

Consideration of the November 2020 IRWP Program EIR and Approval of Design PWO Amendment 2 and Construction Management Contract C00284 – LTP Disinfection and Diversion Project

Board of Public Utilities

November 19, 2020

Mark Kasraie, PE

Supervising Engineer



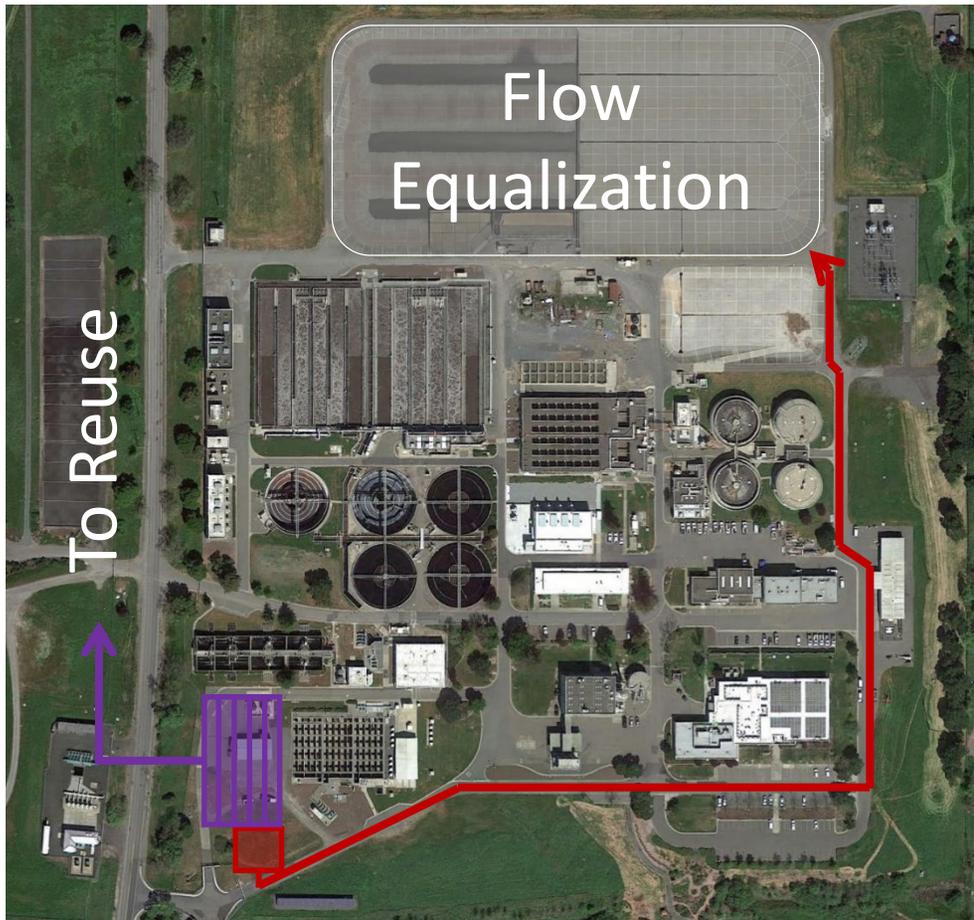
OUR FUTURE IN EVERY DRÖP

Presentation Outline

- Project history and status update
- November 2020 Amendment to IRWP Program EIR
- PWO Amendment No. 2 for engineering services during construction
- PSA for construction management and inspection
- Recommendation for Board approval



Project Purpose and Description

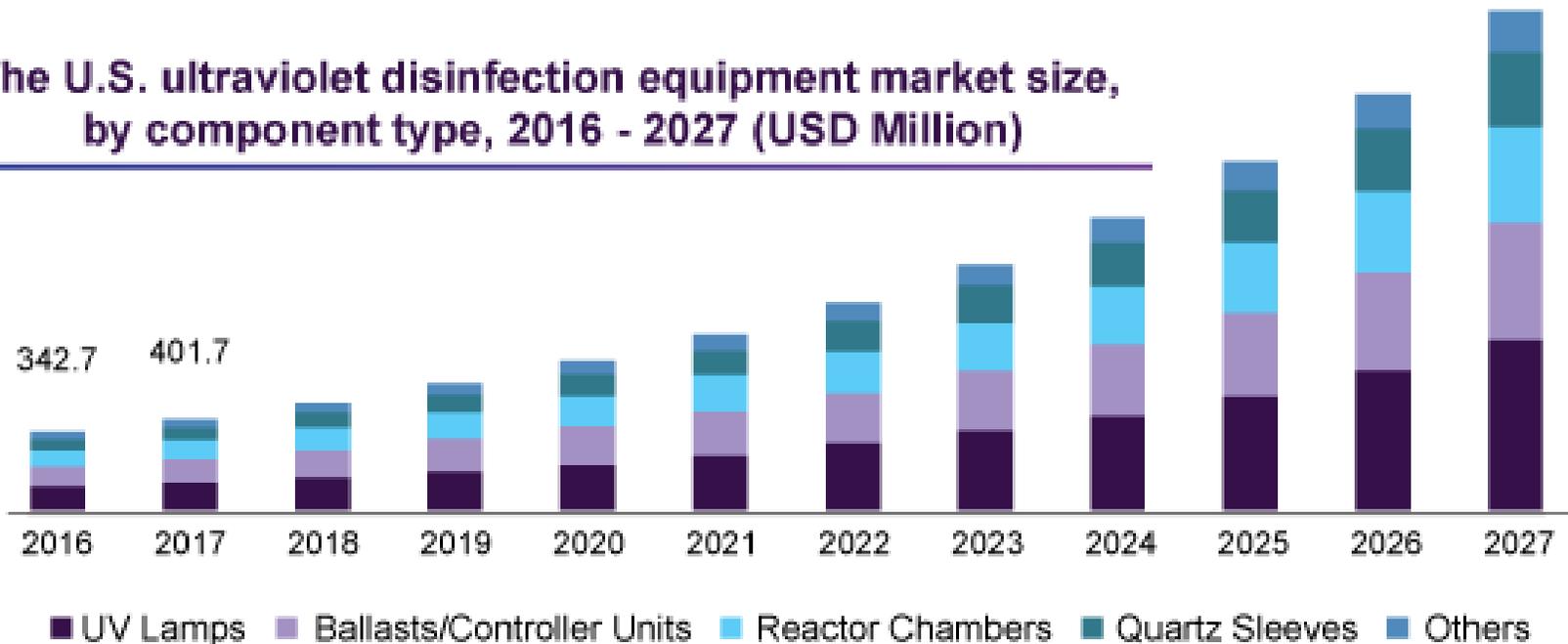


- The existing UV system at LTP has been de-rated to 48.5 MGD by the Division of Drinking Water and is also beyond its useful service life (at 22 years old)
- Project will replace existing UV system with a new **70 MGD UV system** and will install an **onsite diversion system and 42” pipeline**

Project Showcase

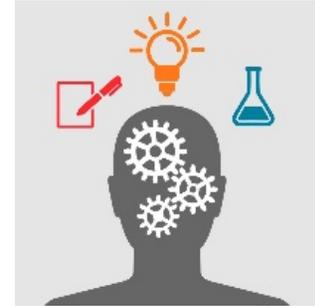
- Largest Santa Rosa project since the Geysers Recharge
- Largest UV recycled water installation in the U.S. and among the largest in the world.

The U.S. ultraviolet disinfection equipment market size, by component type, 2016 - 2027 (USD Million)

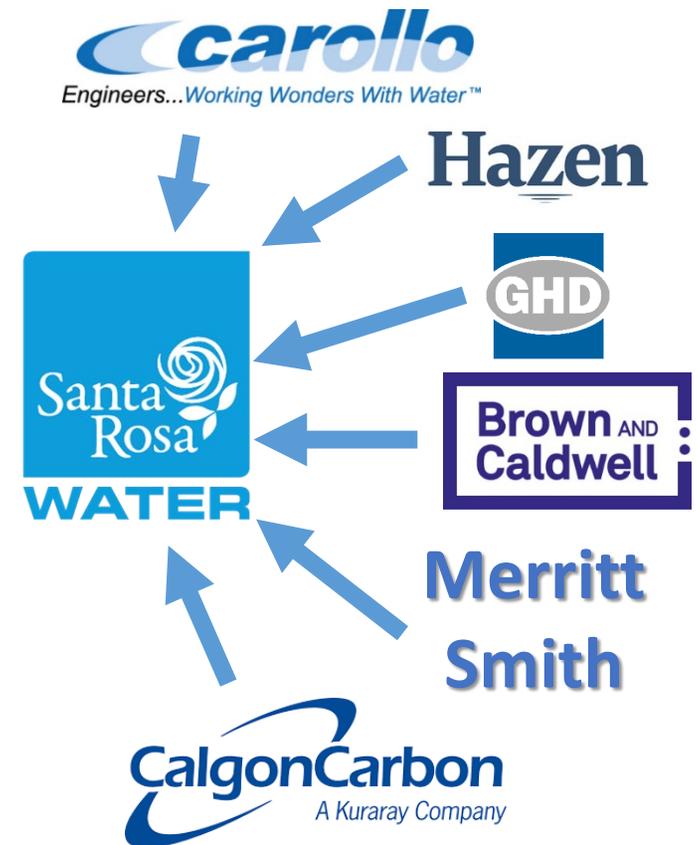


Source: www.grandviewresearch.com

Project History



- **2012 & 2013** – Four pre-design analyses
- **2014** – A thorough problem-solving charrette that analyzed 19 disinfection alternatives
- **2015 & 2016** – Seven technical memorandums
- **2016 to Present Day** - Design



Project Status Update

We are preparing for design completion and are approaching construction – seeking contracts for engineering services during construction and construction management

- **August 2019** – Approval of design contract amendment 1
 - 90% design submitted for City review
- **August 2020** – Approval of MOU and PSA with Calgon Carbon for UV equipment
 - Finalizing UV equipment design submittal

Project Environmental

- UV Disinfection Improvements Previously Evaluated in IRWP Program EIR.
- Diversion and Stormwater Facilities not Evaluated in IRWP Program EIR.
- CEQA Document both an Addendum and Project-specific Checklist.

Project Environmental

Addendum Prepared to Make Minor Changes to IRWP Project Description:

- No new significant impacts
- No substantially more severe impacts
- No new mitigation measures required

Project-specific Checklist Prepared:

- UV Disinfection and Diversion Improvements are within scope of IRWP Program EIR

Carollo Project Work Order

- **Original PWO** – Carollo selected after competitive solicitation due to unparalleled expertise in UV system design (\$2.8M)
- **PWO Amendment No. 1** – provided additional budget to address project delays and scope changes (\$1.6M)
- **PWO Amendment No. 2** – planned amendment for design engineering services during construction (\$2.1M)

PWO Amendment No. 2

Scope

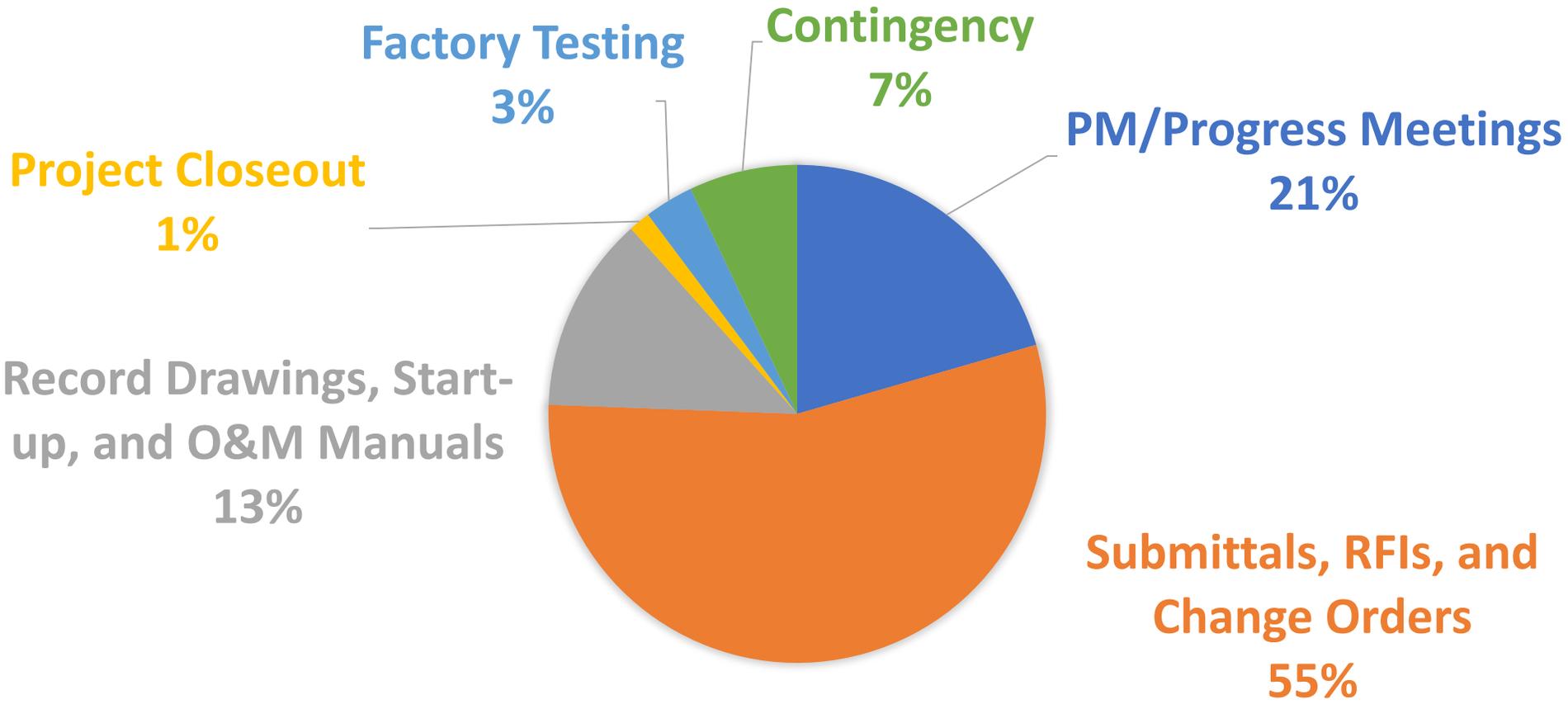
- Design engineering services during construction
- Review and respond to contractor submittals and RFIs
- Change orders and design clarifications
- Record drawings, start-up, and O&M Manuals
- Project Closeout



PWO Amendment No. 2 Fee

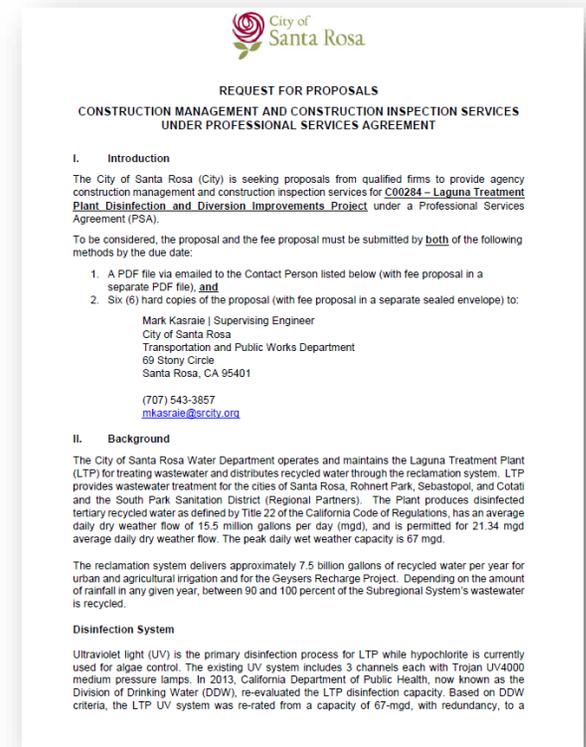
PWO Amendment No. 2 Tasks	Task Description	Fee (\$)
Tasks 1-2	PM/Progress Meetings	437,447
Tasks 3-5	Submittals, RFIs, and Change Orders	1,173,414
Tasks 6-8	Record Drawings, Start-up, and O&M Manuals	272,040
Task 9	Project Closeout	30,014
Task 10	Factory Testing	68,218
Task 11	Contingency	150,000
<u>Total PWO Amendment No.2 Fee:</u>		<u>2.1M</u>

PWO Amendment No. 2 Fee



CM & Inspection RFP Process and Criteria

- **RFP Released August 17 for construction management and inspection services**
- **Key selection criteria:**
 - Responsiveness to RFP
 - Qualifications of Project Team
 - Work plan and scope of services
 - Experience with UV installations
 - Demonstrated Technical Abilities
 - References



CM & Inspection Proposal Selection

▪ Review Panel:

- (1) Deputy Director
- (1) Superintendent
- (2) Supervising Engineers
- (1) Civil Engineering Technician III

▪ Three (3) proposals received

- Two (2) short-listed & interviewed

▪ Psomas selected:

- Strongest qualifications and experience
- Greatest time commitment to project
- Best references

▪ Contract Fee

- Not to exceed fee of \$4,471,746
- Consistent with City staff estimate

CM & Inspection Proposal Selection

- **Psomas' Proposal Demonstrated:**
 - Core team had seven (7) relevant wastewater treatment plant projects with UV components ranging in cost from \$15M to \$110M and flows as high as 30 MGD
 - Strongest time-commitment to Santa Rosa UV Project:
 - Project Manager - 60 Hours per month
 - Construction Manager – 144 hours per month
 - Resident Engineer and Inspector – Full-time
 - Excellent references...

CM & Inspection Proposal Selection

- **Psomas – Successful history with many municipalities:**

*I would highly recommend them
For CM & inspection work*

Works well with operations staff

*When things go wrong, PSOMAS works quickly
to produce a cost-effective solution*

*A particular strength of looking ahead
and working closely with everyone to prepare*

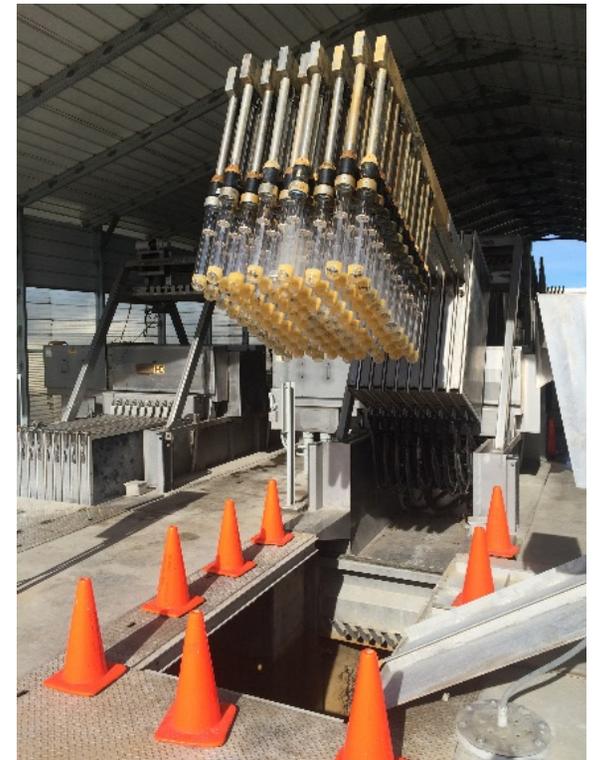
*All our CM firms have done well,
But not as well as PSOMAS*

Estimated Consultant Delivery Costs

Consultant Services Task	Fee	% of Total Construction	City Budget % of Total Construction
Design Services	\$4.4M	9.3%	13%
Engineering Services During Construction	\$2.1M	4.5%	5%
CM & Inspection	\$4.5M	9.5%	12%
Total	\$11M	23.3%	30%

Estimated Total Project Costs

UV Disinfection	\$35M
Non-compliant Diversion	\$12M
Total Construction Cost	\$47M
Project Delivery Costs ⁽¹⁾	\$16.5M
Estimated Total Project Cost	\$63.5M



(1) Project Delivery Cost represents 35% of Total Construction Cost, and Includes: Design, ESDC, CM/Inspection, Fees, In-House Labor, Overhead, and Overall Contingency

Impacts and Schedule

- **Fiscal Impact**

- Approval of these contracts has no impact on the budget. Funds have already been appropriated.

- **Environmental Impact**

- Pursuant to CEQA, an addendum to the Incremental Recycled Water Program EIR has been prepared.

- **Schedule**

- Should BPU approve these contracts, we estimate complete design by early Spring 2021.
- Construction estimated to begin Summer 2021 and last 30 – 36 months

Next Steps

- Late November – 90% Design workshop
- Future Board Meeting – Sole-source approval of specific equipment at LTP
- Summer 2021 – Award Construction Contract



Recommendation – Environmental Actions

It is recommended by the Transportation and Public Works Department and the Water Department, that the Board of Public Utilities, by resolution:

1. consider the November 2020 Addendum together with the Incremental Recycled Water Program Environmental Impact Report (IRWP Program EIR) prior to approving the project,
2. find and determine that the November 2020 Addendum to the IRWP Program EIR is the appropriate CEQA documentation for the improvements,

Recommendation – Environmental Actions (continued)

3. find and determine that the improvements are within the scope of the IRWP Program EIR and that the improvements were covered in the IRWP Program EIR,
4. adopt the Mitigation Monitoring Program (MMP),
5. direct staff to take those actions as it deems necessary or appropriate to implement the MMP, and
6. approve the Laguna Treatment Plant Disinfection and Diversion Improvements Project.

Recommendation – Contract Actions

It is recommended by the Transportation and Public Works Department, the Water Department, and the Contract Review Subcommittee, that the Board of Public Utilities, by resolution:

1. Approve Amendment Number 2 to Project Work Order No. A010014-2011-09 under the Master Professional Services Agreement with Carollo Engineers, Inc. of Walnut Creek to provide Professional Engineering Services During Construction for the Laguna Treatment Plant Disinfection Improvements Project in the amount of \$1,981,132, and approve a \$150,000 contingency, for a total Amendment No. 2 amount of \$2,131,132, and a total contract amount not to exceed \$6,519,386,

Recommendation – Contract Actions (continued)

2. approve a Professional Services Agreement with Psomas of Walnut Creek, CA to provide construction management and inspection services for the Laguna Treatment Plant Disinfection Improvements Project in the amount of \$4,077,950, and approve a \$393,796 contingency, for a total contract amount not to exceed \$4,471,746.

Thank You

