How does the District decide which CIP projects to tackle each year? All projects in the 2015-2019 CIP have been prioritized according to the following criteria:

Prioritization criteria:

1. **Priority 1 projects**:
   - required for health and safety
   - required for maintenance, operation, or rehabilitation
   - required for contract, agreement, or license
   - under construction

2. **Priority 2 projects**:
   - existing assets, including life cycle replacement of pump stations, pipelines, flumes, canals, and other assets
   - for provision of increased revenues and/or reduced costs
   - meet demands of increasing growth and increased water supply

**Priority 3 projects** are discretionary projects to:

- Improve service levels
- Improve efficiency
- Provide community benefit

The CIP is reviewed annually and updated to provide the District with flexibility to meet the changing needs of the community.

In accordance with the Americans with Disabilities Act and California law, it is the policy of the El Dorado Irrigation District to offer its public programs, services and meetings in a manner that is readily accessible to everyone, including individuals with disabilities. If you are a person with a disability and require information or materials in an appropriate alternative format, or if you require any other accommodations to ensure that you have access to any of the District’s public services, programs, or meetings, please contact the District ADA Coordinator at the number or address below at least 72 hours prior to the meeting or when you request to receive services. Advance notification within this guideline will enable the District to make reasonable arrangements to ensure accessibility. The District ADA Coordinator can be reached by phone at (530) 642-6495 or e-mail at adaordinator@eid.org.

---

**Watering Schedule Returns to Two Days a Week**

Watering restrictions head into the fall season with a return to outside watering limited to two days a week. Customers with addresses ending in even numbers will water on Wednesdays and Sundays. Those with addresses ending in odd numbers will water on Tuesdays and Saturdays. If it rains, please turn irrigation systems off. For more information, go to [www.eid.org/WateringRestrictions](http://www.eid.org/WateringRestrictions) for additional drought resources.

*Customers Rising to the Challenge to Reduce Water Demand*

Since the EID Board of Directors declared the drought emergency in February, EID has worked hard to get the message out about drought conservation. It started slowly, but customer conservation has steadily increased. EID would like to thank its customers for stepping up and conserving—and continuing to conserve.

At this point in time, the Waterfront went to press, customer water demand for the week of August 13 to August 19 was 25 percent below the three-year average for that week. And the cumulative water demand from January 1 to August 19 was 13 percent below the three-year average. This positive trend of conservation ensures EID has adequate carryover storage in Jenkinson Lake—the District’s main drinking water reservoir—so we can experience another dry winter.

“Our customers’ actions really have been the deciding factor in getting us to where we are today,” said General Manager Jim Abercrombie. “But we don’t want to take our foot off the pedal now. Our watering restrictions are still in place and we all need to continue to conserve water as we head into fall and beyond.”

Customer water demand information is posted to the District’s website and Drought Information Facebook page every Wednesday. Go to [www.eid.org/ConservationProgress](http://www.eid.org/ConservationProgress) for more.

---

**Water Waste Prohibition in Effect Year Round**

EID’s water waste regulation (Administrative Regulation 1041) is in effect all year under all conditions. The regulation gives the District the ability to enforce prohibitions against water waste.

To read the regulation, go to the District’s water efficiency web page at [www.eid.org/WaterEfficiency](http://www.eid.org/WaterEfficiency) and click on the link to the “Water Waste Prohibition.”

**EID Drought Info on Facebook**

None of us like the drought, but if you “like” our drought information Facebook page today, you can keep up with conservation progress and more. Facebook on your mobile phone can allow you to receive these status updates while you’re on the go.

EID has used a variety of methods to get the message out about drought and water efficiency. One of those tools is our Drought Information Facebook page (look up EID Drought Information in your Facebook search). Information about water efficiency, drought-related news items, and much more are posted every week—check it out! We also maintain a drought web page at [www.eid.org/drought](http://www.eid.org/drought) with links to many resources.
Safe and Reliable Service—Key Priorities for EID

Message from the General Manager

Each year the District completes key capital improvement projects to help ensure the reliability of our infrastructure and services. The District’s Capital Improvement Plan (CIP) is a rolling five-year plan that identifies projects required for health and safety reasons, legal and regulatory reasons, maintaining existing assets, including life cycle replacement, as well as discretionary projects to improve efficiencies, among others.

As you will read in this issue, this year’s five-year plan focuses on repairs to the El Dorado Canal, which is part of our Project 184 water conveyance system that provides one third of the District’s drinking water. Other notable projects are upgrades to the El Dorado Forebay dam, piping the main ditch, and lining the Sly Park intertie water line.

“We are continually investing in projects to protect the investment in the critical infrastructure that we are fortunate to own.”

Jim Abercrombie

In order to pay for these projects, the District needs to obtain funding in the form of low interest bonds of about $41 million in 2016. Going out for bonding is the most prudent way to pay for such large projects. By using bond funds for the longer lived assets, projects will be financed over a 30-year period, allowing them to be paid for by both current and future rate payers. These projects are considered financially too large to include in the “pay-as-you-go” CIP program which is projected to average $8–10 million per year. The pay-as-you-go funding mechanism means we also budget money each year in our CIP program to take care of these smaller construction projects.

Because of the District’s outstanding rating by the bond rating agencies such as Moody’s and Standard and Poor’s, the District qualifies for very favorable, low interest rates, currently less than five percent.

Over the past four years, the District has paid down approximately $30 million in bonds and State Revolving Fund Loans. Currently, the District’s debt stands at about $362.2 million. According to Standard & Poor’s, the ratio of the District’s total debt to total net capital assets is in the moderate range for an agency our size. With the future bond issue, projected to be in 2016, the District would remain within the moderate range for paying debt payments and other reductions to our outstanding debt over the next two years.

We will be finalizing plans for the larger projects mentioned in this CIP in late 2015 or early 2016. As we do so, I will continue to share the details.

In closing, I want to remind customers that we don’t ever want to experience a catastrophic failure like that which recently occurred in Southern California, where a major water line rupture created a 25–by-30-foot oval sinkhole about seven feet deep. Up to 20 million gallons of water flooded the UCLA campus and caused untold monetary damages.

EID’s infrastructure is aging, just as it is all across the United States. Much of it is located underground, so it’s important to stay on top of critical repairs. It seems like these repairs many times aren’t a priority in some agencies’ budgets because they are “out of sight, out of mind.” But I can assure you that the District does not subscribe to that way of thinking. That’s why we are continually investing in projects to protect the investment in the critical infrastructure that we are fortunate to own. Our infrastructure condition has to stay “top of mind, all the time” to keep it safe and reliable for our customers.

Q&A: Capital Improvement Program—What’s Scheduled for the Coming Year

Tell me about the District’s Capital Improvement Program (CIP) for the coming year? I understand the District is focusing on four major projects. EID has a lot of assets in the ground—about $800 million worth, spread over 220 square miles. Assuming a 50-year life expectancy of these assets, the District should be spending an average of $15 to $20 million a year to replace or repair them to keep up with maintaining the system and providing safe and reliable service to our customers. A few of the key projects included in the five-year plan are:

El Dorado Canal Flume Replacements

The El Dorado Canal is assessed. Some of these flumes were last replaced in the 1977 drought. Because the pipeline was built on a fast track, originally constructed to help respond to water shortages from the 1977 drought. Ditch losses range between 1,000 to 1,300 acre-feet per year, depending on flow rates and weather conditions. Animals and humans have direct access to the water in the ditch prior to it reaching the water treatment plant and all homes neighboring the Main Ditch rely on septic systems for waste disposal, as there is no public sewer collection system in the area.

The reduction in conveyance losses would aid the District during water short years as a hedge against drought, assist in meeting the State of California mandate of 20 percent water conservation by 2020, maintain existing water supplies for future needs, and provide water for renewable hydroelectric power generation at the El Dorado Powerhouse. Improvements in raw water quality will provide for less costly and more efficient operations at the water treatment plant. The District is in the preliminary design stages of this project, but ultimately piping the ditch with a 36- to 42-inch diameter pipe is estimated to cost $6.25 million.

Sly Park Intertie Lining

This pipeline and pump station are critical assets for the District, which can be used to provide operational flexibility and help alleviate impacts of water shortages and drought conditions. The 22-inch steel pipeline is nearly five miles long and was originally constructed to help respond to water shortages from the 1977 drought. Because the pipeline was built on a fast track, no internal corrosion protection system was implemented for the bare steel pipe. Various pipeline assessments have found corrosion occurring in segments, which has reduced the steel wall thickness and ultimately compromised the integrity of the pipeline. To maintain and extend the life of this asset, the interior of the pipe must be lined to put an end to the corrosion that is occurring. The cost of refurbishment of the pipeline is estimated at $5 million.

The data shows that EID is in the upper quartile of similar water agencies in terms of reliability.”

—Brian Mueller

Fall Sprinkler Settings

During the transition months of fall, and to be in line with the District’s watering restrictions, be sure to reduce sprinkler run times and turn off your irrigation controller if it rains. As the days shorten and the nights become longer and cooler, plants require less moisture from irrigation systems.

Installing a “smart” weather-based irrigation controller can take the guess work out of programming by sensing air temperature, humidity, solar rays, and rainfall to determine soil moisture in order to water with the weather. To learn more go to www.eid.org/WaterEfficiency.
“We are continually investing in projects to protect the investment in the critical infrastructure that we are fortunate to own.”

—Jim Abercrombie

Message from the General Manager
Safe and Reliable Service—Key Priorities for EID

Each year the District completes key capital improvement projects to help ensure the reliability of our infrastructure and services. The District’s Capital Improvement Plan (CIP) is a rolling five-year plan that identifies projects required for health and safety reasons, legal and regulatory reasons, maintaining existing assets, including life cycle replacement, as well as discretionary projects to improve efficiencies, among others.

As you will read in this issue, this year’s five-year plan focuses on repairs to the El Dorado Canal, which is part of our Project 184 water conveyance system that provides one third of the District’s drinking water. Other notable projects are upgrades to the El Dorado Forebay dam, piping the main ditch, and lining the Sly Park intertie water line.

In order to pay for these projects, the District needs to obtain funding in the form of low interest bonds of about $41 million in 2016. Going out for bonding is the most prudent way to pay for such large projects. By using bond funds for the longer lived assets, projects will be financed over a 30-year period, allowing them to be paid for by both current and future rate payers. These projects are considered financially too large to include in the “pay-as-you-go” type of CIP program which is projected to average $8–10 million per year. The pay-as-you-go funding mechanism means we also budget money each year in our CIP program to take care of these smaller construction projects.

Because of the District’s outstanding rating by the bond rating agencies such as Moody’s and Standard and Poor’s, the District qualifies for very favorable, low interest rates, currently less than five percent.

Over the past four years, the District has paid down approximately $30 million in bonds and State Revolving Fund Loans. Currently, the District’s debt stands at about $362.2 million. According to Standard & Poor’s, the ratio of the District’s total debt to total net capital assets is in the moderate range for an agency our size. With the future bond issue, projected to be in 2016, the District would remain within the moderate range for an agency our size. The reduction in conveyance losses would aid the District during water short years as a hedge against drought, assist in meeting the State of California mandating 20 percent water conservation by 2020, maintain existing water supplies for future needs, and provide water for renewable hydroelectric power generation at the El Dorado Powerhouse. Improvements in raw water quality will provide for less costly and more efficient operations at the water treatment plants. The District is in the preliminary design stages of this project, but ultimately piping the ditch with a 36- to 42-inch diameter pipe is estimated to cost $6.25 million.

Sly Park Intertie Lining

This pipeline and pump station are critical assets for the District, which can be used to provide operational flexibility and help alleviate impacts of water outages and drought conditions. The 22-inch steel pipeline is nearly five miles long and was originally constructed to help respond to water shortages from the 1977 drought. Because the pipeline was built on a fast track, no internal corrosion protection system was implemented for the bare steel pipe. Various pipeline assessments have found corrosion occurring in segments, which has reduced the steel wall thickness and ultimately compromised the integrity of the pipeline. To maintain and extend the life of this asset, the interior of the pipe must be lined to put an end to the corrosion that is occurring. The cost of refurbishment of the pipeline is estimated at $5 million.

Q&A: Capital Improvement Plan—What’s Scheduled for the Coming Year

EID Director of Communications and Customer Services Mary Lynn Carlson (far right) talks with EID Director of Engineering Brian Mueller and Engineering Manager Cindy Meyerdigian about the District’s capital improvement plan.

Tell me about the District’s Capital Improvement Program (CIP) for the coming year? I understand the District is focusing on four major projects. EID has a lot of assets in the ground—about $800 million worth, spread over 220 square miles. Assuming a 50-year life expectancy of these assets, the District should be spending an average of $15 to $20 million a year to replace or repair them to keep up with maintaining the system and providing safe and reliable service to our customers. A few of the key projects included in the five-year plan are:

El Dorado Forebay Dam Remodelation

The El Dorado Forebay is located in Pollock Pines and was built in 1923 as a key part of the El Dorado Hydroelectric FERC Project No. 184 which stores water diverted from the South Fork American River and four upper watershed reservoirs for drinking water and renewable hydroelectric power generation. The dam remodel project is required to satisfy regulatory mandates issued to the District by both the California Division of Safety of Dams (DSOD) and the Federal Energy Regulatory Commission (FERC) to meet dam safety standards. The Project involves constructing an earthen buttress on the dry-side of the Forebay Dam, and raising the dam 10 vertical feet. The Project would increase the stability of the dam to meet DSOD and FERC dam safety requirements thereby protecting public safety, and increase the storage to help improve the reliability of the drinking water system and increase hydroelectric revenue. Design of the project has been completed and we are currently going through the complex federal environmental review and approval process. At this time, construction is scheduled to begin in late 2016 through 2017 at a cost of approximately $18 million.

El Dorado Canal Flume Replacements

The El Dorado Canal delivers approximately one-third of the District’s drinking water supply to our customers, therefore the reliability of this conveyance system is of utmost importance. Each year, the condition of the wooden flumes along the El Dorado Canal is assessed. One of these flumes were last replaced in the 1950s. Three flume sections were recently identified as high priority for replacement in order to remain in-service, and the District is preparing to undertake these projects later this year. Additional flume sections are identified for replacement in the near future and it will be important to remain diligent in addressing these assets to avoid potential failures and outages.

Main Ditch Piping

The Main Ditch is three miles in length and conveys a maximum of 15,080 acre-feet of raw water each year (40 cubic feet per second, maximum) from Forebay Reservoir to the Reservoir 1 water treatment plant. Because nearly the entire ditch is earthen and unlined, a portion of the water is lost to seepage and evaporation. Previous studies of flow loss measurements have indicated that the ditch losses range from 1,000 to 1,300 acre-feet per year, depending on flow rates and weather conditions. Animals and humans have direct access to the water in the ditch prior to it reaching the water treatment plant and all homes neighboring the Main Ditch rely on septic systems for waste disposal, so there is no public sewer collection system in the area.

The reduction in conveyance losses would aid the District during water short years as a hedge against drought, assist in meeting the State of California mandating 20 percent water conservation by 2020, maintain existing water supplies for future needs, and provide water for renewable hydroelectric power generation at the El Dorado Powerhouse. Improvements in raw water quality...
CIP, continued from page 3

How does the District decide which CIP projects to tackle each year? All projects in the 2015–2019 CIP have been prioritized according to the following criteria:

Priority 1 projects: a) required for health and safety; b) required by laws, regulations, contract, agreement or license; or c) under construction.

Priority 2 projects: a) maintain existing assets, including life cycle replacement of pump stations, pipelines, flumes, canals and other assets; b) provide for increased revenues and/or reduced costs; or c) meet demands of increasing growth and increased water supply.

Priority 3 projects are discretionary projects to: a) increase service levels; b) improve efficiency; or c) provide predictors of community benefit.

Each project has been assigned a letter category (a, b, or c) in accordance with the prioritization outlined above, and an additional sub-category (1, 2, or 3) has been assigned to each project in an effort to distinguish the relative importance and condition of similar ranked projects, and the timeline for when work on a project should be commencing.

How does the District plan on paying for these projects? Some projects are financed using the “as-you-build” bonds funded in the CIP which are projected to average $8–$10 million per year. For other larger projects it makes more sense to use low-interest bonds to finance about $41 million over a 30-year period. This allows the benefits and burdens to be spread equally among all property owners.

The District has maintained an outstanding bond rating that qualifies us for very low interest rates—currently less than five percent. The amount of debt the District carries puts us in the moderate range for agencies our size.

What are some future capital projects and why are they needed? Other projects the District plans to undertake include a water tank replacement by law, to maintain the optimum service life and the tanks used for storage of drinking water and recycled water. These tanks also provide water in the event of fire or other emergencies. Similar to the flumes and water storage tanks, the District also has a program to replace and maintain sewer lift stations. Sewer lift stations collect wastewater from residential and commercial areas and pump the wastewater to the wastewater treatment plants. These assets must be maintained in order to reduce the occurrence of equipment failures that can result in spills and subsequent regulatory fines.

I saw a recent story in the news about America’s aging infrastructure and the need for major repairs to take place. Tell me about age of the District’s infrastructure and how would you assess its condition? We have a mix of old and new, above and below ground infrastructure. Some District facilities were constructed as far back as the 1800s, while some facilities were very recently constructed. The reliability of the District’s infrastructure is very good. In fact, we track the performance of our infrastructure in terms of the number of leaks, breaks and customer outages and benchmark our reliability compared to others in the water industry. The data shows that EID is in the upper quartile of similar water agencies in terms of reliability, which is a direct result of constant work to maintain in our assets and maintaining dedicated, qualified staff to operate and maintain our water distribution and wastewater collection systems.

Watering Schedule Returns to Two Days a Week

Watering restrictions head into the fall season with a return to outside watering limited to two days a week. Customers with addresses ending in even numbers will water on Wednesdays and Sundays. Those with addresses ending in odd numbers will water on Tuesdays and Saturdays. If it rains, please turn irrigation systems off. For more information, go to www.eid.org/WateringRestrictions.

Customers Rising to the Challenge to Reduce Water Demand

Since the EID Board of Directors declared the drought emergency in February, EID has worked hard to get the message out about drought conservation. It started slowly, but customer conservation has steadily increased. EID would like to thank its customers for stepping up and conserving—and continuing to conserve.

At the time this edition of the Waterfront went to press, customer water demand for the week of August 13 to August 19 was 28 percent below the three-year average for that week. And the cumulative water demand from January 1 to August 19 was 33 percent below the three-year average. This positive trend of conservation ensures EID has adequate carryover storage in Jenkinson Lake—the District’s main drinking water reservoir—should we experience another dry winter.

“Our customers’ actions really have been the deciding factor in getting to where we are today,” said General Manager Jim Abercrombie. “But we don’t want to take our foot off the pedal now. Our watering restrictions are still in place and we all need to continue to conserve water as we head into fall and beyond.”

Customer water demand information is posted to the District’s website and Drought Information Facebook page every Wednesday. Go to www.eid.org/ConservationProgress for more.

Water Waste Prohibition in Effect Year Round

EID’s water waste regulation (Administrative Regulation 1041) is in effect all year under all conditions. The regulation gives the District the ability to enforce prohibitions against water waste.

To read the regulation, go to the District’s water efficiency web page at www.eid.org/WaterEfficiency and click on the link to the “Water Waste Prohibition.”

EID Drought Info on Facebook

None of us like the drought, but if you “like” our drought information Facebook page today, you can keep up with conservation progress and more. Facebook on your mobile phone can allow you to receive these status updates while you’re on the go.

EID has used a variety of methods to get the message out about drought and water efficiency. One of those tools is our Drought Information Facebook page (look up EID Drought Information in your Facebook search). Information about water efficiency, drought-related news items, and much more are posted every week—check it out! We also maintain a drought web page at www.eid.org/drought with links to many resources.