

## ENGINEERING COMMITTEE NOTES

August 7, 2018

---

### Attendees:

Committee members:	Oscar Gonzales (Chair) and Randall Reed
Staff members:	John Bosler, Eduardo Espinoza, Rob Hills, Mike Maestas, Gidti Ludesirishoti
Consultants:	Ash Dhingra
Members of the Public:	None.

**Call to Order:** 5:00 p.m.

**Public Comment:** None

**Additions/Deletions to Agenda:** None

### I. Well Field 3A Nitrate Treatment & Reservoir 3A Design-Build Project Phase I Update

- Staff presented a progress update of the Well Field 3A Nitrate Treatment (CP7649) and Reservoir 3A (CP7657) Design-Build Project. CDM Constructors has completed the first phase of the two-phase Progressive Design-Build (PDB) project. The first phase most notably includes a process selection technical memorandum and preliminary design drawings.
- During Phase I CDM developed a selection process for a nitrate treatment technology, which evaluated five technologies: two ion exchange technologies, and three biological technologies. CDM requested and received several submittal packages from each technology vendor, including performance criteria, equipment pricing, and life cycle cost estimates. CDM and CVWD staff developed scoring categories and weighting, and scored each of the packages.
- A key development occurred during Phase I that affected the selection process was that CVWD's grant application was accepted by the State of California as part of the Proposition I grant funding program. The grant offered CVWD up to \$2 million in matching funds for groundwater cleanup using a biological treatment process. This funding opportunity was calculated into the evaluation.
- Also during Phase I, CDM and CVWD learned that MicroVi, one of the biological technologies being considered, became licensed by WesTech, a larger and more established company that specializes in water treatment technologies. WesTech submitted a proposal for the technology, which included pricing and acceptance of performance guarantees.
- After final scoring, the MicroVi treatment technology ranked highest in both CDM's and CVWD's scores. CDM began development of the preliminary design based on the MicroVi system.
- The preliminary design would become the basis of the Guaranteed Maximum Price (GMP) offered by CDM to construct the project. CDM's initial GMP for the reservoir and treatment plant was

## ENGINEERING COMMITTEE NOTES

August 7, 2018

---

over the CVWD's combined budget. After careful consideration, CVWD chose to remove the reservoir from CDM's scope and requested them to focus on delivering the treatment plant within CVWD's budget. CVWD has since modified the scope of the reservoir and is moving ahead with a design and bid package for construction that will be within budget.

- CDM and CVWD partnered to value engineer the treatment plant. CDM worked through several iterations to provide a GMP that would fit within the CVWD's budget. Simultaneously, CVWD also considered alternative strategies and ideas to deliver the project more cost effectively. CVWD staff has experience delivering similar projects in-house and working directly with technology vendors: for example, working with Siemens (formerly) to construct GAC treatment at Well 19, which saved significant costs compared to proposals by others. The Phase I work by CDM was incredibly valuable, allowing CVWD to understand more about biological treatment, selecting the best technology suited for the unique project constraints, and develop a preliminary design that CVWD can build on. After careful consideration CVWD staff elected to not proceed to Phase 2 with CDM, and would instead deliver the project in-house and working directly with WesTech.
- CVWD presented a general approach to delivering the project. CVWD staff is taking on much of the role of the design builder, for example self-performing civil and yard piping design, and working directly with the treatment vendor to develop their scope of work for the plant. In the next weeks CVWD staff will work with WesTech to develop the project. The construction for the project could be awarded as soon as early fall this year and the plant operational by Summer 2019.

Meeting Adjourned at 5:45 p.m.