

LOS ANGELES REGIONAL WATER QUALITY CONTROL BOARD

In the matter of:)	
)	Order R4-2017-0199 (Proposed)
City of Los Angeles;)	
Hyperion Treatment Plant)	SETTLEMENT AGREEMENT AND
)	STIPULATION FOR ENTRY OF
)	ADMINISTRATIVE CIVIL LIABILITY ORDER;
)	ORDER (PROPOSED)
)	

Section I: INTRODUCTION

This Settlement Agreement and Stipulation for Entry of Administrative Civil Liability Order (“Stipulation” or “Stipulated Order”) is entered into by and between the Executive Officer of the Regional Water Quality Control Board, Los Angeles Region (“Regional Water Board”), on behalf of the Regional Water Board Prosecution Team (“Prosecution Team”) and the City of Los Angeles (“Discharger” or “City”)(collectively “Parties”) and is presented to the Regional Water Board, or its delegee, for adoption as an Order by settlement, pursuant to Government Code section 11415.60.

Section II: RECITALS

1. The City owns and operates the Hyperion Treatment Plant (HTP) located in Playa del Rey, California. There are two outfalls that convey secondary effluent from HTP to the Pacific Ocean, the 12-foot diameter 5-mile outfall (Discharge Point 002) and the 12-foot diameter 1-mile outfall (Discharge Point 001). The 5-mile outfall terminates approximately 5 miles west/southwest of the treatment plant and it is the only outfall permitted for the routine discharge of undisinfected secondary-treated effluent. The 1-mile outfall is approximately one mile west-southwest of the treatment plant and is permitted for emergency discharge of chlorinated secondary-treated effluent during extremely high flows, preventative maintenance such as routine opening and closing the outfall gate valves for exercising and lubrication, during intense storms or storms associated with plant power outages, and direct discharge of undisinfected storm water overflow from the HTP.
2. On September 10, 2015, the Regional Water Board adopted Resolution No. R15-008 (Resolution) for the City’s temporary 6-week bypass of secondary effluent from the 5-mile outfall to the 1-mile outfall during the period of September 21, 2015 through November 1, 2015. Approval of this Resolution was necessary for the City to repair or replace the Effluent Pumping Plant (EPP) piping and the 120-inch gravity valve. A complete shutdown of the 5-mile outfall and effluent pumping system was required to perform the work.
3. On September 15, 2015, the City’s Bureau of Sanitation executed an unplanned diversion of fully treated, chlorinated secondary effluent from the HTP to the 1-mile outfall during a rain event. The City executed the unplanned diversion due to a malfunction of a discharge valve on Effluent Pump #2 which caused effluent to “reverse” flow back through the pump and flood the inside of the EPP basement through a manhole that was removed by a contractor doing repairs on the discharge valve. As a result of the unplanned diversion, the City discharged approximately

Order No. R4-2017-0199
City of Los Angeles, Hyperion Treatment Plant
Settlement Agreement and Stipulated Administrative Civil Liability Order

30 million gallons of treated effluent and stormwater through the 1-mile outfall between 10:13AM and 3:13PM on September 15, 2015. This unplanned diversion also caused an unauthorized discharge of floatable material of sewage origin (MOSO) such as plastics, feminine hygiene casings, lancets, and other waste. Observations from the City's Ocean Assessments Unit staff during the unplanned diversion confirmed the discharge of MOSO from HTP's 1-mile outfall.

4. At midnight on September 21, 2015, the City initiated a planned diversion of treated chlorinated secondary effluent from the 5-mile outfall to the 1-mile outfall to carry out the EPP project as described in the Resolution. The City began receiving reports on the night of September 22, 2015 of possible MOSO washing ashore on Dockweiler Beach. The following day, the Los Angeles county Department of Public Health issued a beach closure for Dockweiler State Beach and El Segundo Beach due to MOSO washing ashore. The beach closure lasted for 4 days from September 23, 2015 through September 26, 2015.

5. As a result of the events described above, the Regional Water Board issued the City an Investigative Order pursuant to Water Code section 13267 (13267 Order) on October 7, 2015 requiring the City to submit a technical report addressing the cause of the MOSO discharge, the extent of potential harm to water quality, and the impact of the beach closure. On December 2-3, 2015, State Water Resources Control Board (State Water Board) Office of Enforcement staff conducted a joint compliance evaluation inspection with Regional Water Board staff at HTP to assess the City's overall compliance with its permit requirements; Waste Discharge Requirements and National Pollutant Elimination System Permit for the City of Los Angeles, Hyperion Treatment Plant Discharge to the Pacific Ocean Order R4-2010-0200 (NPDES No. CA0109991) and General Permit for Storm Water Discharges Associated with Industrial Activities Order 2014-0057-DWQ (NPDES No. CAS000001). The State Water Board Office of Enforcement issued the City a Notice of Violation (NOV) on March 16, 2015 based on observations made during the joint inspection.

6. The City's January 2016 response to the 13267 Order identified the valve malfunction of Effluent Pump #2 as the cause of flooding the EPP basement necessitating the unplanned diversion to the 1-mile outfall on September 15, 2015. Furthermore, the City convened an expert Advisory Panel to review what occurred and provide their assessment and recommendations to prevent a similar event in the future. The Advisory Panel traced the source of the MOSO back to a 2005 sanitary sewer overflow that deposited large quantities of debris to HTP's North Drain System where residual MOSO remained for over 10 years until the unplanned and planned diversions in 2015. The Advisory Panel also concluded that there was evidence to suggest that accumulation of debris existed in the 1-mile surge chamber prior to the September 15, 2015 diversion, and both the unplanned diversion and the subsequent planned diversion were of sufficient size to discharge that debris to the Pacific Ocean.

7. Provision IV.A.7.a of Order R4-2010-0200 states that "[w]aste discharged to the ocean must be essentially free of material that is floatable or will become floatable upon discharge."

8. Provision VII.A.2.a. of Order R4-2010-0200 states that "[n]either the treatment nor the discharge of pollutants shall create pollution, contamination, or nuisance as defined in section 13050 of the California Water Code."

9. The Prosecution Team alleges three categories of violation resulting from the City's operation of HTP on September 15, 2015 and between September 21, 2015 through November 1, 2015:

- A. Violation Category 1: Unplanned diversion resulting in a discharge of floatables on September 15, 2015 in violation of Order R4-2010-0200;
- B. Violation Category 2: Planned diversion resulting in a discharge of floatables on September 21, 2015 through November 1, 2015 in violation of Order R4-2010-0200; and
- C. Violation Category 3: Creation of a nuisance condition resulting in beach closures from September 23, 2015 through September 26, 2015.

10. These alleged violations of Order R4-2010-0200 constitute violations of California Water Code section 13385 for which discretionary penalties may be assessed pursuant to California Water Code section 13385, subdivisions (a) and (c).

11. The Parties have engaged in settlement negotiations and agree to fully settle the alleged violations as summarized above without administrative or civil litigation and by presenting this Stipulation to the Regional Water Board, or its delegee, for adoption as an Order by settlement, pursuant to Government Code section 11415.60. During the course of the Parties' negotiations, the City clarified the estimated volume discharged from the 1-mile outfall used to calculate the proposed liability for Violation Category 1 (28,740,000 gallons). Furthermore, based on discussions relating to the complexities of the EPP Header Replacement Project and an absence of any indication that the valve on Effluent Pump #2 would fail, the Parties agreed to a slight adjustment from 1.3 to 1.2 for the culpability factor for Violation Category 1. The Prosecution Team also recognizes that the City engaged in a significant beach cleanup effort immediately after receiving notification of possible MOSO washing ashore on Dockweiler Beach. Though the Prosecution Team did not agree to adjust the cleanup and cooperation factor for Violation Category 1, the Parties agreed to recognize the City's beach cleanup efforts and provide a .05 reduction in the calculated liability for Violation Category 1 as an "other factor as justice may require." The amount of administrative civil liability imposed pursuant to this Stipulated Order comports with the State Water Resources Control Board's Water Quality Enforcement Policy ("Enforcement Policy") methodology and takes into account the litigation risks associated with proceeding to hearing. The methodology is attached hereto as Attachment 1 and is incorporated by reference. The Prosecution Team believes that the resolution of the alleged violations is fair and reasonable and fulfills all of its enforcement objectives, that no further action is warranted concerning the specific violations alleged above, except as provided in this Stipulated Order, and that this Stipulated Order is in the best interest of the public.

Section III: STIPULATIONS

The Parties stipulate to the following:

12. **Jurisdiction:** The Parties agree that the Regional Water Board has subject matter jurisdiction over the matters alleged in this action and personal jurisdiction over the Parties to this Stipulation.

13. **Administrative Civil Liability:** The Discharger agrees to the imposition of administrative civil liability in the amount of TWO MILLION TWO HUNDRED SIXTY TWO THOUSAND TWO HUNDRED FORTY NINE DOLLARS (\$2,262,249.00). Of that amount, the Discharger agrees to pay ONE MILLION ONE HUNDRED THIRTY ONE THOUSAND ONE HUNDRED TWENTY FOUR DOLLARS AND FIFTY CENTS (\$1,131,124.50) in accordance with Paragraph 14, below.

The remaining ONE MILLION ONE HUNDRED THIRTY ONE THOUSAND ONE HUNDRED TWENTY FOUR DOLLARS AND FIFTY CENTS (\$1,131,124.50) in liability will be suspended pending completion of two Supplemental Environmental Projects (SEPs) as set forth in Paragraph 15, below. The cost of the SEPs will be referred to as the SEP Amount.

14. The Discharger shall pay ONE MILLION ONE HUNDRED THIRTY ONE THOUSAND ONE HUNDRED TWENTY FOUR DOLLARS AND FIFTY CENTS (\$1,131,124.50) in administrative civil liability by check made payable to the "State Water Pollution Cleanup and Abatement Account," no later than 30 days following the Regional Water Board, or its delegee, executing this Order. The check shall reference the Order number indicated on page one of this Stipulation. The original signed check shall be sent to:

State Water Resources Control Board
Division of Administrative Services
Accounting Office
1001 I Street, 18th Floor
Sacramento, California 95814

Copies of the check shall be sent to Hugh Marley, Los Angeles Regional Water Quality Control Board, 320 West Fourth Street, Suite 200 Los Angeles, California 90013 and Mayumi E. Okamoto, State Water Resources Control Board, 801 K Street, 23rd Floor Sacramento, California 95814.

15. The Discharger agrees to discharge its SEP obligations as described in the Paragraphs below:

A. DESCRIPTION OF THE SEP

The Discharger proposes to implement the following SEPs:

- i. **Environmental Cleanup and Awareness SEP:** The Discharger shall fund city-wide Environmental Cleanup and Awareness Programs to improve water literacy among beach goers and water users that will increase public understanding of water as a valuable resource, understanding of the City's wastewater and stormwater systems, and region-wide efforts to enhance integrated water management. This Environmental Cleanup and Awareness SEP will consist of inland and coastal community clean-ups, educational presentations, and presence at community outreach events. To the extent possible, events will be held in both coastal and inland communities and/or disadvantaged communities. Educational materials will, at a minimum, be bilingual in Spanish and English. The Discharger will partner with Heal the Bay, as the Implementing Party, to ensure that this project is implemented as required. Heal the Bay will be the lead organization for this SEP and will manage subcontracts with eleven (11) non-governmental organizations (NGOs) who will lead or participate in designated clean-up events, participate in water literacy training, and present water literacy materials at a community resource fair. The Discharger is designating \$210,124 to fund this project proposal. In the event that any NGO is not able to participate in this SEP, the

\$210,124 will be used to fund work by the participating NGOs providing all milestones and deliverables are implemented.

- ii. **Stormwater Quality Improvement and Infiltration SEP:** The Discharger shall fund the design and construction of two Stormwater Quality Improvement and Infiltration Projects, the Slauson Green Alley Project and the Kittyhawk Green Walkway Project.
 - a. Slauson Green Alley SEP: This project is located in the Sepulveda Channel subwatershed, which drains to Ballona Creek, then to Santa Monica Bay. This project will convey runoff from the alley between Slauson and Dawes Avenues to a rain garden with the objective of reducing pollutants associated with stormwater runoff. This project will also improve the aesthetics of the existing alley and provide flood mitigation as an added benefit. The Discharger is designating \$331,433 to fund this project proposal which is \$433 more than the amount of the Administrative Civil Liability dedicated to SEPs.
 - b. Kittyhawk Green Walkway SEP: This project is located in the Westchester neighborhood at the intersection of West Manchester Avenue and La Tijera Boulevard within the Ballona Creek watershed. This project will collect surface runoff from the local neighborhood, approximately 8.7 acres, and infiltrate the runoff by using 5 drywells located along Kittyhawk Avenue, 85th Place, and Glider Avenue. The pedestrian alley near Kittyhawk Avenue and West 85th Place will be improved to a permeable pedestrian alley with an under drain conveying treated water to the dry wells. The Discharger is designating \$590,000 to fund this project proposal.

See Attachment 2 for a more detailed SEP Project proposal. An ongoing maintenance plan for these projects is also included as part of Attachment 2 to ensure long-term success of the projects' anticipated water quality benefits. Attachment 2 is incorporated herein by reference.

B. SEP COMPLETION DEADLINES

- i. **Environmental Cleanup and Awareness SEP:** The proposed timeline for completion of the cleanup and outreach events proposed in the SEP proposal is January 31, 2019. The Final Report shall be submitted to the Regional Water Board no later than March 31, 2019. This Final Report deadline shall be treated as an interim milestone deadline for the entire SEP and the liabilities associated with this aspect of the proposal shall be permanently suspended upon receipt of the Final Report for the Environmental Cleanup and Awareness SEP.
- ii. **Stormwater Quality Improvement and Infiltration SEP:**

- a. Slauson Green Alley SEP: The proposed timeline for completion of this project is 24 months from the point in time that the project is approved by the Regional Water Board. The Parties agree that the final SEP Completion Deadline for the Slauson Green Alley SEP is April 1, 2020.
- b. Kittyhawk Green Walkway SEP: The proposed timeline for completion of this project is also 24 months from the point in time that the project is approved by the Regional Water Board. The Parties agree that the final SEP Completion Deadline for the Kittyhawk Green Walkway SEP is April 1, 2020.
- c. Final Report for Stormwater Quality Improvement and Infiltration SEPs: The Final Report for both Slauson Green Alley and Kittyhawk Green Walkway shall be submitted to the Regional Water Board no later than May 1, 2020. This Final Report deadline shall be treated as the final deadline for the entire SEP and the liabilities associated with this aspect of the proposal shall be permanently upon receipt of the Final Report for the Stormwater Quality Improvement and Infiltration SEP.

C. REQUEST FOR EXTENSION OF FINAL SEP COMPLETION DEADLINES

If the Discharger cannot meet the SEP Completion Deadline due to circumstances beyond Discharger's anticipation or control, the Discharger shall notify the Executive Officer in writing within thirty (30) days of the date the Discharger first knew of the event or circumstance that caused or could cause a violation of this Order. The notice shall describe the reason for the nonperformance and specifically refer to this Paragraph. The notice shall describe the anticipated length of time the delay may persist, the cause or causes of the delay, the measures taken or to be taken by the Discharger to prevent or minimize the delay, the schedule by which the measures will be implemented, and the anticipated date of compliance. The Discharger shall adopt all reasonable measures to avoid and minimize such delays.

The determination as to whether the circumstances were beyond the reasonable control of the Discharger and its agents will be made by the Executive Officer. Where the Executive Officer concurs that compliance was or is impossible, despite the timely good faith efforts of the Discharger, due to circumstances beyond the control of the Discharger that could not have been reasonably foreseen and prevented by the exercise of reasonable diligence by the Discharger, a new compliance deadline shall be established and this Order will be revised accordingly. The Executive Officer will endeavor to grant a reasonable extension of time if warranted.

D. REPRESENTATION OF THE DISCHARGER AND IMPLEMENTING PARTY

As a material consideration for the Regional Water Board's acceptance of this Stipulated Order, the Discharger and the Implementing Party, Heal the Bay, represent that the funds outlined in Paragraph 15.A.i. will be utilized to implement the SEP in

accordance with the SEP Proposal as described above and in Attachment 2. A Memorandum of Understanding between the Discharger and Implementing Party is included in Attachment 3 and is incorporated herein by reference.

The Discharger also represents that the funds outlined in Paragraph 15.A.ii. will be utilized to implement the SEP in accordance with the SEP Proposal as described above and in Attachment 2. The Discharger understands that its promise to implement the SEP, in its entirety and in accordance with the schedule for implementation, is a material condition of this settlement of liability between the Discharger and the Regional Water Board.

E. PUBLICITY

Whenever the Discharger or its agents or subcontractors or the Implementing Party publicize one or more elements of the SEP, they shall state in a **prominent manner** that the Project is being undertaken as part of the settlement of an enforcement action by the Regional Water Board against the Discharger.

F. SITE INSPECTIONS

The Discharger shall permit Regional Water Board staff to inspect during normal business hours any location where the SEP is being implemented as well as review any documents associated with implementation of the SEP at any time without notice.

G. FINAL REPORT

The SEP Completion Deadlines as described above anticipates that the Environmental Cleanup and Awareness SEP shall be completed on March 31, 2019 upon submission of the Final Report and the Stormwater Quality Improvement and Infiltration SEP shall be completed on May 1, 2020 upon submission of the Final Report to the Regional Water Board. The Discharger shall provide quarterly monitoring reports on the progress of all SEPs on the 15th day of the month following the end of each quarter beginning on June 1, 2018.

H. AUDITS AND CERTIFICATION OF ENVIRONMENTAL PROJECT

1. Certification of Completion

Within 30 days of completion of the SEP, the Discharger shall submit a certified statement of completion of the SEP ("Certification of Completion"). The Certification of Completion may be submitted with the Discharger's Final Report for each respective project. The Discharger's authorized representative shall submit the Certification of Completion under penalty of perjury to the Designated Regional Water Board Representative:

Mr. Hugh Marley
Los Angeles Regional Water Quality Control Board
320 West 4th Street, Suite 200
Los Angeles, CA 90013

(213) 620-6375

hugh.marley@waterboards.ca.gov

The Certification of Completion shall include the following:

i. Certification of Expenditures

Certification documenting all expenditures by the Discharger. The expenditures may include external payments to outside vendors or contractors implementing the SEP. If applicable, the expenditures may include the costs of internal Environmental Management resources and internal Business Unit resources, provided that such expenditures are directly related to development and implementation of the SEP. In making such certification, the official may rely upon normal company and project tracking systems that captures employee time expenditures and external payments to outside vendors such as environmental and information technology contractors or consultants. The Discharger shall provide any additional information requested by the Regional Water Board staff that is reasonably necessary to verify SEP expenditures. The certification need not address any costs incurred by the Regional Water Board for oversight.

ii. Certification of Performance of Work

Certification that the SEP has been completed in accordance with the terms of this Stipulated Order. Such documentation may include photographs, invoices, receipts, certifications, and other material reasonably necessary for the Regional Water Board to evaluate the completion of the SEP and the costs incurred by the Discharger.

iii. Certification that Work Performed on SEP Met or Exceeded Requirements of CEQA and other Environmental Laws [where applicable]

Certification that the SEP meets or exceeds the requirements of CEQA and/or other environmental laws. Unless the Discharger is exempted from compliance with CEQA, the Discharger shall, before the SEP implementation date, consult with other interested State Agencies regarding potential impacts of the SEP. Other interested State Agencies include, but are not limited to, the California Department of Fish and Wildlife. To ensure compliance with CEQA where necessary, the Discharger and/or the Implementing Party shall provide the Regional Water Board with the following documents:

- a. Categorical or statutory exemptions;
- b. Negative Declaration if there are no "significant" impacts;
- c. Mitigated Negative Declaration if there are potential "significant" impacts but revisions to the project have been made or may be made to avoid or mitigate those potential significant impacts;

- d. Environmental Impact Report if there are "significant" impacts.

2. Third Party Audit

If the Designated Regional Water Board Representative obtains information that causes the representative to reasonably believe that the Discharger has not expended money in the amounts claimed by the Discharger, or has not adequately completed any of the work in the SEP, the Designated Regional Water Board Representative may require, and the Discharger shall submit, at its sole cost, a report prepared by an independent third party(ies)'s, stating that in its professional opinion, the Discharger has expended money in the amounts claimed by the Discharger. In the event of such an audit, the Discharger agrees that they will provide the third party auditor with access to all documents which the auditor requests. Such information shall be provided to the Designated Regional Water Board Representative within three months of the completion of the Discharger's SEP obligations. The audit need not address any costs incurred by the Regional Water Board for oversight.

I. REGIONAL WATER BOARD ACCEPTANCE OF COMPLETED SEP

Upon the Discharger's satisfaction of its obligations under this Stipulated Order, the completion of the SEP and any audit, the Designated Regional Water Board Representative, with notice to the regional Enforcement Coordinator, Hugh Marley, shall request that the Regional Water Board, or the Regional Water Board's delegee, issue a "Satisfaction of Order." The issuance of the Satisfaction of Order shall terminate any further obligation of the Discharger and/or the Implementing Party under this Stipulated Order.

J. FAILURE TO EXPEND ALL SUSPENDED ADMINISTRATIVE CIVIL LIABILITY FUNDS ON THE APPROVED SEP

In the event that the Discharger is not able to demonstrate to the reasonable satisfaction of the Designated Regional Water Board Representative that the entire SEP Amount pursuant to Paragraph 13 has been spent for the completed SEP, the Discharger shall pay the difference between the SEP Amount and the amount the Discharger can demonstrate was actually spent on the SEP, as an administrative civil liability.

K. FAILURE TO COMPLETE THE SEP

If the SEP is not fully implemented by the SEP Completion Period required by this Stipulated Order and an extension has not been granted by the Regional Water Board's Executive Officer pursuant to Paragraph 15.C above, the Designated Regional Water Board Representative shall issue a Notice of Violation.

As a consequence, the Discharger shall be liable to pay the entire Suspended Liability or, some portion thereof. Alternatively, the Discharger may be compelled to complete the SEP. The Prosecution Team may act as follows:

1. The Prosecution Team elects for the payment of the Suspended Liability

The Discharger may not be entitled to any credit, offset, or reimbursement from the Regional Water Board for expenditures made on the SEP prior to the date of the "Notice of Violation" by the Regional Water Board. The amount of the Suspended Liability owed shall be determined via a "Motion for Payment of Suspended Liability" before the Regional Water Board. In the event that the Discharger is liable for payment of Suspended Liability, the Regional Water Board will not include that portion of the SEP amount found by the Regional Water Board to have been expended in a timely manner and in compliance with the description of the SEP in Paragraph 15.A in the amount of the Suspended Liability owed. Upon a determination by the Regional Water Board of the amount of the Suspended Liability assessed, the amount owed shall be paid to the State Water Pollution Cleanup and Abatement Account within thirty (30) days after the service of the Regional Water Board's determination. In addition, the Discharger, in the event it is liable for Suspended Liability, shall be liable for the Regional Water Board's reasonable costs of enforcement, including but not limited to legal costs and expert witness fees. Payment of the assessed amount will satisfy the Discharger's obligation to implement the SEP.

2. The Prosecution Team may elect to enforce the SEP

The Prosecution Team may file a Motion to Enforce the SEP before the Regional Water Board against the Discharger. Upon the identification by the Regional Water Board of the remaining work of the SEP to be performed, the Discharger agrees that the Regional Water Board may order the Discharger to perform that work.

3. Claims between the Discharger its contractor or Implementing Party

Any claims for reimbursement, costs (other than the payment by the Discharger of the SEP Amount pursuant to Paragraph 15 above), or disputed between the Discharger and its contractor or Implementing Party are outside the scope of this Stipulated Order and should be handled as between the Discharger and the contractor or Implementing Party.

L. REGIONAL WATER BOARD IS NOT LIABLE

Neither the Regional Water Board members nor the Regional Water Board staff, attorneys, or representatives shall be liable for any injury or damage to person or property resulting from acts or omissions by the Discharger (or the Implementing Party where applicable), its directors, officers, employees, agents, representatives or contractors in carrying out activities pursuant to this Stipulation, nor shall the Regional Water Board, its members or staff be held as parties to or guarantors of any contract entered into by the Discharger, its directors, officers, employees, agents, representatives or contractors in carrying out activities pursuant to this Stipulation.

The Discharger, its contractor(s), and the Implementing Party covenant not to sue or pursue any administrative or civil claim or claims against any State Agency or the State of California, or their officers, employees, representatives, agents, or attorneys arising out of or relating to any matter expressly addressed by the Complaint, this Stipulation or the SEP. This provision does not preclude the Discharger and/or the Implementing Party from opposing a Notice of Violation or Motion brought under Paragraph 15.K.

16. **Compliance with Applicable Laws:** The Discharger understands that payment of administrative civil liability in accordance with the terms of this Order and/or compliance with the terms of this Order is not a substitute for compliance with applicable laws, and that continuing violations of the type alleged above may subject it to further enforcement, including additional administrative civil liability.

17. **Party Contacts for Communications related to this Stipulation and Order:**

For the Regional Water Board:

Hugh Marley, Chief
Compliance and Enforcement Section
Regional Water Quality Control Board,
Los Angeles Region
320 W. 4th Street, Suite 200
Los Angeles, California 90013
(213) 620-6375
hugh.marley@waterboards.ca.gov

For the Discharger:

Timeyin Dafeta
Hyperion Plant Manager
City of Los Angeles
12000 Vista Del Mar
Playa Del Rey 90293
(310) 648-5555
timeyin.dafeta@lacity.org

18. **Attorney's Fees and Costs:** Each Party shall bear all attorneys' fees and costs arising from the Party's own counsel in connection with the matters set forth herein.

19. **Matters Covered by this Stipulation:** Upon approval by the Discharger, adoption by the Regional Water Board, or its delegee, as an Order, this Stipulation represents a final and binding resolution and settlement of all claims, violations or causes of action alleged above or which could have been asserted based on the specific facts alleged against the Discharger. The provisions of this Paragraph are expressly conditioned on the Discharger's full payment of administrative civil liability by the deadline specified in Paragraph 13 herein.

20. **Public Notice:** The Discharger and the Regional Water Board Prosecution Team understand that this Stipulation and Order must be noticed for a 30-day public review and comment period prior to consideration by the Regional Water Board, or its delegee. In the event objections are raised during the public review and comment period, the Regional Water Board or its delegee may, under certain circumstances, require a public hearing regarding the Stipulation and Order. In that event, the Parties agree to meet and confer concerning any such objections, and may agree to revise or adjust the proposed Order as necessary or advisable under the circumstances.

21. **Addressing Objections Raised During Public Comment Period:** The Parties agree that the procedure contemplated for adopting the Order by the Regional Water Board and review of this Stipulation by the public is lawful and adequate. In the event procedural objections are raised prior to the Order becoming effective, the Parties agree to meet and confer concerning any

such objections, and may agree to revise or adjust the procedure as necessary or advisable under the circumstances.

22. **Interpretation:** This Stipulation and Order shall be construed as if the Parties prepared it jointly. Any uncertainty or ambiguity shall not be interpreted against any one Party. The Discharger is represented by counsel in this matter.

23. **Modification:** This Stipulation and Order shall not be modified by any of the Parties by oral representation made before or after its execution. All modifications must be in writing, signed by all Parties, and approved by the Regional Water Board or its delegee.

24. **If the Order Does Not Take Effect:** In the event that this Order does not take effect because it is not approved by the Regional Water Board, or its delegee, or is vacated in whole or in part by the State Water Board or a court, the Parties acknowledge that they expect to proceed to a contested evidentiary hearing before the Regional Water Board to determine whether to assess administrative civil liabilities for the underlying alleged violations, unless the Parties agree otherwise. The Parties agree that all oral and written statements and agreements made during the course of settlement discussions will not be admissible as evidence in the hearing. The Parties agree to waive any and all objections based on settlement communications in this matter, including, but not limited to:

- A. Objections related to prejudice or bias of any of the Regional Water Board members or their advisors and any other objections that are premised in whole or in part on the fact that the Regional Water Board members or their advisors were exposed to some of the material facts and the Parties' settlement positions as a consequence of reviewing the Stipulation and/or the Order, and therefore may have formed impressions or conclusions prior to any contested evidentiary hearing on the violations alleged in Attachment 1 in this matter; or
- B. Laches or delay or other equitable defenses based on the time-period for administrative or judicial review to the extent this period has been extended by these settlement proceedings.

25. **Waiver of Hearing:** The Discharger has been informed of the rights provided by Water Code section 13323, subdivision (b), and hereby waives its right to a hearing before the Regional Water Board prior to the adoption of the Order.

26. **Waiver of Right to Petition:** The Discharger hereby waives its right to petition the Regional Water Board's adoption of the Order for review by the State Water Board, and further waives its rights, if any, to appeal the same to a California Superior Court and/or any California appellate level court.

27. **The Discharger's Covenant Not to Sue:** The Discharger covenants not to sue or pursue any administrative or civil claim(s) against any State Agency or the State of California, their officers, Board Members, employees, representatives, agents, or attorneys arising out of or relating to any matter expressly addressed by this Stipulation and Order.

28. **Authority to Bind:** Each person executing this Stipulation in a representative capacity represents and warrants that he or she is authorized to execute this Stipulation on behalf of and to bind the entity on whose behalf he or she executes the Stipulation.

29. **Counterpart Signatures; Facsimile and Electronic Signature:** This Stipulation may be executed and delivered in any number of counterparts, each of which when executed and delivered shall be deemed to be an original, but such counterparts shall together constitute one document. Further, this Stipulation may be executed by facsimile or electronic signature, and any such facsimile or electronic signature by any Party hereto shall be deemed to be an original signature and shall be binding on such Party to the same extent as if such facsimile or electronic signature were an original signature.

30. **Effective Date:** This Stipulation is effective and binding on the Parties upon the entry of this Order by the Regional Water Board or its delegee, which incorporates the terms of this Stipulation.

IT IS SO STIPULATED.

**California Regional Water Quality Control Board,
Los Angeles Region Prosecution Team**

Date: Feb. 13, 2018

By: Samuel Unger
**Samuel Unger
Executive Officer**

**City of Los Angeles
Department of Public Works**

[Signature]
Kevin James, President Date
Board of Public Works

LOS ANGELES SANITATION

[Signature] 2/23/18
Enrique C. Zaldivar Date
Director and General Manager

APPROVED AS TO FORM:
Michael N. Feuer, City Attorney

By: Adena M. Hopenstand 2/23/18
Adena M. Hopenstand Date
Deputy City Attorney

ATTEST:
Holly L. Wolcott, City Clerk

By: Michael Valderrama 2/28/18
Deputy City Clerk Date



HAVING CONSIDERED THE ALLEGATIONS AND THE PARTIES' STIPULATIONS, THE REGIONAL WATER BOARD, OR ITS DELEGEE, FINDS THAT:

31. The Regional Water Board incorporates the foregoing Stipulation, set forth in Paragraphs 1 through 30 above, by this reference, as if set forth fully herein.

32. Timeline for Completion of the terms of the Settlement Agreement and Stipulation for Entry of Order:

Task	Deadline
a) Payment of \$\$1,131,124.50 to the State Water Pollution Cleanup and Abatement Account	No later than 30 days from the date of this Order.
b) Completion of Environmental Cleanup and Awareness SEP	January 31, 2019
c) Submission of Final Report on Environmental Cleanup and Awareness SEP	March 31, 2019
d) Completion of Slauson Green Alley SEP	April 1, 2020
e) Completion of Kittyhawk Green Walkway SEP	April 1, 2020
f) Submission of Final Report for both Stormwater Quality Infiltration and Improvement SEPs	May 1, 2020

33. In accepting this Stipulation, the Regional Water Board has considered, where applicable, each of the factors prescribed in Water Code section 13385, subdivision (e) (see Attachment 1, incorporated herein by reference). The Regional Water Board's consideration of these factors is based upon information obtained by the Prosecution Team in investigating the allegations in Paragraphs 1 through 10 and in the Complaint or otherwise provided to the Regional Water Board. This settlement recovers the costs incurred by the Prosecution Staff in investigating and pursuing enforcement of the allegations set forth in Paragraphs 1 through 10 as "other matters as justice may require".

34. This is an action to enforce the laws and regulations administered by the Regional Water Board. The Regional Water Board finds that issuance of this Order is exempt from the provisions of the California Environmental Quality Act (Public Resources Code, sections 21000 et seq.), in accordance with section 15321(a)(2), Title 14, of the California Code of Regulations.

35. The Executive Officer is authorized to refer this matter directly to the Attorney General for enforcement if the Discharger fails to perform any of its obligations under the Order.

Pursuant to Water Code section 13323 and Government Code section 11415.60, **IT IS HEREBY ORDERED** on behalf of the California Regional Water Quality Control Board, Los Angeles Region.

Paula Rasmussen
Assistant Executive Officer

Date: _____

- Attachment 1: Enforcement Policy Methodology
- Attachment 2: City of Los Angeles SEP Proposal
- Attachment 3: Memorandum of Understanding Between the City of Los Angeles and Heal the Bay

ATTACHMENT 1 to Order No. R4-2017-0199

CITY OF LOS ANGELES HYPERION TREATMENT PLANT

PENALTY METHODOLOGY

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1. VIOLATIONS

This document provides information regarding the calculation of civil liability for violations of Order No. R4-2010-0200 by the City of Los Angeles.

The City violated Provision IV.A.7.a (see page 30) for Violations 1 and 2 as follows:

- “7. Waste discharged to the ocean must be essentially free of:
- a. Material that is floatable or will become floatable upon discharge.”

The City violated Provision VII.A.2.a (see page 35) for Violation 3:

- “2. The Discharger shall comply with the following Regional Water Board provisions:
- a. Neither the treatment nor the discharge of pollutants shall create pollution, contamination, or nuisance as defined in section 13050 of the California Water Code”. Nuisance is defined in section 13050 of the Water Code as anything which meets all of the following requirements:
 - (1) “Is injurious to health, or is indecent or offensive to the sense, or an obstruction to the free use of property, so as to interfere with the comfortable enjoyment of life or property.
 - (2) Affects at the same time an entire community or neighborhood, or any considerable number of persons, although the extent of the annoyance or damage inflicted upon individuals may be unequal.
 - (3) Occurs during, or as a result of, the treatment or disposal of wastes”.

The violations are grouped by the events and the days of discharge as follows:

Violation 1 Unplanned Partial Diversion	Violation 2 Planned Diversion Project (Days of Discharge)	Violation 3 Planned Diversion Project (Beach Closure Days)
<p style="text-align: center;"><u>9/15/2015</u> 1 day</p> <ul style="list-style-type: none"> • Discharge of floatable pollutants 	<p style="text-align: center;"><u>9/21/2015- 11/1/2015</u> 42 days</p> <ul style="list-style-type: none"> • Discharge of floatable pollutants 	<p style="text-align: center;"><u>9/23/2015 -9/26/2015</u> 4 days</p> <ul style="list-style-type: none"> • Discharges creating nuisance • Beach closures • Moderate harm to beneficial uses (impacts are observed and likely to attenuate without appreciable acute or chronic effects)

2. HARM TO BENEFICIAL USES

Violation 1

- Potential – “Below Moderate” or “2” since some harm from the pollutants are observed or reasonably expected.
- Characteristics – “Minor” or “1” due to numerous floating and suspended pollutants. The City Ocean Assessments Unit staff documented seeing hundreds to thousands of floating and suspended materials at the 1-mile outfall location including objects consisting of rubber goods, plastic goods, various unidentifiable anthropogenic debris, and sewage grease. These materials were observed by all persons onboard *Marine Surveyor*¹.
- Cleanup-Cooperation – “Factor 1” because less than 50 percent of the discharge is susceptible for cleanup or abatement.
- Deviation – Major since permit requirements violated for discharge of floatables.
- The City Microbiology Unit staff confirmed finding four hygiene casings on September 16, 2015 on shoreline (one casing 100 yards north and three casings 100 yards south of HTP 1-mile pipeline route) and notified the plant².

[TOTAL=4]

¹ See 13267 response, Appendix C, pages 2 and 9.

² Information obtained via conference call and subsequently sent to the Office of Enforcement (OE) by the City.

Violation 2

- Potential – “Below Moderate” or “2” since some harm from the pollutants are observed or reasonably expected.
- Characteristics – “Minor” or “1” because floatables like plastic casings may pose minor risk or threat to potential receptors.
- Cleanup – “Factor 1” because less than 50 percent of the discharge is susceptible for cleanup or abatement.
- Deviation – Major since permit requirements violated for discharge of floatables.
- The City Microbiology also confirmed finding three casings on the Dockweiler State Beach on 9/22/15 after the Planned Diversion Project started.

[TOTAL=4]

Violation 3

- Potential for Harm – “Above Moderate” or “4” because of beach closures.
 - More than moderate threat to beneficial uses since there was temporary restrictions on beneficial uses.
- Characteristics – “Minor” or “1” because floatables like plastic casings may pose minor risk or threat to potential receptors.
- Cleanup – “Factor 1” because less than 50 percent of the discharge is susceptible for cleanup or abatement.
- Deviation – Major since permit requirements require that the Discharger shall not create a nuisance.
- Beach closures = four days (9/23/15 to 9/26/15) for Dockweiler Beach and 2 days for El Segundo Beach. Includes a total of 3.3 miles of Dockweiler State Beach from Ballona Creek in Playa del Rey to Grand Avenue in the City of El Segundo and 1.0 mile of El Segundo beach from Grand Avenue in El Segundo to 45th Street in Manhattan Beach³

[TOTAL=6]

3. VOLUME ESTIMATION

Violation 1

- Calculations include the volume responsible for pushing discharges of floatables out the 1-mile Outfall.
- Total =5 hours
 - Start–10:13a.m.
 - Stop –3:13p.m.

³ See 13267 response, pages 69-70

- Volume = 31,549,000 [28,740,000 gallons from partial diversion flow over 5 hours + 2,810,000 gallons of stormwater inflow - first 1,000 gallons per Water Code 13385].

Violation 2

- No volume calculated or assessed.

Violation 3

- No volume calculated or assessed.

4. PER DAY PENALTIES

Violation 1

- One day of violation (maximum of \$10,000 per day).

Violation 2

- 42 days of violations (maximum of \$10,000 per day).

Violation 3

- 4 days of violations⁴ (maximum of \$10,000 per day).
- Subsequent to the discharge pollutants such as tampon applicators, medical waste, and other floatables, these items washed up on El Segundo and Dockweiler beaches on or around 9/23/15. Los Angeles County Public Health officials issued a new release regarding the beach closures advising residents to avoid contact with the ocean, wet sand, and any materials that washed up on shore in the area. Both beaches closed 9/23/15 at 10pm. El Segundo Beach was re-opened on 9/25/15 at 9 p.m. and Dockweiler State Beach was re-opened on 9/26/16 at 1 p.m.

5. CULPABILITY

For all violations, a significant increase in the culpability adjustment is justified as follows:

- The City was fully aware of possibility of debris in 1-mile outfall as stated in their 13267 response⁵: *“Based on LASAN’s experience from the diversion of effluent to the 1-mile Outfall in 2006, it was anticipated there might be debris in the 1-mile Outfall during the planned diversion in 2015. LASAN made provisions to install a debris capture device (net) at the terminus of the outfall.”*
- The City admits that only the small stormwater catch basins (with pipes less than 2’ diameter) were cleaned prior to the Unplanned Partial Diversion event. Larger stormwater pipes in the plant were not cleaned until after the Planned Diversion Project started, and after floatable pollutant discharges were already identified from the Unplanned Partial Diversion event.

⁴ See 13267 response, Table 2.13 on page 23

⁵ See 13267 response, page 60

- The City Advisory Panel, hired by the City after the incidents, conducted an in-depth assessment to help prevent the occurrence of a similar incident in the future. The Advisory Panel identified several significant recommendations and suggestions moving forward⁶ that highlight weaknesses in The City's existing procedures which contributed to the discharges. The recommendations include, for example:
 1. Assure and document that all storm drain lines are clean.
 2. Assure that Surge Chamber and 1-mile Outfall is clear of all debris.
 3. Routinely inspect and clean 1-mile Surge Chamber to prevent future accumulations from the South Beach Parking Lot and the Vista del Mar storm drain.
 4. If floatables are discovered, take corrective actions with the County to control discharge.⁷

Additional considerations for Violation 1

- 1.3 multiplier since it was caused by a malfunctioning discharge valve on pump #2 in the Effluent Pumping Plant (EPP) causing effluent to "reverse" flow back through pump #2 and begin to flood the inside the EPP basement through a manhole that was removed by a contractor doing repairs on the discharge valve⁸.
- The City had prior knowledge and advance warning about corrosion problems with this valve. It was programmed and in the process of being fixed as part of the Effluent Pumping Plant Replacement Project).
- The City could have and should have done more adequate preparations before the major storm hit to ensure that all pumps in the EPP could be used due to substantial rainfall and increased inflow and infiltration (I/I) from HTP sewage collection system. OE was unable to verify that the City performed advanced checks or had procedures in place for the EPP prior to the forecasted storm that could have eliminated this discharge event. This includes activities such as performing start-up/testing of the EPP pumps and associated valves (including tests to disassembled components would not affect EPP operations), use of written EPP standard operating procedures (SOPs) for operators during major storm events, or written SOPs specific for conducting sampling, monitoring, and cleaning of the outfall components.

Additional considerations for Violations 2 and 3

- 1.4 multiplier since after the Unplanned Partial Diversion Event, the City was well aware of the discharge of pollutants, but it failed to conduct an adequate investigation to determine the source of pollutants before the Planned Diversion Project began. An investigation and inspection of the storm water collection system and associated piping connected to the 1-mile Outfall could have identified materials and eliminated the discharges of pollutants.
- The City was well aware of threat that floatable pollutants could be discharged from the 1-mile Outfall and attempted numerous, extensive fixes to have netting installed on the outfall to prevent debris from being discharged. Unfortunately, these efforts largely proved unsuccessful. Examples include⁹:

⁶ See 13267, page 54

⁷ See 13267 response, page 54

⁸ See 13267 response, page 2

⁹ See 13267 response, page 61

- 09/17/15: ¾ inch netting was installed over the outlet ports on the 1-mile outfall.
- 09/23/15: netting was observed to be loose and displaced.
- 09/25/15: two layers of netting with smaller (1/2 inch) openings were installed.
- 09/26/15: large cargo net was installed.
- 10/03/15: new commercial grade ½ inch net installed.
- 10/23/15: net observed to be tearing.
- 10/24/15: failing net was removed.
- 11/24/15: new ½ inch net installed.

6. CLEANUP/COOPERATION

For all violations, an increase in the cleanup and cooperation adjustment factor is justified as follows:

- 1.1 multiplier since LASAN should but did not deploy any containment/recovery operations on waters to remove as many floatable pollutants as possible before wastes reached beaches. For example, the City could have acquired or utilized containment booms at the outfalls to prevent the floatable pollutants from being dispersed and reaching the beaches.

7. HISTORY OF VIOLATIONS

Violation 1

- 1.0 (neutral) because there was no prior history of similar violations.

Violations 2-3

- 1.0 (neutral) because there was no prior history of similar violations.

8. ECONOMIC BENEFIT

Pursuant to Water Code section 13385(e), civil liability, at a minimum, must be assessed at a level that recovers the economic benefit, if any, derived from the acts that constitute a violation. As documented in this complaint, the Discharger released a significant quantity of pollutants to waters of the United States. Had the Discharger performed certain actions, the discharges could have been prevented or minimized. As a result, the Discharger realized a significant economic benefit as summarized below:

The City has explained that pollutants found in the vicinity of the outfall and along public beaches originated in the storm sewer system. Based on available information, the Regional Board contends that the City did not adequately maintain the storm sewer system, which ultimately contributed the discharge of pollutants. Had the City implemented a routine inspection and cleaning program, debris accumulation within the system would have been minimalized. Because the pollutants are believed to have originated from a sanitary sewer overflow (SSO) event in 2005, it is determined that the storm sewer system has not been inspected or cleaned for at least 10 years. Therefore, the cleaning activities performed by the City in response to the illicit discharge were considered avoided, as additional inspection/cleaning activities should have been performed immediately following the SSO event in 2005. Costs provided by the City amount to approximately \$204,527, which include the cleaning and/or inspection of approximately 3.7 miles of storm sewer

system piping/infrastructure. Additional cleaning/inspection events that may have been warranted from 2005 to present were not considered in this analysis.

The cause of the initial discharge of pollutants is understood to be the result of an effluent pumping plant discharge valve failure on pump #2. Replacement of the 78-inch butterfly valve was recommended in a 2006 condition assessment report provided by the City; however, the work was delayed to be combined with other capital projects until 2015. The delay in replacement is believed to be responsible for the valve failure and subsequent unplanned discharge on September 15, 2015. The cost of replacing the butterfly valve was estimated to be approximately \$97,679. This estimate does not include additional costs associated with valve access, removal, safety, or oversight/project management, which is likely significant.

Based on information provided by the City, the spill response efforts by the City were not effective at reducing pollutants resulting in public exposure and beach closures. The Water Boards believe that additional efforts to identify, contain, and remove floatable pollutants released from the outfall should have occurred. As pollutants were identified from September to December, 2015 on beaches, a dedicated response team should have been deployed. The Regional Board has estimated that the cost of deploying an additional boat (including captain and two crew) for the purposes of observing and capturing floatable pollutants to be approximately \$91,816 and would have likely been necessary from all the days of discharge at the 1-mile outfall.

Additionally for violations 2 and 3, the City failed to adequately investigate the source of pollutants after the unplanned discharge. An additional construction delay to adequately investigate and prevent the discharge of pollutants during the planned discharge at the 1-mile outfall is estimated to be approximately two weeks. Delayed construction project costs are based on estimated idling costs associated with the time delays in mobilization and standby charges for subcontractors and were estimated to be approximately \$354,000.

The BEN financial model provided by the United States Environmental Protection Agency was used to compute the total economic benefit of noncompliance. Cost estimate and other assumptions are detailed in the attached table. For computational purposes, the penalty payment date was established as the projected hearing date, October 15, 2016. Changes to this date will affect the total economic benefit. Based on specific assumptions within the model, the total economic benefit of noncompliance was determined to be approximately \$693,603. The Enforcement Policy states (p. 21) that the total liability shall be at least 10% higher than the economic benefit, "so that liabilities are not construed as the cost of doing business and the assessed liability provides meaningful deterrent to future violations." Therefore the minimum total liability associated with the economic benefit is approximately \$762,963.

Since Violations 2 and 3 have economic benefits that can be attributed to the violation, the economic benefit was calculated individually for each. For Violation 2, the economic benefit was realized from the inadequate cleanup operations and failure to delay the project to investigate the source of pollutants after the unplanned discharge. The City had similar economic benefits for Violation 3, but the benefit was calculated for six days of floatable pollutant cleanup instead of 42 days since the beaches reopened six days after the discharge began. For both of these violations, the economic benefit was larger than the maximum penalty allowed by statute. Therefore, the maximum liability was used for these violations.

9. ESTIMATED LIABILITY

FACTOR	VIOLATION #1 Unplanned Partial Diversion	VIOLATION #2 Planned Division Project (Other Days)	VIOLATION #3 Creation of a Nuisance condition (Beach Closures)
Harm	4 (2/1/1/Major)	4 (2/1/1/Major)	6 (4/1/1/Major)
Volume	31,549,000	n/a	n/a
Number of days	1	42	4
Culpability	1.3	1.4	1.4
Cleanup- Cooperation	1.1	1.1	1.1
History of Violations	1.0	1.0	1.0
Economic Benefit	\$240,003	\$453,600	
Estimated Liability	\$2,256,111	\$420,000	\$40,000
TOTAL			\$2,716,111

**CITY OF LOS ANGELES
LA SANITATION (LASAN)
SUPPLEMENTAL ENVIRONMENTAL PROJECTS PROPOSAL
FOR THE UNAUTHORIZED DISCHARGE OF MATERIALS OF
SEWAGE ORIGIN INTO THE PACIFIC OCEAN BEGINNING ON
SEPTEMBER 15, 2015**

**HYPERION TREATMENT PLANT
12000 VISTA DEL MAR, PLAYA DEL REY, CALIFORNIA
(NPDES PERMIT NO. CA0109991, ORDER NO. R4-2017-0045)**

February 2018



1.0 BACKGROUND

On September 10, 2015, the Regional Water Quality Control Board (RWQCB) adopted Resolution No. R15-008 for the City of Los Angeles' Temporary 6-week Bypass of Secondary Effluent from the 5-Mile Outfall to the 1-Mile Outfall at the Hyperion Treatment Plant (HTP), effective September 21, 2015. Approval of this resolution was necessary for the City to refurbish the Effluent Pumping Plant (EPP) discharge header and replace the 120-inch gravity valve. A complete shutdown of the 5-Mile Outfall and effluent pumping system was required to perform the work.

On September 15, 2015, the City of Los Angeles Bureau of Sanitation (LASAN) executed an unplanned partial diversion of fully treated, chlorinated secondary effluent from HTP to the 1-Mile Outfall while concurrently discharging to the 5-Mile Outfall during heavy rain and high influent flows. The unplanned use of the 1-Mile Outfall on September 15, 2015 was due to the malfunction of a valve in the EPP that resulted in flooding in the EPP basement. EPP pumps were turned off to avoid further flooding of the basement and some of the chlorinated plant effluent was diverted to the 1-Mile Outfall for discharge. The diversion of excess flow through the 1-Mile Outfall occurred for 5 hours from 10:13 AM to 3:13 PM. During that time, the 5-Mile Outfall was still in service using gravity flow.

LASAN received the first notification of MOSO, including plastic casings for feminine hygiene products, washing ashore on Dockweiler Beach on Tuesday, September 22, 2015. On Wednesday, September 23, 2015, Dockweiler State Beach and El Segundo Beach were subsequently closed by Los Angeles County Department of Public Health officials after hypodermic needles and feminine hygiene plastic casings were found on the beach.

The first significant use of the Hyperion One Mile Outfall in ten years resulted in the flushing out of debris from a January 2005 raw sewage spill of 160,000 gallons that lay dormant in the plant storm drain system tributary to the One-Mile Outfall. The debris that was flushed out of the One-Mile Outfall into the Santa Monica Bay washed ashore and resulted in the closure of Dockweiler and El Segundo Beaches for 4 days in September of 2015. The use of the One-Mile Outfall on September 15, 2015 was due to the malfunction of the closed discharge valve of Effluent Pump #2 and the subsequent flooding of the EPP basement by the discharge of secondary effluent through maintenance access points that were open to facilitate work by the City's contractor as part of the Hyperion Effluent Pumping Plant Discharge System Replacement Project.

The Hyperion Effluent Pumping Plant Discharge System Replacement Project was necessary to avoid a potential catastrophic failure of the plant's discharge system. The repair work cost approximately \$10 million, and required six weeks shutdown of Five-Mile Outfall (September 21 – Nov 1, 2015). During the 6-week period, Hyperion Treatment Plant highly treated, disinfected effluent was discharged through the One-Mile Outfall. The repair work was performed continuously (24 hours a day, 7 days a week) to minimize the shutdown of the Five-Mile Outfall, and was strategically scheduled to occur after peak summer beach attendance and before the wet weather season. The City also conducted extensive environmental monitoring of Santa Monica Bay, during the Five-Mile Outfall shutdown and One-Mile Outfall diversion. Extensive public outreach presentations for stakeholders, governmental agencies and the public took place prior to the repair work.

The major work on the HTP Effluent Pumping Plant Discharge System Replacement Project was completed on November 1, 2015, and flows were returned to the Five-Mile Outfall. The valve that malfunctioned on September 15, 2015 was replaced as planned under the Effluent Pumping Plant Discharge System Replacement Project, and retrofit work conducted on the pumps, valves, and piping will ensure reliability of the Effluent Pumping System to the Five-Mile Outfall for another 50 years.

The RWQCB and the State Water Resources Control Board (SWRCB) determined that the City was liable for the MOSO discharge and proposed a penalty. Representatives of the City of Los Angeles, SWRCB, and RWQCB met on September 23, 2016 to discuss the Penalty Methodology for Hyperion Treatment Plant Violation #1: Unplanned Partial Diversion on September 15, 2015; Violation #2: Planned Diversion Project for 42 days (Sept 21 – Nov 1, 2015), and Violation #3: Creation of a Nuisance Condition (4 days of beach closure from 9/23/2015 -9/26/2015).

The City in a letter dated October 13, 2016 requested a reconsideration of the Penalty Methodology, and the SWRCB subsequently notified the City on November 29, 2016 that the calculated liability for the violations is \$2,262,249. The City accepted the SWRCB proposal to settle this matter for \$2,262,249 in a letter dated November 29, 2016.

As part of the settlement negotiations, the City expressed interest in allocating settlement monies toward Supplemental Environmental Projects (SEPs). The City and SWRCB agreed that 50% of \$2,262,249 which is \$1,131,124.5 will be allocated to SEPs. This report provides the City's proposal of SEPs satisfying 50% of the agreed upon stipulated monetary assessment.

2.0 SUPPLEMENTAL ENVIRONMENTAL PROJECTS

The City proposes to designate funding for the following:

- Environmental Cleanup and Awareness Education (\$210,124)
- Stormwater quality improvement and infiltration projects (\$921,000)
 - Slauson Green Alley Project (\$331,000)
 - Kittyhawk Green Walkway Project (\$590, 000)

The Proposals and project concepts are presented herein as follows:

2.1 ENVIRONMENTAL CLEANUP AND AWARENESS EDUCATION

The City's plan is to implement a Los Angeles city-wide cleanup and education program to improve water literacy among beachgoers and water users that will increase public understanding of water as a valuable resource, understanding of the City's wastewater and stormwater systems, and region-wide efforts to enhance integrated water management. This goal will be met by utilizing the capacity of local Non-Governmental Organizations (NGOs) and their memberships across the City to provide city residents with a better understanding of complex water issues. The City will accomplish this goal by using community clean-ups (both inland and coastal), educational presentations, and presence at community outreach events, such as festivals and resource fairs. Heal the Bay has agreed to lead the coordination with other local NGOs, and has performed in a similar capacity on past grant projects.

The City's proposal is inclusive of the various NGOs that are stakeholders in the Santa Monica Bay and surrounding areas and raises awareness about LASAN's role in protecting the environment. The NGOs expected to participate are HTB, Tree People, LA Waterkeeper, Ballona Creek Renaissance, Friends of Ballona Wetlands, Surfrider South Bay Chapter, Audubon Society, Pacoima Beautiful, Korea Town Community Center, Clean San Pedro, California Greenworks, and Urban Semillas.

These listed NGOs were selected because of interest in protecting the beneficial uses of Santa Monica Bay, eliminating plastics pollution in the ocean, support of green streets/stormwater capture, their nexus to Santa Monica Bay via treatment of their wastewater at Hyperion, and Clean San Pedro, with importance of keeping the Pacific Ocean clean.

Using trusted organizations to relay important water information will help residents of the City understand water, provide them the opportunity not only to see firsthand the pollution problem on our streets and its connection to our coast, but also help them see the larger water story through introduction to City efforts like One Water and other region-wide water resiliency efforts. This will make for a smarter more engaged civic-minded community.

Work Plan

LASAN selected Heal the Bay to lead the environmental cleanup and education program because it has experience partnering with other NGOs in performing environmental cleanups such as coastal day cleanups.

Heal the Bay (SEP recipient and administrator to Contracted NGOs) will be allocated \$74,000 and is responsible for the following activities:

- Serve as lead contractor and manage subcontracts to partners,
- Serve as liaison to LASAN over the course of the project,
- Develop water outreach materials in partnership with partners and LASAN,
- Manage subcontracts for non-NGO partners, like graphic designers,
- Co-lead partners training and youth summit with Tree People,
- Lead captain trainings for cleanups,
- Coordinate calendar and permit cleanup events,
- Prepare program assessment template and compile results,
- Prepare and submit final report,
- Coordinate 30 additional cleanups across the region, and
- Provide general SEP administration.

Program Outline:

Task 1: Partner Contracts	
April May 2018	Prepare 11 partner contracts
	Meet with partners
	Train interns
	Develop pre and post program evaluations
Task 2: Prepare Literacy Materials	
April May 2018	Meet with relevant experts and stakeholders on water literacy to discuss educational material development
	Conduct research and literature reviews to inform outreach content
	Complete initial draft of the outreach content
	Review of the draft content by partners and LASAN
	Make necessary revisions to the content
	Finalize and approve content
Task 3: Produce Outreach Materials	
May June 2018	Contract graphic designer to design and produce educational materials
	Translate educational materials into Spanish (at a minimum)
	Review and finalize designed educational materials
	Build tabling kits for partners
Task 4: Train 10 Partners	
June - July 2018	Work with Tree People to create 1/2 day water literacy training
	Lead cleanup captains training
Task 5: Water Literacy Youth Summit	
January - February 2019	Host partner meeting to develop water literacy youth summit goals
	Develop agenda and plan youth summit
	Host youth summit at Tree People facility
Task 6: Cleanups and Outreach Events	
July 2018 February 2019	Meet with partners to coordinate plan for cleanup and outreach events
	Permit all partner and HTB cleanup events
	All partners participate in clean up captain training and host Coastal Cleanup Day site (Sept 15)
Task 7: Admin	
July 5, 2018:1 st Quarterly Report	Conduct program assessment Prepare Quarterly and Final Reports
October 5, 2018:2 nd Quarterly Report	
January 5, 2019 :3 rd Quarterly Report	
February 28, 2019: Final Report	

Environmental Cleanups and Education

Table 1 (LASAN SEP Budget) show the cost breakdown regarding what will be spent on environmental cleanups (\$145,765) versus education (\$64,359).

Table 1 LASAN PROPOSED SEP BUDGET

Tasks	Quantity	Cost Per Unit	Education Budget	Cleanup Budget
30 NGO partner cleanups, 20 additional cleanups or literacy outreach events performed by 10 partner NGOs	50 events	\$10,660 for 10 Contract NGOs		\$106,660
Cleanups including training and supplies	7 Heal the Bay cleanups, 30 cleanup sites on Coastal Cleanup Day, Sept 15, 2018			\$ 11,514
NGO Partner Training	Room Rental @ \$5000, Training Supplies @ \$1,000 + Misc.	\$1159 for HTB + \$5750 for Tree People	\$ 6,909	
Design of Materials	Graphic Designer		\$ 5,200	
Printing of Materials			\$ 6,000	
Youth Summit	Room Rental @ \$5000, Giveaways/supplies @ \$4,752 + Food \$1500	\$2002 for HTB + \$9250 for Tree People	\$ 11,252	
Ground transport, mileage, parking				\$ 600
Speakers Bureau Manager	200 hours	\$23/hour		\$ 4,600
Cleanup Coordinator	386 hours	\$24/hour	\$7,248	\$ 2,016
Director of Programs	325 hours	\$55/hour		\$ 17,875
Admin/ Billing				\$ 2,500
HS Coordinator/Educator	750 hours x \$17/hr = \$12,750 for Heal the Bay	\$12,750 for HTB + \$15,000 for Tree People	\$27,750	
TOTAL			\$64,359	\$145,765

Education (\$64,359)

Heal the Bay will be allocated \$34,359 for education related activities and Tree People will be allocated \$30,000.

Tree People is responsible for the following educational activities:

- Participate in update of water literacy outreach materials in partnership with Heal the Bay and LASAN,
- Co-lead partners training with Heal the Bay,
- Provide logistical support (e.g. location, food, parking, etc.) for partners training and youth summit,
- Recruit participants from current educational programs for SEP outreach and clean-up events, and

- Host a Coastal Cleanup Day site.

Youth Summit

Heal the Bay and partners will host a youth summit for 100 middle and high school students at the Tree People facility between January and February 2019. After participating, students will have greater understanding of the water system in Los Angeles and how to be stewards of clean water.

Environmental Cleanups (\$145,765)

Heal the Bay will be allocated \$39,105 for environmental cleanups, and Contracted Partner NGOs will be allocated \$106,660 out of the \$145,765 spent on environmental cleanups.

Contracted partner organizations are responsible for the following activities:

- Participate in water literacy training,
- Participate in captain training for clean-ups (optional for groups already running cleanups),
- Lead and execute 3 cleanup events (one of which will be on Coastal Cleanup Day September 15, 2018), and
- Lead or participate in at least two additional events between April and October (from the following list):
 - Lead a neighborhood, river, or beach clean-up,
 - Present water literacy education to community group, school, faith group, business or other community based organization, and/or
 - Present water literacy materials by tabling at a resource fair or community festival.

Heal the Bay's Role

Heal the Bay will be the lead organization for the environmental cleanup and education program and will manage subcontracts with partners, develop water outreach materials in collaboration with partners and LASAN, co-lead training of partners and youth summit with Tree People, lead captain trainings for cleanups, coordinate calendar and permit cleanup events, prepare program assessment template, compile results, and prepare and submit the final report. This organization has established experience managing and administering grant projects of a similar scope with multiple participating NGOs and LASAN is confident in their ability to make this project a success.

Contracted Partner NGOs will be required to sign partner agreements with Heal the Bay that fully explains the program. Each partner organization will be paid in three installments, initiated by submitting an invoice to Heal the Bay. The first payment will be after successful participation of at least two members of the organization (staff and/or volunteers) in the water literacy and cleanup trainings. The second payment will be after invoice and report is submitted to Heal the Bay detailing the first two cleanup/outreach events; and the third payment will be after invoice and report is submitted to Heal the Bay detailing the final two cleanup/outreach events. Heal the Bay will keep detailed records regarding SEP subcontractor allocations internally, with the oversight of the Program Director and Finance Director.

Heal the Bay will conduct program assessment and submit a final report to LASAN. The Program Assessment by Heal the Bay will assess program success using the following metrics:

- *April 1 2018 – May 31, 2018:* Up to 11 geographically and diverse partner contracts will be signed. HTB, working with Tree People and LASAN, will finalize its multi-language curriculum (bi-lingual Spanish and English at a minimum).
- *June 1, 2018 – July 30, 2018:* HTB and Tree People will train representatives from 10 community partner organizations (approximately 30 people).
- *June - July 2018:* HTB will lead a cleanup captains training for organizations that are unfamiliar with leading community cleanups.
- *July 1, 2018 – February 15, 2019:* 64 cleanups and 18 additional events will take place: HTB will lead 7 coastal cleanup events (approximately 5,000 attendees). Contracted partners will lead 27 additional cleanups (approximately 1000 attendees total), plus 18 additional events - either more cleanups or water literacy outreach (presentations or tabling events). HTB will coordinate an additional 30 clean up events on Coastal Cleanup Day (approximately 10,000 attendees).
- *January - February 2019:* HTB and partners will host a youth summit for 100 middle and high school students at the Tree People facility. After participating, students will have a greater understanding of the water system in Los Angeles and how to be stewards of clean water.
- *February 28, 2019:* HTB will provide LASAN with the Final Report on the Environmental Cleanup and Educational Awareness Education SEP.

2.2 SLAUSON GREEN ALLEY PROJECT (\$331,000)

The City proposes to assign \$331,000 to develop a green concept for the Slauson Green Alley Project. This is a new project that is not part of the City's Enhanced Watershed Management Plan. The City confirms that this project is in addition to those projects the City has planned to meet its LA MS4 obligations, and that the anticipated volume capture of stormwater and non-stormwater runoff from this project is in addition to the capture volume required by the Reasonable Assurance Analysis.

2.2.1 Introduction

The City is proposing to develop a green concept for an alley between Slauson Avenue and Dawes Avenue, immediately south of Culver Boulevard. Figure 1 provides a location of the Slauson Green Alley Project. The project will convey runoff from the alley to a rain garden with the objective of reducing pollutants associated with stormwater runoffs. This project will also improve the aesthetics of the existing alley, and provide flood mitigation as an added benefit.

The alley is approximately 500 feet long with a width of 20 feet encompassing 21 parcels on either side. Access to the alley at the northwest end is from the cross-alley between Dawes Avenue and Slauson Avenue (Slauson/Dawes Connector). In the southeast direction, the alley dead-ends in a cul-de-sac bordering the backyard of several properties without any access to the public right-of-way (ROW). The alley currently has no paving, is ungraded with patches of grass, and becomes muddy and flooded during rain events as shown in Figure 2. The flow direction is from the northwest to southeast, and the alley likely receives runoff from the Slauson/Dawes Connector, which is at a slightly higher elevation than the alley. This connector is paved, but in poor condition. Plans are already underway to resurface the Slauson/Dawes Connector. Hence, this connector is not part of the scope for this project.

The alley does not have any drainage infrastructure to remove excess runoff, which is the main reason for flooding. A culvert is located at the southeast terminus of the alley. However, this

existing reinforced concrete storm drain culvert conveys runoff from Dawes Avenue to Slauson Avenue and does not collect any runoff from the alley. As shown in Figure 3, the drainage area to the alley is roughly estimated to be about 1.92 acres.

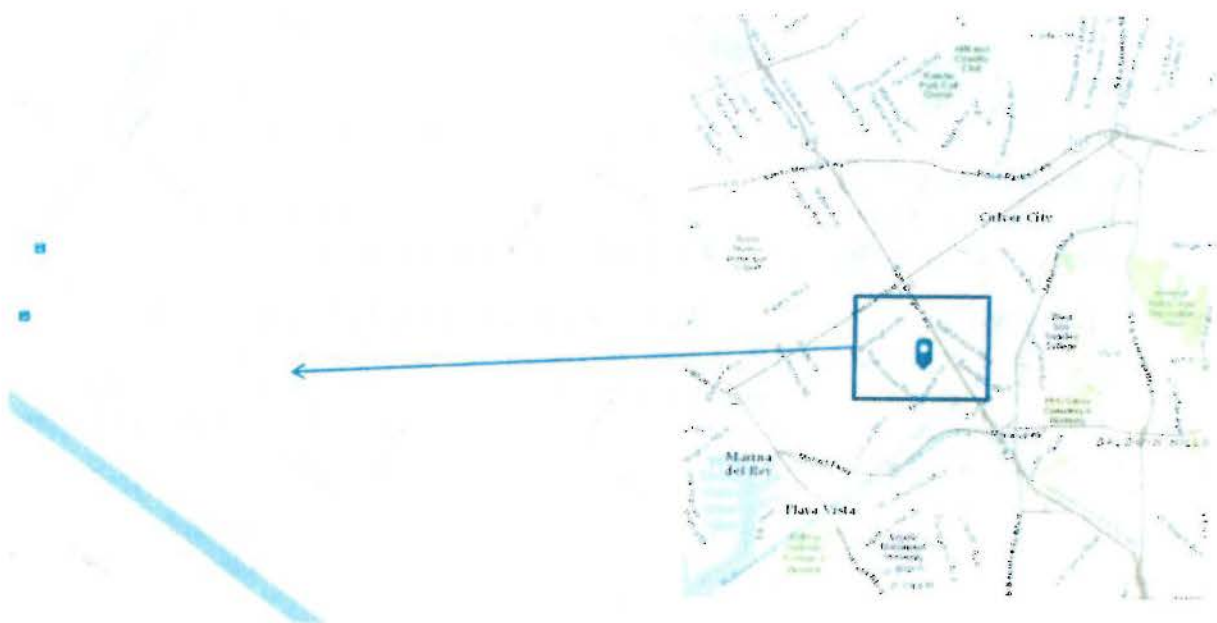


Figure 1. Vicinity map of the Slauson Green Alley Project



Figure 2. Existing conditions of the alley.

2.2.2 Project Information

The existing conditions of the alley and its immediate surroundings were evaluated from multiple sources, including the following:

- Stormwater Drainage System (NavigateLA)
- Sanitary Sewer System (NavigateLA)
- Soil Boring Log (NavigateLA)
- Design Criteria for Special Street Components and Projects (Street Design Manual, Bureau of Engineering)
- Historical Groundwater Well Measurement Data (DPW, Los Angeles County)
- Los Angeles County Hydrology Map (DPW, Los Angeles County)

The Slauson Green Alley Project is located in the Sepulveda Channel subwatershed, which drains to Ballona Creek. Groundwater depth is estimated at 34 ft. The prevailing soil at the site was identified as Yolo Clay Loam which has an infiltration rate of about 0.3 inches per hour, which is deemed infeasible for runoff infiltration. The project site is also located in a liquefaction zone. Additional site details are provided in Table 2.

Infiltration opportunities are further limited by the presence of an 8" sewer line along the centerline of the alley and three sewer manholes (Figure 4). This sewer line is 5 to 9 feet below the surface, sloping down from the cul-de-sac towards the Slauson/Dawes Connector.



Figure 3. Estimated drainage area of the Slauson Alley

Table 2. General Project Characteristics

Watershed	Ballona Creek
Receiving Water	Sepulveda Channel to Ballona Creek to Santa Monica Bay
Applicable TMDLs	Ballona Creek Metals, Toxics, and Bacteria TMDLs
Drainage Map	534-4-15
Street name	"Slauson alley"
Nearest cross streets	Slauson Avenue, Culver Boulevard, Dawes Street
Latitude extent	33°59'42.13"N
Longitude extent	118°27'4.45"W
City/cities	Los Angeles
Los Angeles Council District	11
Disadvantaged community	No
Alley length (feet)	500
Alley width (feet)	20
Street slope (%)	0.011
Medians (feet)	N/A
Adjacent land uses	Single and Multifamily Residential
Soil group	Type D
Infiltration rate (inch/hour)	0.23
Ground water depth (ft bgs)	34
Project drainage area (acres)	1.92

Table 3. Anticipated Stormwater Runoff Volume by Storm Event

Design Storm	Acre-Feet	Cubic feet	Gallon
85th percentile	0.076	3,311	24,765
2-year	0.153	6,665	49,885
5-year	0.240	10,454	78,204
10-year	0.300	13,068	97,755
50-year	0.442	19,269.83	144,026

We used the County's Hydrology Manual to estimate runoff volumes from different storm events as shown in **Table 3**. For this project, we selected the 2-year design storm for developing the proposed project and the alternatives. This is more than the typical design storm for a water quality

project (often 0.75" or the runoff of the 85th percentile 24-hour storm event) in order to provide additional flood protection.

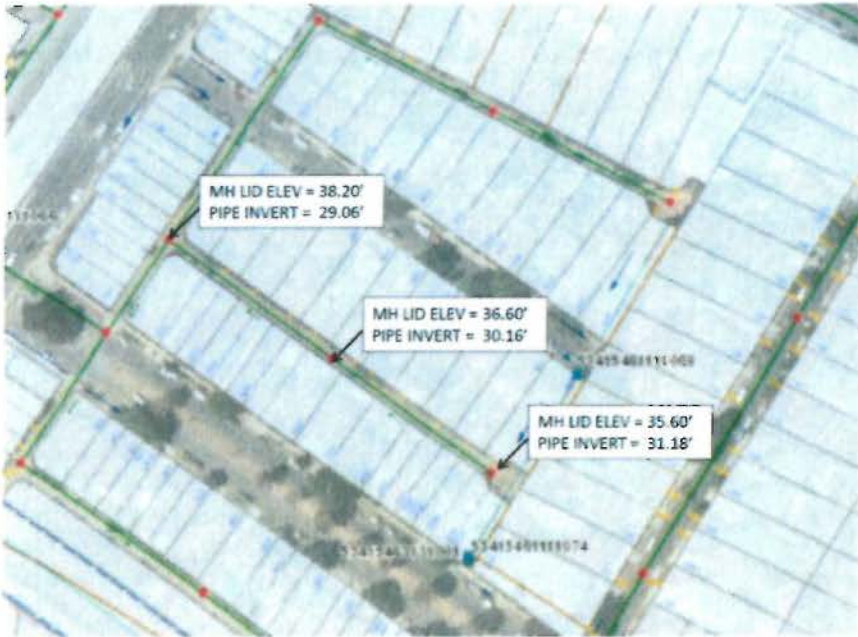


Figure 4. Sanitary Sewer Pipeline Information

2.2.3 Proposed Project

The general layout of the proposed project is shown in Figures 5a and 5b. The goal of this project is to use established and City-approved designs and stormwater management practices as much as possible in order to minimize design, permitting, and approval requirements.



Figure 5a. Proposed Project

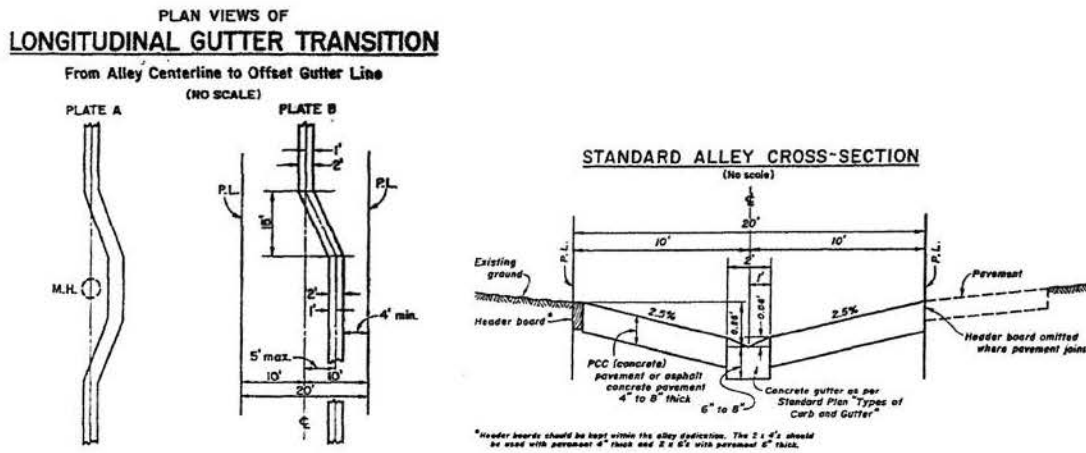


Figure 5b. Proposed Project

We propose the following project components:

- a) **Grading:** The alley will be sloped slightly downward from the northwest end to the southeast end towards the cul-de-sac and the existing reinforced concrete storm drain culvert between Dawes and Slauson Avenues. The centerline of the alley should be slightly lower than the sides, so that any runoff will be collected in the centerline for conveyance towards the cul-de-sac.

- b) **Main Alley – Asphalt Concrete Pavement with Concrete Gutter in Centerline:** The centerline of the alley will be a concrete gutter to collect and convey the runoff. City Bureau of Engineering design standards are shown immediately below. It is suggested to use **Asphalt concrete** paving on both sides of the concrete gutter.



- c) **Rain Garden at the Southeast Terminus of the Alley:** The flow from the concrete gutter will be conveyed into a rain garden with an approximate size of 30'x20' at the cul-de-sac (southeast terminus of the alley). This rain garden will be filled with porous rock and covered with a layer of soil and plants. Runoff will enter the rain garden and undergo natural removal of stormwater pollutants. The rain garden will have an overflow connection to an existing 9" diameter reinforced concrete box culvert. This culvert connects to the gutter that runs along Slauson Ave and into the nearest existing catch basin, which is approximately 450' from the box culvert outlet. Water from this catch basin flows through an 18" lateral pipe, then into the 63" RCP storm drain main line. A cross section of the rain garden is shown in **Figure 6**.

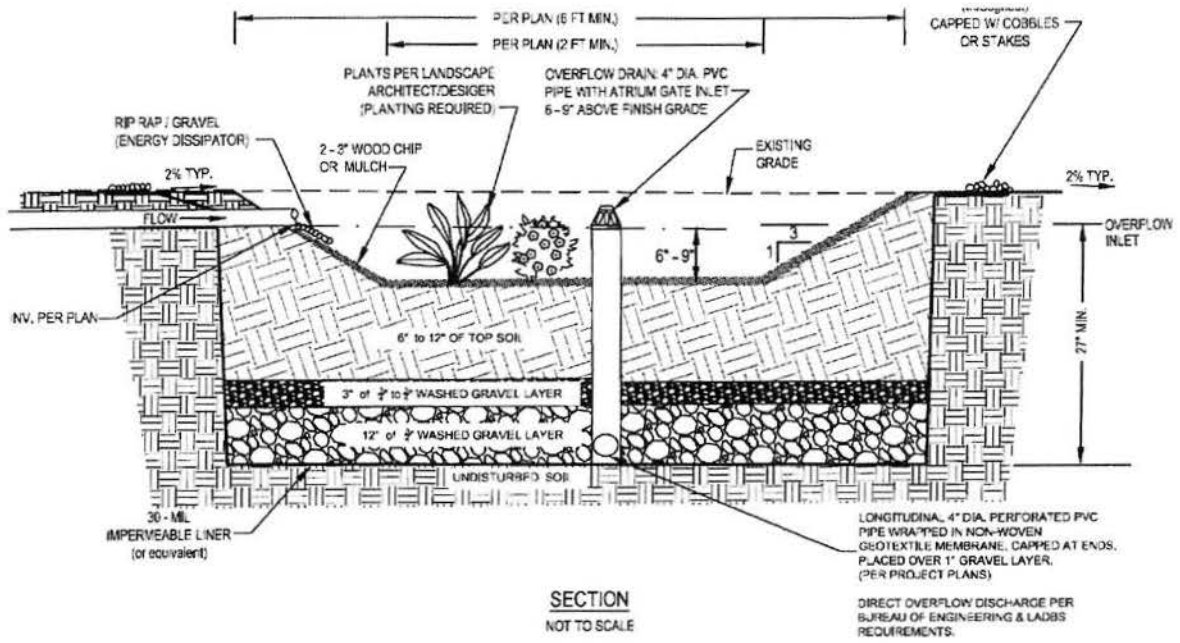


Figure 6. Lined rain garden (Low Impact Development Handbook Appendix E)

2.2.4 Cost Estimate

Table 4 provides a preliminary cost estimate of the project using data from the City's Bureau of Engineering, and EPA where available.

Table 4. Cost Estimate (Class O) of Slauson Green Alley Project

	Quantity	Unit	Cost Per Unit	Cost
Grading, Excavation, and Haulaway	680	CY	\$ 150.00	\$ 102,000
Longitudinal concrete Gutter	490	LF	\$ 25.00	\$ 12,250
Asphalt Pavement	6,580	SF	\$ 5.00	\$ 32,900
Gutter and Pavement				\$ 147,150
	Quantity	Unit	Cost Per Unit	Cost
Lined Rain Garden	31	CY	\$ 800.00	\$ 24,889
Excavation	31	CY	\$ 150.00	\$ 4,650
Rain Garden				\$ 29,539
Grated Catch Basin	1	EA	\$ 1,000.00	\$ 1,000
Install 18" RCP Connector Pipe	10	LF	\$ 100.00	\$ 1,000
New Connection to Existing Storm Drain				\$ 2,000
Subtotal (1)				\$ 178,689
Mobilization - 0% to 5% of Subtotal (1) - 3% used				\$ 5,361
Permits- 2% to 5% of Subtotal (1) - 2% used				\$ 3,574
Allowances - 30% of Subtotal(1) - 10% used				\$ 17,869
Subtotal (2)				\$ 205,492
Estimating Contingency - 15% of Subtotal (2) - 15% used				\$ 30,824
Total				\$ 237,000
2 years of CPI (3% per year)				\$ 14,433
2 years O&M				\$ 80,000
Grand Total				\$ 331,433

2.2.5 Proposed Project Schedule

The City of Los Angeles has the resources, capacity, and knowledge to execute this project by using in house services of the City of Los Angeles, Bureau of Sanitation, or by using the City of Los Angeles, Bureau of Engineering.

Tentative project schedule 24 months delivery from the point in time that the project is approved and funded is provided below:

1. Pre-design (3 months) and Design (5 months)- 8months
2. Advertise and Bid & Award – 6 months
3. Construction and Post construction – 10 months

3.3 KITTYHAWK GREEN WALKWAY PROJECT (\$590, 000)

The City proposes to assign the remainder of funding (\$590,000) to develop a green concept for the Kittyhawk Green Walkway Project, and details are provided herein. Funding this stormwater project through SEPs will provide the opportunity to construct a project whose development will have multiple benefits and would otherwise not be possible to construct.

This is a new project that is not part of the City's Enhanced Watershed Management Plan. The City confirms that this project is in addition to those projects the City has planned to meet its LA MS4 obligations, and that the anticipated volume capture of stormwater and non-stormwater runoff from this project is in addition to the capture volume required by the Reasonable Assurance Analysis

This is a revision of the concept report of the Kittyhawk Green Walkway project, originally developed in June, 2017. The original concept included the following BMP components:

- a. Permeable pavement with an underdrain on the pedestrian walkway.
- b. A drywell on Kittyhawk Avenue for infiltration of runoff from the walkway and surface runoff from Kittyhawk Avenue.
- c. A bioswale on West Manchester Boulevard (adjacent to the pedestrian walkway) for infiltration of surface runoff from West Manchester Boulevard.

While these BMPs were located in a 3.24-acre drainage area, the bioswale on West Manchester Boulevard is not hydraulically connected to the pedestrian walkway and the drywell on Kittyhawk Avenue. Further investigations in August and September 2017 revealed that the proposed location of the bioswale on West Manchester Boulevard is not on the public right-of-way, but on privately-owned parcels. This could potentially delay the project schedule because of acquisition of the parcels.

This revised concept report omits the bioswale originally proposed for West Manchester Boulevard and, instead, achieves the following:

- a. Expands the project drainage area to 8.75 acres.
- b. Includes 5 additional drywells and increases the amount of stormwater infiltration.

1. LOCATION & DESCRIPTION

- The site is located in the City of Los Angeles, Council District 11, within the Westchester neighborhood, in the western portion of the Ballona Creek watershed, at the intersection of West Manchester Avenue and La Tijera Boulevard (Figure 7a & 7b). The San Diego Freeway (I-405) is located approximately 1.2 miles east of the site. The Los Angeles International Airport is located approximately 1 mile to the southwest of the site.
- The immediate vicinity of the project consists of multi-family residential and commercial land uses, next to West Manchester Avenue, which is a major traffic corridor in the area. The pedestrian alley or walkway (Figures 8A, 8B) connects Kittyhawk Avenue with West Manchester Boulevard.
- The site is located in the Ballona Creek (BC) watershed which is subject to the following TMDLs: BC Bacteria TMDL, BC Metals TMDL, BC Estuary Toxics TMDL, BC Trash TMDL, and BC Wetlands Sediment & Exotic Vegetation TMDL. Ballona Creek drains into Santa Monica Bay (SMB), which is subject to the following TMDLs: SMB Nearshore Debris TMDL, SMB DDTs and PCBs TMDL, and SMB Beaches Wet- and Dry- Weather TMDL.



FIGURE 7A – VICINITY MAP

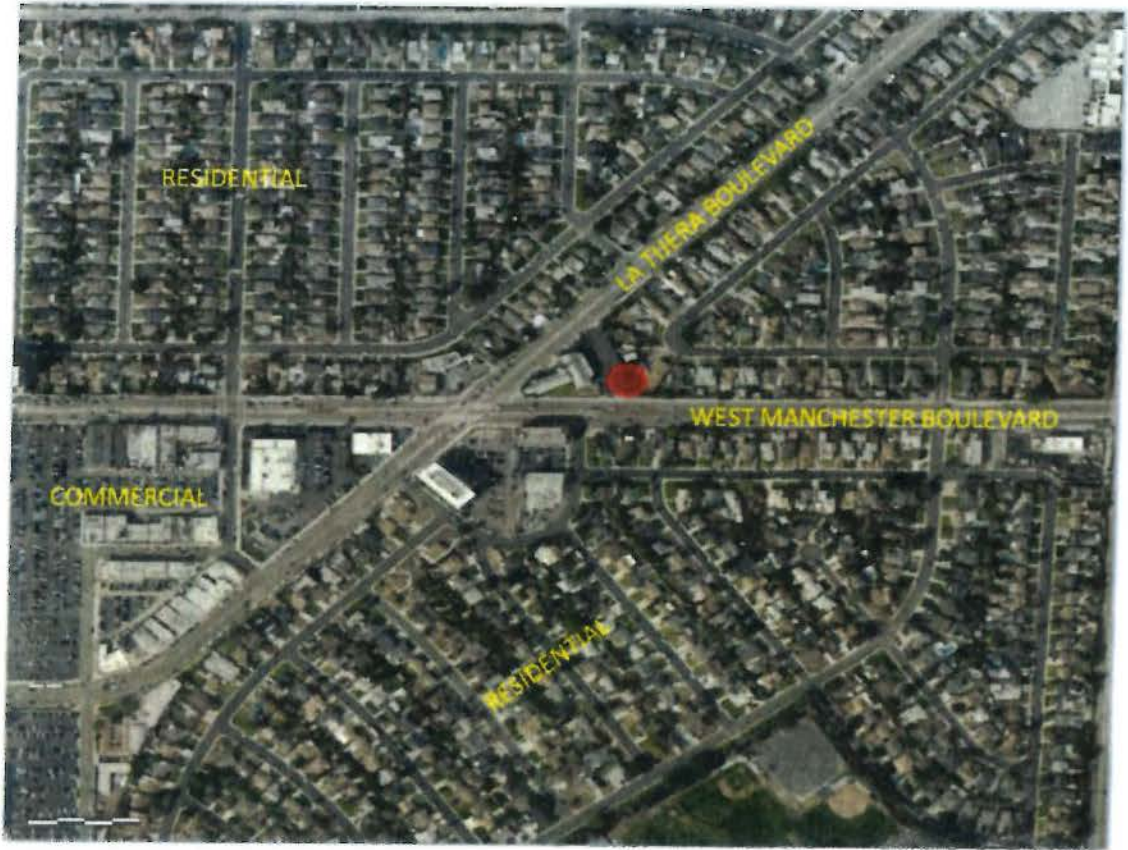


FIGURE 7B - VICINITY MAP



Figure 8A: Pedestrian alley from West Manchester Avenue



Figure 8B: Pedestrian alley from Kittyhawk Avenue

2. DRAINAGE & HYDROLOGICAL INFORMATION

- The site has an approximate drainage area of 9.78 acres (Figure 9). Land use within the drainage area consists of multi-family residential (imperviousness 55%) and commercial (imperviousness 96%). The overall imperviousness of the drainage area is 57%.
- The project design storm is the 85th percentile, 24-hour storm with approximately 1.1 inches of rain. According to HydroCalc®, the drainage area is estimated to generate approximately 0.48 acre-feet (156,408 gallons) of runoff per design storm event.
- Assuming 12 rain events in a year, the total annual runoff will be approximately 5.76 acre-ft (1.88 million gallons).



FIGURE 9 – DRAINAGE MAP

3. PROPOSED BMP'S

PERMEABLE PEDESTRIAN ALLEY WITH UNDER DRAIN TO DRYWELL

- The proposed project will collect surface runoff from the pedestrian walkway, Kittyhawk Avenue, and West 85th Place with an approximate drainage area of 9.78 acres. The runoff will be conveyed for infiltration to 5 drywells located along Kittyhawk Avenue, 85th Place, and Glider Avenue (Figure 10).
- The project site has a native soil infiltration rate of 2.59 inches per hour. Infiltration is typically considered feasible at approximately 0.5 inches per hour; thus, the native infiltration rate at the project is considered excellent for infiltration purposes.

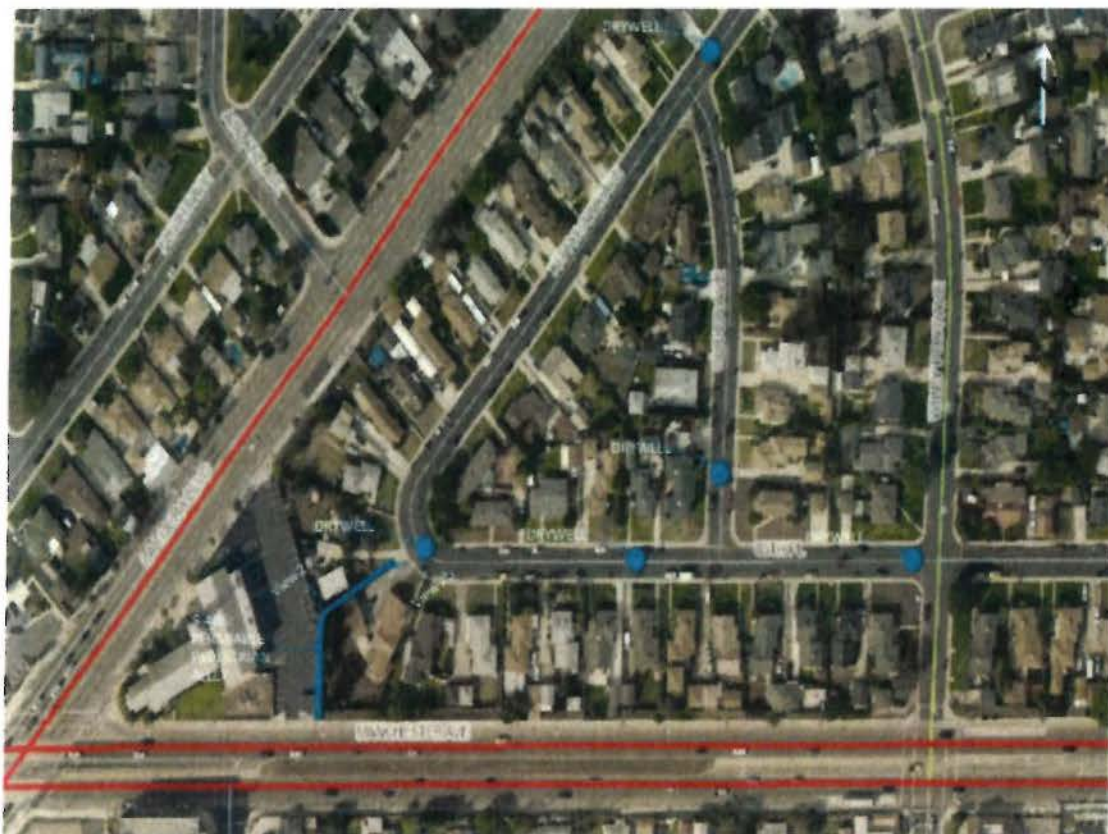
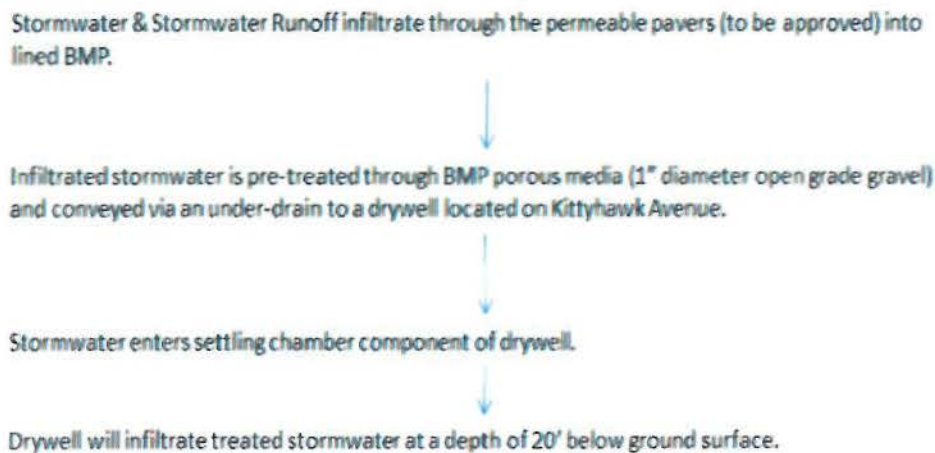


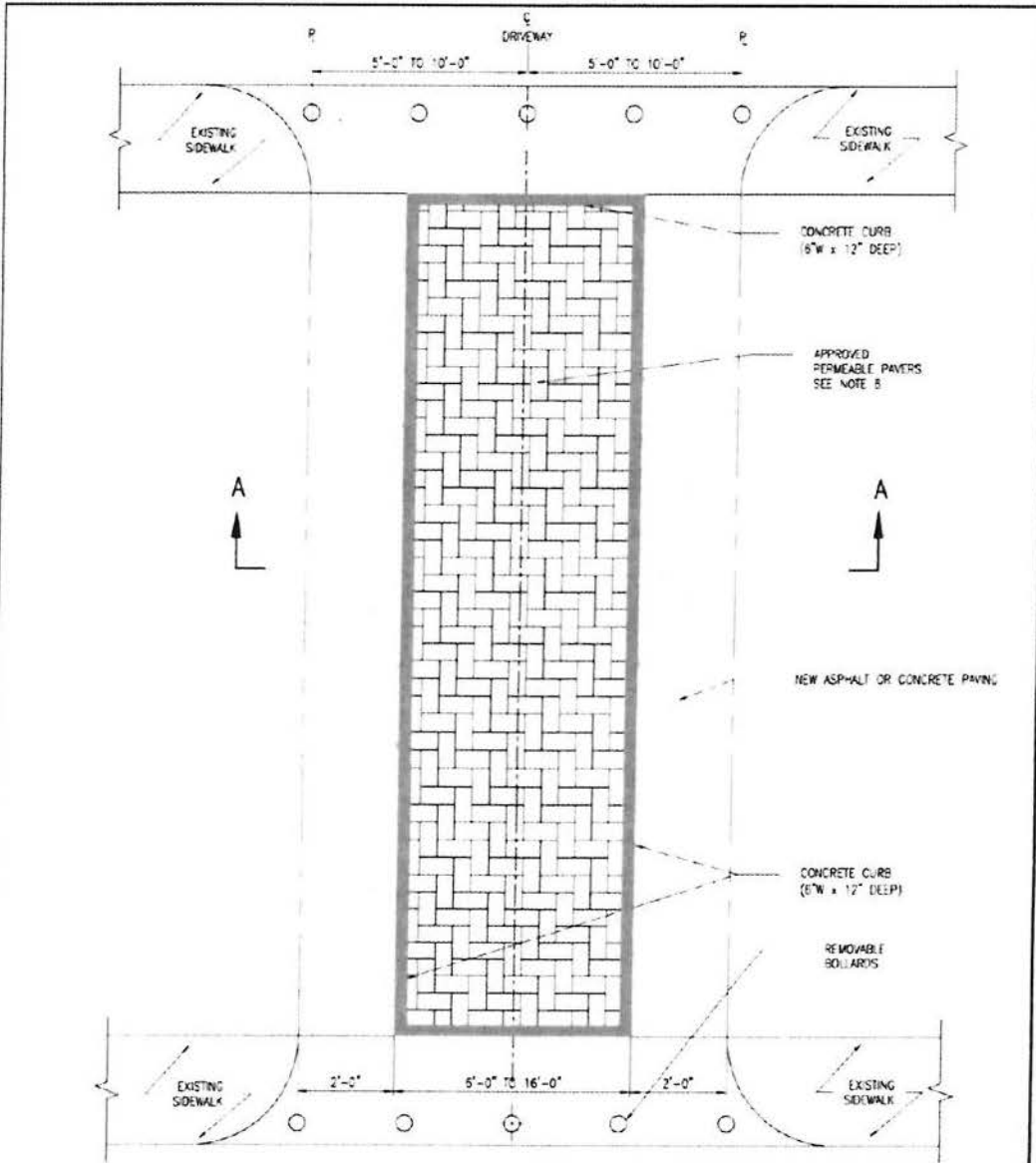
FIGURE 10 – PROJECT LAYOUT

The blue circles are the proposed locations of the five drywells

- The dimensions of the pedestrian alley are approximately 10' x 230' and the alley is to be improved by Standard Plan S-486 (Permeable Pedestrian Alley, Figure 11a) with an under drain conveying treated water to a drywell at Kittyhawk Avenue/West 85th Place. Some stormwater from the commercial property west of the alley will be intercepted by the pedestrian alley as well and conveyed to the drywell at Kittyhawk/West 85th Place. The Standard Plan will occupy the entire width and length of the pedestrian walkway, removing any unwanted vegetation and exposed soil (Figure 5b). According to S-486, the storage volume by the BMP is approximately 1,879 ft³, assuming a 40% void space. A minimum diameter of 8-inch, perforated pipe will be installed as an under drain within the porous media of S-486 (1" diameter open graded gravel) to convey stored water to the drywell. The process for the pedestrian alley BMP to the drywell is described below:



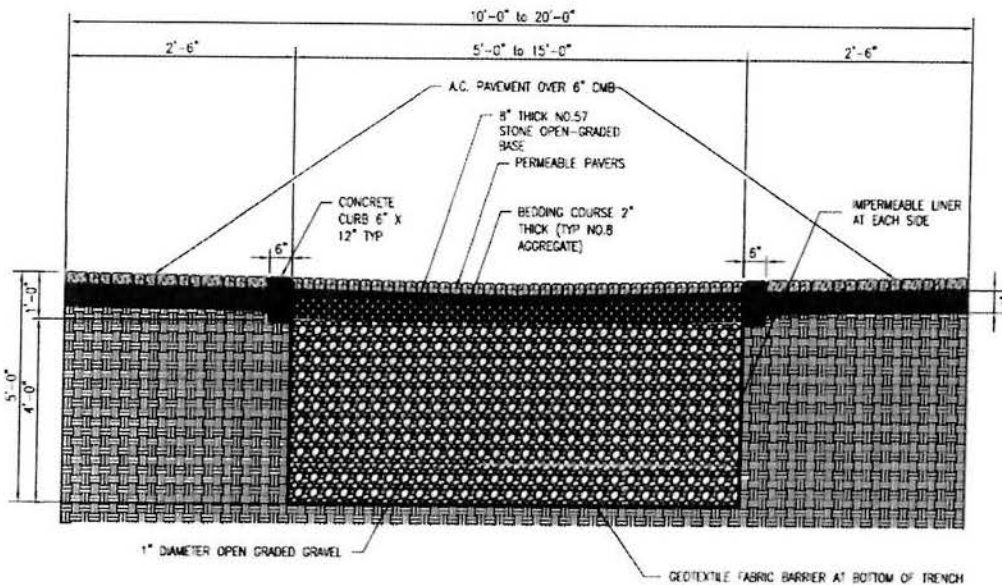
- Five standard 6-foot diameter drywells, such as a Torrent Maxwell IV drywell (Figure 12), are proposed to infiltrate the captured storm water from the S-486 improvement (pedestrian alley) and surface runoff throughout the drainage area (i.e., from Kittyhawk Avenue, West 85th Place, and Glider Avenue). A design with chamber depth of approximately 20' and exfiltrative depth of 30' is recommended. This design will yield drywell storage of 4,525 ft³ and an infiltration volume of approximately 16,410 ft³ (24 hours). Similar drywells have been installed at the Broadway Neighborhood Greenway Project in the City of Los Angeles.



NEW ALLEY PLAN

BUREAU OF ENGINEERING		DEPARTMENT OF PUBLIC WORKS		CITY OF LOS ANGELES	
INTERLOCKING PAVERS FOR PEDESTRIAN ALLEYS				STANDARD PLAN S-486-0	
PREPARED ALICE GOALS, CE49987 BUREAU OF SANITATION ERNIE C. ZALONKA, P.E., DIRECTOR	SUBMITTED <i>[Signature]</i> 6/27/10 ALONG PAVES, S.E. ENGINEER OF DESIGN BUREAU OF ENGINEERING	APPROVED <i>[Signature]</i> 6-29-10 CLAIRY LEE MOORE, P.E. CITY ENGINEER	SUPERSEDES S-420 S-480 S-601	REFERENCES S-420 S-480 S-601	
CHECKED PATRICK LEE, CE42448 BUREAU OF ENGINEERING	MIN. REVD. P.E. ACTING DEPUTY CITY ENGINEER	(Professional Engineer Seal: CLAIRY LEE MOORE, No. 1-4846, Exp. 7/20/10, STATE OF CALIFORNIA)	VAULT INDEX NUMBER: SHEET 1 OF 2 SHEETS		

FIGURE 11A - STANDARD PLAN S-486



TYPICAL ALLEY CROSS SECTION

NOTES:

1. ALL WORK SHALL CONFORM TO SDPIC AS AMENDED BY THE CITY'S GREEN BOOK, LATEST EDITION. FOR GENERAL REQUIREMENTS, SEE STANDARD PLAN S-480 AND S-481, LATEST EDITION.
2. PERMEABLE ALLEY GUTTERS SHALL ONLY BE CONSTRUCTED IN AREAS WITH WELL DRAINING SOILS. THE MINIMUM SITE SOIL PERCOLATION RATE SHALL BE 0.5 INCHES PER HOUR.
3. THICKNESS OF EXISTING ALLEY ASPHALT PAVEMENT SHOWN ON SHEET 2 OF THIS PLAN ARE TYPICAL. ACTUAL PAVEMENT THICKNESS MAY VARY. NEW AC PAVEMENT TO MATCH EXISTING PAVEMENT THICKNESS.
4. IN THE CENTER PORTION OF THE ALLEY (5'-0" TO 15'-0") EXCAVATE AND REMOVE SITE SOILS TO A DEPTH OF 5 FEET MINIMUM.
5. EXISTING SUB-GRADE SOILS AT BOTTOM OF TRENCH EXCAVATION TO BE COMPACTED TO A MINIMUM OF 90% RELATIVE COMPACTION PER ASTM D-1557.
6. CLEAR ALL DEBRIS FROM TRENCH PRIOR TO PLACING GRANUL BACKFILL. GRANUL PLACEMENT TO BE SELF-COMPACTING.
7. AGGREGATE BASE AND SAND LAYER TO BE PLACED AND COMPACTED PER PERMEABLE PAVEMENT MANUFACTURER'S SPECIFICATIONS.
8. TYPE AND PATTERN OF PERMEABLE PAVERS TO BE APPROVED BY THE BUREAU OF ENGINEERING. APPROVED PAVERS ARE LISTED ON THE "APPROVED PRODUCTS FOR USE IN THE PUBLIC RIGHT-OF-WAY" PAVERS LIST.
9. CONCRETE CURBS SHALL BE CONSTRUCTED WITH CLASS 300-C-2000 PORTLAND CEMENT CONCRETE AND SHALL HAVE EDGES ROUNDED TO A RADIUS OF 1/4-INCH.
10. PLACEMENT OF GEOTEXTILE FABRIC SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF SECT. 300-8 OF THE GREEN BOOK.
11. IMPERMEABLE LINER SHALL BE A MINIMUM OF 30 MILS IN THICKNESS AND SHALL MEET THE REQUIREMENTS OF SECTION 210-2 OF THE GREEN BOOK.
12. AGGREGATE BASE LAYER FOR NEW ASPHALT PAVEMENT SHALL CONSIST ENTIRELY OF CRUSHED ROCK AND ROCK DUST CONFORMING TO THE REQUIREMENTS OF SECTIONS 200-1.1, 200-1.2, AND 200-2.2 OF THE GREEN BOOK.
13. DRIVEWAYS AT EACH END OF ALLEYS SHALL BE RECONSTRUCTED WHERE REQUIRED (I.E. WHERE OUTER FLOW LINE DEPTH AND/OR ALIGNMENT HAS BEEN MODIFIED). ALLEY INTERSECTION TO STREET SHALL BE CONSTRUCTED FOR STANDARD PLAN NO. 480 WITH V=1 INCH OR LESS.
14. BOLLARDS INSTALLED AT BOTH ENDS OF THE ALLEY SHALL BE REMOVABLE TO ALLOW EMERGENCY AND/OR IMPROVED VEHICULAR ACCESS. BOLLARD DETAILS SHALL BE SUBMITTED TO THE CITY ENGINEER FOR REVIEW AND APPROVAL.

STANDARD PLAN NO.	S-486-0	VAULT INDEX NUMBER	SHEET 2 OF 2 SHEETS
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FIGURE 11A (CONT'D) - STANDARD PLAN S-486

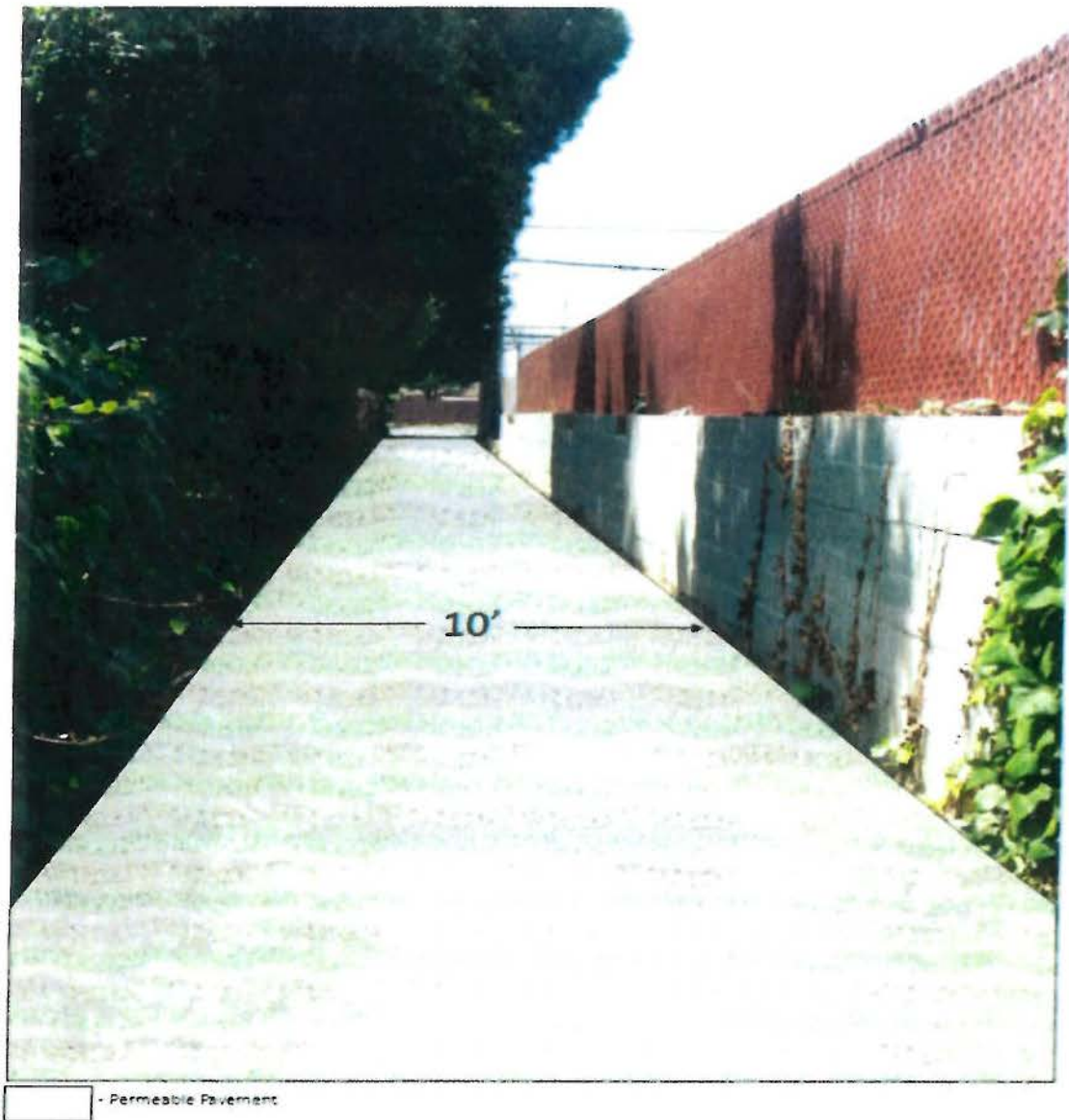


FIGURE 11B - CONCEPTUAL RENDERING

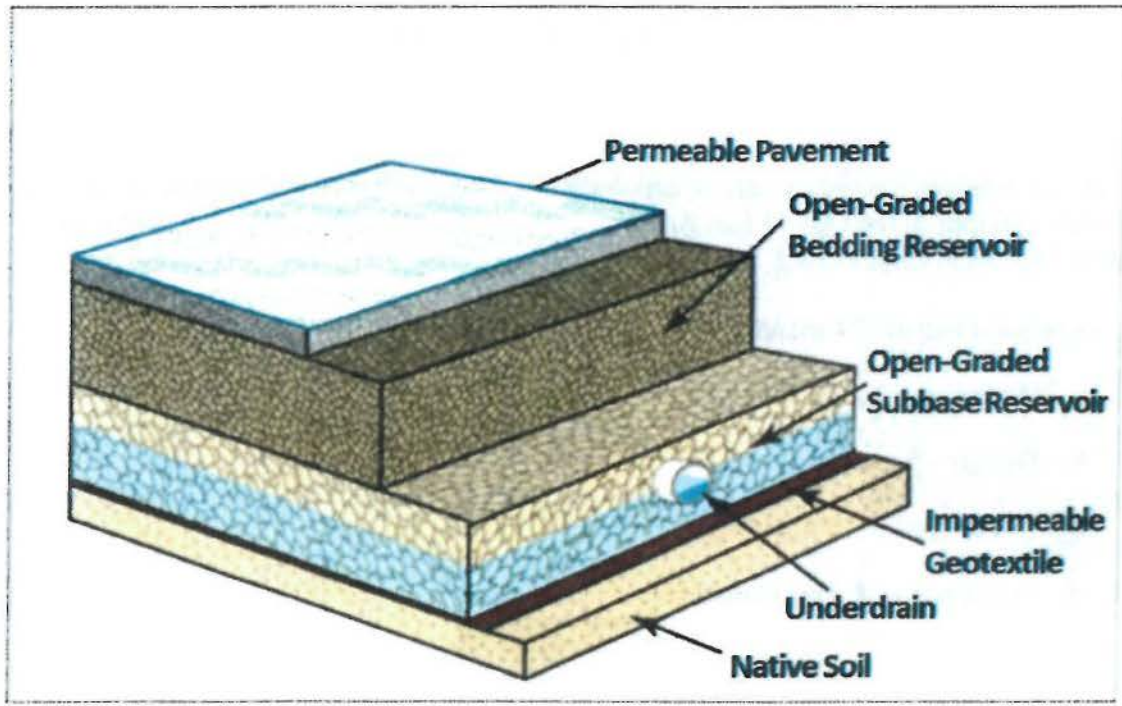


FIGURE 11B (CONT'D) - CONCEPTUAL RENDERING

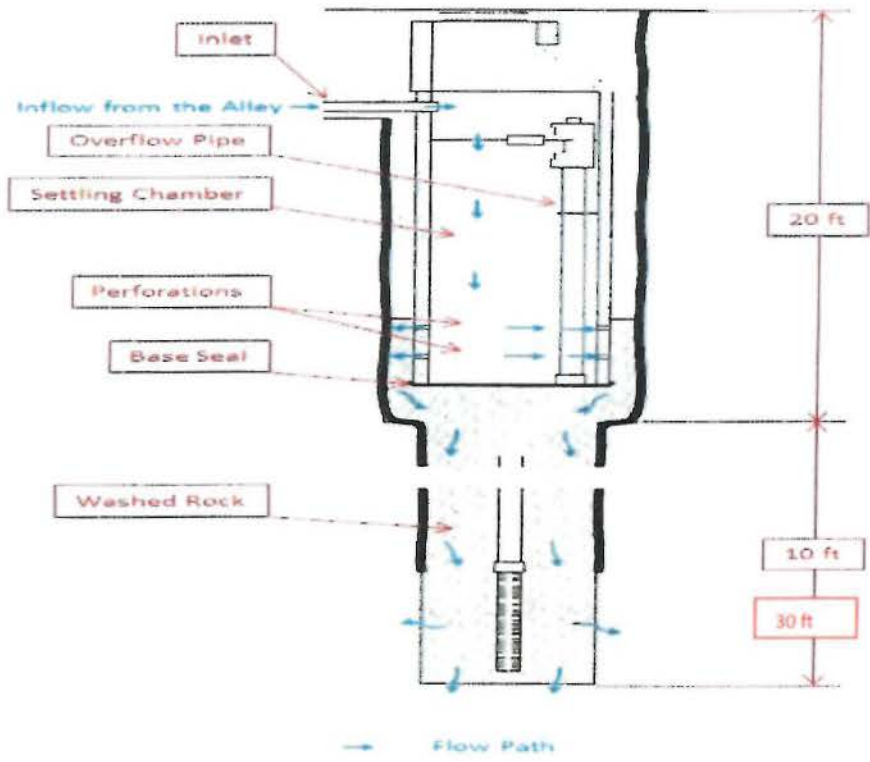


FIGURE 12 - TORRENT MAXWELL IV DRYWELL SYSTEM

4. PROPOSED PROJECT SCHEDULE

The City of Los Angeles has the resources, capability, and knowledge to execute this project by using in house services of the City of Los Angeles, Bureau of Sanitation, or by using the City of Los Angeles, Bureau of Engineering.

A tentative project schedule (24 months) is provided below:

- a. Predesign – 3 months
- b. Design – 5 months
- c. Bid & Award – 6 months
- d. Construction & Post Construction – 10 months

5. WATER QUALITY & AUXILIARY BENEFITS

Water Quality:

By capturing and reducing urban runoff discharges into the storm drain system, Ballona Creek, and Santa Monica, the proposed project will help achieve reduction of TMDL contaminants such zinc (0.6 kgs per year), copper (0.14 kgs per year), and total suspended solids (0.68 kgs per year), as well as bacteria and toxic pollutants.

Infiltration:

Because of good soil conditions, the proposed project will infiltrate most, if not all, of the captured runoff of the design storm, being approximately 0.48 acre-feet (156,408 gallons). Assuming 12 storm events for an average year, the annual volume of runoff infiltrated by the proposed project is up to 5.76 acre-ft. The proposed project is located in the West Coast Sub-basin of the Coastal Plain Basin.

Community benefits:

The proposed project will provide urban greening for the local community, and renovate/enhance the pedestrian alley.

6. ESTIMATED BUDGET

Preliminary budgets are created for the project. Included in the project line items are the costs for the standard plans, drywell, underdrain, land acquisition, and rain gardens.

Project Scope				
Item	Quantity	Unit	Unit Cost	Cost
S-486 (Permeable Pedestrian Alley)	230	ft	\$ 200	\$ 46,000.00
8" PVC underdrain (20 ft segments)	12	ft	\$ 100	\$ 1,200.00
Excavation	147	CY	\$ 120	\$ 17,640.00
Deep infiltration Drywell	5	unit	\$ 40000	\$ 200,000.00
subtotal construction cost				\$ 265,000.00
Mobilization (7%)				\$ 19,000.00
Pre-design(environmental, survey, & geotechnical) (1%)				\$ 3,000.00
Design (15%)				\$ 40,000.00
Bid & Award/ permit Fees/ utility fees (3%)				\$ 8,000.00
Construction Management (7%)				\$ 19,000.00
BCA inspection fees (7%)				\$ 19,000.00
Public Outreach (1%)				\$ 3,000.00
Post Construction (3%)				\$ 8,000.00
Subtotal 2				\$ 384,000.00
Construction Contingency (25%)				\$ 96,000.00
Total Estimated Construction Cost				\$ 480,000.00
Escalation (3% per year for two years)				\$ 30,000.00
Operations & Maintenance (\$40,000 per year for 2 years)				\$ 80,000.00
Total Estimated Project Cost				\$ 590,000.00

Operations and Maintenance (O&M) Plans: Kittyhawk Green Walkway & Slauson Green Alley Project

The annual O & M for years 1-2 is budgeted at \$40,000 for each one of the two projects as provided by the project proposals. This includes project performance evaluation and troubleshooting during the startup by project engineers. The annual O&M cost for years three and thereafter is estimated at \$10,000 for each project which will be funded by the City's Stormwater Pollution Abatement Fund.

Kittyhawk Green Walkway		
BMP Component	Years: 1-2 (\$40,000/year)	Years: 3+ (\$10,000/year)
Permeable Pedestrian Walkway	<ul style="list-style-type: none"> - General inspection (6/year) - Performance evaluation (2 major storm events/year) - Trash removal: as needed 	<ul style="list-style-type: none"> - General inspection (6/year) - Trash removal: as needed
Drywells	<ul style="list-style-type: none"> - General inspection (6/year) - Performance evaluation (2 major storm events/year) - Vactor truck cleaning (2/year) 	<ul style="list-style-type: none"> - General inspection (6/year) - Vactor truck cleaning (2/year)

Slauson Green Alley		
BMP Component	Years: 1-2 (\$40,000/year)	Years: 3+ (\$10,000/year)
Paved Alley	<ul style="list-style-type: none"> - General inspection (6/year) - Performance evaluation (2 major storm events/year) - Trash/sediment removal: as needed 	<ul style="list-style-type: none"> - General inspection (6/year) - Trash/sediment removal: as needed
Rain Garden	<ul style="list-style-type: none"> - General inspection (6/year) - Performance evaluation (2 major storm events/year) - Landscape irrigation during dry months - Trash removal: as needed - Landscape/vegetation maintenance (2/year) 	<ul style="list-style-type: none"> - General inspection (6/year) - Trash removal: as needed - Landscape/vegetation maintenance (2/year)
Culvert	<ul style="list-style-type: none"> - General inspection (6/year) - Trash removal: as needed 	<ul style="list-style-type: none"> - General inspection (6/year) - Trash removal: as needed