

City of Colusa 2020 WWTP Improvements

Project Completion Report



Prepared by:



NEXGEN Utility Management, Inc.
4010 Lennane Drive Sacramento, CA 95834



March 2022

Project Completion Report

1.1 PROJECT DESCRIPTION

The project constructs various upgrades at the City of Colusa Wastewater Treatment Plant including: installation of rock slope protection on recycled water seasonal storage basin; replacement of rock slope protection in the emergency storage basin and operational recycled water storage basin; installation of a new manhole and stub out for future sewer mainline; construction of a new Vac-con dump area; installation of recycled water irrigation booster pump stations and irrigation system; automatic chain-link entrance gate, planting irrigated grass and other vegetation as shown on the plans; and other miscellaneous improvements at the Colusa WWTP as shown in Figure 1-1.



Figure 1-1
City of Colusa 2020 Wastewater Improvements

1.1.1 Vaccon Drying Bed and Future Sewer Connection Stubout

The Vaccon drying bed was constructed to allow the Vaccon Trucks to be able to discharge contaminated soil and other material onto a concrete surface so liquids can drain into the headworks. Spoils would then dry and be either placed into a dumpster or hauled out in a dump truck. The new manhole and stubout was connected to the existing 18 inch mainline leading into the headworks. A 24 inch mainline was routed outside the plant to the location of a planned mainline. This allows future construction without disturbing the new gate and paving. Figure 1-2 shows the constructed Vaccon Dump Station and drying bed.



Figure 1-2
City of Colusa Vaccon Dump Station and Drying Bed

The old entrance gate was not secure enough for the WWTP and needed to be replaced. A new section of fencing was installed to transition the new gate to the old fencing. This improves the security of the WWTP. New paving was placed and a stub out for future mainline connection was also installed. The new gate and fencing replaces a manually operated gate and replaces about 100 feet of fencing that was buried by ongoing weed control and disking. This is shown in Figure 1-3



Figure 1-3
City of Colusa New Gate and Replacement Fencing

1.1.2 WWTP Entrance Landscaping and Grass Planting

The City of Colusa's largest investment is the WWTP. The entrance was a maintenance issue with weed control and eroding surfaces. It was decided to improve the visual impact of the entrance to show the public the importance of this facility. The grass will reduce weed control needs and be more easily maintained by periodic mowing. The original intent was to connect the front landscaping to the recycled pipeline directly. This did not prove feasible at this time. In the future, the entire plant water system will be connecting to the recycled water system at the MCC #1 building. The connection will be from the new recycled pumping system located near the recycled water operational storage basin. The front irrigation system is now connected to the "2 Water System." The front irrigation system irrigation pump and control system is shown in Figure 1 – 4.

1.1.3 Biosolids Drying Area and Stock Piling Surface For Seasonal Disposal

The 2007 Project created a pile of excess soil excavated from the old pond bottoms during construction of the advanced treatment facilities. It had been described as bio solids, but after testing the material, it was shown to be soil with less than 4% organic matter. This material had been in place for 18 years. The WWTP needs an area to stockpile solar dried biosolids before placing the material on adjacent city owned farmland. The General Permit allows a disposal rate of 10 tons per acre of class a Biosolids. The certification of Class A can take as long as 8 weeks. In order to bring the SSB back into service the solar dried material will be stockpiled in this area while being tested and the cropland harvested. The biosolids storage

area is shown in Figure 1 – 5.



Figure 1-4
City of Colusa WWTP Entrance Landscaping and Grass Planting



Figure 1-5
City of Colusa Biosolids Drying Area and Stock Piling Surface

1.1.4 Slope protection in Ponds and Erosion Control

The new recycled water storage ponds, monthly storage, and new emergency storage ponds needed slope protection to reduce slope erosion and stabilize the slopes. About 7,200 feet of slope protection was placed on the side slopes of the ponds. Figure 1 – 6 shows the slope protection



Figure 1-6

1.1.5 City of Colusa Slope protection in Ponds and Erosion Control

2.1 ADDRESSING WATER QUALITY

The Stormwater protection was accomplished by not allowing storm runoff to leave the facility.

3.1 AMERICAN IRON AND STEEL - COUNTY OF ORIGIN

All rebar and fittings were certified as meeting the American Iron and Steel Requirements in the contract.

3.2 PROJECT LIKELIHOOD OF SUCCESS

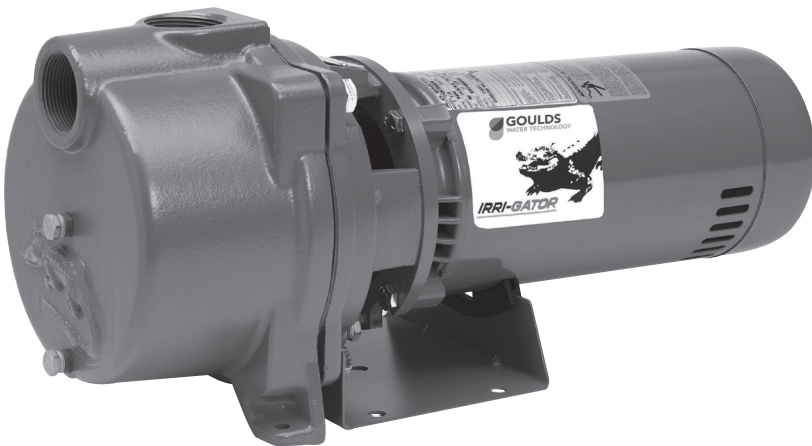
With the addition of slope protection, the recycled storage ponds and secondary treatment ponds the reliability of the system and risk of turbidity problems in the WWTP treatment process and recycled water delivery is significantly reduced. Work remaining includes installing recycled water delivery pump stations, power, and delivery pipelines. This work is in the design stage at this time. This will allow the City of Colusa to be able to provide the capacity for the City's growth within the next 30 years, reduce the overall energy consumption of the WWTP, reduce local groundwater demand, and reduce demand on the City water system.

4.1 COMPLIANCE WITH ENVIRONMENTAL CONDITIONS

The City of Colusa's 2020 WWTP Wastewater Improvement Project claims a mitigated negative declaration with the following environmental factors being potentially affected: Biological Resources and Cultural Resources. For Biological Resources, The proposed project does not have and direct or indirect impacts to any federal or state special-status species. The project will not have a significant effect on GGS because several standard mitigation measures will be implemented to avoid any potential impacts during construction of the WWTP improvements. The new reclamation pipeline will be located within existing farm service roads. No formal consultation with USFWS is needed for this project as numerous preapproved measures in the Section 7 USACE/USFWS Programmatic Agreement with precautions will be in place by the City to avoid potential take of GGS during construction. To address compliance with cultural resources, mitigation measure CUL-1 will be conducted. CUL-1 ensures that impacts on potential cultural material are less than significant. No cultural resources or artifacts are known with the project APE. Standard mitigation measures of stopping work if resources are observed during construction and retaining qualified cultural resources professional to document findings will be done by the City. During construction no cultural resources were discovered by the monitor or construction workers.

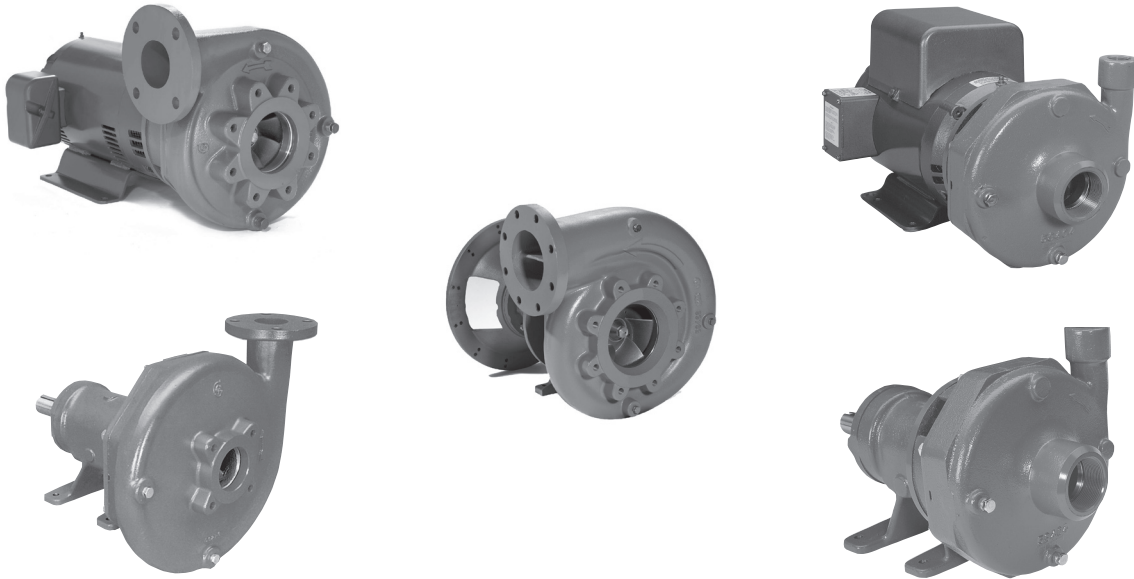
APPENDIX A

Operations and Maintenance Manual Cover Sheets



GT IRRI-GATOR™

SELF-PRIMING CENTRIFUGAL PUMPS



Models 3656 / 3756

INSTALLATION, OPERATION AND MAINTENANCE INSTRUCTIONS

