



Harris & Associates



Statement of Qualifications (SOQ)

# Water Engineering



# Firm Profile









Harris & Associates (Harris) has served public agencies and private clients since 1974. Since then, we have developed a robust program of services that offer our clients expertise and assistance in various realms of engineering services, public finance, program and construction management, and environmental planning and compliance. We have 11 offices throughout the West Coast.

With a team of over 280 employee-owners, we are sized to keep your project a priority and are personally vested in its success. Outstanding people join Harris and stay because we nurture their talents and invest in their growth. The return is a team who is passionate about its work, has strong internal and external relationships, and delivers high-quality work products.

Harris provides water consulting and engineering services to agencies and boasts some of the industry's best leaders related to public utilities design and water resource management. At Harris, we understand the complex issues agencies face today including aging infrastructure, affordability, climate change, and stakeholder engagement and have the industry knowledge necessary to help them overcome these obstacles and responsibly meet their goals. We invite you to visit our website to learn more at [www.WeAreHarris.com](http://www.WeAreHarris.com).



## COMPREHENSIVE SERVICES

-  Advisory Services
-  Asset Management
-  Civil Design
-  Climate Change + Sustainability
-  Community Development + Housing
-  Community Planning
-  Construction Management
-  Environmental Planning + Compliance
-  Municipal Engineering
-  Municipal Finance
-  Program Management
-  Risk + Resilience
-  Special District Finance
-  Water Consulting





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# Services

## Experience + Expertise

Harris has been providing water services to clients since our inception about 50 years ago. While we understand that no two projects are alike, our breadth and depth of experience is extensive, arming our staff with the hands-on industry knowledge and growing library of “lessons learned” necessary to successfully meet and/or exceed client goals and expectations. Our teams are tailored for each project, can be available immediately, and are structured to respond quickly with the appropriate level of expertise. Harris’ powerful combination of people, experiences, communication styles, and skills result in better outcomes for our clients and the communities they serve.



Stormwater



Potable Water



Wastewater



Water Reuse

[LEARN MORE ▶](#)



# Services

## One Water

Harris subscribes to the U.S. Water Alliance's One Water approach to sustainable water management, understanding that water enhances community wellness on many fronts.







# Project Experience

The following pages highlight a sample of this experience as it relates to stormwater, potable water, wastewater, and water reuse.

## Stormwater



### Pump Station D

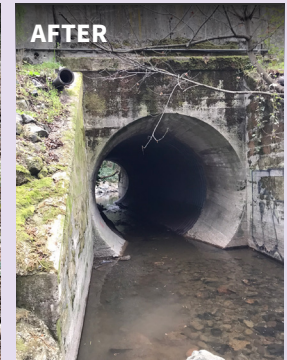
City of San Diego

Harris is providing engineering services to upgrade and increase service capacity at Pump Station D. The upgrades include:

- Upgrading all 10 pumps and pump starters
- Replacing two 60hp pumps with two 80hp motors and pumps to increase capacity
- Increasing pump capacity from 130,000gpm to 270,000gpm
- Upgrading electrical equipment for a new 18hp low flow pump
- Upgrading structural components including repairing or replacing the metal screen and support members
- Updating the wet well to improve hydraulic performance
- Replacing the existing PLC controls with new ones that comply with the City of San Diego's standard protocol, including a new Motor Control Center.



BEFORE



AFTER

### Group 2 Lining Project

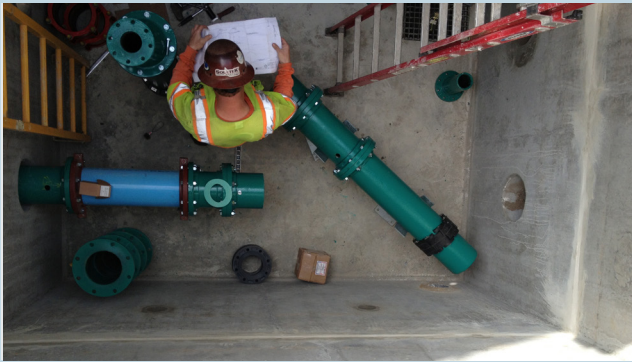
City of Orinda

The Project consist of two Capital Improvement Plan (CIP) projects: Orchard SD Repairs (CIP #3101) and Ivy Dr. SD Repairs (CIP #3102). Under the two projects, repairs will be made to five culverts consisting of a 96" CMP crossing Moraga Way, 60" CMP crossing Orchard Rd, twin 42" X 72" CMP arches crossing Ivy Drive and a 96" CMP crossing El Camino Moraga. Harris conducted a field investigation to assess the current condition of the four culverts and prepared a Preliminary Design Report (PDR) summarizing the findings and recommendations of the initial investigation. Harris then prepared the Plans, Specifications, Cost Estimates (30%, 90%, and 100%), and the required environmental permits. Despite site obstacles, surveying and 100% plans and specs were completed in line with the project schedule.

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# Potable Water



## Water Group Job 921 (Encanto) & Pressure Reducing Station

City of San Diego

Harris' design included approximately 1.12 miles of upsized and upgraded PVC pipelines to replace 6- to 8-inch-diameter asbestos cement water mains and 6- to 12-inch-diameter cast iron water mains. Challenges included design within a heavily congested utility corridor along Imperial Avenue with improvements adjacent to and within the Metropolitan Transit System right-of-way. A carefully phased cut and plug plan and transmission line draining plan were coordinated with water operations to avoid service disruptions. Harris designed phased traffic control plans, including alternate lane flagging to accommodate a meandering alignment. The alignment and traffic approach developed in the proposal phase was ultimately constructed, making this project an example of doing things right the first time.



## Lake San Antonio South Shore Water System Improvements Program

County of Monterey

The County initiated an open-end design consultation to address several priorities, including the replacement of the existing 12" dual intake lines with one 6" water main, floating pump and barge, and 500,000-gallon storage tank. The project also involved evaluating the existing treatment plant, booster pump, and water pre-treatment to address an existing algae problem. These changes and additional construction triggered environmental compliance and DDW permit updates. The replacement of the dual intake pipes posed a significant challenge as the foundations of the site were highly eroded. However, the Harris team worked closely with the contractor and client to minimize construction impact in this environmentally sensitive area.





# Wastewater



## Multi-Year Rehabilitation and Gravity Relief Sewer Improvements

Ross Valley Sanitation District

Beginning in 2014, Harris has been engaged by the District to deliver major sewer rehabilitation services. Our work for the District is ongoing. Work has included inspection, evaluation, and design for rehabilitation and upgrade of approximately 210,000 linear feet (LF) of sanitary sewer pipes ranging from 4” to 24” in diameter. Many of the infrastructure projects covered under this contract were highly-visible and of great interest to the local community. To address community concerns, Harris held multiple workshops with the public, including preparing and hand delivering an information brochure to approximately 500 houses, to provide the public with information about the project and potential traffic delays during construction. Through our strong partnership, we have assisted the District with completing approximately 28 miles of sewer rehabilitation in the last 10 years.



## Eucalyptus-Citrus Sewer Improvements

City of Vista

The Eucalyptus-Citrus Sewer Improvements will enhance the City’s infrastructure, eliminate hydraulic insufficiencies, increase capacities, and extend the service life of the sanitary sewer collection system as prioritized within the City’s Sewer Master Plan. The sewer improvements project consist of three sites, which are Eucalyptus Ave and South Citrus Ave, East Broadway Work, and Vista Magnet Middle School. The improvements include nearly 2,500 linear feet of 8-inch, 12-inch, 15-inch, and 18-inch diameter PVC sewer mains within public right-of-way and on private properties. Harris provided design and engineering services as part of this progressive design-build procurement, including coordination with stakeholders, detailed preliminary design report, construction drawings, and workshops with the contractor and the City of Vista.



# Water Reuse



## Reclaimed/Recycled Water Transmission Design

City of Soledad

Harris provided engineering design services for a reclaimed/recycled water transmission pipeline. New transmission pipeline design included 3,100 LF by open trench method; 120 LF of jack-and-bore installation beneath UPRR track crossing; a flow meter on the recycled water transmission main in the WRF; disconnect of all connections between the existing recycled water piping and the potable water system; a recycled water truck fill station with a flow meter and card reader; grading and paving at the truck fill station area (5,500 SF area); installation of a pressure reducing valve for the W3 system downstream of the new recycled water main tie-in; and minor electrical improvements at the WRF for power supply and signal circuit from the chlorine residual analyzer, truck fill station, and flow meter. This project received the 2018 Public Works Project of the Year award from APWA Monterey Bay Chapter.



## Recycled Water Enterprise Startup

Marina Coast Water District (MCWD)

The recycled water enterprise startup enabled MCWD to begin their recycled program. This included providing customers with guidelines for design, construction, and retrofit of irrigation systems for recycled water use, preparing the permit applications for customers to fill out to connect to MCWD's recycled water system, and compilation of a Recycled Water User's Guidelines Manual and Site Supervisor training program to ensure customers operate and maintain their recycled water irrigation system in compliance with Title 22 Regulations.

Harris has been involved in various aspects of this project, such as updating MCWD's Recycled Water Ordinance, Users' Handbook, and Design guidelines, developing a permit application package, establishing a fee structure for permit applications, reviewing on-site retrofit plans, performing inspections, and coordinating with State and County regulatory agencies. Additionally, Harris has been involved in developing training materials, as well as inspection, testing, monitoring, and reporting forms.

This project provides benefit MCWD customers by establishing a reliable and drought-proof local source of water for irrigation. Moreover, it delivers economic and environmental advantages by reducing the use of potable water and minimizing the volume of wastewater discharged into the ocean.



# Emergency Response

Harris has delivered many projects related to emergency response measures. We offer a versatile team that can tackle even our client's most complex projects from extensive permitting to complicated roadway, culvert and slope repairs. Especially in times of crisis, trusted partners are needed to help carry the heavy burden. Harris has the resources and availability necessary to successfully deliver these projects and is honored to work alongside the communities affected.

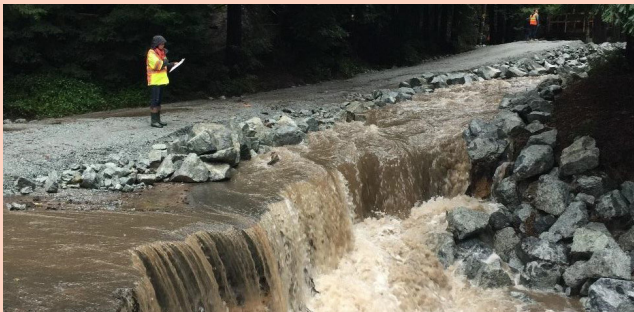


## River Road Emergency Project

County of Monterey

In 2020, a fire in Pine Canyon and River Road, followed by debris flow in 2021, prompted Monterey County to select Harris for critical repairs. Harris addressed the 40-foot vertical drop by encasing pipes in concrete and using 2-Ton Rip-Rap for erosion control. By involving local businesses and residents in the planning and swiftly completing project plans, Harris minimized disruptions and facilitated rapid project delivery.

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## Palo Colorado Road Emergency Repair

County of Monterey

In 2016, the Soberanes Fire and subsequent rains isolated 60 homes in Big Sur, leading Monterey County to choose Harris for emergency road repairs and culvert upgrades. Harris restored access to essential services by designing a metal arch culvert at Rocky Creek, carefully considering environmental impact and ease of construction. Through coordination with various agencies and adherence to FEMA guidelines, Harris facilitated the County's successful project completion and reimbursement.

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## Antioch Place CMP Storm Drain Repair/Replacement

City of San Diego

In April 2021, Harris was retained to address a storm drain failure that caused a sinkhole threatening homes on Antioch Place in San Diego. Harris swiftly provided design and engineering services, including a hydrology study and storm drain improvements, to protect private properties from erosion. Through proactive collaboration with the City of San Diego and the contractor, Harris ensured efficient project delivery and enhanced community safety.

# Matrix of Stormwater, Potable Water, Wastewater, & Water Reuse Experience

This matrix provides an overview of various Harris stormwater, potable water, wastewater, and water reuse projects. It includes details on important project elements such as pipe size, length, type, facility size, and specific challenges or services addressed.



Client	Project	City	Project Elements													
			Pipe Size	Length of Pipe (LF)	Pipe Type	Facility Size	Project Delivery	Open-Cut	Trenchless	Geotechnical Challenges	Environmental Services	Multi-Agency Coordination	Community Outreach	Private Property Coordination	Emergency Repairs	
City of Orinda	Group 2 Lining	Orinda	96", 60", 42"x72"	50, 75, 94	CMP	-	DBB									
City of San Diego	Campanile Way Storm Drain Repair/ Replacement	San Diego	18", 24"	55, 133	RCP	-	DB	●		●	●	●	●	●	●	
City of San Diego	Pump Station D	San Diego	66"	1,600	RCP	270,000 gpm	DB				●	●	●			
City of San Diego	Water Group Job 921 (Encanto) & Pressure Reducing Station	San Diego	6", 8", 12", 36"	5,913	PVC, ACP, CIP	-	DB	●		●		●	●			
County of Monterey	Lake San Antonio South Shore Water System Improvements Program	Lake San Antonio	6"	175	Steel Water Main	500,00 gal	JOC			●	●	●	●			
Rainbow Municipal Water District	Pipeline Upgrade Project (PUP) No.2	Various	8" to 12"	7,500	CLMC Steel, PVC, HDPE	-	DBB			●	●	●		●		
City of San Diego	Catalina 12" Cast Iron Main & Sewer Main	San Diego	8" to 24"	23,100	CLMC Steel, PVC, CIPP	-	DB	●		●		●	●	●		
Ross Valley Sanitary District	Multi-Year Rehabilitation & Gravity Relief Sewer Improvements	Various	4" to 24"	210,000	PVC, VCP	-	DBB	●	●	●	●	●	●	●	●	
City of Vista	Eucalyptus-Citrus Sewer Improvements	Vista	8", 12", 15", 18"	6,336	PVC	-	DB	●	●	●	●	●	●			
Valley Sanitary District	Wastewater Collection Infrastructure Improvement Program	Indio	6" to 54"	75,000	PVC, VCP	-	DBB	●	●	●		●	●	●	●	
City of San Mateo	Basin B	San Mateo	6" to 33"	234, 014	PVC, VCP	1.8 mi	DBB					●				





## A Few Words From Our Clients

Harris & Associates has proven to be a reliable and steadfast partner throughout our complex pump station project. Their team's dedication and expertise have been instrumental in navigating the challenges we've encountered. We highly recommend Jason Caprio and the Harris & Associates team for their professionalism and strong commitment to delivering exceptional results."

*Bilal Oriqat, Associate Civil Engineer, City of San Diego*

I would like to extend our appreciation to Harris for the excellent project management and quality of work products they put forth on our projects. Harris staff consistently brings a high level of professionalism, experience, skill, collaboration, and resourcefulness to the project team. I appreciated your responsiveness, dedication to schedule and budget management, and straightforward communications.

*Enrique Saavedra, Senior Civil Engineer, County of Monterey*



We updated our Standards, Specifications, and Drawings in June 2020 with the help of Harris & Associates, and they did an excellent job working with all of our departments to produce a great set of documents.

*Phil Benedetti, PE, Senior Engineer, Ross Valley Sanitary District*

The Harris Team has provided responsive and reliable service. Harris provided cost efficient staff to organize the files and develop an easy to use searchable database. The Harris Team continues to deliver on their promise as a collaborative partner, and the City appreciates their commitment to quality work.

*Donald Wilcox, Public Works Director, City of Soledad*



# Harris & Associates

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