SDIC Annual Managers Report

6/27/2022

Infrastructure:

-Evans pump #2 motor and pump repair was completed in February 2022.
-All four Evans pumps and the two Cherry Orchard pumps were vibration tested. All tested okay with no alerts.
-Evans pumps (1, 3, and 4) were isolated, dewatered and video/visually inspected. All three have various degrees of cavitation damage. All three have damage worse than what was observed on the Evans #2. The #4 would be considered the best of the three. The #3 would be considered middle of the road, and the #1 is all but unusable except in absolute emergency situations. The cavitation pitting on the #1 pump is so bad that it has worn holes completely thru the diffuser/propeller housing.
-After the visual inspection the Evans Pump #3 was dewatered and the suction umbrella was re-secured.
-Evan's pump house roof was leaking quite badly and most of the sheathing was rotten. All the sheathing was replaced and the roof was replaced with a low slope membrane.
-Both the North Pump discharge line syphon breakers were malfunctioning, parts were extremely difficult to get from the manufacturer so a local company machined them.
-All sluice gates (North, Sub-levee, Evans) were cycled and serviced.
-The boards were replaced in one of the four sections of the Jackson Creek Diversion structure and the catwalk was secured to the foundation after replacing the decking. The new boards were fitted with devices that will hopefully allow the removal in emergency situations without cutting.
-The catwalk at the Cherry Orchard pump station was removed and a custom rake was fabricated to allow intake grate cleaning from the original structure.
-The intake grate at the North pump station was modified and a custom rake was fabricated to allow cleaning from the original structure.
-The wooden intake screen on the Honeyman pump failed and was replaced with metal, the catwalk was rebuilt at the same time to allow better access for cleaning.
-The Johnson pump #2 intake structure was re-secured allowing the pump to operate. This would be considered a temporary fix.
-The ditch cleaning spoils along the Honeyman and Smith ditches were graded out. This created an access road along both ditches and the Santosh in an area normally very difficult to access.

Operations:

-The spring freshet that has been occurring recently has been the highest water levels in the Columbia River/Multnomah Channel since 2017. The Vancouver, WA gage reached minor flood stage on June 14.
-Last winter was one of the wettest on record. This required a more focused approach to pumping operations. Several of the sub-basins were unable to keep up at times and more than once, multiple Evans pumps had to be operated at the same time.
-The entire sub-levee and the north half of the perimeter levee was sprayed for woody vegetation control.
-Several areas of small trees were cut and chipped

Infrastructure & Operations-Looking Ahead / Action Items:

-Evans Pump #1 repairs will begin once the spring freshet has passed.

-Continue the investigation as to why there is major cavitation damage to the Evans pumps. Search for possible solutions.
-Continue locating the Toe Drains.
-Vegetation control activities will continue; spraying, mowing, and tree cutting. Grass mowing will progress towards the southern end of the perimeter levee. Mechanical blackberry removal will be conducted at the southern end of the sub levee along with multiple areas along the perimeter levee. Small tree removal operations will also continue working north to south. The wetter than normal spring has delayed vegetation control field operations.
-I am anticipating a USACE routine inspection this winter.

Mercury TMDL:

-Willamette Basin Mercury TMDL is in process. SDIC, Sauvie Island DIC, and MCDD are trying to work collaboratively on this initial plan. This initial plan is due in September 2022.