

To: Massood Eftekhari From: Gary Hildebrand *GH* Date: June 11, 2013

Subject: Los Angeles County Flood Control District Policy on Additional Vegetation in Los Angeles River Watershed Soft-Bottom Channel Reaches 1, 9, 19-22, and 25.

Attached for your approval is the policy addressing the allowance of additional vegetation in the Los Angeles River.

LAT:sw

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Attach.

cc: Flood Maintenance (Hanson)  
Land Development (Nyivih)  
Water Resources (Stone)

GH



Approved by

*Mark Pestrella*  
for Mark Pestrella, Assistant Director

6/27/13

Date



**LOS ANGELES COUNTY FLOOD CONTROL DISTRICT  
POLICY ON ADDITIONAL VEGETATION IN LOS ANGELES RIVER  
WATERSHED SOFT-BOTTOM CHANNEL REACHES 1, 9, 19-22, AND 25**

The Los Angeles County Flood Control Act (Act) establishes a priority for flood protection and water conservation over recreational, education, and other uses of watercourses under the control of the Los Angeles County Flood Control District (LACFCD). However, when (and only when) it is consistent with the LACFCD's flood control and water conservation objectives, the Act authorizes the LACFCD to take actions to preserve and enhance features on its properties for the protection, preservation, and use of the scenic beauty and natural environment.

The LACFCD supports an adaptive management approach for facilities, which recognizes that facilities can be managed to provide other benefits without increasing flood risk to an unacceptable level. A Study<sup>1</sup> was conducted of the major watercourses in the Los Angeles River Watershed to determine where the perpetual presence of some level of native vegetation might be consistent with the objectives for flood protection and water conservation in those watercourses. The study included both biological and hydraulic studies and analyses.

The study indicated that the estimated actual capacity of certain watercourses (Soft-Bottom Channel (SBC) Reaches 1, 9, 19-22, and 25) is significantly greater than the original design flow rate of those reaches. For these SBC reaches, recommended vegetation levels were developed by BonTerra Consulting, a biological consultant to the LACFCD.

The study also indicated the following:

- The recommended vegetation levels would decrease the capacity of the subject reaches; however, the estimated capacity of these SBC reaches, assuming the presence of the recommended vegetation levels would still be substantially greater than the respective original design flow rate for each SBC reach.
- Assuming the recommended vegetation levels were maintained in each of the subject SBC reaches, the estimated capacity of each SBC reach would still be sufficient to convey an approximate 500-year frequency storm event (SBC Reach 25) or greater (SBC Reaches 1, 9, 19, 20, 21, and 22). The probability of occurrence of a 500-year frequency storm event is 0.2 percent in any given year.

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<sup>1</sup>Los Angeles River Soft-bottom Channel/Hydraulic Analysis Study by the Los Angeles County Department of Public Works Water Resources Division, June 5, 2013.



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WATERSHED SOFT-BOTTOM CHANNEL REACHES 1, 9, 19-22, AND 25**

By allowing the recommended vegetation levels in the referenced watercourses, the scenic beauty of and natural environment in and around those watercourses would be better protected, preserved, and enhanced. In addition, the following benefits would be anticipated to accrue:

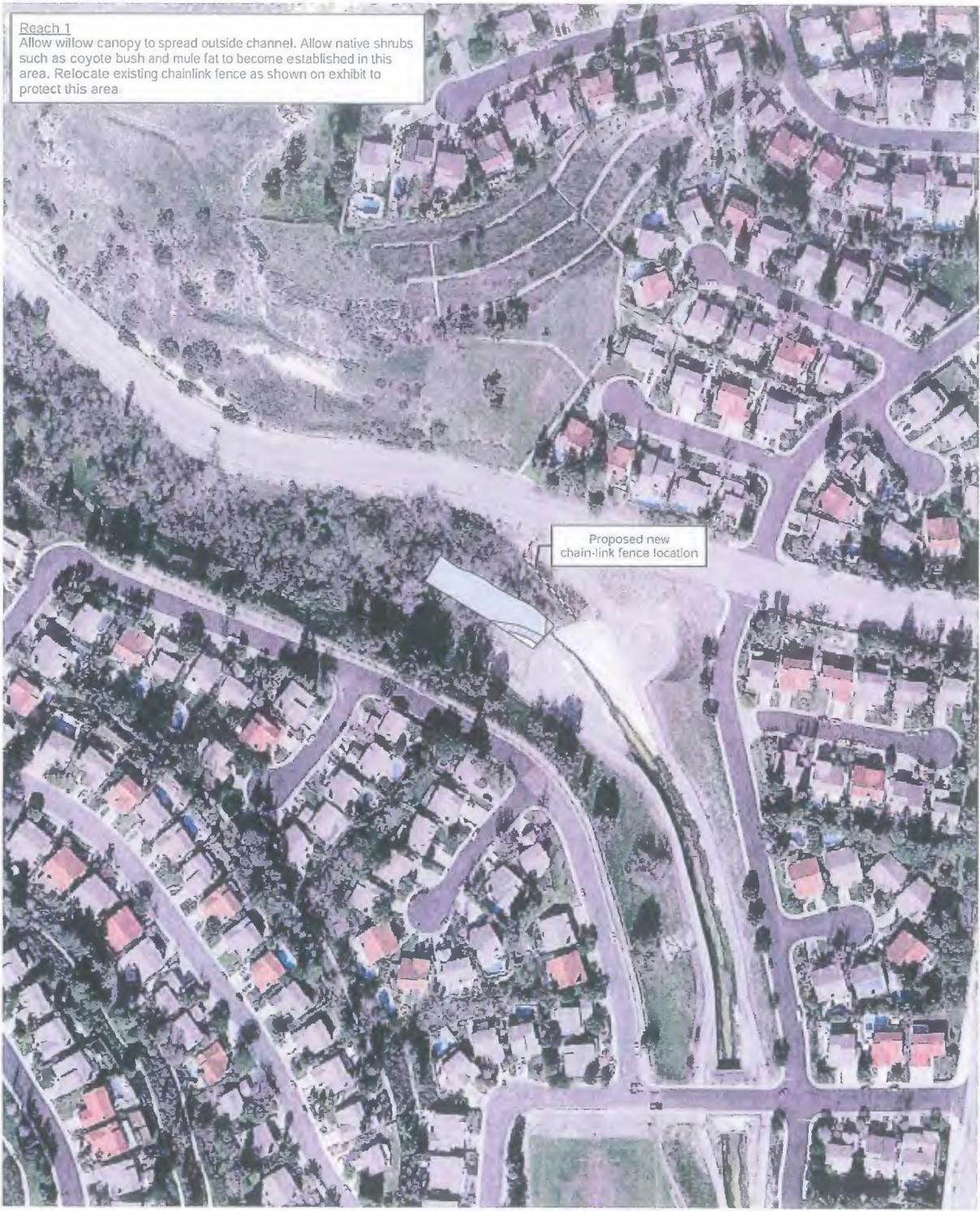
- The recommended vegetation levels would allow for additional habitat use by birds and other wildlife and provide greater connectivity between habitat areas;
- Increased biological and species diversity would result from the presence of the recommended vegetation levels in the specified SBC reaches of the Los Angeles River Watershed that do not presently contain such vegetation;
- Water-quality improvements would result from biological treatment of flows from small storms passing through the areas where recommended vegetation levels are present; and
- Increased vegetation in general would reduce air pollution and improve air quality in adjacent urban communities.

It is the determination of the LACFCD that the increase in the risk of overflow in the subject SBC reaches resulting from the presence of the recommended vegetation levels would be extremely small (less than 0.2 percent) and the possibility of overflow, even assuming the presence of the recommended vegetation levels, would still be extremely remote. Further, the remote risk of overflow associated with the recommended vegetation levels does not justify forgoing the environmental and other benefits that the recommended vegetation levels are anticipated to provide.

It is, therefore, the policy of the LACFCD to incorporate the recommended vegetation levels developed by BonTerra Consulting (as generally depicted on the attached exhibits) into the maintenance plan and practices for SBC Reaches 1, 9, 19-22, and 25 of the Los Angeles River Watershed, upon consultation with the appropriate jurisdictional agencies.

**Reach 1**

Allow willow canopy to spread outside channel. Allow native shrubs such as coyote bush and mule fat to become established in this area. Relocate existing chainlink fence as shown on exhibit to protect this area.



**Vegetation Types**

- scale broom scrub
- disturbed scale broom scrub
- southern coast live oak riparian forest
- disturbed southern coast live oak riparian forest
- willow riparian forest

- southern willow scrub
- cattail wetland
- cattail wetland/open water
- disturbed cattail wetland
- riparian herb
- ruderal

- ornamental
- unvegetated wash
- open water
- disturbed
- ungrouted riprap
- developed

**Recommendations – Reach 1**

Los Angeles River Watershed Feasibility Study



**Exhibit 1C**



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**Reach 9**  
 Remove non-native ash trees at top of both banks and replace with native trees. Sycamore trees are the preferred native trees to be planted per the maintenance plan that will be prepared for this task at a later date.



**Vegetation Types**

- |   |                            |                  |
|---|----------------------------|------------------|
| scale broom scrub                                 | southern willow scrub      | ornamental       |
| disturbed scale broom scrub                       | cattail wetland            | unvegetated wash |
| southern coast live oak riparian forest           | cattail wetland/open water | open water       |
| disturbed southern coast live oak riparian forest | disturbed cattail wetland  | disturbed        |
| willow riparian forest                            | riparian herb              | ungrouted riprap |
|   | ruderal                    | developed        |

**Recommendations - Reach 9**

Los Angeles River Watershed Feasibility Study

Exhibit 1F



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**Reach 19**  
 Except for on the crib structures, allow native shrubs to grow on the invert of the channel reach from the upstream end to the pedestrian bridge at Mountain Ave. Selectively protect native shrubs by removing non-native vegetation. Native trees will not be allowed to grow in the invert.



**Vegetation Types**

- scale broom scrub
- disturbed scale broom scrub
- southern coast live oak riparian forest
- disturbed southern coast live oak riparian forest
- willow riparian forest

- southern willow scrub
- cattail wetland
- cattail wetland/open water
- disturbed cattail wetland
- riparian herb
- ruderal

- ornamental
- unvegetated wash
- open water
- disturbed
- ungrouted riprap
- developed

**Recommendations - Reach 19**

Los Angeles River Watershed Feasibility Study



Exhibit 1E



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**Reach 22**

Except for on the crib structures, allow native shrubs (but not trees) to grow on the invert of the entire channel reach. Selectively protect native shrubs by removing non-native vegetation. Native trees will not be allowed to mature on the channel invert.



**Vegetation Types**

- |   |                            |                  |
|---|----------------------------|------------------|
| scale broom scrub                                 | southern willow scrub      | ornamental       |
| disturbed scale broom scrub                       | cattail wetland            | unvegetated wash |
| southern coast live oak riparian forest           | cattail wetland/open water | open water       |
| disturbed southern coast live oak riparian forest | disturbed cattail wetland  | disturbed        |
| willow riparian forest                            | riparian herb              | ungrouted riprap |
|   | ruderal                    | developed        |

**Recommendations – Reach 22**  
Los Angeles River Watershed Feasibility Study

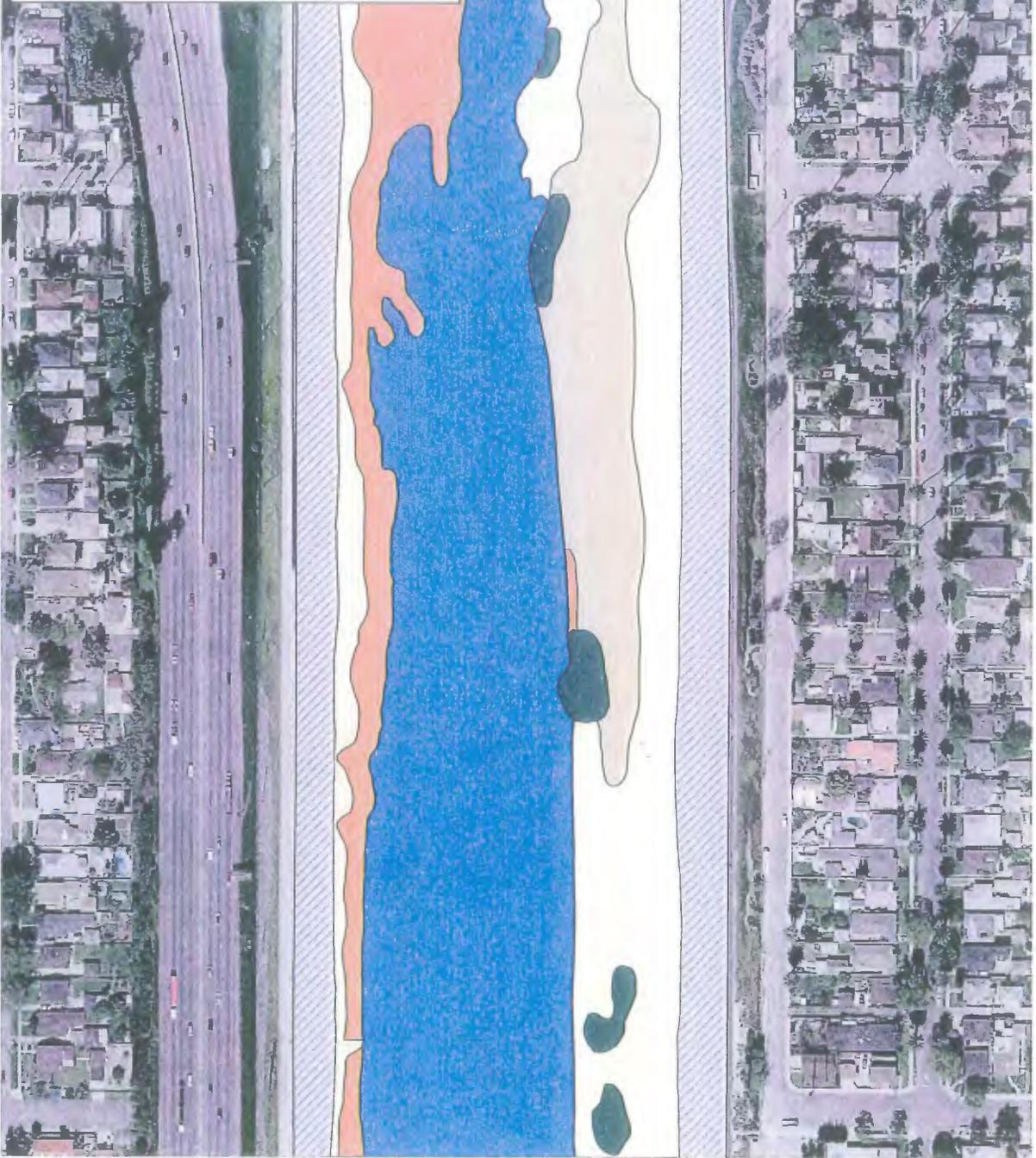
Exhibit 1A



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**Reach 25**

In the last 500 ft of the reach (downstream end of reach) and on the left bank looking downstream, allow four willow trees to grow and mature at edge of water. Note that these willow trees will be maintained under existing maintenance plan that allows for trimming of lower branches.



**Vegetation Types**

- |   |                            |                  |
|---|----------------------------|------------------|
| scale broom scrub                                 | southern willow scrub      | ornamental       |
| disturbed scale broom scrub                       | cattail wetland            | unvegetated wash |
| southern coast live oak riparian forest           | cattail wetland/open water | open water       |
| disturbed southern coast live oak riparian forest | disturbed cattail wetland  | disturbed        |
| willow riparian forest                            | riparian herb              | ungrouted riprap |
|   | ruderal                    | developed        |

**Recommendations – Reach 25**  
Los Angeles River Watershed Feasibility Study

Exhibit 1B



LOS ANGELES RIVER WATERSHED - SOFT-BOTTOM CHANNEL REACHES 1, 9, 19, 20-22, AND 25

No.	NAME	LIMITS		Downstream Latitude	Downstream Longitude	Cowardin Class	Class of Aquatic Resource	Length (ft)	Acreage	MAJOR WATERSHED	USGS QUADRANGL	THOMAS GUIDE
		UPSTREAM	DOWNSTREAM									
<b>LOS ANGELES RIVER WATERSHED</b>												
1	Bell Creek- MTD 963 M.C.I.	962' w/s of Highlander Rd	766' w/s of Highlander Rd	34.20286	118.65745	Riverine	Section 404	196	0.90	Los Angeles River	Calabasas	529-D5
9	Project 106 Outlet	400' d/s of Victory Blvd	520' d/s of Victory Blvd	34.18523	118.47415	Riverine	Section 404	120	0.12	Los Angeles River	Van Nuys	531-G7
19	Pickens Canyon	D/s edge of Panorama Dr. produced	Pickens Debris Basin	34.22121	118.22870	Riverine	Section 404	2,406	3.42	Verdugo Wash	Pasadena	H1
20	Webber Chnl (firm @ private bridge)	861' w/s of Los Amigos St	746' w/s of Los Amigos St	34.22815	118.21661	Riverine	Section 404	115	0.13	Verdugo Wash	Pasadena	504-J7
21	Webber Chnl (main chnl inlet d/s bridge)	496' w/s of Los Amigos St	471' w/s of Los Amigos St	34.22661	118.21876	Riverine	Section 404	25	0.03	Verdugo Wash	Pasadena	504-J7
22	Halls Canyon	1370' w/s of Jessen Dr	Halls Cyn Debris Basin	34.22317	118.22008	Riverine	Section 404	2,290	2.63	Verdugo Wash	Pasadena	534-J1
25	Los Angeles River	Willow St	Pacific Coast Hwy	33.80396	118.20354	Riverine	Section 404	4,800	56.20	Los Angeles River	Long Beach	795-C3 to C5