City of Los Angeles
Board of Public Works
Bureau of Sanitation

Proposed Sepulveda Wetlands Park
Project Overview

Description: The proposed project – the Sepulveda Wetlands Park -- is a constructed wetlands in the Sepulveda Basin. Supplied with reclaimed water from Donald C. Tillman Water Reclamation Plant (Tillman) and local urban stormwater runoff (urban runoff), the Sepulveda Wetlands Park will further polish the reclaimed water from Tillman to meet the discharge limits of nitrogen compounds, demonstrate the effectiveness of a natural system in reducing pollutants in urban runoff, while at the same time providing educational and recreational benefits, as well as habitat restoration for plants, birds and other wildlife.

Location: Based on the project concept assessment, including public input, the most desirable location is a 50- to 75-acre area south of Burbank Boulevard and west of Woodley Avenue in the City of Los Angeles, San Fernando Valley (Council District 11).

Purpose/Goal: The initial feasibility study focused on developing a treatment wetlands to further reduce nitrogen and ammonia compounds from Tillman, as well as treat urban runoff. The concept design has developed with an overall goal of establishing an effective natural treatment system that provides multiple benefits.

Project Benefits: The multiple project benefits include:

- provide restoration of native wetland habitats
- provide beneficial reuse of reclaimed water for environmental enhancement
- improve water quality in the Los Angeles River
- provide greater permit compliance certainty for water quality discharge (to meet new stringent standards from the Regional Water Quality Control Board)
- advance wetlands technology
- create active and passive recreational use opportunities
- create an interactive educational science and nature program

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Project Issues: The Sepulveda Wetlands Park will implement proven and effective management measures to address and mitigate: 1) the accumulation of solid particles from Tillman effluent and wetlands processes and solid particles and debris from stormwater; 2) flood damage effects; 3) odors; 4) the occurrence of mosquitoes, midges and other insect pests; and, 5) Federal Aviation Administration land use requirements for wetlands and wildlife sanctuaries. Additionally, methods of minimizing the effects of the DWP Burbank Boulevard Trunk Pipeline on the project aesthetics, operations and associated costs will be coordinated with DWP.

After construction of the wetlands, project performance, public involvement and use of the Sepulveda Wetlands Park will be considered and addressed throughout the operation of the project.

Multi-Agency Coordination: Throughout the concept development of the project, the Bureau of Sanitation (Sanitation) and Bureau of Engineering (Engineering) will consult and work with the City's Department of Recreation and Parks and other City departments. In addition, many key agencies and other government entities will be consulted, including the U.S. Army Corps of Engineers, U.S. Federal Aviation Administration; the County of Los Angeles Departments of Public Works and Health Services; Los Angeles Regional and California State Water Quality Control Boards and the California Departments of Fish and Game.

Community Involvement: Community feedback and involvement are integral components of the Sepulveda Wetlands Park. The project team has met with representatives of Sepulveda Basin user groups, community groups, homeowner associations, environmental organizations and others. Community involvement and outreach efforts will continue to be a key part of this project throughout its design, construction and operation.

Estimated Cost: The estimated construction cost of the project is approximately $15.6 million. Funding for the project has been included in the City's Wastewater Capital Improvement Expenditure Plan, which is funded out of the Sewer Construction and Maintenance (SCM) fund. Other potential funding sources are being pursued including Prop 13 (state) and 1135 (federal) funds.

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Answers to

QUESTIONS ABOUT THE PROPOSED SEPULVEDA WETLANDS PARK PROJECT

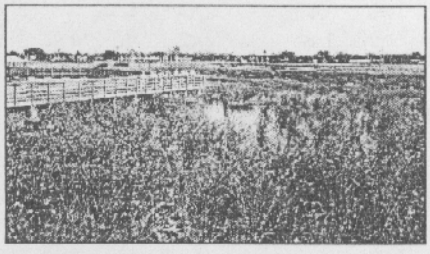
1. What is this proposed project all about?

The proposed Sepulveda Wetlands Park is A 50- to 75-acre constructed wetlands in the Sepulveda Basin supplied with reclaimed water from the Tillman Water Reclamation Plant and local urban runoff. The Sepulveda Wetlands Park would duplicate nature's ability to further improve the quality of water being discharged into the Los Angles River, while at the same time provide educational and recreational benefits and establish a habitat restoration area for plants, birds and other wildlife.

2. Where is the proposed location of the project in the Sepulveda Basin?

Based on the project concept assessment, including initial public input, the most desirable location is a 50- to 75-acre area in the Sepulveda Basin south of Burbank Boulevard, west of Woodley Avenue and east of Hjelte Park (southwest of the Los Angeles River and north of the 101 Freeway) in the San Fernando Valley (Council District 11). Refer to attached map.

3. What are Wetlands?



Wetlands are a series of shallow lakes with plants and constantly running water. In the proposed Wetlands Park, the wetlands would use the same fully treated reclaimed water currently used in the Japanese Garden and Wildlife Lake. These waterbodies have existed for years in the Sepulveda Basin. Wetlands become home to plants, birds and other wildlife, and would enhance the other natural habitats in the Sepulveda Basin. Examples of existing wetlands are the Wakodahatchee Wetlands in West Palm Beach, Florida (Picture above), the San Joaquin March in Irvine, California, Victoria (Dupont) Wetlands in Victoria, Texas and the Prado Dam Wetlands in Orange County.

4. Why do we need this project?

The Sepulveda Wetlands Park would not only provide major environmental, educational and recreational benefits to our residents, but would also allow us to meet the State-mandated reduction in nitrogen levels being discharged into the Los Angeles River.

5. Is a 50- to 75-acre project adequate to treat the water from Tillman?

The proposed 50 to 75 acres for the Sepulveda Wetlands Park would be sufficient, as it would be combined with additional process modifications inside the Tillman plant.

6. Why was the project originally considered as a 300 to 500 acre project?

The 300 to 500 acres were based on a very early and preliminary feasibility study to handle the entire flow from Tillman without consideration of land use or availability. Since then, based on the project concept assessment, including initial public input and additional process

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modifications inside the Tillman plant, the proposed project has been limited to 50 to 75 acres only.

7. When did the change in size and scope occur?
Around October of 2001, based on a project concept assessment and initial public input.

8. How will the City guarantee that the proposed project will be no more than 50 to 75 acres in size?
The City has committed to the 50 to 75 acres in its communication with the community. This commitment is clearly documented in the draft Concept Design Report (CDR). If the project moves forward, additional and detailed public review and input would be conducted and documented as part of the required environmental documentation, which would precede any implementation.

9. Will there be a problem with mosquitoes? If so, how will the City address this problem?
The proposed wetlands project would be designed to control the occurrence of mosquitoes. Mosquito fish would be stocked to provide effective natural controls similar to that in the Japanese Garden and the Wildlife Lake and similar wetlands nationwide.

10. Will there be odors? If so, how will the City address this problem?
Nuisance odors are not associated with treatment wetlands, as they are engineered to have running water, using high quality reclaimed water. Also, the water used would be the same high quality water used in the Wildlife Lake and the Japanese Garden.

11. How will the project address the inevitable flooding after heavy rains?
Wetlands can survive flooding. Additionally, as part of the design, we would work with the U.S. Army Corps of Engineers to minimize the impacts of flooding on the wetlands. The wetlands park would implement proven and effective management measures to address and mitigate the impacts of flooding.

12. How will the City address silt deposits after a heavy rain?
Deposit minimization and management would be built as part of the design and operations. The wetlands park would implement proven and effective management measures to address and mitigate the impacts of sediment accumulation.

13. What is the cost of building the proposed project?
The cost is estimated to be around $16 million including the education and recreation components.

14. If constructed, will the proposed project have any negative impacts on established areas in the Sepulveda Basin such as the Wildlife Area, Wildlife Lake and Balboa Lake?
On the contrary, the proposed wetlands park would enhance the established areas in the Basin. In addition to the wetlands area, which would provide wildlife habitat, the plan calls for an educational center, a system of boardwalks, jogging and walking trails and a sports center featuring a soccer field.

15. If constructed, will the project pose any problems with operations at the Van Nuys Airport?
No. In fact the proposed wetlands park is located outside the 10,000-foot buffer established by the Federal Aviation Administration (FAA). Even so, the City would coordinate and work with the Van Nuys Airport and the FAA during the project life.

16. Is the wetlands project necessary for the City to meet the new state water quality standards?

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Answers to

QUESTIONS ABOUT THE PROPOSED SEPULVEDA WETLANDS PARK PROJECT

The Sepulveda Wetlands Park would help us meet the State-mandated reductions in nitrogen levels being discharged into the Los Angeles River. Additionally, the wetlands would demonstrate the effectiveness of a natural system in reducing pollutants in urban runoff and would provide major environmental, educational and recreational benefits to our residents.

17. Why is the Bureau now considering the construction of a sports field adjacent to the project?

The goal of the project is to help ensure the City meets the water quality requirements as mandated by the Regional Water Quality Control Board. Additionally, the Wetlands Park would also help improve the quality of life in Los Angeles. Since recreational facilities are essential to our children and families, The City's Department of Recreation and Parks requested additional active recreation such as a soccer field to be included in the proposed project. Combining the wetlands project with a recreational facility within close proximity to a soccer field and interactive educational center would create new opportunities for children and other residents to learn more about nature and the environment.

18. What happens if the project moves forward and is a success? (Will the City pursue other sites in the Sepulveda Basin?)

With the success of the wetlands park, the City will be looking at other opportunities Citywide as part of meeting the water quality requirements while helping "green" LA. The City has committed to limit the Sepulveda Basin site to the 50 to 75 acres only.

19. What happens if it is not a success? (Will the City abandon the site?)

The City is committed to maintaining and managing this site effectively. Wetlands have been effective and successful throughout the nation in treating water while providing wildlife habitat and educational and recreational features.

20. How will the Bureau address the DWP pipe located at the proposed site?

The City of Los Angeles Department of Water and Power (DWP) pipe would be incorporated into the design. We would work with DWP throughout the design and construction phases.

21. How will stormwater be directed to the pipe?

Stormwater would be captured from the drainage into the Los Angeles River and pumped into the wetlands cells.

22. Can constructed wetlands exist in a flood control basin?

Wetlands and the plants in wetlands are able to accommodate flooding. Also, the proposed Sepulveda Wetlands Park would be designed with proven and effective measures to minimize the impact of flooding.

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Sepulveda Basin

City of Los Angeles
Department of Public Works/Bureau of Sanitation

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COMPLIANCE OPTIONS TO MEET DISCHARGE LIMITS OF NITROGEN COMPOUNDS TO THE LOS ANGELES RIVER AT THE SEPULVEDA BASIN

ALTERNATIVE APPROACHES	DESCRIPTIONS	EFFECTS	ESTIMATED COSTS
NO ACTION	Implement no Tillman process Modifications or wetlands.	• City will not meet nitrogen discharge limits • Violation of discharge permits • Subsequent fines by CRWQCB • No improvement to the water quality in LA River	$ City may be subject to fines up to $25,000/day. **Total: $9 Million/year**
PROCESS MODIFICATIONS AT TILLMAN WATER WITHOUT WETLANDS	Implement process modifications at Tillman needed to meet nitrogen discharge limits.	• Reduced treatment capacity at TILLMAN by up to 15 to 30% (derating). • Increase flow in downstream sewers and risk of downstream overflows. • May require early expansion of TILLMAN	Process Modification Cost at Tillman: $21 - 43 Million (1,2, 3) + Plant expansion to address capacity reduction at Tillman: $90 – 180 Million (4) = **Total: $ 111- 223 Million**
WETLANDS ONLY	Use wetlands alone to meet nitrogen requirements.	• Adequate land is not available - requires up to 300 to 500 acres. • Significant impacts to existing and future basin uses, including recreation. • Extensive community concerns/	**Total: $65 – 108 Million (5)**
COMBINATION OF PROCESS MODIFICATIONS AT TILLMAN AND 60 ACRE TREATEMNT WETLANDS	Implement process modifications at Tillman needed to meet nitrogen discharge limits with further polishing by the construction of 60 Acre wetlands.	• Further nitrogen removal from TILLMAN effluent (to help ensure nitrogen discharge limits are met) • Habitat restoration • Treatment of urban runoff. • Active recreation • Passive recreation (boardwalks and trails) • Public education (partnership with LAUSD) • Demonstration of innovative wetlands technologies • Regional wetlands demonstration project	Process Modification Cost at Tillman: $21 - 43 Million (1,2, 3) + Cost of 60 acre wetlands: $13 Million (6) = **Total: $34 – 56 Million**
100% REUSE	Full reuse of Tillman reclaimed water and no discharge to LA River.	• Distribution infrastructure and users not developed. • Variable water demand depending on weather. • Reduce water to LA River may impact river habitat and river beneficial uses.	**Total: $300 Million (7, 8)**

CONVEY ALL TILLMAN FLOW TO HYPERION TREATMENT PLANT FOR TREATMENT	Construct conveyance pipeline to transmit TILLMAN flow to Hyperion Treatment Plant for treatment	• Requires construction of approximately 30 miles of sewer between TILLMAN and Hyperion Treatment Plant. • Additional expansion of Hyperion Treatment Plant may be required. • Abandonment of the Japanese Garden Lake, Balboa Lake, and the Wildlife Lake • Loss of recycled water for beneficial uses • High capital costs	**Total: $850 Million (10)**
ADVANCED TREATMENT USING REVERSE OSMOSIS	Installation of filtration and reverse osmosis facilities.	• Requires environmental solution for brine discharge management. • Distribution infrastructure and users not developed • Extensive Maintenance • High capital costs	**Total: $410 Million (11)**
SEPARATE FACILITY FOR NITROGEN REMOVAL	Construct separate facility in addition to Tillman for denitrification using methanol.	• High Maintenance • Real estate required • High capital costs	**Total: $600 Million (9)**

Footnotes:

(1) Based on preliminary cost estimate, CLA CIP 2002: CLA Presentation for CRWQCB, November 5, 2001. (DCTWRP and LAGWRP) $21 Million for TWRP per BOE-EED.
(2) Based on *UV Disinfection Conversion Rough Order of Magnitude Estimate DCT and LAG,* BOE-EED, November 2001.
(3) Based on process Modifications at Tillman only estimated to be $21 –24 M, LAGWRP, $11 M.
(4) Based on average costs for treatment facilities in CA that include tertiary for Title 22 Compliance. MWH, Stephenson 2001, excluding real estate costs.
(5) Based on extrapolating the estimated construction cost for 300 t0 500 Acres using estimated construction cost for the 60 acres in the Draft Sepulveda Wetlands Park Concept Design Report in the amount of approximately $13 million, see Table ES-3.
(6) Based on the estimated construction cost in the Draft Sepulveda Wetlands Park Concept Design Report in the amount of approximately $13 million, see Table ES-3.
(7) Based on LA County DPW's 15,000 feet of distribution pipe to Dominguez Gap Barrier, estimated to cost $35 Million for 10 MGD Product Water.
(8) Based on BOE's cost per mile for the Northeast Interceptor Sewer (NEIS) times 30 miles (Tillman to HTP).
(9) Based on average costs for treatment facilities in CA that include tertiary for Title 22 Compliance. MWH, Stephenson 2001, excluding real estate costs.
(10) Based on Cost per mile for the East Central Interceptor Sewer (ECIS) ($250 Million for 11 miles x 11 ft diameter) multiplied by 30 miles (Tillman to HTP). Pipeline cost based on route via the Los Angeles – Glendale Water Reclamation Plant.
(11) Based on *Technology Evaluation for Lindane and Copper reduction at the Donald C. Tillman and Los Angeles-Glendale Water Reclamation Plants,* EED, May 1998.