SFPUC’s 13th Annual Construction Contractors’ Breakfast

May 30, 2019

Daniel L. Wade
Director, Water Capital Programs
WSIP – 97 percent complete thanks to our many partners!

- 9.8M safe working hours to date
- 13,723 workers earned $570M
- 47% of WSIP hours worked by local workers
- 70% of apprentice hours worked by local workers
- Job Training and Opportunities Program (JTOP)
  - CityBuild Academy
  - JobTrain
  - YouthBuild
  - Cypress Mandela Training Center
  - Tuolumne Training Collaborative
- 66 Industry Awards to date!
Dynamic Initiatives & Programs

- Neurodiversity Pilot Program (SF)
- Child Care Pilot Program (SF)
- Construction Pre-Apprenticeship Training (Upcountry)
Calaveras Dam Replacement Project
Alameda Creek Recapture Project

Construction Estimate: $12.8M

Scope includes:

- New 20 MGD pump station
- 36-inch diameter pipeline
- Barge with pumps & motors
- General site improvements

Project Trades: earthwork, paving, trucking, pipeline, drilling, concrete, landscape, fencing, carpentry, electrical, mechanical

Advertisement Date: June 2020
Construction Estimate: $9M
Scope includes:
- Groundwater supply of up to 7.2 MGD developed in coordination with Daly City, San Bruno and Cal Water.
- Phase 2 includes construction of one additional well station and pipeline in South San Francisco.
- Completion of other Phase 1 scope items, including chemical system monitoring, sampling, and storage at various sites.
Project Trades: civil, mechanical, electrical, pipeline, well drilling

Advertisement Date : Nov 2020
Local Water Capital Improvement Program Construction Needs

Requirements for Local Water Construction Projects

**Small (<48”) Water pipelines:**

- Companies or principal staff with five years experience in:
  - Water pipeline construction (<48”)
  - Welded steel/ductile iron pipeline (<48”)
  - Working in urban settings
  - Field engineers/superintendents with five years experience in pipeline work

$82.2M in Upcoming Local Water Construction

Advertisement July 2019 - June 2020:

**SFPUC – Lead Agency**
- Castro St. ($10.5M)
- College Hill Reservoir ($14.3M)
- 17th Street ($5.9M)
- Baker Street ($3.6M)
- 21st Street ($4.4M)
- Pierce Street ($5.0M)
- Casitas Ave ($3.5M)
- Prospect St ($3.5M)
- Jersey Ave ($8.5M)
- Diamond Street ($7.0M)

**SFMTA/SFPW Lead Agency**
- 19th Ave ($6.0M)
- Taraval Heading 2: ($10M)

*All estimates for water scope only.*
Regional Water Capital Improvement Program Construction Needs

2019
- Sunol Long Term Improvements – Alameda Creek Watershed Center
- Water Quality Modular Office
- 1657 Rollins Road Building Improvements

2020
- San Antonio Pump Station Motor Control Center Replacement Project
- Sunol Valley Water Treatment Plant Polymer Feed Facilities
- Millbrae Warehouse Settlement and Admin. Bldg. HVAC Upgrades

2021
- Crystal Springs Pipeline No. 2, Reach 5
- Crystal Springs Pipeline No. 2, Reaches 2 and 3
- Millbrae Security Upgrades

2022
- Sunol Valley Water Treatment Plant - Ozonation
- Millbrae Lab & Shops Improvement
Sunol Long Term Improvements – Alameda Creek Watershed Center

Construction Estimate: $20-22M

Scope includes:

- One-story facility with offices, classroom, meeting room and exhibit areas
- Interpretative exhibits
- Watershed Discovery Trail
- Site restoration and features

Trades: earthwork, paving, trucking, pipeline, drilling, concrete, landscape, exhibit fabrication, plumbing, floor covering, waterproofing, reinforcing steel, carpentry, electrical, mechanical

Request for Qualifications: June 2019
Advertisement Date: August 2019
Building Improvements at 1657 Rollins Road in Burlingame

Construction Estimate: $12.1M

Scope includes:
- Upgrades to electric, security, HVAC, roofing systems
- Construction of 1,500 SF staging and storage rooms

Project Trades: General building, civil, electrical, mechanical, plumbing, and painting.

Advertisement Date: November 2019
San Antonio Pump Station (SAPS) Motor Control Center Replacement

Construction Estimate: $4.3M

Scope includes:
• seismically upgrade the SAPS Communications Room.
• replace the SAPS Motor Control Center.

Trades: concrete, rebar, electrical & instrumentation

Advertisement Date: June 2020
Sunol Valley Water Treatment Plant
Polymer Feed Facilities

Construction Estimate: $3.4M

Advertisement Date: December 2020

Project Trades: concrete, rebar, electrical, plumbing, carpentry, heavy equipment operators, & instrumentation
Construction Estimate: $10M

Scope includes:

- Re-line approximately 3.5 miles of pipeline.
- Install 24” diameter access manways every 1,000 feet.
- Install 2 large diameter valves.
- Site restoration.

Project Trades:
General civil, earthwork, pipeline, welding, and coatings.

Advertisement Date:
2021
Crystal Springs Pipeline No. 2, Reaches 2 and 3

Construction Estimate: $40M

Scope includes:

- Replace approximately 1.5 miles of 60” diameter steel pipe and rehabilitate approximately 2 miles of pipe lining.
- Install 24” diameter access manways every 1,000 feet.
- Site restoration.

Project Trades:
General civil, earthwork, pipeline, welding, and coatings.

Advertisement Date: 2021
Sunol Valley Water Treatment Plant - Ozonation

Construction Estimate: $85M

Scope includes:
• Cryogenic Oxygen Tanks
• Liquid Oxygen Vaporizers
• Ozone Generators
• Ozone Injectors
• Ozone Contact Chamber
• Ozone Building
• Power Facilities
• Instrumentation & Controls
• Site Improvements

Trades: earthwork, paving, trucking, pipeline, drilling, concrete, landscape, plumbing, waterproofing, reinforcing steel, electrical, mechanical

Advertisement Date: 2022
Millbrae Lab & Shops Improvement

Construction Estimate: $25M

Scope includes:
- New 13,500 sf south shop building
- New 2,000 sf addition to administration building
- Miscellaneous tenant improvements, HVAC, plumbing, electrical, communications work

Project Trades:
Civil, architectural, electrical, mechanical, and structural.

Advertisement Date:
2022
Hetch Hetchy Water 10-Year CIP

- **Water Infrastructure - $252.4M**: includes
  - SJPL and Safe Entry Improvement,
  - Priest-Moccasin Transmission Line,
  - Moccasin Perimeter Security Fence, and
  - Early Intake Dam Rehabilitation

- **Joint Water/Power Projects - $514.7M (45% / 55%)**: includes
  - Mountain Tunnel Rehabilitation,
  - O’Shaughnessy Dam Outlet Works Phase II, and
  - Eleanor Dam Rehabilitation and Bridge Replacement

- **Power Infrastructure - $142.1M**: includes
  - Moccasin Powerhouse and GSU Rehabilitation, and
  - Cherry – Eleanor Pumps
<table>
<thead>
<tr>
<th>Contract Title</th>
<th>Estimated Contract Value</th>
<th>Advertise Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Moccasin Generator Rewind</td>
<td>$22M</td>
<td>Nov/Dec 2019</td>
</tr>
<tr>
<td>Early Intake Slope Mitigations</td>
<td>$1.0M</td>
<td>May 2019</td>
</tr>
<tr>
<td>O’Shaughnessy Dam – Access</td>
<td>$2.0M</td>
<td>Fall 2019</td>
</tr>
<tr>
<td>Moccasin Security Fence</td>
<td>$3.0M</td>
<td>Fall 2019</td>
</tr>
<tr>
<td>Canyon Tunnel – Hetchy Adit</td>
<td>$3.0M</td>
<td>Spring 2020</td>
</tr>
<tr>
<td>O’Shaughnessy Dam – Bulkhead</td>
<td>$1.2M</td>
<td>Spring 2020</td>
</tr>
<tr>
<td>O’Shaughnessy Dam - Gates Valve</td>
<td>$5.0M</td>
<td>Fall 2020</td>
</tr>
<tr>
<td>O’Shaughnessy Dam Drum Gate</td>
<td>$5.0M</td>
<td>Fall 2020</td>
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</tbody>
</table>
## Moccasin Generator Rewind

### Scope of Work:
Rewind two 57.5 MVA Generators at Moccasin Powerhouse

<table>
<thead>
<tr>
<th>Anticipated Advertisement Date</th>
<th>Design-Build Contract Estimate</th>
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<tr>
<td>Nov 2019</td>
<td>$22M</td>
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<table>
<thead>
<tr>
<th>Trades Needed</th>
<th>Estimated Contract Percentage</th>
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<tbody>
<tr>
<td>Laborers</td>
<td>5%</td>
</tr>
<tr>
<td>Operators</td>
<td>5%</td>
</tr>
<tr>
<td>Structural Steel Fabricators &amp; Welders</td>
<td>60%</td>
</tr>
<tr>
<td>Electricians</td>
<td>30%</td>
</tr>
</tbody>
</table>
Early Intake Slope Switchyard

Scope of Work: Project will protect the Early Intake Switchyard from: unstable slope, rockfalls, and flooding.

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<tr>
<td>May 2019</td>
<td>$1.0M</td>
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<td>Electricians</td>
<td>5%</td>
</tr>
<tr>
<td>Cement Masons</td>
<td>30%</td>
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## O’Shaughnessy Dam
### 4 Projects

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<thead>
<tr>
<th>Project</th>
<th>Anticipated Advertisement Date</th>
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<tbody>
<tr>
<td><strong>Access and Drainage</strong></td>
<td></td>
<td></td>
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<tr>
<td>Replace access structures in ladder wells, fall protection equipment, leakage mitigation, and drainage system.</td>
<td>Fall 2019</td>
<td>$2.0M</td>
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<tr>
<td><strong>Bulkhead</strong></td>
<td></td>
<td></td>
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<tr>
<td>Install bulkhead system on the upstream face of the dam to 42” and 90” slide gates, and install isolation valve in the diversion pipe.</td>
<td>Spring 2020</td>
<td>$1.2M</td>
</tr>
<tr>
<td><strong>Slide Gates &amp; Diversion Pipe</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Isolation Valve: Rehabilitate 42” and 90” slide gates, and install valve on 108” diversion pipe.</td>
<td>Summer 2020</td>
<td>$5.0M</td>
</tr>
<tr>
<td><strong>Drum Gate</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rehabilitate the drum gate hinges, replace existing rivets, replace the coating, and rehabilitate or replace the existing seals.</td>
<td>Fall 2020</td>
<td>$5.0M</td>
</tr>
</tbody>
</table>
**Scope of Work:**
Install new security fencing, and security cameras along the perimeter of Moccasin Reservoir.

### Anticipated Advertisement Date
- **Fall 2019**

### Construction Contract Estimate
- **$3.0M**

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Canyon Tunnel – Hetchy Adit Improvements

Scope of Work: Water leakage repair at Canyon Tunnel – Hetch Hetchy Adit.

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Mountain Tunnel
Mountain Tunnel Background

- Constructed from 1917-1925 and in service since 1925
- Conveyance of water from Early Intake to Priest Reservoir
- Lined and unlined sections
- Deterioration noted in the lined tunnel section
Project Purpose:
Fix the tunnel. Ensure continued operation for the next 100 years, meet established performance standards, and provide reliable, quality drinking water to the San Francisco Bay Area.

Key Facts:
- Approx. $140M construction contract
- Seven years of construction 2020 – 2026
- Advertise Construction – Late Fall 2019
- Notice to Proceed Construction – Spring 2020
Mountain Tunnel Improvements
Scope of Work

• Repair 11 miles of tunnel with shotcrete & contact grouting
• New tunnel adit / portal at Priest Reservoir
• New 72-inch valves for flow control facility
• New bypass at tunnel crossing of South Fork of Tuolumne River
• Tunnel invert paving
• Access adit enlargement & road improvements
Mountain Tunnel Improvements:
New Priest Portal & Adit Tunnel

- New tunnel portal at Priest Reservoir
- New Priest adit tunnel
  - 1075’ x 12’ horseshoe
  - 11’ x 12’ bulkhead
- New Flow Control Facility
Mountain Tunnel Improvements: New Flow Control Facility

160’ deep x 60’ dia. shaft

72” Control Valves (2)

72” Isolation Valves (4)
SFPUC Contractors: Making a Difference