Attachment 9

Stormwater Flood Management Grant Proposal
Santa Barbara County Flood Control and Water Conservation District
Program Preferences

Attachment 9 consists of the following items:

- ✓ Program Preferences. Attachment 9 contains detailed information on how the proposal will meet the program preferences described in the IRWM Guidelines.

Program Preferences Met by Proposal

The Las Vegas and San Pedro Creeks Union Pacific Railroad Bridge Replacement Project (UPRR Bridge Project) meets six out of eight Program Preferences identified in the Proposition 84 & Proposition 1E IRWM Guidelines. This attachment details the specific Program Preferences that are met by the Project, the certainty that the Proposal will meet the Program Preferences and the breadth and magnitude to which the Program Preferences will be met. **Table 9-1**, below identifies the Program Preferences met by the project.

Table 9-1: Program Preferences Met by Proposal

Project	Program Preferences							
	(1) Includes Regional Projects or Programs	(2) Integrates Projects within a Hydrologic Region	(3) Resolves Significant Water-Related Conflicts Within Region	(4) Contribute to Attainment of one or more CALFED objectives	(5) Addresses Critical Water Supply or Quality Needs of DAC	(6) Integrates Water Manage-ment with Land Use Planning	(7) Eligible for SWFM funding	(8) Addresses Statewide Priorities
Las Vegas and San Pedro Creeks UPRR Bridge Replace-ment Project	✓	✓	✓			✓	✓	✓

Description of the How the UPRR Project Meets Program Preferences

(1) Includes regional projects and programs:

- Benefits two watersheds in the south coast sub-region – the UPRR Bridge Project benefits both the San Pedro Creek and Las Vegas Creek watershed that are located within the larger Goleta Slough Watershed (roughly 45 square miles). The UPRR Bridge Project controls flooding that originates in the Santa Ynez Mountains, flows through both creeks, travels through the two watersheds, through the Goleta Slough, and finally into the Pacific Ocean.
- Opens up approximately 584creek feet of fish habitat for endangered Steelhead and provides flood protection to a key regional transportation hub that benefits intrastate transportation and the southern region of the County.
- Implements a project that is established as a priority regional project in the Santa Barbara County IRWM Plan, the Santa Barbara County Floodplain Management Task Force, and the Santa Barbara County Flood Control and Water Conservation District's (District) Capital Improvement Plan.

(2) Integrates projects within an identified region:

- Integrates the UPRR Bridge Project with Project A and C, components in the San Pedro and Las Vegas Creeks Capacity Improvement Project within the San Pedro Creek and Las Vegas Creeks watersheds and the larger sub-regional Goleta Slough Watershed.
- Combines with other South Coast Watershed and Goleta Slough Watershed anadromous fish restoration projects such as the Lower Mission Creek Project, Old Mission Creek Storm Water and Restoration Project, San Jose Creek Flood Control Improvement Project, for sub-regional benefits

(3) Resolves significant water-related conflicts within a hydraulic region:

- Recent severe flooding in 1995, 1998 and 2000 caused significant damage to residential and commercial property, risk to human health, and prolonged transportation system shutdowns. Public outcry regarding public health and safety and the loss to property and transportation facilities reverberated throughout the Santa Barbara County and led to the development of the San Pedro and Las Vegas Creeks Capacity Improvement Project. Each rainy season brings renewed concern and conflict as lack of funding impedes implementing this important project.
- The battle to reestablish the Southern California Distinct Population Segment of Steelhead trout (Oncorhynchus mykiss), a Federally endangered species, has been waged since the 1990s. The Southern California Steelhead was listed as an endangered species on August 18, 1997, with its endangered status reaffirmed on January 5, 2006. This project rehabilitates important habitat required to reestablish the species in the region and moves to resolve this long-standing conflict between the natural environment and the built environment.

(4) Effectively integrates water management with land use planning

- The impact of severe flooding on land uses (residential, commercial, and transportation) has brought land use planners from the City of Goleta, the County of Santa Barbara, Caltrans, and the City of Santa Barbara together to craft this integrated land, water, and environmental project.
- The project permitting process (CEQA and NEPA) has worked to integrate water and natural resource management with land use planning

Figure 9-1: UPRR Bridge Project Location (UPRR Bridges MP 358.48 and 358.73)

(5) The Project is eligible for Stormwater Flood Management (SWFM) funding because:

- The project is not part of the State Plan Flood Control (SPFC);
- The project is designed to manage stormwater runoff to reduce flood damage;
- The project yields multiple benefits including ecosystem benefits and flood control benefits, and
- The project is consistent with the applicable Regional Water Quality Control Plan to manage stormwater runoff to reduce flood damages.

(6) The Project addresses Statewide Priorities as detailed in **Table 9-2** below.

Table 9-2: Address Statewide Priorities

Project	**Assist in Meeting Statewide Priorities**							
	Drought Prepared-ness	Use and Reuse Water More Efficiently	Climate Change Response Actions	Expand Environ-mental Steward-ship	Practice Integrated Flood Manage-ment	Protect Surface Water Quality and Ground-water Quality	Improve Tribal Water and Natural Resources	Ensure Equitable Distribu-tion of Benefits
Las Vegas and San Pedro Creeks UPRR Bridge Replace-ment Project			✓	✓	✓	✓		

The UPRR Bridge Project addresses the Statewide Priorities in the following manner:

- Includes Climate Change Response Actions – by identifying and mitigating the expected increase in extreme weather events including the increased number of flood events and increases severity of each flooding event. This project demonstrates proper management of flood waters within the watershed such as this project through use of an adaptation strategy that will positively impact the health of the ecosystem and mitigate the negative impact of flooding.
- Expands Environmental Stewardship – by reestablishing fish habitat and opening up the opportunity for fish passage by replacing a cement waterway with a natural streambed and replacing a concrete grade control structure that blocks fish passage with a fish transition structure, approximately 584 creek feet of fish habitat for anadromous steelhead trout is created and there will be an increase of 0.57 acres of habitat.

- Practices Integrated Flood Management – by providing improved flood protection and habitat restoration; thereby, enhancing the floodplain ecosystem.
- Protect Surface Water and Groundwater Quality – protects surface water by filtering urban runoff and stormwater through a restored natural soft-surfaced creek bed (approximately 584 creek feet) and by implementing a water quality feature that will pond water downstream at the request of the RWQCB. The UPRR Bridge Project also improves water quality for human benefit by reducing overflow and contribution of inflow volumes to Goleta Sanitary Sewer District system. Reduction of overflows will result in reduction of treatment of sanitary sewer system flows.

Certainty that the Proposal will meet Program Preferences

The Project has undergone extreme scrutiny during the IRWMP stakeholder process and therefore, there is great certainty the project will meet the Program Preferences. Stakeholders who evaluated the UPRR Bridge Project included engineers, scientists, and planners. After this evaluation, the project was ranked in the top 40 out of over 200 projects in the IRWM Plan. Two subsequent bi-annual reviews of all regional projects by the IRWM Cooperating Partners have continued to place the project in the top tier of regional projects. The overall project, the Las Vegas and San Pedro Creeks Capacity Improvement Project, has already received the required permitting demonstrating that multiple agencies, including the RWQCB, State Fish & Game, Army Corps of Engineers, and Caltrans.

The project meets criteria designed to address Proposition 1E requirements and achieves multiple IRWM Plan objectives. The project has the ability to achieve its required benefits, is

technically feasible, has secured more than 50% of matching funds, and is implementable within a reasonable length of time after the grant award date.

The existing data, studies, and permits issued demonstrate the project is technically sound and likely to be implemented. The studies bring the design to 60 percent complete and most permits required for the project are completed showing that there are multiple agencies that agree that the project will meet Program Preferences. The existing data, studies, and permits are listed below in **Table 9-3**.

Table 9-3: Existing Data, Studies, and Permits

Project	Existing Data, Studies, and Permits
Las Vegas and San Pedro Creeks UPRR Bridge Replacement Project	• San Pedro and Las Vegas Creeks Capacity Improvement Project, UPRR Bridge Replacement Hydrology and Hydraulic Analysis Report, HDR Engineering, Inc., January 2013 • Engineering Design/Construction, Bridge Replacement, 60% Plans, HDR Engineering, Inc., January 18, 2013 • Draft Geotechnical Report for the UPRR Bridges, Fugro Consultants, January 2013 • Final Hydrology and Hydraulic Analysis Report, Parts 1 and 2, HDR Engineering, Inc., April, 2008 • Caltrans Draft Project Study, Caltrans, October, 2010 • San Pedro and Las Vegas Creek Capacity Improvement Project, Railroad Bridge Replacement Concept Study Report, HDR Engineering, Inc., May, 2006 • Final CEQA Mitigated Negative Declaration, November 2012 • NEPA Categorical Exemption/ Exclusion Determination, January 26, 2011 • Master Streambed Alteration Agreement No 1600-2012-0155-R5, Department of Fish and Game, November 19, 2012 • Water Quality 401 Certification #34212WQ05, Regional Water Quality Control Board, Central Coast Region, December 7, 2012 • Department of the Army Nationwide Permit (Permits 3 and 43, maintenance and Stormwater Control Facilities), December 13, 2012 • FEMA Flood Insurance Rate Map No. 0607712329A, June 2, 2004

The UPRR Project will utilize the highest of technical standards as demonstrated by employing the most up-to-date construction standards, the most experienced construction team (UPRR), and by complying with the rigorous State and Federal regulatory permit system. Technical standards can be found on the APWA website www.greenbookspecs.org, the Caltrans website www.dot.ca.gov, and the Union Pacific Railroad's www.uppr.com website and are summarized in **Table 9-4**.

Table 9-4: Technical Standards

Project	Technical Standards
Las Vegas and San Pedro Creeks UPRR Bridge Replacement Project	• Construction Design Standards include the latest editions of the California Department of Transportation Standard Specifications and Standard Plans, American Public Works Association Standard Specifications for Public Works Construction (Greenbook), and APWA Standard Plans for Public Works Construction • UPRR Guidelines for Temporary Shoring • UPRR Guidelines for Railroad Grade Separation Projects • UPRR Fiber Optic Engineering, Construction and Maintenance Standards • Regulatory permits (see Table 9-3 for complete list) • Bridge replacement to be completed by UPRR, an organization that has vast experience with efficiently and safely constructing technically sound rail support structures

Breadth and Magnitude that Project will meet Program Preferences

The breadth and magnitude to which the UPRR Bridge Project will meet Program Preferences can be gauged by how the project meets the IRWM Plan objectives, as described in detail in Attachment 3 - Work Plan. The UPRR Bridge Project is consistent with five of the IRWM Plan objectives. The objectives are listed in **Table 9-5** below.

Table 9-5: Project Meets IRWM Plan Objectives

IRWM Plan Objective	Project Objectives			
	Objective 1: Replace Bridge	Objective 2: Increase Conveyance Capacity	Objective 3: Create Natural Streambed	Objective 4: Filtration by Natural Streambed
Protect, restore, and enhance natural processes and habitats			✓	
Implement flood control measures	✓	✓		
Maintain and enhance water and wastewater infrastructure efficiency and reliability.	✓	✓		
Improve the quality of urban runoff, storm water, and wastewater			✓	✓

Table 9-6 provides both quantitative and qualitative data on the breadth and magnitude to which the project will meet the IRWM Plan objectives.

Table 9-6: Breadth and Magnitude to Which Objectives are Achieved

IRWM Plan Objective	Data on the Breadth and Magnitude to Which Project Meets IRWM Plan Objectives
 Protect, restore, and enhance natural processes and habitats	• Protects habitat from destruction of flooding by reducing flood risk to 25-year storm event from a 10-year storm event • Protects and restores 0.57 acres of riparian habitat from flood damage • Creates approximately 584 creek feet of fish habitat for anadromous Steelhead • Seeds the streambed post-project with a "herbaceous wetland" mix
 Implement flood control measures	• Reduces flood risk to 25-year storm event from a 10-year storm event • Reduces total damage to property by over $2.5 million per year for a 25-year storm event • Reduces total damages to roads by over $281,000 per year for a 25-year storm event • Reduces the total costs of traffic delays by over $760,000 per year for a 25-year storm event • Reduces the total stormwater treatment costs by Goleta Sanitary District by $74,000 per year for a 25-year storm event
 Maintain and enhance water and wastewater infrastructure efficiency and reliability.	• Replaces UPRR bridges • Replaces flood control infrastructure including culverts, bridges, and fish transition structure
 Improve the quality of urban runoff, storm water, and wastewater	• Protects creek water quality by filtering urban runoff and stormwater through a restored natural soft-surfaced creek bed (approximately 584 creek feet) • Implements a water quality feature that will pond water downstream at the request of the RWQCB • Reduces stormwater flow by 7.9 MG/year and reduces need for stormwater treatment by 3.95 MG/year

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