SFPUC’s 14th Annual Construction Contractors’ Breakfast

October 2, 2020

Katie L. Miller, P.E.
Acting Director, Water Capital Programs
SFPUC Infrastructure Division
SFPUC Water Assets

- **Hetch Hetchy Water and Power**
  - 7 dams, 6 reservoirs, 3 hydroelectric generation facilities, 60 miles tunnels, 160 miles pipelines, extensive power facilities.

- **Regional Water System**
  - 10 dams, 5 reservoirs, 20 miles tunnels, 230 miles pipelines, 5 pump stations, 3 water treatment plants, 13 groundwater wells, 27 wholesale customers.

- **Local Water System**
  - 11 reservoirs, 10 tanks, 24 pump stations, 1,240 miles pipelines, 7 groundwater wells, 130 miles firefighting pipelines, 8,000 hydrants, 188,000 metered customers.
SFPUC Water Capital Programs

SFPUC has 10-Year CIP budgeted every 2 years

- **Water System Improvement Program (WSIP)**
  - 2005-2023; 99% complete
  - 87 Local and Regional Projects
  - $4.8B

- **Water Enterprise Capital Improvement Program (WECIP)**
  - 2018-2030
  - 38 Regional (Bay Area) and Local (SF) Projects + R&R
  - $2.2B

- **Hetchy Capital Improvement Program (HCIP)**
  - 2018-2030
  - 20 Regional (Upcountry) Projects + R&R
  - $660M
WSIP – 99 percent complete thanks to our many partners!

- 9.8M safe working hours to date
- 15,251 workers earned $525M
- 47% of WSIP hours worked by local workers
- 69% 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

Upcountry Construction Pre-Apprenticeship Training

Child Care Pilot Program

Neurodiversity Pilot Program
Neurodiversity Program – Partnership with the Arc
Interns placed at Arcadis, Pankow, and Black & Veatch

Congratulations to Eric Yu who received Arc’s Intern of the Year Award
Second year in a row- PUC intern received this prestigious award!

Summer Construction Career Exposure Program.
Partnership with Brightline Defense Project
Safety First! PUC on-site construction site tours included COVID testing before actual site visits, then full PPE issued on site tours. Training included VR training and one week of hands-on training at SF Success Center.
Construction Estimate: $15.9M

- 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: Fall 2020
Construction Estimate: $7.8M

- Major mechanical and electrical for one well facility
- Minor mechanical and electrical for ten well facilities
- Furnish/install 8-inch ductile iron pipe
- Restore roadways

Trades: earthwork, paving, concrete, pipeline, electrical, mechanical, plumbing

Advertisement Date: Winter 2021
SFPUC Water Enterprise CIP

Water Enterprise Capital Improvement Program (WECIP, 38 Projects, 2018-2030)

• 17 Regional Projects (San Francisco, San Mateo, Santa Clara, Alameda)
  • $631M
  • Treatment Plants, Pipelines, Buildings, Trails, Dams

• 19 Local Projects (San Francisco)
  • $1.6B
  • Pipelines, Reservoirs, Emergency Fire Fighting System, Recycled Water, Buildings
Southern Skyline Blvd Ridge Trail Extension

Construction Estimate: $14.0M

- Construction of 6-mile long trail
- Install soldier pile retaining walls, fencing, pre-fabricated vault toilets and a pre-fabricated bridge

Trades: traffic control, earthwork, paving, trucking, concrete, fencing, landscaping

Advertisement Date: Spring 2021
Crystal Springs Pipeline No. 2, Reach 5

Construction Estimate:
$8.0M

• Replace coat tar lining on approximately 3.5 miles of pipeline
• Install 2 large diameter valves
• Install 5 access manways

Project Trades: earthwork, lining work, installation of appurtenances

Advertisement Date:
Spring 2021
$121M in Water Pipeline Construction
Advertisement Fall 2020-2021:

**SFPUC – Lead Agency**
Prospect Street ($9.4M)
Vicente Street ($13.9M)
Jersey Street ($6.8M)
Laidley Street ($8.8M)
Diamond Street ($7.5M)
Gold Mine Drive ($5.1M)
21st Street ($4.5M)
Parnassus Ave. ($5.8M)
Precita Avenue ($5.5M)
Hampshire St. ($13.0M)
San Bruno Ave. ($9.5M)
Grand View Ave. ($9.3M)

**SFMTA/SFPW Lead Agency**
Taraval Heading 2: ($15M)
Better Market St: ($7.0M)

Requirements for Local Water Construction Projects to install distribution (<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
Construction Estimate: $15.9M

- Reservoir re-roofing
- 36-inch diameter new reservoir outlet pipe, 36-inch welded steel pipeline, 24-inch earthquake resistant ductile iron pipe (ERDIP), 8-inch to 20-inch ductile iron pipe
- 20-inch to 36-inch diameter butterfly valves and actuators
- Site grading, roads, fencing

Trades: plumbers, concrete, millwrights, electricians, general laborers, and trucking

Advertisement: Fall/Winter 2020
<table>
<thead>
<tr>
<th>Contract Title</th>
<th>Estimated Contract Value</th>
<th>Advertise Date</th>
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<tbody>
<tr>
<td>Moccasin GSU Transformers Replacement</td>
<td>$5.8M</td>
<td>Fall 2020</td>
</tr>
<tr>
<td>Moccasin Powerhouse Generator Rehabilitation</td>
<td>$31M</td>
<td>Fall 2020</td>
</tr>
<tr>
<td>O’Shaughnessy Dam – Access &amp; Drainage Improvements</td>
<td>$3.2M</td>
<td>Fall 2020</td>
</tr>
<tr>
<td>O’Shaughnessy Dam Outlet Works, Phase 1</td>
<td>$13.4M</td>
<td>Fall 2021</td>
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Moccasin Powerhouse GSU Transformers Replacement

Scope of Work:
Install Two Generator Step-Up Transformers including Grounding, Oil Containment, Testing and Commissioning

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<th>Anticipated Advertisement Date</th>
<th>Construction Contract Estimate</th>
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<th>Trades Needed</th>
<th>Estimated Contract Percentage</th>
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<tr>
<td>Laborers</td>
<td>35%</td>
</tr>
<tr>
<td>Operators</td>
<td>10%</td>
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<tr>
<td>Electricians</td>
<td>25%</td>
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<tr>
<td>Cement Masons</td>
<td>30%</td>
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# Moccasin Powerhouse Generator Rehabilitation

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

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<tr>
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<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>
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O’Shaughnessy Dam Access and Drainage Improvements

Replace access structures in ladder wells, fall protection equipment, leakage mitigation, and drainage system.

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Install, replace or rehabilitate bulkhead system, drum gate system, isolation valves, and various gate valves within the dam.

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SFPUC Contractors: Making a Difference