

EL DORADO IRRIGATION DISTRICT

Subject: Update on *Key Performance Indicators and Goals* report.

Previous Board Actions and Updates

Since 2010, the General Manager has presented the *Key Performance Indicators and Goals* report annually.

Board Policies (BP), Administrative Regulations (AR) and Board Authority

BP 12020 states that the Board's role is to provide oversight and direct the implementation of the District's mission. The Board will do so by deciding and monitoring policy and fiscal matters.

BP 0030 states that the process of developing and maintaining a General Manager and General Counsel Accountability report gives the District staff opportunities to review achievements, identify areas for improvement, enlist community support, and establish a vision for the future.

Summary of Issue(s)

The *Key Performance Indicators and Goals* report was developed in 2010. It incorporated many strategic initiatives, and was expanded to include performance indicators that can be used to track improvement or benchmark with other similar utilities to measure the District's performance against industry standards.

Staff Analysis/Evaluation

This year started with a bang. All in all, the District suffered 51 storm-related incidents at an estimated loss of nearly \$19 million. Three major storm events caused significant damage to District assets. Nonetheless, District staff responded swiftly and competently. The most severe incidents occurred along the Project 184 flume system which conveys drinking water to approximately one-third of EID's customers. After analyzing the damage and adverse impacts of these storms, staff immediately commenced the critical work of restoring the water conveyance system (flumes and canals) by June to avoid costly and only temporary repairs. These repairs also avoided potential mandatory water rationing. Due to the scope of work, weather, and limited construction window, completing the repair work by June required an extraordinary effort. Through the dedication of our employees and contractors, the system was restored in time to meet our peak water demand season.

Our entire team worked diligently to restore our system to normal while also being tasked with the daunting process of documenting each step of the repairs. This documentation would form a report that could be submitted to the District's insurance company as well as to FEMA in order to recover a portion of the repair costs—ultimately minimizing the costs to our customers. It is projected that out of nearly \$19 million in damages, the actual costs to the District and its customers will be approximately \$1.9 million.

In 2017, the District again achieved excellent financial performance and made significant progress on its 2016-2018 goals. Warning signs are appearing, however, in the trends and measurements of the District's performance in service reliability. Board priorities and management initiatives in 2018 should focus closely on replacing assets and maintaining a reliable utility infrastructure.

- **Fiscal Responsibility—Indebtedness**

The face value of the District’s debt peaked at \$392.2 million by the end of 2009. That amount has since decreased every year through the end of 2017. Total debt is currently \$323.8 million—a reduction of \$68.4 million during that time. The District’s current ratio of total debt to total net capital assets is 56.1%, which Standard & Poor’s rates as “moderate” for US water and sewer utility enterprises.

Moody’s and Standard & Poor’s upgraded the District rating from A+ to AA- and A-1 to Aa3 credit rating tier, respectfully, and then reaffirmed these enhanced credit ratings as part of the major transactions in 2016. The upgraded credit ratings lowered the District’s true interest costs by increasing the premiums at which the bonds sold. This saved additional money by allowing the District to forego municipal bond insurance to enhance the bonds’ ratings, and to reduce the premiums.

Debt compared to net assets shows our debt load is reduced and the credit rating upgrades confirm the District’s success in meeting our guiding principle of fiscal responsibility.

- **Fiscal Responsibility—Operating and Personnel Expenses**

In 2010, the District’s total operating expenses, net of depreciation and OPEB non-cash accrual were \$38.6 million. Of that total, \$24.29 million (63%) was personnel expenses. The projected total operating expenses for 2017 are \$46.45 million, an increase of 20% over that seven-year period, and the total personnel expenses are \$27 million, net of capitalized labor, a seven-year increase of 11%.

The compound average growth rate in operating expenses increased 2.7% during this period which exceeds the District’s target of 2% per year increases. It has been achieved despite substantially higher increases in the District’s energy costs, as well as the increased costs of ever-stricter regulatory requirements for our services.

The compound average growth rate in personnel expenses increased 1.5% per year during this period and has been achieved in the face of sharp, ongoing increases in employee pension and medical insurance rates. The key factor in this remarkable performance has been the willingness of District employees to bear a greater share of the rising pension and insurance costs:

- In 2010, EID employees agreed to several cost containment measures, first a significant reduction to the District’s pension formula for new employees, second fundamental and substantial changes to eligibility for employee retiree health benefits with the implementation of a “Vesting Schedule” which restricted eligibility and full vesting for new employees. Third a major reduction to the Employer Paid Member Contribution (EPMC).
- Beginning in 2008, and continuing through 2017, the District reduced staffing levels from 305 to 217.
- In 2011, EID employees agreed to non-paid furloughs.
- In 2013, EID employees agreed to additional cost containment measures, first implementation of cost-sharing for medical premiums, second another significant reduction to the District’s pension formula for new employees, third the elimination of EMPC. The latter two concessions enabled the District to fully implement the 2013 Public Employees’ Pension Reform Act (PEPRA) more than four years earlier than PEPRA required, saving EID ratepayers an estimated \$712,000 annually.
- In 2016, EID’s employees agreed to only 1% increases for two years.

Like the management of the District's debt, the controlled growth of the District's operating expenses and personnel expenses demonstrate its ongoing success in meeting the guiding principle of fiscal responsibility.

- **100% Safety**

The District continues to maintain high standards of employee safety training, practices, and performance. As a result, the District's 2017 (07/01/2016–07/01/2017) Workers' Compensation insurance premium was \$311,934, down from \$1.9 million in 2003. The incidence of worker injuries has fallen in 2017. Through the third quarter of 2017, one lost-time injury had occurred, and there have been five (5) injuries requiring medical attention (IRMAs), compared to thirteen (13) in all of 2016. Avoidable vehicle accidents are also trending well—fourteen (14) through three quarters of 2017 versus sixteen (16) in fiscal year 2016.

The key performance indicators for public safety are the number of regulatory violations in the water, wastewater, and hydroelectric systems. The District has had six regulatory violations thus far in 2017. On the wastewater side, there were two storm-related violations, two pond PH violations, one corrupted data and one missed sample. Additionally, there was one violation in hydro regarding an excursion in maintaining minimum required streamflows.

- **Excellent Customer Service**

To quantify the reliability of our water and wastewater services, the District tracks the number, duration, and rate of water outages and line breaks and the rate of sanitary sewer overflows (SSOs), and compares each to industry benchmarks. In the water system, year-to-date water outages are declining compared to 2016, and the line break rate has shown modest improvement since 2014. Using the most recent (2016) AWWA benchmark, however, it is apparent that the District is performing well below industry medians (mostly in the bottom quartile) in the number of short- and medium-duration outages, as well as the number of breaks per 100 miles of pipe. System losses also remain stubbornly high. In short, water system reliability is below industry standards.

In the wastewater system, the rate of SSOs remains within the acceptable range, although at current staffing levels inspecting and cleaning sewer lines is a challenge

These results indicate that improvement is needed, particularly on the water side. To improve results significantly, the District will have to invest capital funds into pipeline and asset replacements. The 2018 – 2022 Capital Improvement Plan includes a five-year total of \$20.43 million for water line replacements—enough to replace about 9.5 miles of pipeline. To put that figure in perspective, the District has nearly 1,300 miles of water pipelines with an average service life of 80 years. Therefore, the desired rate of replacement would be about 16 miles *per year*—more than 8 times the rate programmed into the current CIP.

These same level of collection line replacements are occurring in the wastewater side of our business.

The District regularly conducts customer satisfaction surveys every two years. The results continue to be positive. Overall, our customers perceive our service levels at 89% satisfied or very satisfied with our service. They rate our phone service at 95% satisfied or very satisfied and field service at 96% satisfied or very satisfied. We do continue to expand services on the District's website and have expanded email notification and online bill pay opportunities. Currently, 48% of our customers are using the District's

online bill payment feature, and as of December 1, 79% of our customers either receive information from the District via email, or have expressly opted not to do so. We have used this email database to tell EID's story on project status, budgeting and even legislative activity.

- **Respect for the Individual**

The District prides itself on establishing and maintaining a positive and respectful work environment. Every few years, the District conducts an employee survey to measure its work environment. I am pleased to report a few measurements: 99% of our employees know the District's mission statement and four guiding principles; 88% agreed that they received the safety and skill training they need to be successful in their job and 73% are satisfied or very satisfied to be working at the District.

- **Business Practices and 2016 – 2018 Goals**

The District achieved a milestone accomplishment with the execution of the long-term Warren Act Contract to authorize the withdrawal of our Permit 21112 water supply from Folsom Reservoir. With that achievement, work is beginning on the long-term goal of adding multiple upstream points of diversion for this water right and staff is in the process of hiring consultants to help us with this process.

The recent appointment of a new Operations Director and new General Counsel are high-level examples of the District's steady progress in another identified goal, transition and succession planning, with 30 – 40% of the District's current staff eligible to retire over the next five years. The same progress is occurring with less fanfare throughout the organization, at the supervisory and line-staff levels in the Engineering, Operations, and Finance departments in order to be prepared for this staff turnover.

Ongoing progress and improvements are being made in GIS, SCADA reliability, records management, payroll/personnel, utility billing, and asset management and maintenance functions which will continue to enhance workforce efficiency. The *Performance Indicators and Goals* report advances the District's mission and values, as well as the General Manager's Guiding Principles. It is the foundation for high-priority, District-wide goals and performance assessment, and is used to assign departmental responsibilities and tasks to meet designated targets and timelines. A living, working document, it also forms the basis of performance evaluations for all District employees, including the General Manager and General Counsel.

The District will continue to focus on increasing non-rate revenues in 2018, including a possible water transfer and the continued sale of surplus District real properties. Additionally, staff will continue to analyze the data obtained and lessons learned from the temporary reductions in mandated releases of treated wastewater from the Deer Creek Wastewater Treatment Plant that were approved in 2014 and 2015 to develop the best strategy for a successful long-term reduction in that regulatory requirement, which will enhance recycled water supplies and reduce the need for potable water supplementation to the recycled system.

The District will continue to optimize the capital replacement of our aging infrastructure and manage replacement funding through pay-as-you-go projects and long-term low-interest debt financing. The District is expected to complete some major infrastructure projects such as the Forebay Dam remediation project and Main Ditch water conservation project. Both should be completed within the next few years.

Board Decisions/Options

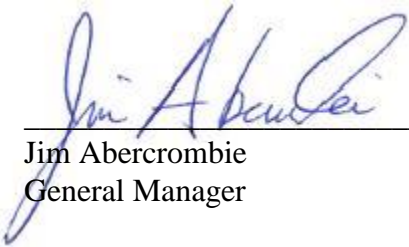
None – Information only.

Supporting Documents

Attachment A: *Key Performance Indicators and Goals* report



Brian Poulsen
General Counsel



Jim Abercrombie
General Manager

El Dorado Irrigation District



Key Performance Indicators and Goals

Mission Statement

We are a public agency dedicated to providing high quality water, wastewater treatment, recycled water, hydropower, and recreation services in an environmentally and fiscally responsible manner.

Guiding Principles

100% Safety

Respect for the Individual

Excellent Customer Service

Fiscal Responsibility

100% Safety

Employee

Key Performance Indicators	Target	Results 2014	Results 2015	Results 2016	Results 2017 YTD ¹
Lost-time injuries	0	1	2	3	1
Injuries Requiring Medical Attention (IRMA) ²	0	3	12	13	5
Avoidable Accidents (AA)	0	16	21	16	14
Safety training	100%	99.9%	100%	99.9%	100%
Other required training	100%	100%	100%	100%	100%

¹As of September 30, 2017

²Includes OSHA non-recordable incidences

100% Safety

Incidence Rate (Injuries Requiring Medical Attention (IRMA))

Key Performance Indicators	Results 2014	Results 2015	Results 2016	Results 2017 YTD ¹
District incidence rate	1.9	4.0	6.8	1.5
Percent above/below compared to standard	-67%	53%	163%	-44%

¹As of September 30, 2017

Formula: (number of injuries and illnesses X 200,000)/ employee hours worked = incidence rate/100 employees
District Incidence Rate is the rate of all OSHA recordable incidences and does not include first-aid cases

Standard Incident Rate of 2.6 was fixed in 2016 based on lowest variable industry rate of 2015 - U.S. Bureau of Labor Statistics, Standard Industry Classification: 2213-Water, sewage, and other systems.

100% Safety

Lost Work Day Incidence Rate

Key Performance Indicators	Results 2014	Results 2015	Results 2016	Results 2017 YTD ¹
District lost workday rate	0.5	1.0	1.5	0.5
Percent above/below compared to standard	-19%	66%	144%	-19%

¹As of September 30, 2017

Formula: (number of injuries and illnesses X 200,000)/ employee hours worked = incidence rate/100 employees
 District Incidence Rate is the rate of all OSHA recordable incidences and does not include first-aid cases

Standard Lost Workday Rate of 0.5 was fixed in 2016 based on lowest variable industry rate of 2015 - U.S. Bureau of Labor Statistics, Standard Industry Classification: 2213-Water, Sewage, and other systems.

100% Safety

Public - Meet all Health and Safety Standards

Key Performance Indicators	Target	Results 2014	Results 2015	Results 2016	Results 2017 YTD
Water	100% Regulatory Compliance	1 violation	1 violation	1 violation	0 violations
Wastewater	100% Regulatory Compliance	1 violation	0 violation	4 violations ¹	<u>6 violations</u>
Hydro	100% Regulatory Compliance	0 violation	1 violation	0 violations	1 violation

YTD = year-to-date

¹All 4 violations new contract lab error

Respect for the Individual

Employee			
Key Performance Indicators	Target	Results 2012	Results 2017
District employee survey	Bi-annual	Completed 2012; 69% very satisfied or satisfied	Completed 2017; 73% very satisfied or satisfied
Labor Management Committee (LMC)	Monthly meetings; Evaluate effectiveness in employee survey	Completed 2012; 68% agree or strongly agree	Completed 2017; 73% agree or strongly agree

Excellent Customer Service

Customer Satisfaction Survey¹

Key Performance Indicators	Target	Results 2012	Results 2015	Results 2017
Overall	Greater than 90%	87%	91%	89%
Phone	Greater than 90%	90%	93%	95%
Field	Greater than 90%	92%	95%	96%
Reasonableness of water rates	Greater than 80%	54%	65%	61%
Reasonableness of wastewater rates	Greater than 60%	39%	47%	45%

¹Survey performed bi-annually

Excellent Customer Service

Service Reliability				
Key Performance Indicators	Target ¹	Results 2015	Results 2016	Results 2017 YTD
Number of unplanned water outages per 1,000 accounts	---	---	---	---
Less than 4 hours	0.30 top 0.92 median 2.16 bottom	4.79 outages (187 outages)	4.87 outages (190 outages)	5.51 outages (215 outages)
4 to 12 hours	0.01 top 0.17 median 0.86 bottom	0.51 outages (20 outages)	0.44 outages (17 outages)	0.36 outages (14 outages)
Greater than 12 hours	0.00 top 0.00 median 0.05 bottom	0.08 outages (3 outages)	0.03 outages (1 outage)	0.05 outages (2 outages)

YTD = year-to date

¹American Water Works Association (AWWA) Benchmarking Performance Indicators for Water and Wastewater: 2016 Edition

Excellent Customer Service

Service Reliability

Key Performance Indicators	Target	Results 2015	Results 2016	Results 2017 YTD
Number of water system leaks/breaks per 100 miles ¹	6.0 top 13.0 median 25.0 bottom	44.86 outages (628 leaks/breaks)	39.29 outages (550 leaks/breaks)	34.64 outages (485 leaks/breaks)
Sanitary Sewer Overflows (SSO) per 100 miles of pipe	Less than 5.00	1.60 (11 SSOs)	3.50 (22 SSOs)	2.39 (15 SSOs)

YTD = year-to date

¹American Water Works Association (AWWA) Benchmarking Performance Indicators for Water and Wastewater: 2016 Edition

Excellent Customer Service

Customer Engagement

Key Performance Indicators	Original Target	Revised Target	Results 2015	Results 2016	Results 2017 3 rd Qtr.
Online bill pay customers	Trend	50%	43%	46%	48%
Customers with email addresses	Trend	80%	67%	74%	79%
eNews subscribers	Trend	---	---	---	1,070
Website email notifications sent	Trend	---	---	---	11,981

Fiscal Responsibility

Budget Compliance

Key Performance Indicators	Target	Results 2015	Results 2016	Results 2017
Operating expenses	Less than 100% at year-end	1 st Qtr. = 20.6%	1 st Qtr. = 21.0%	1 st Qtr. = 20.6%
		2 nd Qtr. = 44.0%	2 nd Qtr. = 44.5%	2 nd Qtr. = 47.5%
		3 rd Qtr. = 69.7%	3 rd Qtr. = 71.1%	3 rd Qtr. = 72.6%
		4 th Qtr. = 94.3%	4 th Qtr. = 97.2%	

Please note each quarter is shown year-to-date

Fiscal Responsibility

Personnel Expense Increase		
Year	Total Increase Personnel	Average Annual Increase Personnel
2010 - 2017 ¹	11%	1.5%

Operating Expense Increase		
Year	Total Increase Operating	Average Annual Increase Operating
2010 - 2017 ¹	20%	2.7%

Source: 2010-2016 annual audits and 2017 revised projection (without OPEB and pension non-cash accruals)

Fiscal Responsibility

Budget Compliance

Key Performance Indicators	Target	Results 2015	Results 2016	Results 2017
Capital expenses	Between 70-90% at year-end	1 st Qtr. = 22.1%	1 st Qtr. = 9.4%	1 st Qtr. = 10.3%
		2 nd Qtr. = 45.4%	2 nd Qtr. = 20.2%	2 nd Qtr. = 41.7%
		3 rd Qtr. = 65.3%	3 rd Qtr. = 33.8%	3 rd Qtr. = 66.9%
		4 th Qtr. = 88.5%	4 th Qtr. = 49.5%	

Please note each quarter is shown year-to-date

Fiscal Responsibility

Debt Service Coverage

Key Performance Indicators	Target	Results 2015	Results 2016	Projected 2017
Annual Ratio without FCCs	1.00 minimum 1.25 goal	1.69	1.88	1.47
Annual Ratio with FCCs	1.25 minimum 1.70-2.00 goal	2.65	2.74	1.92

Facility Capacity Charge (FCC)

Debt outstanding—past and projected

December 31, 2010 \$387.9 million

December 31, 2017 \$323.8 million (after \$6 million prepayment)

December 31, 2020 \$282.5 million (after \$3 million prepayment in 2020)

Fiscal Responsibility

Face Value of Debt as of December 31	
Year	Amount Outstanding (millions)
2009	\$392.2
2010	\$387.9
2011	\$379.6
2012	\$369.0
2013	\$362.2
2014	\$344.5
2015	\$336.5
2016	\$337.4
2017 ¹	\$323.8

¹Projected

Sources: 2010-2016 annual audits and 2017 financial forecast

Business Practices

Trends Over Time (establish improvement benchmarks)

Key Performance Indicators	Target	Results 2015	Results 2016	Results 2017 3 rd Qtr.
Operating expenses per service	Trend	\$326.85	\$337.45	\$245.19
Services per employee	Trend	310	313	319
Overtime hours ¹	Trend	6.02%	5.56%	6.68%
Write off	Less than 1%	0.10%	0.07%	0.06%
Outside legal expenses - operating	Trend	\$ 20,432.55	\$ 58,802.46	\$ 33,849.87
Outside legal expenses - capital	Trend	\$151,434.00	\$ 71,716.24	\$ 64,724.72

Please note each quarter is shown year-to-date

¹Based on non-exempt employees

Business Practices

Customer Services Per Employee¹

Agency	Service	Services	Employees	Services / Employee
Tuolumne Utilities District (TUD)	Water/Wastewater	26,135	77	339
El Dorado Irrigation District (EID)	Water/Wastewater Recycled	69,115	217	319
Calaveras County Water District	Water/Wastewater	17,400	64	272
Amador Water Agency	Water	9,781	41	239
San Juan Water District	Water	10,582	47	225
Placer County Water Agency (PCWA)	Water	40,574	224	181
Nevada Irrigation District (NID)	Water	27,577	206	134

¹As of November 2017

Updated 11/2017

Business Practices

Trends Over Time (establish improvement benchmarks)

Key Performance Indicators	Target	Results 2015	Results 2016	Results 2017
<u>Water rates</u> (bi-monthly)	At or below median of similar agencies (\$124.74*)	\$ 99.06 ¹	\$104.00 ¹	\$107.11 ¹
<u>Wastewater rates</u> (bi-monthly)	At or below median of tertiary agencies (\$161.65*)	\$134.00 ²	\$134.00 ²	\$138.01 ²

*November 2017 other agency comparisons; ¹ assuming 30 ccf water usage; ² assuming 16 ccf winter water usage Hundred Cubic Feet (ccf)

Business Practices

Key Water and Sewer Utility Credit Ratio Ranges

Key Performance Indicators	Target	Results 2015	Results 2016	Results 2017 YTD ²
Total debt to total net capital assets	40 - 60% Moderate ¹	54.09%	55.21%	56.06%
Variable rate debt	Manage debt to no more than 35% of long-term debt	31.52%	0%	0%

¹“Key Water And Sewer Utility Credit Ratio Ranges” *Standard & Poor’s Global Credit Portal RatingsDirect*®, September 15, 2008, page 5

²Estimated

YTD = year-to-date

Summary of Goals

Summary

2018 - 2020 Goals			
Goal	Original Target	Revised Target	Results
Pursue drought year water supply (SMUD) transfer agreement	2014 - 2015	2017 - 2019	
Initiate process to have multiple points of diversion for Permit 21112 water	2014 - 2017	2018 - 2019	Included in 2018-2022 CIP
Issue bonds for 2016 and explore opportunities to refinance or pay down debt to lower overall costs	1 st Qtr. 2015	---	Completed October 2016
Reduce unaccounted-for water loss by 10% (main ditch and meter test/replacement)	2015	2018 - 2022	Ongoing

Capital Improvement Plan (CIP)

Summary

2018 - 2020 Goals

Goal	Original Target	Revised Target	Results
Develop and implement plan to eliminate potable water being used to augment recycled water supply	2013	2018 - 2020	Obtained temporary relief in 2014 and 2015; Long-term reduction to be evaluated
Expand non-rate revenue through marketing water transfers	2013 - 2016	2015 - 2019	Completed 2,800 AF transfer in 2015; Annual evaluation
Evaluate hydro power sales contract	2018 - 2020	---	
Continue with succession planning and transition	2015 - 2019	---	Annual evaluation

Acre Feet (AF)

Summary

2018 - 2020 Goals

Goal	Original Target	Revised Target	Results
Complete improvements of Main Ditch, Sly Park Intertie and Forebay Dam	2015 - 2019	Included in 2018-2022 CIP	Main Ditch: Construction 2018-2019 Sly Park Intertie: 2020-2021 Forebay: Construction 2017-2019
Complete Bass Lake relocation and transition	2018	---	Ongoing; Construction 2018
Conduct COS study	2019	---	
Implement COS study findings	2020	---	

Capital Improvement Plan (CIP)
Cost of Services (COS)