

Inter-Departmental Teaming for the Greater Good

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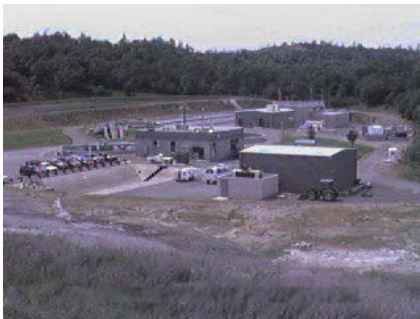
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As so many agencies have experienced, the city's waste water treatment plant had reached its capacity and was showing signs of aging. The City of Auburn had finally secured a budget of \$11 million for the construction and expansion of their waste water treatment plant (WWTP) facility. Time to begin design and construction? Not quite.

Prior to starting the design work for this phased project, Operations, Administration, and Engineering staff collaborated together. They needed to design a system that was consistent with the current equipment and methods of operation, along with avoiding future issues that may arise. Their biggest concern was combining new technology with systems that were created back in the 1970's. By including the Operations staff, the Engineering team had access to data which would keep within the construction and operation budget, optimize the design for increasing production and operate the facility in accordance with the permit issued by the Regional Water Quality Control Board (RWQCB).



One challenge the inter-departmental team unearthed was with the permit that had originally been issued by the RWQCB. The City of Auburn had a conventional activated sludge treatment system along side the four original secondary treatment ponds. The permit stated that the ponds were only for storage, when in reality they had been designed and operated as a treatment facility. Because of the extensive data collected by Operations, the team demonstrated how the secondary pond's

treated water mixed with the conventional activated sludge system would meet the RWQCB's discharge requirements. The Administration and Engineering team created a case to present to the RWQCB to update the existing permit, while also using the data for designing the new system.

Another issue faced by Operations was that the secondary treatment ponds rarely were emptied, which was approximately 25 million gallons of storage. This was a considerable concern especially during the rainy season which caused the water levels to remain high because pond effluent could not be mixed with the activated sludge effluent. By working with the Administration and Engineering team, the Operations staff was able to update their operating methods based upon the proposed new construction. This would allow emptying the ponds through the activated sludge and pond system before being disinfected and released. By working together, the Operations team was able to update their operations procedures and Engineering was able to design a system which incorporated the usage of the treatment ponds throughout the year.

Operations analyzed their current methods of WWTP operation; Engineering worked with the existing systems, operations and maintenance to determine the new design; and Administration proposed a revised permit to the RWQCB.



The inter-departmental design team was able to dialog about goals for operation and maintenance, the vision for future city needs and innovative construction ideas integrating with existing systems. The final result was:

- the creation of enough capacity to meet the city's growing needs;
- improved ability to move flow throughout the treatment plant;
- improve and enhance the existing parallel treatment systems in the plant;
- spending only \$8 million, instead of the budgeted \$11 million.

The money saved on the treatment plant budget was placed back into the City's collection system to reduce the Inflow / Infiltration in the system. By collaborating, the city was able to make their much-needed improvements, save money and not raise the customers' rates.

Everyone wins.

Those are great results seen by the public. However the effects of the inter-departmental collaboration were countless. Working together fostered a confidence by Operations that the Engineering and Administrative staff understood their processes and conditions, when planning for the future. The Engineering team relied heavily on the data that had been collected by Operations and thus provided the backbone for the new design. Lastly, the Administration was glowing from finding a creative solution to keep the existing location, defusing the tension between Engineering and Operations, and continuing to provide a high level of service to the public without resorting to an increase in fees.

It is not innovative and new, it is just a better way of designing and constructing infrastructure. It is key for any consultant in the role of Lead or Support Engineer to maximize the public sectors' budget dollars through a collaborative effort. As a private firm, TLA Engineering and Planning, Inc. prefers to work as the liaison between departmental agencies involved and effected by new construction projects. The Engineering staff should be providing the opportunity to dialog with Operations and Maintenance about processes and procedures that

will improve operations, reduce man-hours and continue to service the community for the long haul. Working as a team for the greater good.

TLA Engineering & Planning, Inc. is a land planning and civil engineering firm dedicated to providing a full-range of services to public and private clients. Established in 1985, the firm specializes in planning, permitting, design and managing public and private projects that range from small to large, simple to complex. Experience earned over many years and across all varieties of projects provides the necessary foundation for a wide range of capabilities. Each project is undertaken with an eye toward providing solutions that allow plans and project to proceed smoothly. TLA's extensive experience with regulatory agencies has proven useful to many organizations throughout the Northern California region.