

APPENDIX H

STAFF AND OPERATOR INTERVIEWS

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The following is information received during operator interviews; they are broken down by area:

Lopez Lake Intake Tower

The existing log boom is not adjustable; when water levels raise and lower, operators must physically remove portions. An adjustable log boom project was begun that would allow adjustment by a hand crank.

Lopez Lake Outlet Works

As part of the seismic retrofit of the Lopez Lake Dam, this entire facility will be relocated.

Terminal Reservoir Hydroelectric Facility

A decision regarding further use needs to be made. When in use, only a maximum of 4 mgd can enter the Terminal Reservoir; this does not allow for maximum WTP flow of 6 mgd. When in use, the hydro reduces dissolved oxygen levels.

Terminal Reservoir Control Valve

Cla-Valve can only be operated manually at the vault. There needs to be remote control capability either through SCADA tie-in or level sensor.

Terminal Reservoir Outlet Tower

No comments obtained.

WTP

Influent Vault

- Static mixer to assist with chemical mixing.
- Watertight access hatches.
- Replace sample lines.
- Move controls closer to access hatch to avoid entering the vault, if possible.
- Move submersible pump switch and hose closer to access hatch.
- Existing doors are heavy; make of aluminum or have hydraulic assist.

Rapid Mix

- Pitot tube through cross-section and inject coagulant into pipe through holes in pitot tube.
- Komax Mixer which is static mixer for injecting coagulant after inlet meter vault.
- Water champ which is mechanical device placed in-line at inlet meter vault or downstream.

- Pump diffusion which uses pump to bring up raw water as carrying water for injecting coagulant.

Favor pump diffusion as M-W designed it and as we already have bought pump; should be implemented. Like the idea of trying ferric chloride as coagulant because: 1. It does not have alum and it won't clog distribution system; 2. It is effective per jar tests done by B&V.

Flocculation

- Implement M-W design with additional baffles to isolate all 6 flocculators.
- Change flocculators to hydrofoil type.
- Low spot on top of basin; have already had a ¼-inch seam cut to help standing water, more is needed.
- Additional washdown faucets (2-inch) strategically placed to eliminate constant moving of hoses.
- Flocculation sample pump configuration.
- Sludge drain vault drains in the opposite direction of sump.
- Should standardize sample pumps (Little Giant).
- Ventilation of sludge drain vault.
- Leakage of sludge drain vault.

Sedimentation

- Take out flights and make two basins out of each one by constructing wall down the length of each one. Length to width ratio would then be an acceptable 4:1. Fill in bottom with concrete for ease of deposition or draining.

Recarbonation Chamber

- Has never been used

Filter Gallery

- Need another wash water pump installed to enable operators to take one offline for maintenance.
- BIF actuators – operators need to keep covers off of housing or O-rings get too hot and fail.
- Clearwell has not been accessed/cleaned.

Disinfection

- Ideally, would like raw water to have minimum TOC so that we can minimize pre-chlorination.
- Try self-generating chlorine gas (sodium hypochlorite, chlorine dioxide, etc.)
- Would like to study the possibility of UV for disinfection.

Effluent Vault

- Better mixing of ammonia in pipe, static mixer prior to sample line.

- Leak-proof access hatches that are either lighter or have hydraulic lift.

Clear water reservoir

- Dome requires replacement based on manufacturer suggestion, rigid system looked at but dome must last until improvements made.

Finished water meter vault

- Located in Lopez Drive roadway, would like access through a second manhole from inside property fencing. Also meter is not very accurate.

Chemical Building

- Scales for all chemicals.
- Drains for building go directly out to sludge beds, chemical spills go to sludge beds.
- Miscellaneous chemicals that are unused need to be removed.
- Need a separate chemical storage building.
- Need separate file storage.
- Need ventilation.
- Potable water pumps have not been serviced in a long time.
- Washdown from above comes to basement.
- Alarm on outside of building; cover removed to allow signal.
- Gas chlorine room provides very little room to remove and install new cylinders, needs a good alarm, and requires ventilation.
- Alum tank needs repainting.

Administration Building

- Clean up sample line entry to lab, would be nice to be able to flow by gravity to lab and eliminate pumps.
- Sample line utilidor.

General

- Inadequate working space at WTP.
- Inadequate staffing.
- No training program in place for operators.
- Needs to be a fund for equipment replacement that is not periodically drained for other purposes.
- Better storage for media.
- Power at all buildings.
- More locker space and showers.
- Better communication between all personnel at District, WTP, and lab.
- Swallow-proof buildings.
- Staffing and service area.
- Best available technology (BAT) used in upgrade.

- Establish a maintenance program.
- More hours/fewer days for operators.
- Resolve conflicts with other responsibilities from District.
- Retain staff rotation.
- Allow input from WTP personnel on hiring.
- Keep in mind certification when looking at manpower and staffing.
- Resolve salary disparity between operators compared with other counties.
- Raise the bar for qualifications for WTP (level 4, min. level 3 qualified)
- Operators are on the hook to DHS, yet direction is given from lab concerning operation of the WTP.
- Lab technician support is needed at the WTP; need better checks and balances.
- Pilot filter that operations could test chemicals on.
- Cover basins for THM reductions.
- Monitoring Lopez Lake water to proactively combat algae.
- Bypass the Terminal Reservoir when water quality at Lake is better than at reservoir.
- Better program for disposal of equipment.
- New lab, new building (no second story).
- Cover the basins to minimize chlorination.
- Static mixer for coagulant injection.
- Remove bushes at Lopez Lake, since the lake does not get treated as the Terminal Reservoir does.
- Like to see the tules removed at the Terminal Reservoir.
- Look into potassium permanganate as a way to minimize TOC and not have to pre-chlorinate.