

COASTAL CONSERVANCY

Staff Recommendation
June 5, 2008

RIVERDALE AVENUE GREEN STREET DEMONSTRATION PROJECT

File No. 08-049-01
Project Manager: Joan Cardellino

RECOMMENDED ACTION: Authorization to disburse up to \$500,000 to the City of Los Angeles Department of Public Works, to construct street infrastructure improvements to one block of Riverdale Avenue to improve runoff infiltration, Los Angeles County.

LOCATION: Riverdale Avenue is in the Elysian Valley neighborhood of the City of Los Angeles, Los Angeles County. (See Exhibit 1.)

PROGRAM CATEGORY: Urban Waterfronts and Coastal Restoration

EXHIBITS

Exhibit 1: [Project Location and Site Map](#)

Exhibit 2: [Conceptual Plans](#)

Exhibit 3: [Letters of Support](#)

RESOLUTION AND FINDINGS:

Staff recommends that the State Coastal Conservancy adopt the following resolution pursuant to Sections 31220 and 31300-31316 of the Public Resources Code:

“The State Coastal Conservancy hereby authorizes disbursement of up to \$500,000 (five hundred thousand dollars) to the City of Los Angeles Department of Public Works (the “City”) for the purpose of constructing street infrastructure improvements to one block of Riverdale Avenue to improve infiltration, subject to the following conditions:

1. Prior to the City’s commencement of work, the Executive Officer of the Conservancy shall approve in writing a work program, schedule of completion, project budget, and any contractors to be employed.
 2. The City shall submit evidence that all necessary permits have been obtained.
 3. The City shall implement post-project effectiveness monitoring for three years following construction according to a monitoring plan approved by the Executive Officer of the Conservancy.
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4. A signing plan for the project.”

Staff further recommends that the Conservancy adopt the following findings:

“Based on the accompanying staff report and attached exhibits, the State Coastal Conservancy hereby finds that:

1. The proposed project is consistent with the Project Selection Criteria and Guidelines, last updated by the Conservancy on September 20, 2007.
2. The proposed authorization is consistent with the purposes and objectives of Chapters 5.5 and 7 of Division 21 of the Public Resources Code, regarding integrated coastal and marine resources and protection and urban waterfront restoration.”

PROJECT SUMMARY:

Staff recommends authorization to disburse up to \$500,000 to the City of Los Angeles Department of Public Works (the “City”) for the purpose of constructing street infrastructure improvements to one block of Riverdale Avenue to improve runoff infiltration. Riverdale Avenue drains directly into the Los Angeles River, which extends over 50 miles and empties into the ocean at the Long Beach Harbor. This project will demonstrate the use of stormwater planters to treat and infiltrate surface runoff, thereby providing flood control and water quality benefits. A primary goal of the project is to create a model for a new standard of residential street design to reduce the amount of stormwater and urban runoff from city streets.

The project will involve retrofitting a residential street abutting the Los Angeles River with stormwater infiltration units within the existing sidewalk and parkways. The purpose of the retrofit is to capture and infiltrate stormwater and urban runoff within specially designed infiltration planters that will receive street flows. These infiltration planters will capture runoff from approximately 14.6 acres of residential land, providing flood control and water quality benefits. Additionally, the planters will improve the existing urban streetscape by replacing grass parking strips with drought tolerant, native landscaping. The project will include signage to explain the purpose of the infiltration swales and the need for to protect the Los Angeles River from polluted urban and stormwater runoff.

Stormwater infiltration has been widely identified as means of reducing nonpoint source urban runoff by employing distributed biofiltration. If widely implemented, infiltration can also result in reduced stormwater runoff volume and contribute to the recharge of groundwater basins. The City’s existing drainage system (streets, storm drains, and channels) is primarily comprised of impervious materials. Although many areas of the City have soils favorable to infiltration, existing City standards do not include provisions to allow runoff to infiltrate and percolate into the ground. Since the City’s 7,300 miles of streets are the primary form of stormwater conveyance prior to entering rivers and underground storm drains, the City aims to develop standards to allow infiltration along City streets where feasible.

Although there have been efforts to increase infiltration in many of the projects led by the City and County of Los Angeles (and others), the needed City design standards have not yet been developed. The adoption of City standard infiltration technologies will allow the City to implement infiltration technologies more widely through the private development process.

Without a design standard, the City has no means of communicating this technology as a requirement for development projects nor does the City have a standard for inspection prior to acceptance. In order to maximize the application of this technology, the City plans to pursue the development of standards for both residential and commercial streets. If funded, the Riverdale Avenue Green Street project will act as template for the development of those standards. Riverdale Avenue will further serve as a demonstration project to provide data on the costs and requirements of design and construction, long term maintenance requirements, long term infiltration performance, and neighborhood compatibility for a residential parkway infiltration technology.

The project will treat runoff from three residential blocks (approximately 14.6 acres) which drain to Riverdale Avenue. The runoff flow will be directed into the proposed infiltration swales via curb openings. (See Exhibit 2). Riverdale Avenue is approximately 500 feet in length from Crystal Street to its terminus at the south side of the Los Angeles River. As there are currently no storm drains in Riverdale Avenue at the proposed project location, no sub-drain system is included in the project. If the amount of stormwater runoff during the wet weather season exceeds the planter infiltration rate, stormwater will continue to flow along the street into the existing catch basin located at the end of Riverdale Avenue adjacent to the Los Angeles River. The goal is to design planters that will capture up to $\frac{3}{4}$ inches of runoff from the Riverdale Avenue cul-de-sac. In order to reduce the quantity of debris that accumulates in the planters, screens shall be placed over the curb openings which will allow stormwater to enter into the planters while keeping larger debris out.

The County will prepare a post-project effectiveness monitoring plan to be approved by the Executive Director of the Conservancy, which will include an annual report for three years following construction to determine whether the improvements are functioning as designed. At a minimum, this monitoring report will include an inspection of the condition and functioning of the site improvements and measurements to ensure that agreed upon criteria are being met.

Three City of Los Angeles departments are collaborating on the design of the Riverdale Avenue project: the Department of Public Works, the Bureau of Engineering, and the Bureau of Sanitation.

Site Description: The project is being implemented in the Elysian Valley neighborhood of northeast Los Angeles. The area is primarily single-family residential, with some small industrial and commercial enterprises also located adjacent to the Los Angeles River. The proposed project is located across the river from Rio de Los Angeles State Park (Exhibit 1).

This area is densely developed, and has been since the early 1900's. Riverdale Avenue, like many streets that dead-end at the river, drains directly into the Los Angeles River through culverts rather than through storm drains. This particular feature makes end-of-pipe treatment difficult, and is thus why the City is pursuing more distributed solutions such as bioretention and infiltration. Other projects, such as the Oros Street project developed with North East Trees, and the Mountains Recreation and Conservation Authority's biofiltration basin at Marsh Park, were also constructed in Elysian Valley.

Riverdale Avenue is a 50-foot wide local street. The traffic roadway is 30 feet wide with a 10-foot wide sidewalk/parkway on each side of the street. The street ends in a cul-de-sac abutting the Los Angeles River. The existing mild street slope (1 percent) is suitable for allowing runoff

to be easily diverted to the greenway. According to Los Angeles County geotechnical maps, this area is anticipated to have excellent infiltration characteristics.

Project History: The Coastal Conservancy has a long history of working on projects along and affecting the Los Angeles River. In the context of our broader authority for urban waterfront projects, in spring 2007 staff began investigating potential projects that could meet the goals of the legislation, as well as the agency’s updated strategic plan. During the course of that investigation, staff met people in Los Angeles looking for assistance in developing a more environmentally sustainable way of constructing the City’s streets. Given the strong connection between the health of the coast and treatment of water within the upper areas of the watershed, staff was interested in helping support this so-called “Green Streets” effort.

At the Conservancy board meeting in December 2007, staff introduced a strategy for the Conservancy’s continued involvement in the Los Angeles River watershed, and indicated a role for the Conservancy in supporting model projects with the potential to result in institutional or broad-based changes. The board endorsed staff’s proposed strategy, and the Riverdale Avenue Green Street demonstration project is the first to be recommended to implement it.

Additionally, the Ocean Protection Council has a goal of improving ocean and coastal water quality, which it hopes to achieve through supporting greater controls on nonpoint source pollution. A key method of controlling surface runoff pollution, or nonpoint source, is through low impact development (“LID”), or development which minimizes impermeable surfaces in order to capture runoff and infiltrate it to the greatest extent possible. The Riverdale Avenue project will demonstrate the effective use of LID design that can be replicated throughout the city.

PROJECT FINANCING:

Coastal Conservancy	\$500,000
City of Los Angeles in-kind design services	<u>120,000</u>
Total Project Cost	\$620,000

Funding for this project is expected to come from the fiscal year 07/08 Safe Drinking Water, Water Quality and Supply, Flood Control, River and Coastal Protection Bond Act of 2006 (“Proposition 84”). Proposition 84 authorizes the use of these funds for projects that prevent contamination and degradation of coastal waters and watersheds. (Public Resources Code Section 75060). The proposed project is consistent with the Conservancy’s enabling legislation, Division 21 of the Public Resources Code, as described below. (Public Resources Code Section 75074).

CONSISTENCY WITH CONSERVANCY’S ENABLING LEGISLATION:

The proposed project will be undertaken pursuant to Chapter 7 of Division 21, which addresses the restoration of urban waterfronts. Section 31301 states the legislative intent that projects under Chapter 7 promote restoration of the State’s vital urban waterfronts. Section 31307 specifically authorizes grants to a public entity for restoration of urban coastal waterfront areas.

Although it is many miles from the coast, Riverdale Avenue has the potential to expand significantly the city's ability to infiltrate, and thereby clean, surface and stormwater runoff, which directly impacts coastal water quality and debris on the beaches. Absent upgrades to the urban infrastructure in the coastal watersheds, urban waterfront areas cannot truly be restored.

Section 31316 provides that the Conservancy may undertake projects within urban coastal watershed areas that are compatible with the preservation, restoration or enhancement of ocean, coastal or watershed resources. These projects may include the development of amenities and infrastructure consistent with the purposes of Chapter 7 of Division 21 of the Public Resources Code. Creating a "green street" on one block of Riverdale Avenue will hopefully establish a model for urban street retrofit projects that cumulatively will have beneficial impacts on coastal and watershed resources, in terms of water quality, water supply, flood control, and habitat creation.

Further, Section 31305 directs the Conservancy to stimulate projects that promote excellent design exhibit innovation in sensitively integrating urban features into the natural coastal environment. The Riverdale Avenue project seeks to develop an excellent design for an urban street that will infiltrate runoff.

Finally, pursuant to Section 31308, the Conservancy "may provide up to the total cost of any urban waterfront project..." after an assessment of funding generally available for coastal resource enhancement projects, the fiscal resources of the applicant, the urgency of the project relative to other eligible urban waterfront projects, and the degree to which the project meets the "excellent design" requirements of Section 31301. The proposed contribution by the Conservancy was determined based on application of priority criteria, as discussed below, and after taking into account the project design, other available resources and the matching contributions to the project by the City of Los Angeles.

The proposed project is also consistent with Chapter 5.5 of Division 21, which authorizes the Conservancy to undertake projects to protect coastal watersheds and water quality. Consistent with Section 31220(b)(1),(7) and (10), the proposed project will help reduce contamination of waters within the coastal zone or marine waters, and will help reduce the impact of population and economic pressures on coastal and marine resources. The retrofit of Riverdale Avenue will not only reduce stormwater run off into the Los Angeles River in a densely populated area of the City, it will also serve as a pilot project for implementation of similar retrofits across Los Angeles County. The project is also consistent with the Ocean Protection Council's efforts to improve coastal water quality through promotion of Low Impact Development, as described above. The project includes a monitoring and evaluation component and is consistent with adopted state and regional watershed planning as described below under "Consistency with Local Watershed Management Plans/State Water Quality Control Plan" section, below. In addition, as required by Section 31220(a), Conservancy staff has consulted with the State Water Resources Control Board in the development of this project in order to ensure consistency with the Clean Beaches Program under Chapter 3 of Division 20.4 of the Public Resources Code.

**CONSISTENCY WITH CONSERVANCY'S 2007
STRATEGIC PLAN GOAL(S) & OBJECTIVE(S):**

Consistent with **Goal 6, Objective 6F** of the Conservancy's 2007 Strategic Plan, the proposed project will improve water quality to the benefit of coastal resources.

**CONSISTENCY WITH CONSERVANCY'S
PROJECT SELECTION CRITERIA & GUIDELINES:**

The proposed project is consistent with the Conservancy's Project Selection Criteria and Guidelines, last updated on September 20, 2007, in the following respects:

Required Criteria

1. **Promotion of the Conservancy's statutory programs and purposes:** See the "Consistency with Conservancy's Enabling Legislation" section above.
2. **Consistency with purposes of the funding source:** See the "Project Financing" section above.
3. **Support of the public:** This project is supported by Councilmember Eric Garcetti, in whose district the project is located. Additional letters of support are included in Exhibit 3.
4. **Location:** This project is located on the northern side of downtown Los Angeles, some 25 miles from the coast. However, as described above, when constructed, the project will benefit coastal resources by treating runoff and reducing the amount of runoff and pollution that reaches the coast.
5. **Need:** Absent the Conservancy's involvement and funding assistance, it would take much longer for the City of Los Angeles to develop a prototype green street and change the standards by which street infrastructure is designed.
6. **Greater-than-local interest:** Not only will this project help to improve water quality, but it has the potential, if replicated widely, to recharge local groundwater basins, increasing local water supply and significantly reducing the amount of water that the City of Los Angeles has to import from elsewhere in the state. Reducing the amount of water transported to Los Angeles from northern California will help to restore the Sacramento-San Joaquin delta ecosystem, and will reduce the large amount of electricity required to pump the water south.

Additional Criteria

7. **Urgency:** For the reasons described above, this project has implications for both water and energy use, the benefits of which can only be realized when projects like this are implemented on a large scale. The Riverdale Avenue Green Street project is especially urgent given the City's need to improve water quality, comply with state permit requirements, and prepare for impacts of global warming..
8. **Resolution of more than one issue:** This project will resolve local water quality, supply and quantity issues, and will provide wildlife habitat.
9. **Leverage:** See the "Project Financing" section above.
10. **Innovation:** This project demonstrates an innovative approach to solving several water-related issues at once, and is intended to become a model for making such innovations standard practice.
11. **Readiness:** Staff in the City of Los Angeles are ready to finalize the green street design and move into construction documents within the next few months.

**CONSISTENCY WITH LOCAL WATERSHED MANAGEMENT PLAN/
STATE WATER QUALITY CONTROL PLAN:**

The project is also consistent with the Los Angeles River Restoration Master Plan, adopted by the City in 2007, and with the Los Angeles River Improvement Overlay District, which encourages the use of infiltration technologies in streetscapes along the river. Infiltration of urban runoff is consistent with recommendations of both the City of Los Angeles' Integrated Resources Plan and the Greater Los Angeles County Region Integrated Regional Water Management Plan. Infiltration, if applied widely, can help manage runoff volume and reduce the quantity of urban runoff pollution that will reach the Los Angeles River and the ocean. Infiltration can also help to maintain local groundwater resources.

COMPLIANCE WITH CEQA:

The proposed project is categorically exempt from review under the California Environmental Quality Act ("CEQA"), pursuant to 14 California Code of Regulations Section 15301 because the proposed project only involves the "operation, repair, maintenance and/or minor alteration to 'existing facilities,' such as streets, sidewalks, gutters, and road grading for the purposes of public safety." Cal. Code Regs § 15301(c). The project will not involve an expansion of use of the existing facilities, the removal of a stand of trees, nor will it impact historic buildings. No right-of-way will be required. Upon approval, staff will file a Notice of Exemption.