

ORANGE COUNTY WATER ASSOCIATION

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The Role of Asset Management in Support of OC Sanitation's Mission

A Report on OCWA's March 2021 Webinar

Publicly owned treatment works in California have been observing a trend of permit requirements issued by EPA Region 9 and the State to develop and utilize an Asset Management Program as part of their NPDES/Wastewater Discharge Order. In the case of OC San, an Asset Management Plan has already been in place; however, with many of its major assets aging, the development of a more robust AMP became a priority for the agency.

To help gain an understanding of the process OC San went through to develop its AMP, OCWA was pleased to host **Eros Yong**, *OC San's Engineering Manager for the Planning Division*, for the March installment of our monthly Industry Insight webinars for 2021. Her presentation was underwritten, in part, by two of our Corporate Sponsors for 2021, [HDR, Inc.](#), and [MKN and Associates](#). A sizeable audience of over 100 people signed up to view the presentation.

As mentioned above, there is a growing trend seen in waste discharge permits in California that require POTWs to develop and implement an AMP that includes a comprehensive inventory of critical assets, a condition assessment of these assets, maintenance planning and activities, along with other prescriptive requirements.

The original AMP developed in 2005 by OC San was useful but flawed. Led by a team of outside consultants, and based on a model with theoretical data, it was hampered by infrequent updates, inaccurate budget projections, and funding not based on a cogent plan. In short, it needed improvement.

Among the issues identified, a better understanding of the condition of all assets lead the list, followed closely by the need for ongoing management of all asset information. It was also realized that all required asset renewals had to be grouped into manageable projects.

As Jim Herberg, OC San's General Manager saw it, "To be as efficient and cost effective as possible, efforts from all departments [and] divisions must be well planned, clearly communicated, and closely coordinated."

The first step was an agency-wide reorganization. Under the old structure, the two divisions responsible for Asset Management, Engineering and Operations & Maintenance, worked somewhat at cross purposes. With both divisions responsible for overlapping aspects of asset

management, and both reporting directly to the General Manager, there was a good deal of confusion in regard to roles and responsibilities. Under the new plan, both divisions were grouped into one, which reports to an Assistant General Manager, so the old lines of division between Capital Improvement Projects and Maintenance become less distinct. The emphasis is now placed on rehab, refurbishment, replacement, and resiliency. And with this new emphasis came a stronger alignment, greater clarity of roles and responsibilities, and much better collaboration.

An Asset Management Council, comprised of managers from all divisions within the Agency, was developed at the same time. This council provides guidance, oversight, and approval to the Asset Management Team. In addition, OC San divided its facilities into nine asset areas, each with an assigned asset engineer, and constituted nine area teams in the Collections and O&M divisions. These teams are the eyes and ears in the field. Through this newly-aligned process, the agency can turn problems into projects.

The Asset Engineers lead condition assessments, review maintenance history and coordinate with O&M staff to understand the Asset's condition, considering staff knowledge and predictive maintenance data. The Asset Engineers input this information in the Asset Registries. From the Registry, key information on the Asset's Remaining Useful Life, as well as any upcoming Capital Improvement Programs are considered to come up with short, medium and long term asset planning. All of this is funneled upward to the Asset Management Council monthly.

Solutions are found through application of the established system. An Asset Issue Tracking System ensures nothing falls through the cracks, while the Asset Engineers identify potential solutions and present them to the Clearinghouse, a specialized group composed of managers from all OC San divisions. Here the proposed solutions are reviewed and approved as projects, necessary resources are identified, and a project team is assigned to implement these projects.

At the end of each year, OC San publishes an Asset Management Plan. Since the establishment of the Asset Management Group, there have been two reports published. The first year, an outside consultant was brought in to help prepare the Plan, but in 2020 OC San did it entirely in-house. The Asset Management Plan builds upon the 2017 Facilities Master Plan, which established a 20-year CIP plan with over 80 CIP projects. Every one of these projects has a scope, schedule, and budget, which makes up the 20-year plan, and every year the entire plan is tweaked with updated scope, schedule, and budget information. With plans to spend over \$5.7 billion over the next 20 years on its Capital Improvement Program, OC San has a vested need to maintain tight control over every project.

In summary, Eros Yong stressed that Asset Management is an Agency-wide work-in-progress, and not just a book on a shelf. Driven by the Asset Management Group with oversight from OC San Managers from every division, the Plan ensures that every process, pump station, and drainage system — indeed, every critical asset within the entire OC San operation — has an Asset Engineer “Owner” and each of these assets has a plan to ensure reliability and maintain level of service over the short and long term. And by diligent adherence to this Plan, and the Agency's CIP plan is updated on an annual basis. Taken all together, OC San is confident that its Asset Management Program is aligned with all of the new NPDES Permit Requirements.

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OCWA was pleased to host this useful presentation by Eros Yong. For those interested, **a PDF of Ms Yong's PowerPoint presentation is available for [download](#) by OCWA's members only.** Yet another great reason to consider becoming a member if you aren't one already.

The **April Industry Insight webinar** promises to be equally enlightening. **Craig Parker**, *Water Engineering Manager, Anaheim Public Utilities*, will provide a look at **[Adding Design-Build Delivery Method to the Tool Belt](#)**. Mr Parker promises to give an informative look at the history of the City's experiences using Design-Build, take look ahead at what plans they have to implement it in the future, and provide a brief overview of the lessons learned.

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So join us, **April 21**, to learn if Design-Build could be in your future.