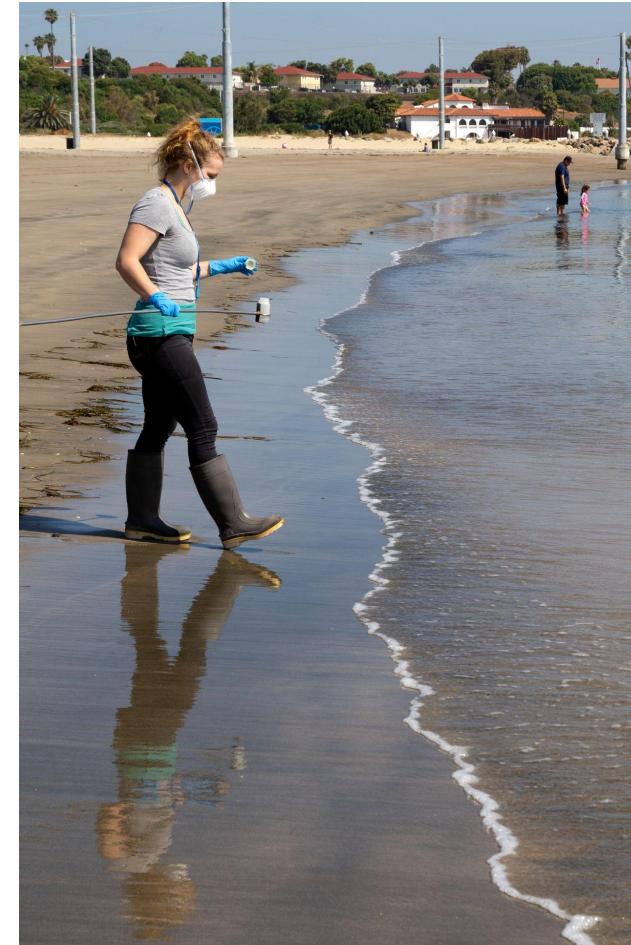
- 1- Mile Outfall (outfall and 50 m upcoast and downcoast, surface and depth)
- 5-Mile Outfall (outfall and about 0.2 mi upcoast and downcoast, surface and depth)





# SHORT-TERM MONITORING

- Continue [shoreline monitoring at 27 stations](#) from Paradise Cove to Cabrillo Beach (daily and weekly sites)
- Few exceedances; all attributable to the rain event on July 26; stations located next to storm drains that were flowing
- Currently, [monitoring offshore at 5-Mile Outfall at 8 stations](#) (<1 m, 15 m, and terminus depth); exceedances at and near outfall @ 15-45 m depth, which is typical for this time of year.
- [HF Radar: current direction and speed](#)
- July 12-15 over the 1-Mile Outfall
- July 10-29 over 5-Mile Outfall
- [Sentinel Satellite Imagery](#): July 12 and 17
- [Toxicity testing](#) of water samples collected at and near the 1-Mile and 5-Mile Outfalls. Giant kelp test all passed.
- [Phytoplankton and Harmful Algal Blooms \(HABs\)](#) analyses – typical for this time of year. No adverse impact.





# LONG-TERM MONITORING

- **Benthic monitoring** (small invertebrates that live in the sediment)
- **Trawls** (fish and larger invertebrates)





# SPECIAL MONITORING

## Why we didn't use qPCR (rapid testing)

- Not an approved method (US EPA, SWRCB, RWQCB)
- Prone to false negatives due to interference
- No water quality limits established yet

## Proposed special study

- LASAN microbiologists asked to draft proposal
- ddPCR as rapid method
- Correlation study between current method (Enterolert) and ddPCR results
- Current Enterococcus limit is 104 MPN/100mL; ddPCR will be in gene copy units, e.g., 1,400 gene copies.

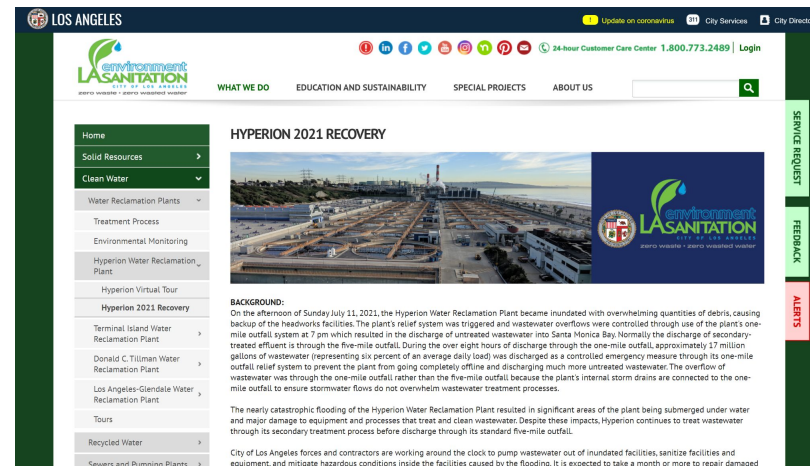




# COMMUNITY ASSISTANCE

## Communications

- Updates provided to Mayor's Office and City Council communications teams
- Presentations to Los Angeles City Council and El Segundo City Council
- Communications w President and Commissioners of Board of Public Works
- Communications with Public Information Director for City of El Segundo
- Proactive and responsive statements to media, with photos
- Media interviews and tours of the facility
- Communications with other agencies involved
- Frequent updates on website and social media





# COMMUNITY ASSISTANCE

## Tours

- Board of Public Works (8/9/21 & 8/23/21)
- Senator Ben Allen's Office (8/11/21)
- Senator Dianne Feinstein's Office (8/11/21)
- Congressman Ted Lieu's Office (8/11/21)
- City of El Segundo (8/9/21 & 8/11/21)
- West Basin Municipal Water District (8/16/21)
- City of Los Angeles Controller's Office (8/24/21)



[www.lacitysan.org/alerts](http://www.lacitysan.org/alerts)

- ## Process:

- 
- The map illustrates the reimbursement boundaries for El Segundo, CA. The boundary is defined by a blue line that runs along the coast from the south to the north, then follows a path through the city streets. The streets shown include W Imperial Ave, E Imperial Ave, W Oak Ave, E Oak Ave, W Mariposa Ave, E Mariposa Ave, W Pine Ave, E Pine Ave, W Grand Ave, and E Grand Ave. The map also shows the location of the El Segundo High School, El Segundo Middle School, and El Segundo Elementary. The El Segundo Beach and the El Segundo Golf Course are also marked.



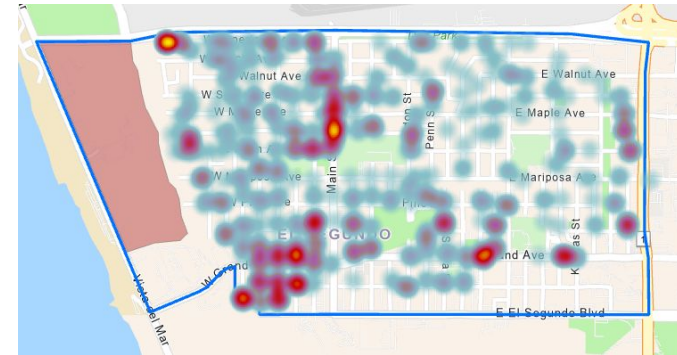
# REIMBURSEMENT PROGRAM

## Updates

- Expanded to LAX North on August 13
- Each Tuesday, we post on our website if the program is being extended. Yesterday, we extended to Thursday, August 26.
- 4000 requests received (roughly 73% AC / 17% hotel)
- Using MailChimp to send and track emails

## Diversity/Equity/Inclusion:

- Spanish version of documents available soon
- Paper-based forms
- Working with El Segundo Library and Senior Center on distribution of messages and paperwork
- Seeking similar partnerships for Playa del Rey and Westchester



# REIMBURSEMENT PROGRAM

## Payment information

- ~1500 reimbursement requests received via secure online forms
- Two trial batch runs to test system - now will move faster
- Working closely with Office of Accounting and Controller's Office to ensure that reimbursements are expedited as top priority
- Small, consistent team due to sensitive information
- Processing time is taking longer due to incomplete and duplicate submissions
- Questions: call our 24-hour Customer Care Center at **1-800-773-2489**  
or email the reimbursement team at [sanhyperion@lacity.org](mailto:sanhyperion@lacity.org)

## Common Issues:

- Emails not opened (15%)
- For hotels, missing names or DOB for occupants
- For AC, can't verify square footage of home
- Full name not typed into last box on application to accept offer
- Attachments exceed 30mb
- Name on application and reimbursement form don't match
- W9 uploaded with no receipts/vice-versa
- Duplicate submissions



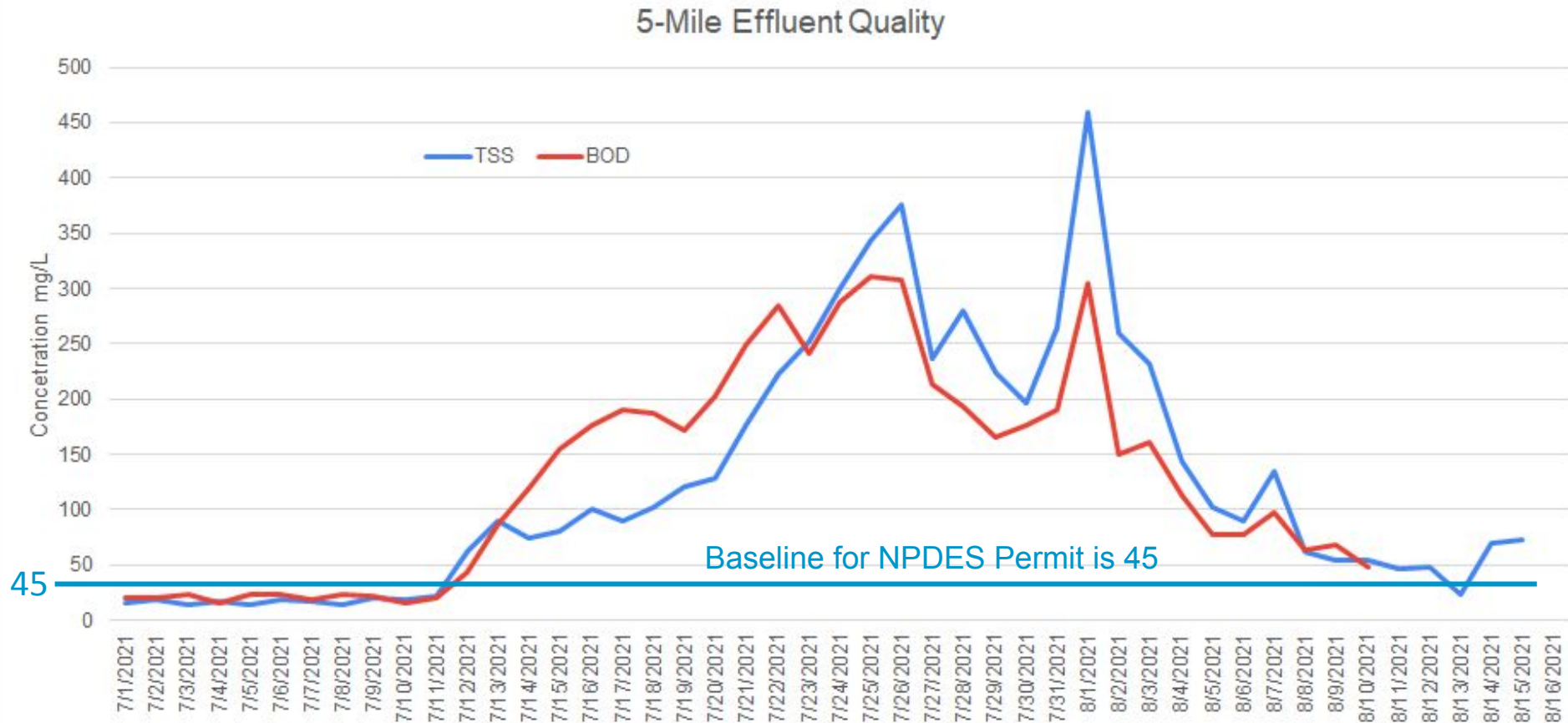
# MOVING FORWARD

- Water Quality
- Air Quality
- Initial Investigation of Cause
- Third Party Reviews
- Regulatory Oversight/Review
  - 5-day report & 30-day report to RWQCB
  - RWQCB Conveyance System Inspection
  - LA County report
- Short-term improvements now... long-term improvements decided after investigations are complete



# HYPERION WATER RECLAMATION PLANT PROCESS RECOVERY EFFORTS

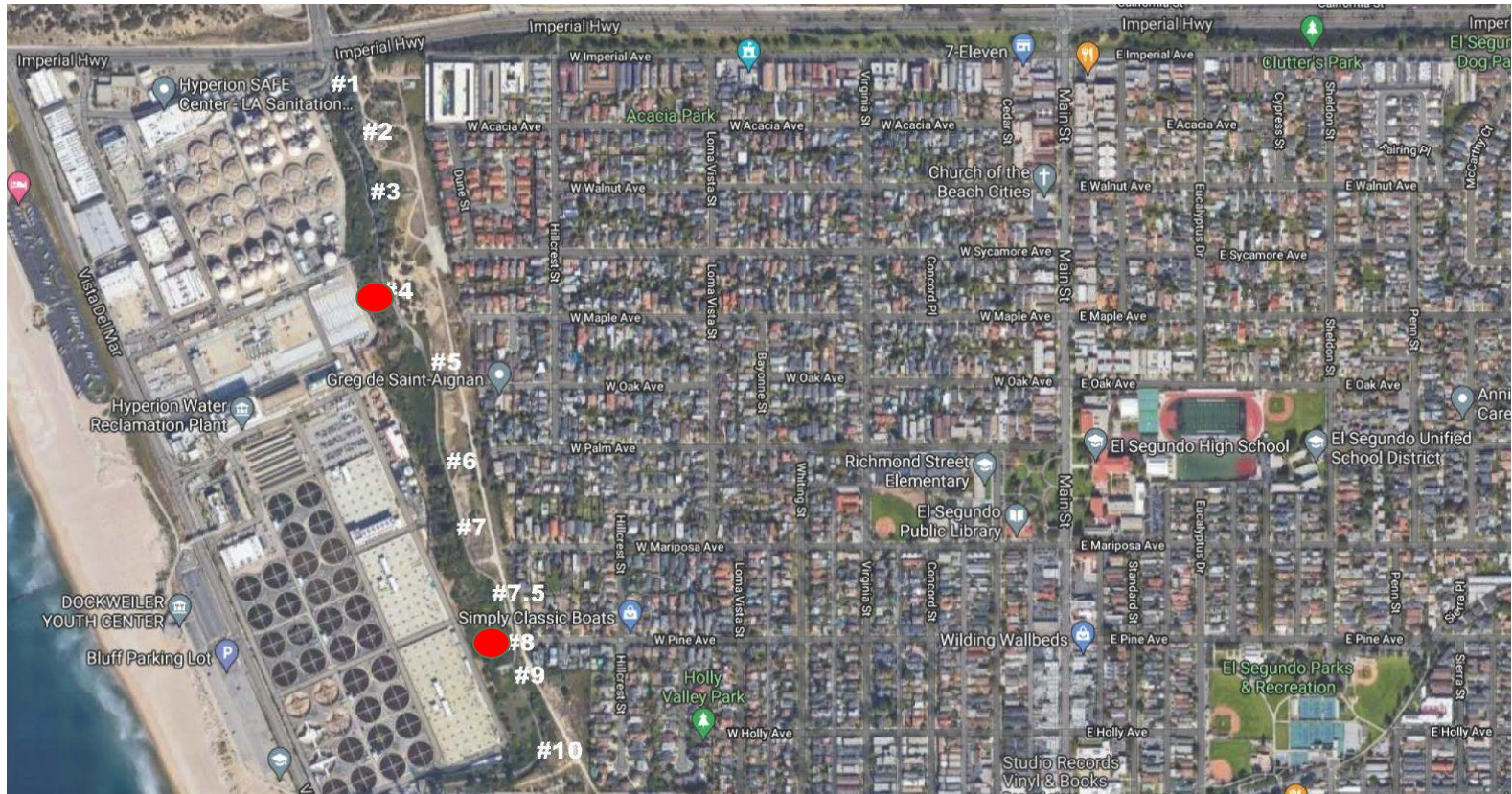
TSS - total suspended solids / BOD - biochemical oxygen demand



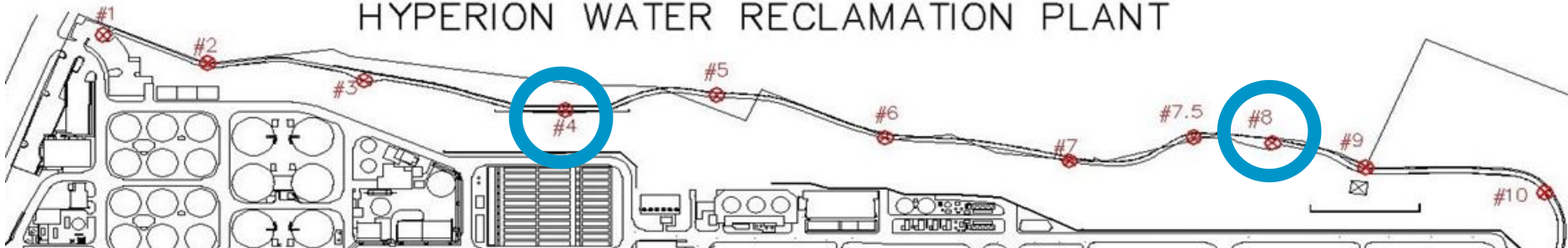


# FENCE LINE MONITORING

- Station 4 - Maple / Hillcrest
- Station 8 - West Pine / Hillcrest



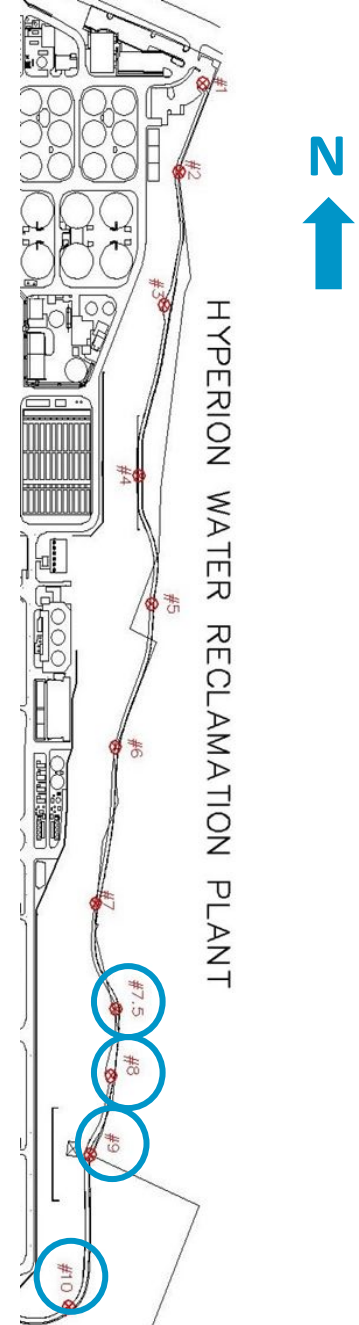
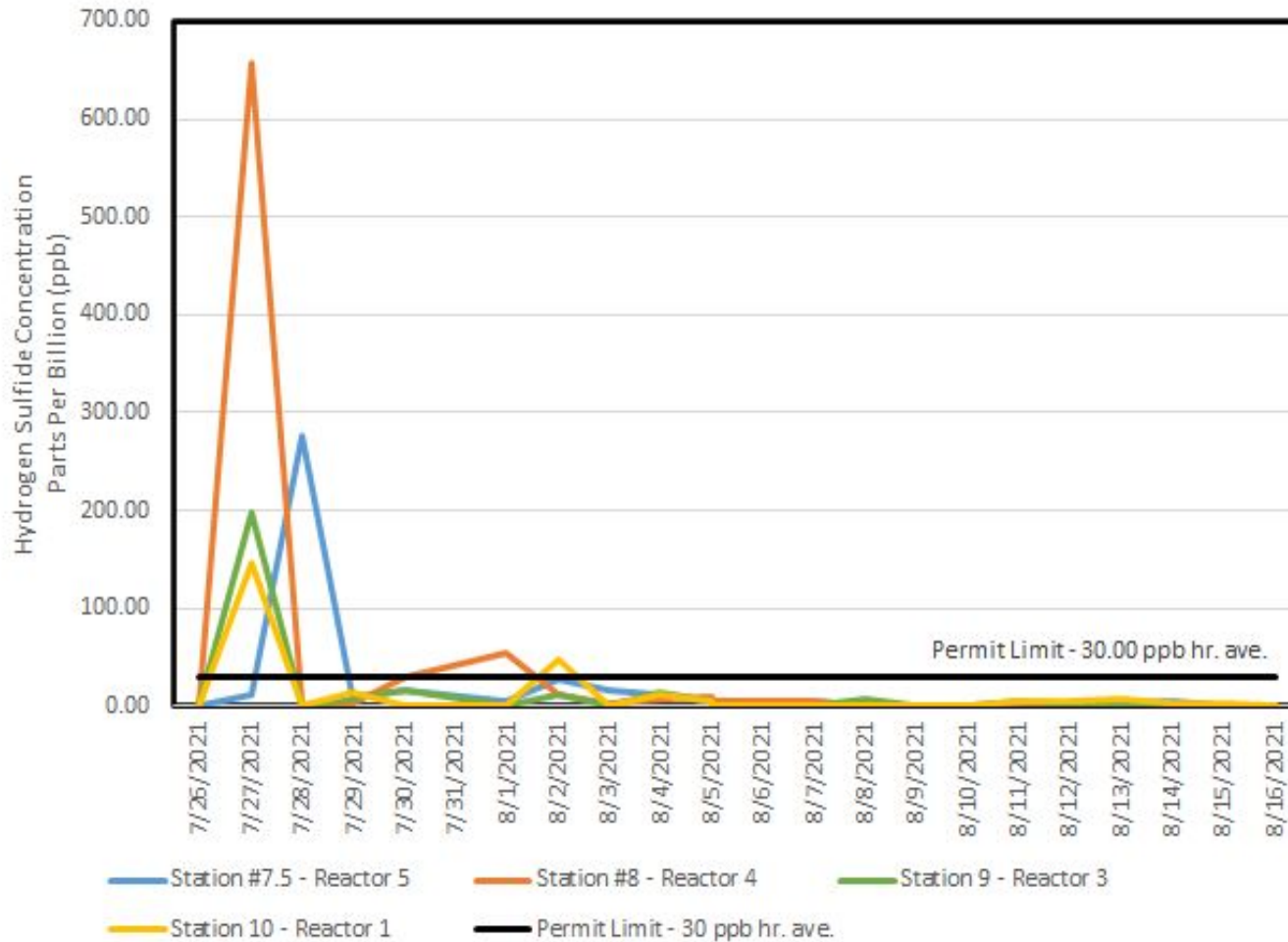
HYPERION WATER RECLAMATION PLANT



# FENCE LINE MONITORING

## Air quality results

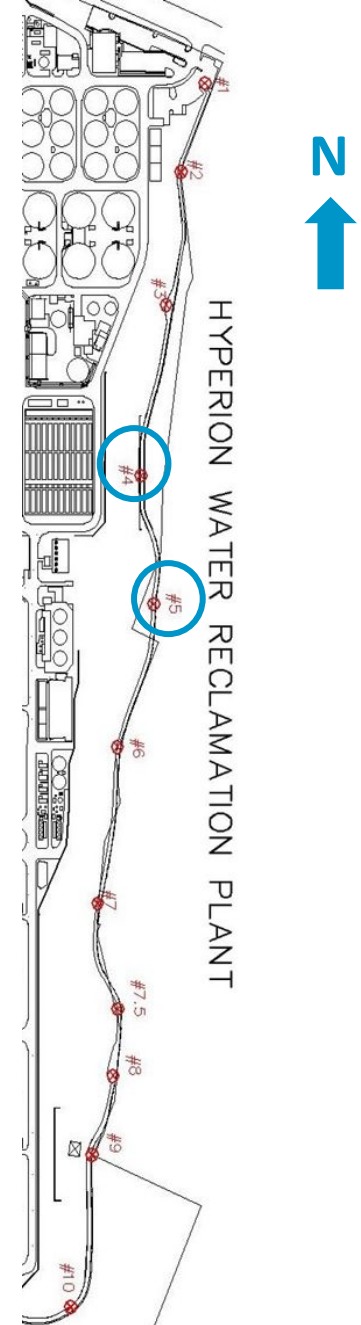
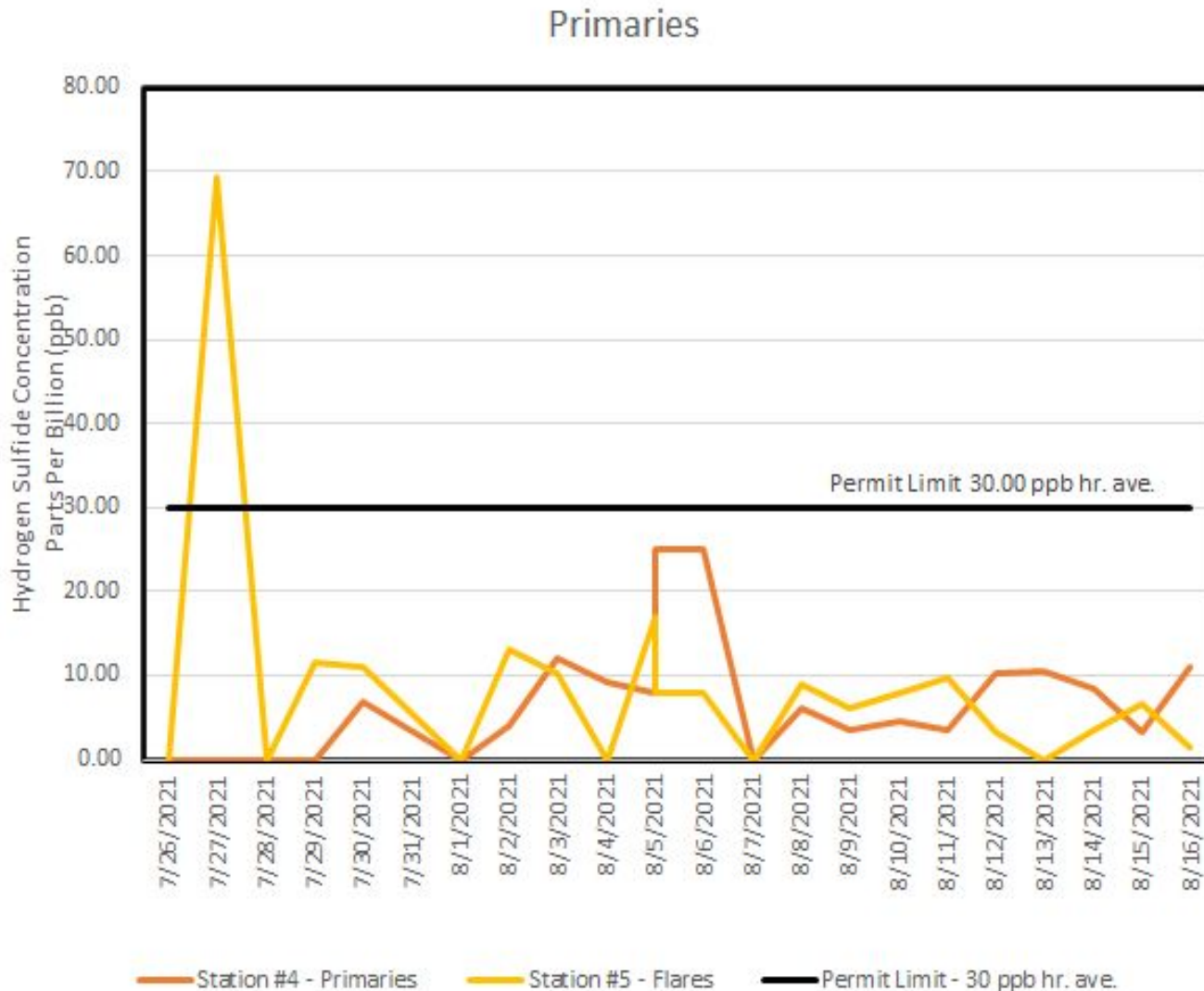
Secondary Clarifiers





# FENCE LINE MONITORING

## Air quality results



# ODOR ABATEMENT/AIR QUALITY

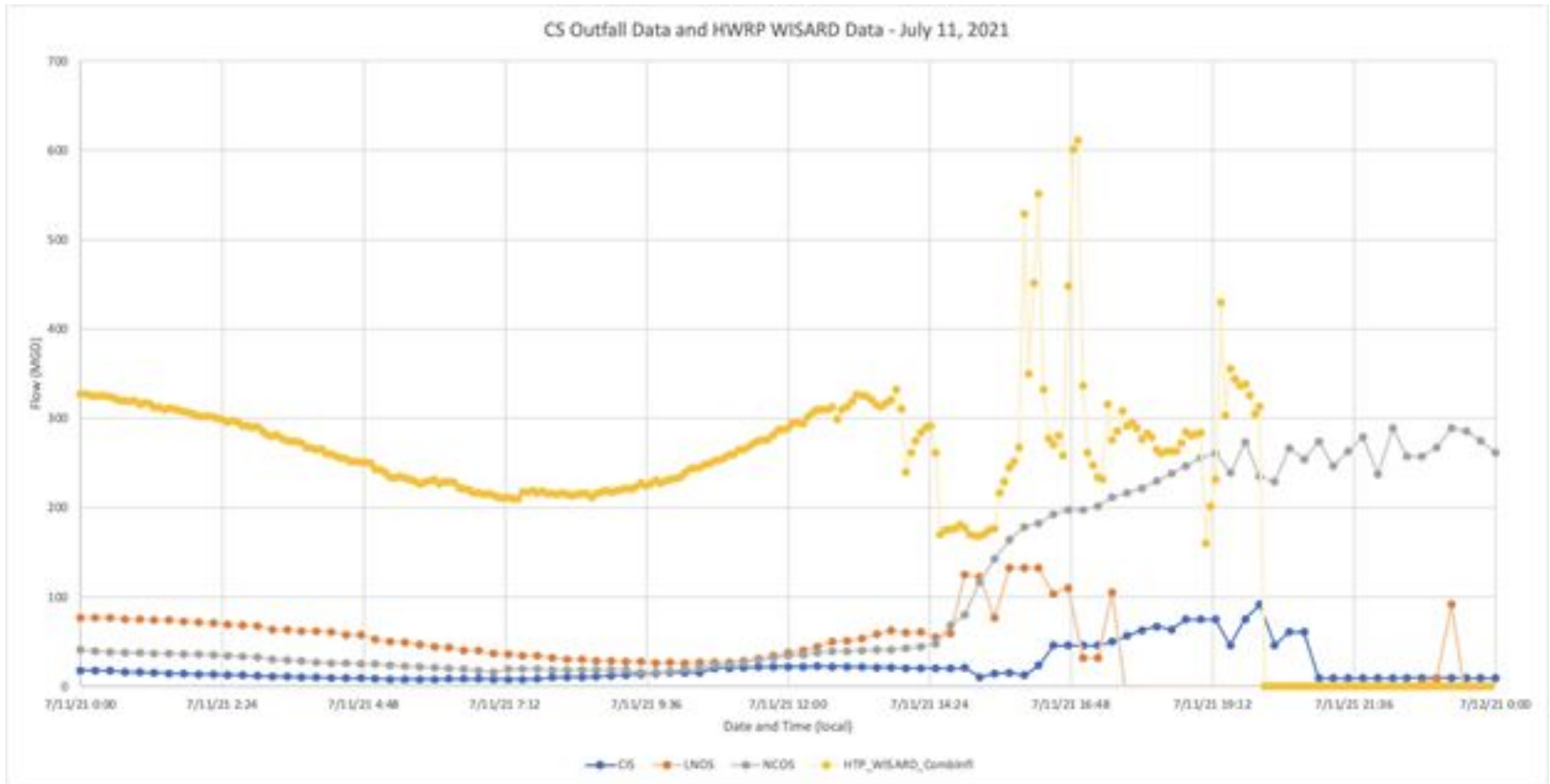
- Odor scrubber facilities in operation year-round
- Bleach used only inside plant buildings, not outside
- Use of deodorizer as needed; MSDS (material safety data sheet) provided to AQMD, available on our website
- Continue evaluation of fenceline monitoring
- Continuation of Hyperion odor hotline  
(Call 310-640-CITY)
- \$12 million BioTrickling Filter for Headworks
- \$8 million BioTrickling Filter for Intermediate pump station
- Evaluate further steps to mitigate odor emissions from the Headworks building





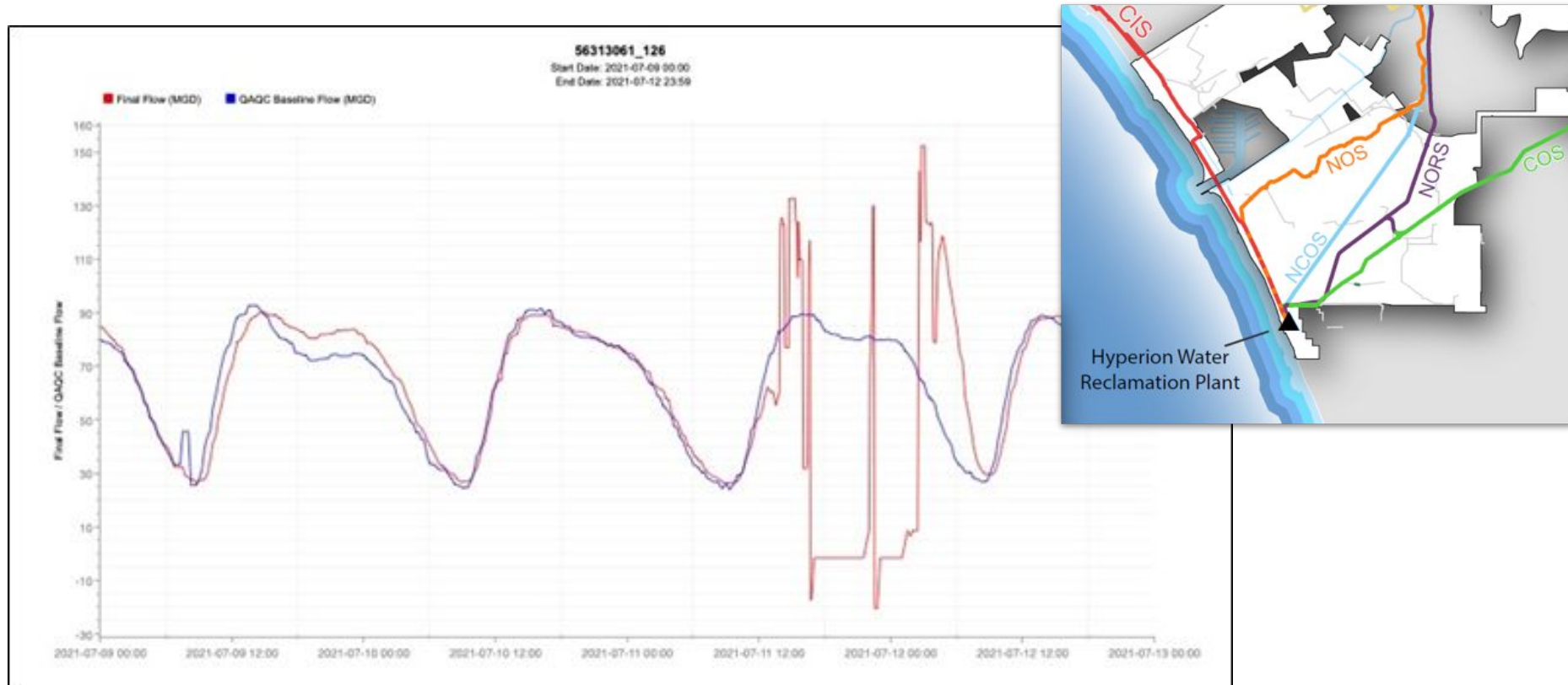
# INITIAL INVESTIGATION OF CAUSE

- July 11 flow monitoring data from the five major outfall sewers into Hyperion reviewed for anomalies in flow
- The data verifies major flow deviation in outfall sewers correlating with reports of significant debris at Hyperion



# INITIAL INVESTIGATION OF CAUSE

## North Outfall Sewer Flow Gauge (typical of all five outfall sewers)

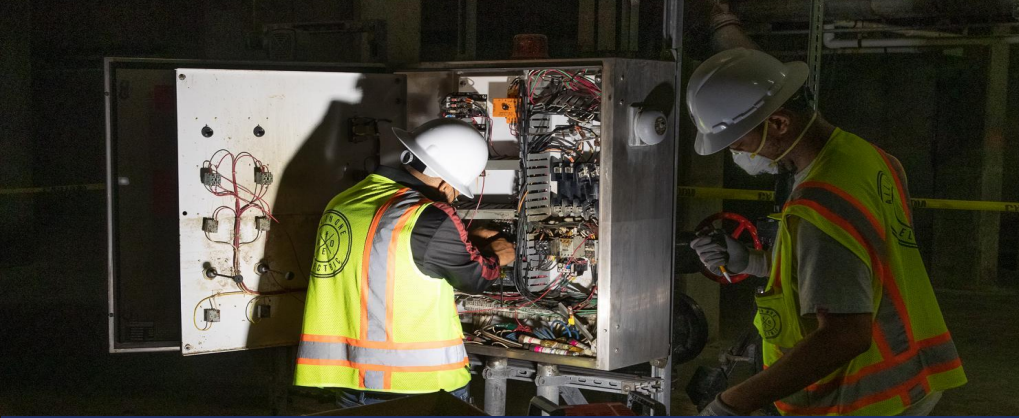


- Analyzed flow data on all 200 flow monitoring sites for:
  - sudden changes in flow velocity & depth of flow
  - any backflow, surcharge, hydraulic abnormality
- Performing visual inspection of 900 maintenance holes w pole cameras looking for:
  - access by outsiders; debris residuals; abnormal flow conditions

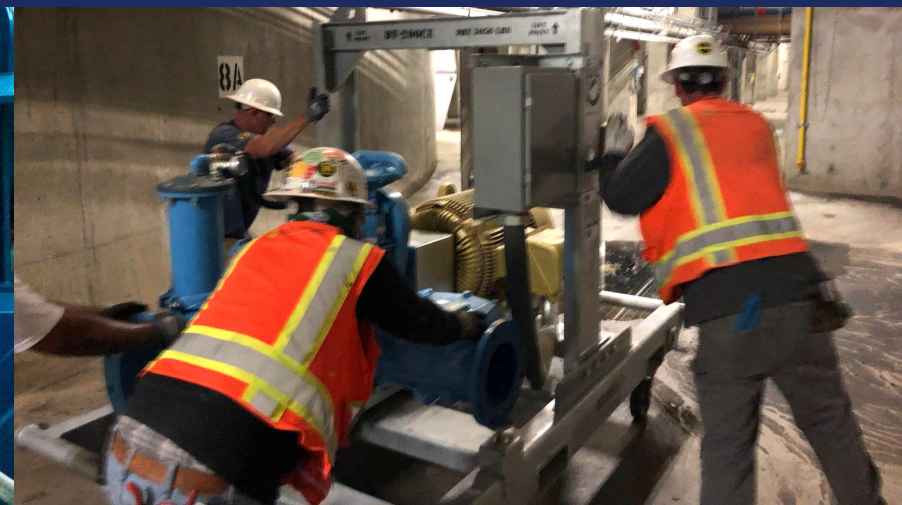
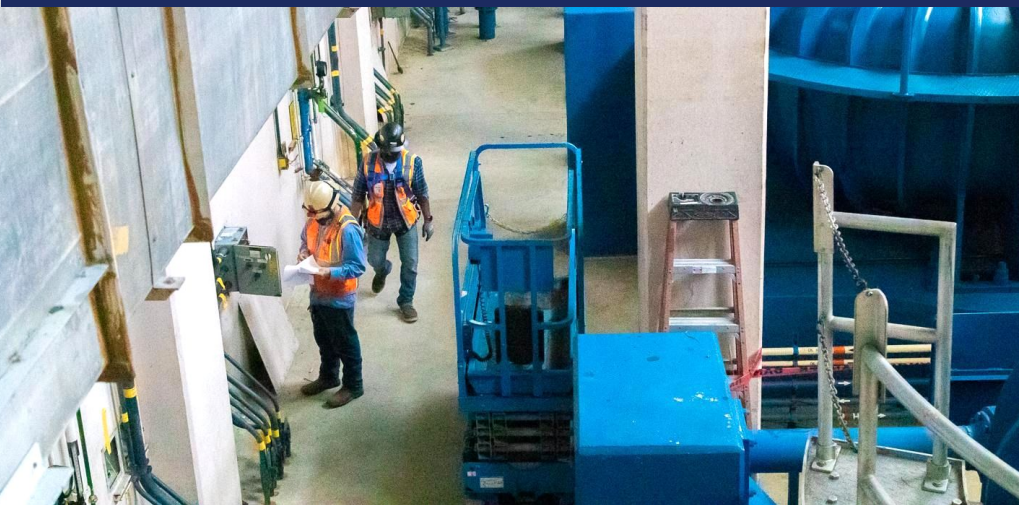


# LASAN ACTION PLAN

Phase 1 Immediate Response		Phase 2 Short Term	Phase 3 Long Term
Activities	<b>OPERATIONS AND ENGINEERING</b>		
	Submit Internal Report to City Council in 90 days	Plant protocols and procedure review	Implement procedures to open bypass gate at pre-specified water levels
	Third Party Hyperion Assessment	Engineering assessment of treatment process and equipment	Improve primary tanks and Headworks air pollution control Systems
	Third Party Sewer Conveyance System Assessment	Review of Standard Operating Procedures and Hyperion operators' training for operation of the emergency bypass channel.	Enhance linkage between conveyance systems monitoring with plant headworks monitoring
	Report to Board of Public Works as required	Identify recovery projects overlapping with Hyperion 2035 plans	Provide multiple connections to reroute flows from the plant storm drain system and minimize overflow of wastewater into Santa Monica Bay in the event of a spill
			Seal and waterproof doors to prevent damage to equipment inside plant facilities (46-50 doors)
			Implement findings from Hyperion and Sewer Conveyance Assessment.
	<b>MONITORING</b>		
	Interim Monitoring Solutions with AQMD	Proposed Special Environmental Monitoring Study.	Work with AQMD to evaluate and improve air quality monitoring
	Increased monitoring of 1-mile and 5-mile Outfalls.		
	Increased shoreline monitoring of 27 from Paradise Cove to Cabrillo Beach (daily and weekly sites)		
	<b>RESILIENCE &amp; EMERGENCY RESPONSE</b>		
	Emergency Response Tabletop Exercise with LA County - Sept 2	Conduct Hyperion specific Emergency Response exercise	Establish recurring Emergency Response Tabletop exercises with City Departments, Contract Agencies, and other stakeholders
	<b>COMMUNICATIONS &amp; OUTREACH</b>		
	Implement and notify community of the Hyperion Reimbursement Program- Extended through August 26	"Don't Flush That" Sewer Education campaign, notification procedures, and enhanced collaboration	Facilitate process to establish emergency response contracts
	Update notification contact list for plant-related emergencies	Establish communication protocols for emergency notification	Participate in 1-2 local El Segundo community events annually with a booth
	Establish regularly scheduled facility tours with easy registration	Add El segundo residents to EMDs NotifyLA system and/or coordinate with LA County to provide residents updates via Nixle	Host monthly facility tours with easy registration
	Work with NGO's to coordinate communication		
	Work with NGO's to coordinate communication /messaging/outreach		
	Coordinate regulatory efforts with various entities		



# QUESTIONS?



For more information about Hyperion Water Reclamation Plant, this incident, and next steps, please visit our website:

[www.lacitysan.org/hyperion2021recovery](http://www.lacitysan.org/hyperion2021recovery)

or call our 24-hour Customer Care Center at 1-800-773-2489

