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As part of El Dorado Irrigation District’s continuing commitment to provide high-quality wastewater service, EID has recently completed construction of a $900,000 upgrade at the El Dorado Hills wastewater treatment plant to improve odor control capabilities.

Started in June of this year, the odor control project included installing a new biotrickling filter that replaced existing carbon scrubbers. Odor and emission treatment systems like the new biotrickling filter rely on a biological process that involves microorganisms present in the water that are recirculated through the treatment vessel. Foul air is forced upward through the bottom of the vessel. On its way up, the air is dispersed through synthetic media and contacts water laden with microorganisms. The microorganisms metabolize the offending compounds, leaving clean air to be released from the vessel.

The new odor control unit’s biological process requires an extensive start-up procedure lasting four to six weeks. Microorganisms from the wastewater treatment plant process will be transplanted to the unit and serve as the initial biological population.

“During these startup procedures, and with current weather forecasts, the District does not foresee substantial odors escaping the facility,” said EID Senior Civil Engineer Liz Carrington. “However, if foul odors are observed they should resolve quickly as the new process takes effect.”

If you would like to learn more about this important project, visit the project webpage El Dorado Hills Odor Control Upgrade Project on the EID website at www.eid.org.

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Like or follow our recreation pages, @ForebayReservoir, @SlyParkRecreationArea, @CaplesLake, and @SilverLakeWest for updates and information on events or happenings at these facilities.
Message from the General Manager

EID in Focus for 2020 and Beyond

Jim Abercrombie

On the eve of 2020, El Dorado Irrigation District is gearing up for another year committed to offering the best possible service to its ratepayers. EID’s vast water distribution system, spread across in 220-square-mile service area, forms the integrated network that provides the high quality water that nourishes our community.

As I think about all that has been accomplished since I became EID’s general manager a decade ago, I am most proud of our record of continued, uninterrupted service and focus on safety—both for our hard-working employees and the communities we serve.

The challenges have increased since 2018. Now we are in a time in which we must plan for yearly power outages during fire season. In 2019, our community’s power was shut off four times for as many as 48 hours each time.

But the power needs of providing our services to the more than 125,000 people we serve are unchanged. Recognizing the urgent need, EID’s board voted to help increase the resilience of our system with significant investments in generators.

EID remains steadfast and ready for any challenges that come. But we must renew our focus on our largely unseen infrastructure—the mains and pipes, canals and flumes, the pumping stations and the many pieces of infrastructure that we rely on when we turn on our faucets or flush our toilets. These and other vital components in our system are in need of increased repair and investment.

PG&E has made the choice, after years of long-deferred projects, to simply shut off their service when there is the potential for a problem. We do not have that option, nor do we want it. EID is redoubling its efforts to address the assets in our infrastructure that need to be repaired or replaced.

In the decade ahead, EID will work to increase the resilience of our integrated infrastructure: rebuild aging canals and flumes in the high country; take increased action to speed up water line replacements—the lines that our customers rely on around the clock; complete important upgrades to our pumping facility at Folsom Lake; bolster our solar power field at El Dorado Hills wastewater treatment plant, and add a solar field to the Deer creek plant; and continue to meet increasingly stringent regulatory requirements (these changing requirements necessitated significant work on Forebay dam in Pollock Pines).

To accomplish these projects and many others waiting in the queue, we have been fine-tuning and making our financial plan for yearly power outages during fire season. In 2019, our community’s power was shut off four times for as many as 48 hours each time.

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At its December meeting, the EID board of directors voted unanimously for a budget that includes important funding for many water projects that will keep our system strong. The budget also did something we hadn’t done significantly in a decade: allocate funds to add needed personnel.

In the decade since the Great Recession, the District has been running a very lean ship. But as the needs of our complex infrastructure continue to grow, we are expanding our ranks to help support a water line replacement program that will speed up some much needed repairs in our water distribution system.

And these repairs are needed as the backlog of projects increases. Most of the nearly 1,130 miles of transmission and distribution water lines are halfway through their estimated services lives.

With the frequency of pipeline breaks increasing, the efforts we make over the next five to 10 years will pay off for decades to come.

Leak identified on the vital EDM-2 water main

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Forebay Dam Project Wrapping Up

The three-year Forebay Dam Project is wrapping up. The project, started in 2017, was required due to increased regulatory safety standards. Now, as it nears completion, the dam not only meets the needed regulatory requirements but will recover lost reservoir storage capacity from nearly a hundred years of sediment deposition. Since 1923, Forebay has lost about one third of its original volume capacity. Storage recovered by raising the dam will prevent summer-long draining of the Forebay when water supply demands and the need to have standby water supply for fire suppression are highest.

The El Dorado Forebay Dam and Reservoir is a key part of EID’s federally licensed El Dorado Hydroelectric Project 184. Forebay is an off-stream reservoir that regulates water for drinking water and hydroelectric power purposes.

Water is delivered into Forebay from the South Fork American River and from four upper watershed reservoirs, Caples and Silver Lakes located along Highway 88, and Echo Lake and Lake Aloha near Highway 50. Water is diverted from the South Fork American River at the El Dorado Diversion Dam in Kyburz and conveyed through the 22-mile-long El Dorado Canal. The canal is made up of a series of man-made structures mostly consisting of concrete-lined earthen canal, interspersed with wooden and concrete flumes, tunnels and steel pipe sections. Forebay’s water is utilized for both hydroelectric power generation and water supply. The water supply portion is released from Forebay into EID’s Main Ditch and conveyed about 3 miles to Reservoir 1 where it is treated and distributed to the District’s drinking water system. Water is also conveyed via the penstock to El Dorado Powerhouse and, after flowing through two turbines that can produce up to 21 megawatts of power, returns to the South Fork American River.

Water Line Replacement Activities to Increase

Recent water line breaks—including the significant waterline break in the spring of 2019 that closed El Dorado Hills Boulevard for a weekend—have highlighted the effects of aging District infrastructure and the lack of reinvestment for replacement.

In late December of 2019, a leak was found on the El Dorado Main no. 2 (EDM-2), a transmission main that significant numbers of EID customers rely on. Pipelines that our community relies on are starting to fail at a more frequent rate necessitating a more active replacement program.

Not only does deferred investment increase the ultimate cost of replacement, equally—and perhaps more importantly—the deferral decreases the reliability of the service to our customers and increases the chance of creating public health and safety issues.

See GM MESSAGE, page 4

This risk is most acute for scope and duration of impact in areas where the District lacks redundant infrastructure to provide temporary reconfiguration of the water system while EID personnel (or contractors, depending on the degree of repair necessary) make the necessary repairs.

EID is consistently within the bottom quartile nationwide for water system leaks and unplanned outages, and much lower than that for the region that includes California.

With important additions to operations staff who will be working on water line repair and replacement, the next five years will see increased activity to address the aging pipelines that our customers and community rely on. The modest rate adjustments that the District will be seeking will support these important activities.
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As we engineer work diligently to ensure we get the materials and other resources needed to fix this vital artery, I am well aware of the how much this component and other pieces in our infrastructure are in need of investment. And we are ready to do the work.

For years we have been caring for our infrastructure by looking closely at what needs to be done and prioritizing the work carefully—some projects put off as other more pressing projects bubble up. We develop every year an updated five-year capital improvement plan (CIP). The CIP is the road map we use to identify important projects like flame and canal replacement and identify funds to pay for them.

Over the past decade we have worked hard to keep debt to moderate levels, in fact reducing our debt by nearly $98 million over that time. Low-cost, long-term debt is an appropriate replacement and identify funds to pay for them.

EID’s infrastructure is worth more than a billion dollars in historical costs. It’s an enormous and complex system of pipes, pump stations, reservoirs, treatment plants, and more. So it is vital we continue to invest wisely to keep up with its needs.

In an effort to ensure that we have the needed funds, we have forecast the need to adjust our rates over the next five years. The proposed rates will generate funds that will allow us to strengthen our system and keep up with its complicated needs: adding important resilience so our customers’ services remain as reliable as they have always been.

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