

# Staff Report

for the Regular Meeting of the Board of Directors of October 11, 2017

**TO:** Board of Directors

**FROM:** Remleh Scherzinger, MBA, PE, General Manager  
Marvin Davis, MBA, CPA, Finance Manager/Treasurer

**DATE:** October 4, 2017

**SUBJECT:** 5-Year and 12-month Cash Forecast

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***FINANCE***

**RECOMMENDATION:**

Review the District's 2018 5-Year and 12-Month cash forecast.

**BACKGROUND:**

Five-Year Cash Forecast

Staff developed a long-term cash forecasting model that considers the below assumptions to assist the District with prudent financial management while monitoring reserves. The model charts historical and projected figures as well as displays the information in a tabular format. Programming within the model allows sensitivity analysis among the variables and easily prints out different scenarios. The development sheet provides additional details to users seeking to generate forecasting scenarios. In addition, the model provides overall cash levels as well as specific water rate revenue requirements.

- Revenue Requirement = Long-term Water Operating Expense assumptions (COLA, Average Merits, Medical, PERS rates including unfunded Pension Payments, OPEB, O&M inflation, Capital Projects, Reserve Building)
- Water Sales Growth Assumptions: Rate Increase, Account and Demand Increases, provides fixed revenue percentage
- Other Revenue (New Connect/Install, Reimbursement/Fees, Standby)

- Property Tax
- Hydro and Recreation Growth (Assumes actual cash receipt levels)
- Bond Proceeds draw down
- Capacity fee growth

Given the current assumptions, which staff believes to be realistic, operating cash reserves will range from 4.16 to 6.26 months of coverage (See specific Division breakdown) highly dependent on designated cash, while complying with debt service coverage.

### 12 Month Cash Forecast

Staff developed a detailed cash forecast, a significant tool to assist with the overall function of cash management. The tool considers current cash position, the 2017 end of year forecast and 2018 spending plan excluding internal transfers.

As with any cash forecast, the model considers the timing of receipts and disbursements affecting short-term cash. The Local Agency Investment Fund (LAIF) is cash as balances are available within 48 hours. In accordance with Reserve Policy 3040, the model demonstrates sufficient liquidity over the forecasted period anticipating a reduction of \$7,976,927 in reserves. As the attached short-term forecast illustrates, the below course of action ensures a minimum of \$10,000,000 in liquid cash.

Given approximately \$2,500,000 in long-term instruments maturing in 2018 and absent any calls, staff will liquidate \$6,000,000 of long-term portfolio commencing September 2018 leaving a balance of approximately \$52,000,000.

### **BUDGETARY IMPACT:**

To be discussed.

/RS, MD

Attachments:

- Long-term Cash Forecast
- 12 Month Cash Forecast

# Nevada Irrigation District

Five Year Cash Forecast

January 1, 2018 through December 31, 2022



**NID**

## Nevada Irrigation District 5-Year Cash Forecast at 2018

The objectives of the forecast are to meet customer service demands and adhere to all state and federal laws. Various assumptions are considered in the development of the forecast, which uses a conservative yet realistic approach. The forecast is developed as closely as possible to a cash flow projection rather than a full accrual estimate, thus excluding depreciation, amortization, and certain unrealized gains & losses. The details in this tool are used by management in forecasting receipts (revenues), disbursements (expenses) and cash reserves.

### **Overall Cash Forecasting:**

The below revenue and expense assumptions are changed by users clicking or typing into the input cells (**BLUE CELLS**) on the Dashboard sheet. The corresponding charts (revenue, expense, and cash flow) reflects the changes ultimately indicating if the revenue assumptions are sufficient to cover all expense assumptions as well as the Water Rate Revenue Requirement, while displaying annual cash reserves. Easy printout of the dashboard captures the assumptions driving that scenario. The assumptions base year is the 2018 adopted budget, which considers the 2017 fiscal year forecast. The model aggregates and segregates the District's three Divisions (Water, Electric, Recreation) to determine historical contribution and future projections for that Division. The model examines 10 years of audited historical transactions and projects 5 years into the future, thus examining 15 years of financial activity.

### **Water Rate Revenue Forecasting:**

The model projects operating expenses over the forecast period and all applicable funding sources at their respective levels to determine the base and commodity revenue levels necessary to cover expenses. The user can vary different levels of reserve building by changing inputs to investigate its' impact on overall revenue requirement. The model determines fixed and variable sales given the number of accounts and demand for treated and raw water. Given the assumptions in the model and under our District's current rate structure, the fixed percentage of water sales revenue averages 37%.

### **Revenue Assumptions:**

The model accepts the following revenue assumption changes: water sales (% increase, accounts, usage), other revenue, taxes, electric power, recreation, investment earnings and external bond financing

### **Expense Assumptions:**

The model accepts the following expense assumption changes: COLA, merit increase, medical, operating & maintenance, PERS Contribution, and capital project spending. Expense assumptions play a vital role in determining overall cash flows and thus the user can investigate various scenarios considering external and internal District challenges.

## Nevada Irrigation District 5-Year Cash Forecast at 2018

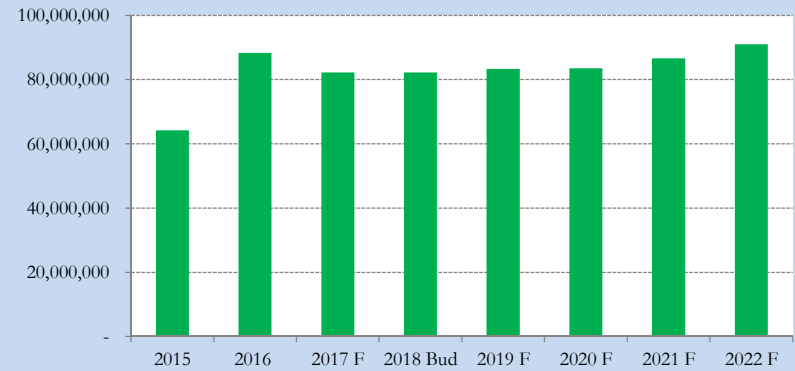
### Revenue Assumptions

Water Sales	<input type="text" value="6.0%"/>	<input type="text" value="2.0%"/>	Account Growth	<input type="text" value="2.0%"/>
Other Revenue	<input type="text" value="3.0%"/>	<input type="text" value="2.0%"/>	Usage Growth	<input type="text" value="2.0%"/>
Property Taxes	<input type="text" value="3.0%"/>			
Electric Power	<input type="text" value="5.5%"/>			
Recreation Rate	<input type="text" value="3.0%"/>			

	2019	2020	2021	2022
Bond Proceeds	3,623,751	-	-	-
Capacity Fees	1,381,571	1,381,571	1,381,571	1,381,571

### Total Revenues



### Expense Assumptions

COLA	<input type="text" value="3.0%"/>	<input type="text" value="5.0%"/>	Medical	<input type="text" value="5.0%"/>
Avg Merits	<input type="text" value="2.5%"/>	<input type="text" value="6.50%"/>	PERS	<input type="text" value="6.50%"/>
O&M	<input type="text" value="1.5%"/>			

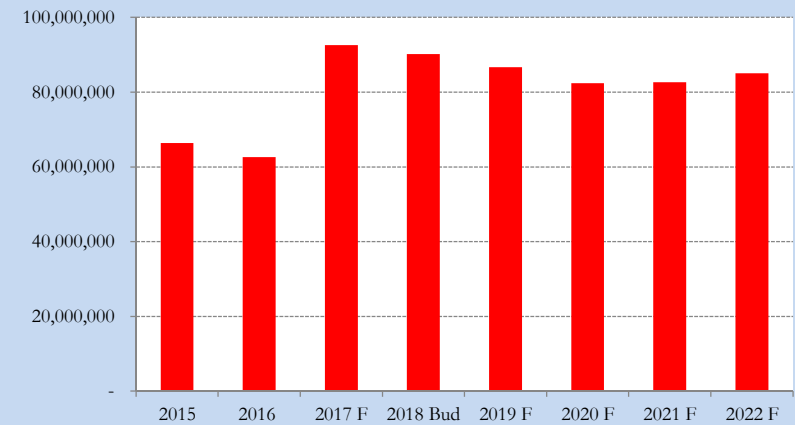
  

	2018	2019	2020	2021	2022
PERS Rates	29.973	31.921	33.996	36.206	38.559

Capital Projects	2018	2019	2020	2021	2022
Water	26,120,000	19,823,751	13,730,000	11,640,000	11,640,000
Electric	4,200,000	4,200,000	4,200,000	4,200,000	4,200,000
Recreation	315,000	435,000	135,000	135,000	125,000
<b>Total</b>	<b>30,635,000</b>	<b>24,458,751</b>	<b>18,065,000</b>	<b>15,975,000</b>	<b>15,965,000</b>

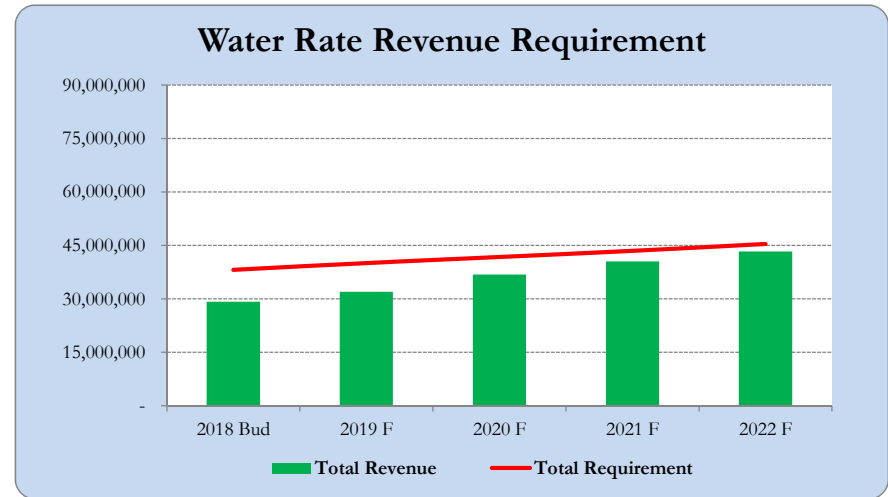
### Total Expenses



## Nevada Irrigation District 5-Year Cash Forecast at 2018

### Water Rate Revenue Requirement

	2018 Bud	2019 F	2020 F	2021 F	2022 F
Total Requirement	38,134,377	40,069,914	41,719,402	43,494,559	45,396,160
<u>Other Sources</u>					
New Connect/Install	199,369	205,350	211,511	217,856	224,392
Reimburse/Fees	731,629	753,578	776,185	799,471	823,455
Standby	128,740	132,602	136,580	140,677	144,898
Transfer In	4,503,940	4,503,940	4,503,940	4,503,940	4,503,940
Non Oper Surplus	5,984	1,392,581	4,138,557	5,615,813	6,014,686
Above Sources	5,569,662	6,988,050	9,766,773	11,277,757	11,711,370
<u>Water Sales</u>					
	6%	6.0%			
	2018 Rates	2019	2020	2021	2022
Trt Base (Bi-Mon)	49.65	52.63	55.79	59.14	62.68
Raw Base	483.15	512.14	542.87	575.44	609.96
Up to 10 hcf	2.04	2.17	2.30	2.44	2.58
Over 10 hcf	2.65	2.81	2.98	3.16	3.35
Raw Var per (MI)	268.66	284.78	301.86	319.97	339.17
<u>Customer Accounts</u>					
Trt Customer Accounts	19,680	20,074	20,475	20,885	
Raw Customer Accounts	5,814	5,930	6,049	6,170	
Trt Usage: AF	12,346	12,593	12,845	13,102	
Raw Usage: AF	122,000	124,440	126,929	129,467	
<u>Water Sales</u>					
Trt Base	\$ 6,214,668	\$ 6,719,299	\$ 7,264,906	\$ 7,854,817	
Raw Base	2,977,564	3,219,342	3,480,753	3,763,390	
Trt Commodity (To 10 hcf)	3,497,470	3,781,464	4,088,519	4,420,507	
Trt Commodity (Over 10 hcf)	10,582,088	11,441,354	12,370,392	13,374,867	
Raw Commodity	1,737,136	1,878,192	2,030,701	2,195,594	
Total	23,659,078	\$25,008,926	\$ 27,039,651	\$ 29,235,270	\$ 31,609,174
Total Revenue	29,228,740	31,996,976	36,806,424	40,513,027	43,320,545
Over/(Under)	(8,905,637)	(8,072,938)	(4,912,978)	(2,981,532)	(2,075,615)
Fixed % of Rev		37%	37%	37%	37%



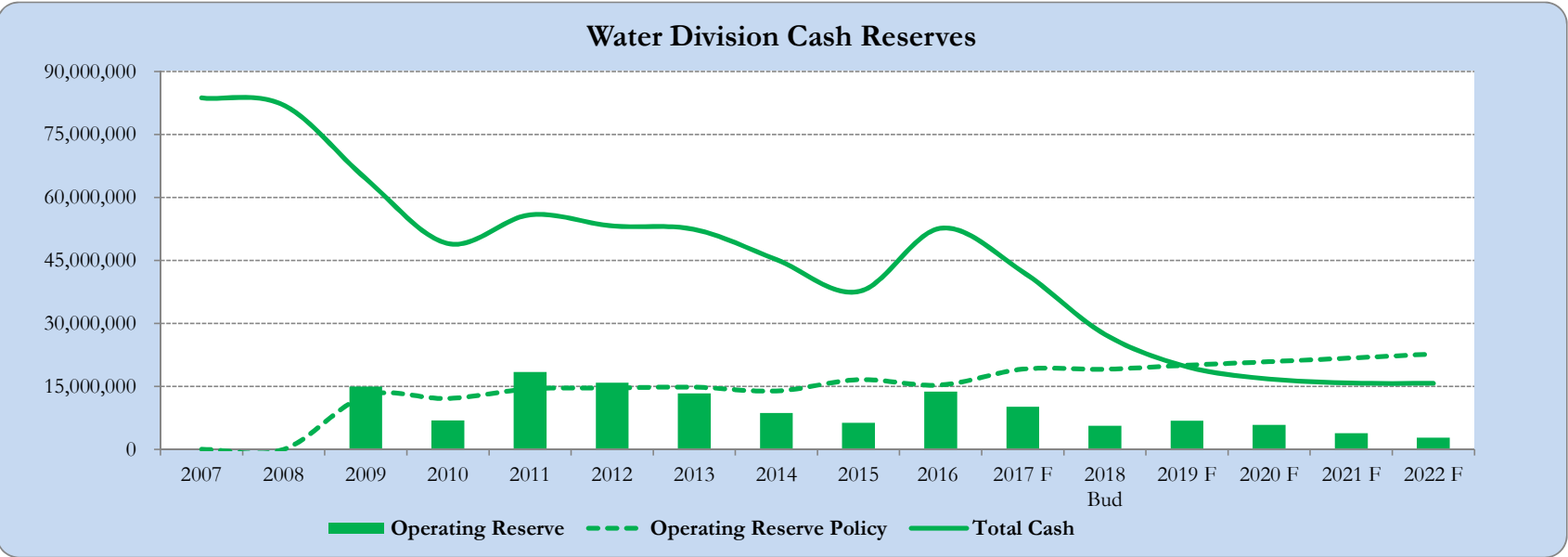
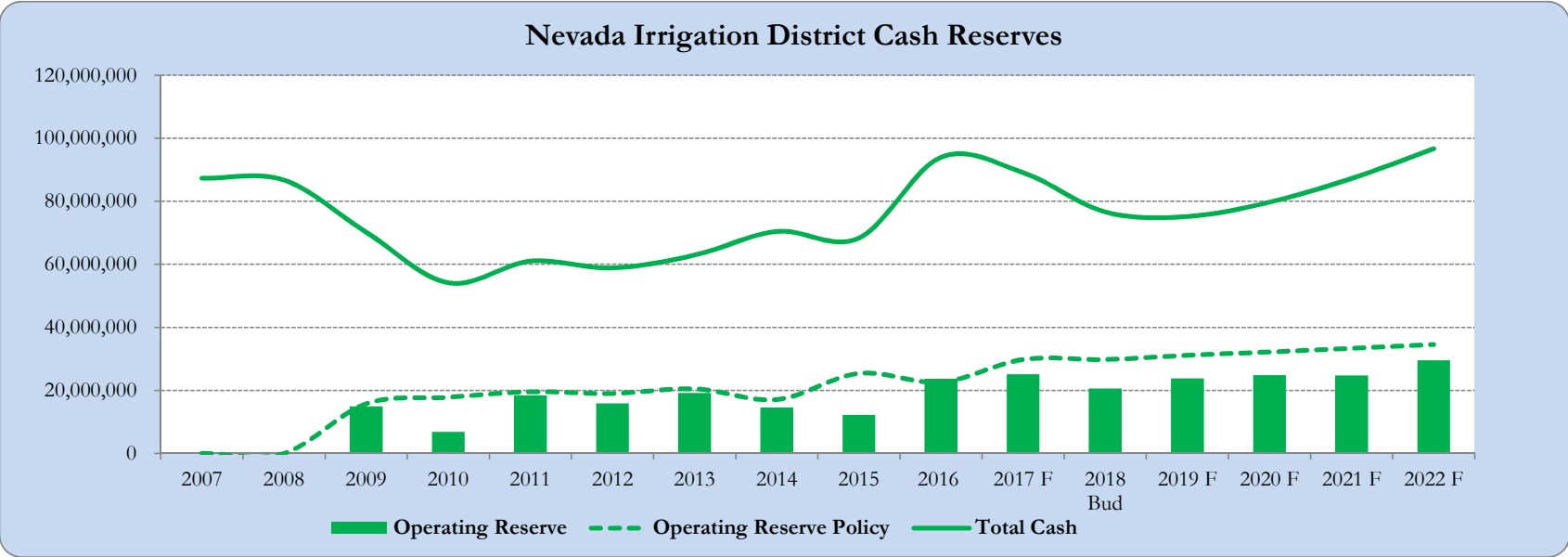
### Expenses

- + Operating Budget (Long-term Assumptions)
- + Reserve building

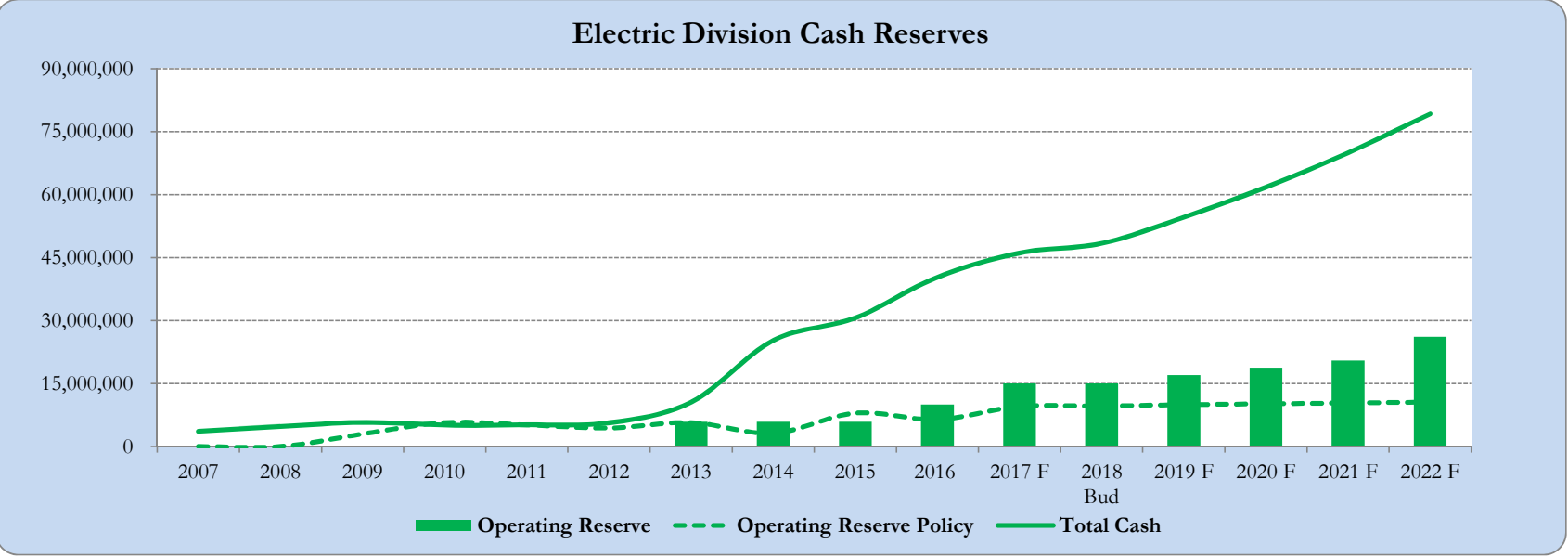
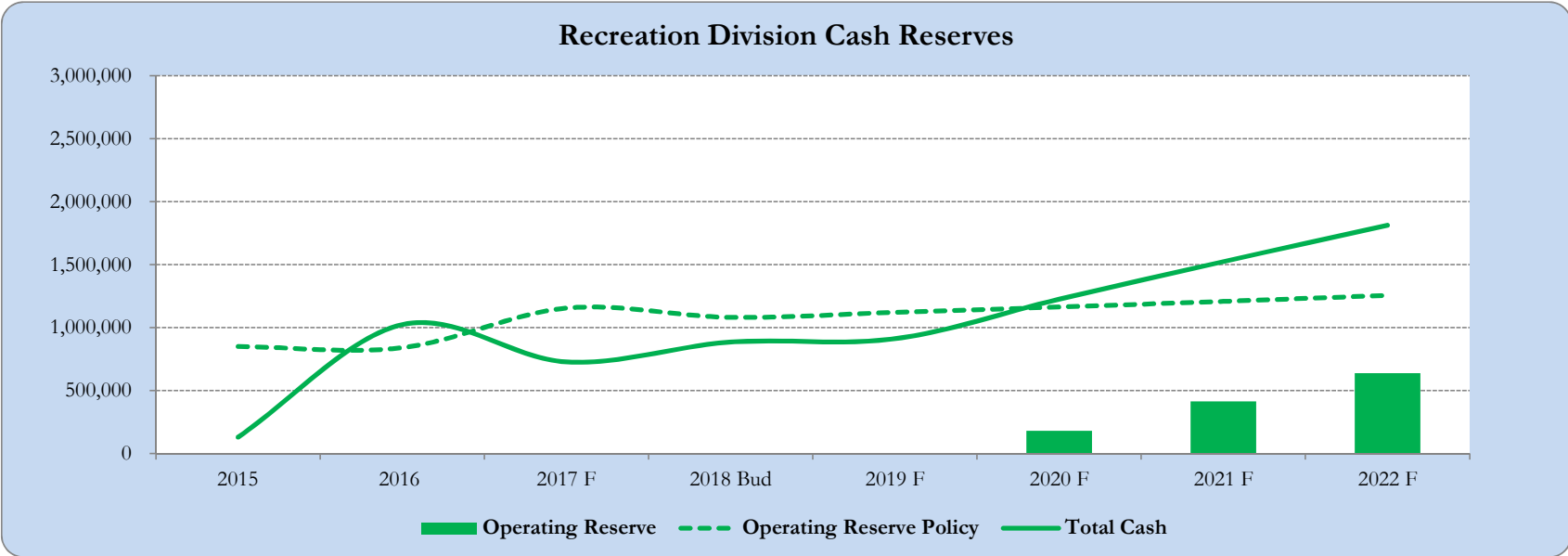
### Revenues

- Water Sales(6% Rate, 2% Demand)
- Water Account & Demand (In Model)
- Other Revenues Indicated
- Transfers In from Hydroelectric (\$22.5M)
- Non Operating Surplus (\$17.1M)
- = Over / (Under) Revenue Requirement

### Nevada Irrigation District 5-Year Cash Forecast at 2018



# Nevada Irrigation District 5-Year Cash Forecast at 2018





## Nevada Irrigation District 5-Year Cash Forecast at 2018: All Divisions

		2015	2016	2017 Fcst	2018 Bud	2019 Fcst	2020 Fcst	2021 Fcst	2022 Fcst
<b><u>Operating Cash Flows</u></b>									
<b>Revenues</b>	Water Sales	18,106,318	19,556,293	21,906,554	23,659,078	25,008,926	27,039,651	29,235,270	31,609,174
	Hydro Receipts	21,287,812	22,569,168	23,355,867	20,043,949	24,640,439	25,995,664	27,425,425	28,933,823
	Recreation Receipts	1,764,071	2,132,462	2,218,605	2,319,273	2,388,852	2,460,517	2,534,333	2,610,363
	New Connect/Install	391,315	225,972	199,369	199,369	205,350	211,511	217,856	224,392
	Reimburse/Fees	1,175,124	714,501	731,629	731,629	753,578	776,185	799,471	823,455
	Standby	127,318	124,533	121,453	128,740	132,602	136,580	140,677	144,898
	Transfer In	6,064,253	3,885,463	3,615,290	4,503,940	4,503,940	4,503,940	4,503,940	4,503,940
<b>Revenues Sum</b>		<b>48,916,211</b>	<b>49,208,392</b>	<b>52,148,765</b>	<b>51,585,978</b>	<b>57,633,687</b>	<b>61,124,047</b>	<b>64,856,972</b>	<b>68,850,045</b>
<b>Expenses</b>	Benefits	8,079,071	8,833,070	10,789,889	11,784,207	13,067,680	14,022,890	15,075,084	16,235,212
	Debt Service	5,595,338	4,072,167	4,189,673	4,190,493	4,237,953	4,237,013	4,241,119	4,240,013
	Fixed Assets	1,481,689	1,607,122	2,444,023	2,320,100	2,235,600	2,235,600	2,235,600	2,235,600
	OPEB Funding	1,163,000	98,000	646,000	777,000	777,000	777,000	777,000	777,000
	Oper & Main	12,801,775	11,749,920	15,575,738	16,115,405	16,357,136	16,602,493	16,851,531	17,104,303
	Salary	11,968,510	14,002,016	15,936,730	15,676,684	16,550,659	17,473,358	18,447,498	19,475,946
	Transfer Out to Rec	-	500,000	200,000	315,000	315,000	315,000	315,000	315,000
	Transfer Out to Water	6,046,064	3,027,008	3,150,000	4,190,000	4,503,940	4,503,940	4,503,940	4,503,940
	Transfer Out to Projects	3,631,395	1,288,652	6,635,177	4,200,000	4,200,000	4,200,000	4,200,000	4,200,000
<b>Expenses Sum</b>		<b>50,766,842</b>	<b>45,177,955</b>	<b>59,567,229</b>	<b>59,568,889</b>	<b>62,244,968</b>	<b>64,367,294</b>	<b>66,646,771</b>	<b>69,087,014</b>
	Operating Surplus/(Deficit)	(1,850,631)	4,030,437	(7,418,464)	(7,982,911)	(4,611,281)	(3,243,247)	(1,789,799)	(236,969)

## Nevada Irrigation District 5-Year Cash Forecast at 2018: All Divisions

		2015	2016	2017 Fcst	2018 Bud	2019 Fcst	2020 Fcst	2021 Fcst	2022 Fcst
<b><u>Non Operating Cash Flows</u></b>									
<b>Revenues</b>	Property Taxes	10,433,904	11,070,399	11,535,640	11,881,710	12,238,161	12,605,306	12,983,465	13,372,969
	Capacity Fees	235,241	575,282	367,437	378,460	1,760,031	1,760,031	1,760,031	1,760,031
	Proceeds, Contr Cap	433,962	24,169,006	8,948,892	10,000,000	3,623,751	-	-	-
	Rents & Leases	101,065	134,796	280,210	285,814	294,388	303,220	312,317	321,686
	Grants	254,987	463,418	807,760	2,380,000	2,100,000	2,000,000	1,000,000	1,000,000
	Interest Income	173,636	865,295	1,264,100	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000
	Transfer In From Operating	3,613,206	1,271,169	6,437,582	4,200,000	4,200,000	4,200,000	4,200,000	4,200,000
	Transfer In from Hydro	-	500,000	397,500	315,000	315,000	315,000	315,000	315,000
<b>Revenues Sum</b>		<b>15,246,001</b>	<b>39,049,365</b>	<b>30,039,121</b>	<b>30,640,984</b>	<b>25,731,332</b>	<b>22,383,557</b>	<b>21,770,813</b>	<b>22,169,686</b>
<b>Expenses</b>	Capital Projects	15,589,395	17,396,118	33,016,143	30,635,000	24,458,751	18,065,000	15,975,000	15,965,000
	<b>Expenses Sum</b>	<b>15,589,395</b>	<b>17,396,118</b>	<b>33,016,143</b>	<b>30,635,000</b>	<b>24,458,751</b>	<b>18,065,000</b>	<b>15,975,000</b>	<b>15,965,000</b>
	Non Operating Surplus/(Deficit)	(343,394)	21,653,247	(2,977,021)	5,984	1,272,581	4,318,557	5,795,813	6,204,686
	<b>Total Surplus/(Deficit)</b>	<b>(2,194,025)</b>	<b>25,683,684</b>	<b>(10,395,485)</b>	<b>(7,976,927)</b>	<b>(3,338,700)</b>	<b>1,075,310</b>	<b>4,006,014</b>	<b>5,967,717</b>
<b>Cash Reserves</b>									
	Operating Cash	24,207,168	7,332,526	7,073,224	7,646,297	7,397,403	6,728,728	6,921,450	6,685,251
	Operating Reserve	12,209,707	23,719,569	25,154,327	20,604,327	23,804,327	24,784,711	24,718,003	29,541,919
	Designated: Other	25,096,305	36,276,027	36,913,354	38,413,354	36,743,548	40,127,149	46,627,149	50,627,149
	Restricted Reserves	6,801,736	26,670,478	19,962,210	9,962,210	7,218,459	8,098,459	8,978,459	9,858,459
	<b>Total Cash</b>	<b>68,314,916</b>	<b>93,998,600</b>	<b>89,103,115</b>	<b>76,626,188</b>	<b>75,163,737</b>	<b>79,739,047</b>	<b>87,245,061</b>	<b>96,712,778</b>
	Operating Reserve Policy	25,383,421	22,588,977	29,783,615	29,784,444	31,122,484	32,183,647	33,323,386	34,543,507
	Months Operating Reserve	2.89	6.30	5.07	4.15	4.59	4.62	4.45	5.13

## Nevada Irrigation District 5-Year Cash Forecast at 2018: Water Division

		2015	2016	2017 Fcst	2018 Bud	2019 Fcst	2020 Fcst	2021 Fcst	2022 Fcst
<b><u>Operating Cash Flows</u></b>									
<b>Revenues</b>	Water Sales	18,106,318	19,556,293	21,906,554	23,659,078	25,008,926	27,039,651	29,235,270	31,609,174
	New Connect/Install	391,315	225,972	199,369	199,369	205,350	211,511	217,856	224,392
	Reimburse/Fees	1,175,124	714,501	731,629	731,629	753,578	776,185	799,471	823,455
	Standby	127,318	124,533	121,453	128,740	132,602	136,580	140,677	144,898
	Transfer In	6,064,253	3,885,463	3,615,290	4,503,940	4,503,940	4,503,940	4,503,940	4,503,940
<b>Revenues Sum</b>		<b>25,864,328</b>	<b>24,506,762</b>	<b>26,574,294</b>	<b>29,222,756</b>	<b>30,604,396</b>	<b>32,667,866</b>	<b>34,897,214</b>	<b>37,305,858</b>
<b>Expenses</b>	Salary	9,697,736	11,318,344	12,707,846	12,447,457	13,141,402	13,874,035	14,647,513	15,464,112
	Benefits	6,759,693	7,688,880	8,911,077	9,682,027	10,729,694	11,498,828	12,345,510	13,278,463
	Oper & Main	8,676,693	6,489,309	9,948,030	9,764,300	9,910,765	10,059,426	10,210,317	10,363,472
	Fixed Assets	1,457,479	1,385,831	1,578,486	1,297,100	1,297,100	1,297,100	1,297,100	1,297,100
	Debt Service	5,545,338	3,745,330	4,189,673	4,190,493	4,237,953	4,237,013	4,241,119	4,240,013
	OPEB Funding	1,013,000	-	646,000	753,000	753,000	753,000	753,000	753,000
	Transfer Out to Rec	-	-	200,000	-	-	-	-	-
<b>Expenses Sum</b>		<b>33,149,939</b>	<b>30,627,694</b>	<b>38,181,113</b>	<b>38,134,377</b>	<b>40,069,914</b>	<b>41,719,402</b>	<b>43,494,559</b>	<b>45,396,160</b>
Operating Surplus/(Deficit)		(7,285,611)	(6,120,932)	(11,606,818)	(8,911,621)	(9,465,518)	(9,051,535)	(8,597,345)	(8,090,301)

## Nevada Irrigation District 5-Year Cash Forecast at 2018: Water Division

		2015	2016	2017 Fcst	2018 Bud	2019 Fcst	2020 Fcst	2021 Fcst	2022 Fcst
<b><u>Non Operating Cash Flows</u></b>									
<b>Revenues</b>	Property Taxes	10,433,904	11,070,399	11,535,640	11,881,710	12,238,161	12,605,306	12,983,465	13,372,969
	Capacity Fees	235,241	575,282	367,437	378,460	1,760,031	1,760,031	1,760,031	1,760,031
	Proceeds, Contr Cap	433,962	24,169,006	8,948,892	10,000,000	3,623,751	-	-	-
	Rents & Leases	101,065	134,796	280,210	285,814	294,388	303,220	312,317	321,686
	Grants	254,987	463,418	807,760	2,380,000	2,100,000	2,000,000	1,000,000	1,000,000
	Interest Income	173,636	865,295	1,264,100	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000
<b>Revenues Sum</b>		<b>11,632,795</b>	<b>37,278,196</b>	<b>23,204,039</b>	<b>26,125,984</b>	<b>21,216,332</b>	<b>17,868,557</b>	<b>17,255,813</b>	<b>17,654,686</b>
<b>Expenses</b>	Capital Projects	11,976,189	16,066,852	25,976,061	26,120,000	19,823,751	13,730,000	11,640,000	11,640,000
	<b>Expenses Sum</b>	<b>11,976,189</b>	<b>16,066,852</b>	<b>25,976,061</b>	<b>26,120,000</b>	<b>19,823,751</b>	<b>13,730,000</b>	<b>11,640,000</b>	<b>11,640,000</b>
Non Operating Surplus/(Deficit)		(343,394)	21,211,344	(2,772,021)	5,984	1,392,581	4,138,557	5,615,813	6,014,686
<b>Total Surplus/(Deficit)</b>		<b>(7,629,005)</b>	<b>15,090,412</b>	<b>(14,378,840)</b>	<b>(8,905,637)</b>	<b>(8,072,938)</b>	<b>(4,912,978)</b>	<b>(2,981,532)</b>	<b>(2,075,615)</b>
Encumbr Carryover				4,000,000	4,000,000	4,000,000	2,000,000	2,000,000	2,000,000
Bond Proceeds Spent					(10,000,000)	(3,623,751)			
<b>Water Cash Reserves</b>									
Operating Cash		9,626,587	4,080,401	3,975,071	3,619,434	3,144,062	2,851,084	2,989,552	3,033,937
Operating Reserve		6,299,970	13,719,569	10,154,327	5,604,327	6,804,327	5,804,327	3,804,327	2,804,327
Designated: Other		14,829,309	8,177,566	8,177,566	8,177,566	2,500,000	0	0	0
Restricted Reserves		6,801,736	26,670,478	19,962,210	9,962,210	7,218,459	8,098,459	8,978,459	9,858,459
<b>Total Cash</b>		<b>37,557,602</b>	<b>52,648,014</b>	<b>42,269,174</b>	<b>27,363,537</b>	<b>19,666,848</b>	<b>16,753,870</b>	<b>15,772,338</b>	<b>15,696,723</b>
Operating Reserve Policy		16,574,969	15,313,847	19,090,556	19,067,188	20,034,957	20,859,701	21,747,280	22,698,080
Months Operating Reserve		2.28	5.38	3.19	1.76	2.04	1.67	1.05	.74
Debt Coverage				3.91	3.25	4.11	4.52	4.96	5.42

## Nevada Irrigation District 5-Year Cash Forecast at 2018: Recreation Division

		2015	2016	2017 Fcst	2018 Bud	2019 Fcst	2020 Fcst	2021 Fcst	2022 Fcst
<b><u>Operating Cash Flows</u></b>									
<b>Revenues</b>	Recreation Receipts	1,764,071	2,132,462	2,218,605	2,319,273	2,388,852	2,460,517	2,534,333	2,610,363
<b>Revenues Sum</b>		<b>1,764,071</b>	<b>2,132,462</b>	<b>2,218,605</b>	<b>2,319,273</b>	<b>2,388,852</b>	<b>2,460,517</b>	<b>2,534,333</b>	<b>2,610,363</b>
<b>Expenses</b>	Salary	405,879	497,580	599,632	531,712	561,355	592,650	625,691	660,573
	Benefits	218,391	175,982	371,270	406,478	439,218	473,745	511,672	553,375
	Oper & Main	984,166	965,570	1,141,383	1,199,870	1,217,868	1,236,136	1,254,678	1,273,498
	Debt Service	50,000	-	-	-	-	-	-	-
	OPEB Funding	23,000	24,000	-	24,000	24,000	24,000	24,000	24,000
	Transfer Out to Projects	18,189	17,483	197,595	-	-	-	-	-
<b>Expenses Sum</b>		<b>1,699,625</b>	<b>1,680,616</b>	<b>2,309,880</b>	<b>2,162,060</b>	<b>2,242,441</b>	<b>2,326,532</b>	<b>2,416,041</b>	<b>2,511,446</b>
Operating Surplus/(Deficit)		64,446	451,846	(91,275)	157,213	146,411	133,985	118,292	98,916
<b><u>Non Operating Cash Flows</u></b>									
<b>Revenues</b>	Transfer In from Hydro	-	500,000	397,500	315,000	315,000	315,000	315,000	315,000
<b>Revenues Sum</b>		<b>-</b>	<b>500,000</b>	<b>397,500</b>	<b>315,000</b>	<b>315,000</b>	<b>315,000</b>	<b>315,000</b>	<b>315,000</b>
<b>Expenses</b>	Capital Projects	-	58,097	602,500	315,000	435,000	135,000	135,000	125,000
<b>Expenses Sum</b>		<b>-</b>	<b>58,097</b>	<b>602,500</b>	<b>315,000</b>	<b>435,000</b>	<b>135,000</b>	<b>135,000</b>	<b>125,000</b>
Non Operating Surplus/(Deficit)		-	441,903	(205,000)	-	(120,000)	180,000	180,000	190,000
<b>Total Surplus/(Deficit)</b>		<b>64,446</b>	<b>893,749</b>	<b>(296,275)</b>	<b>157,213</b>	<b>26,411</b>	<b>313,985</b>	<b>298,292</b>	<b>288,916</b>

## Nevada Irrigation District 5-Year Cash Forecast at 2018: Recreation Division

	2015	2016	2017 Fcst	2018 Bud	2019 Fcst	2020 Fcst	2021 Fcst	2022 Fcst
<b>Recreation Cash Reserves</b>								
Operating Cash	130,301	452,547	619,136	776,349	795,000	545,000	610,000	675,000
Operating Reserve	0	0	0	0	0	180,384	413,676	637,592
Designated: Other	0	571,503	108,639	108,639	116,399	500,000	500,000	500,000
Restricted Reserves	0	0	0	0	0	0	0	0
<b>Total Cash</b>	<b>130,301</b>	<b>1,024,050</b>	<b>727,775</b>	<b>884,988</b>	<b>911,399</b>	<b>1,225,384</b>	<b>1,523,676</b>	<b>1,812,592</b>
Operating Reserve Policy	849,813	840,308	1,154,940	1,081,030	1,121,221	1,163,266	1,208,020	1,255,723
Months Operating Reserve	.00	.00	.00	.00	.00	.93	2.05	3.05

## Nevada Irrigation District 5-Year Cash Forecast at 2018: Electric Division

		2015	2016	2017 Fcst	2018 Bud	2019 Fcst	2020 Fcst	2021 Fcst	2022 Fcst
<b><u>Operating Cash Flows</u></b>									
<b>Revenues</b>	Hydro Receipts	21,287,812	22,569,168	23,355,867	20,043,949	24,640,439	25,995,664	27,425,425	28,933,823
<b>Revenues Sum</b>		<b>21,287,812</b>	<b>22,569,168</b>	<b>23,355,867</b>	<b>20,043,949</b>	<b>24,640,439</b>	<b>25,995,664</b>	<b>27,425,425</b>	<b>28,933,823</b>
<b>Expenses</b>	Salary	1,864,895	2,186,091	2,629,252	2,697,515	2,847,901	3,006,672	3,174,294	3,351,261
	Benefits	1,100,987	968,208	1,507,541	1,695,702	1,898,768	2,050,317	2,217,902	2,403,373
	Oper & Main	3,140,916	4,295,041	4,486,324	5,151,235	5,228,504	5,306,931	5,386,535	5,467,333
	Fixed Assets	24,210	221,291	865,537	1,023,000	938,500	938,500	938,500	938,500
	Debt Service	-	326,837	-	-	-	-	-	-
	OPEB Funding	127,000	74,000	-	-	-	-	-	-
	Transfer Out to Rec	-	500,000	-	315,000	315,000	315,000	315,000	315,000
	Transfer Out to Water	6,046,064	3,027,008	3,150,000	4,190,000	4,503,940	4,503,940	4,503,940	4,503,940
	Transfer Out to Projects	3,613,206	1,271,169	6,437,582	4,200,000	4,200,000	4,200,000	4,200,000	4,200,000
<b>Expenses Sum</b>		<b>15,917,278</b>	<b>12,869,645</b>	<b>19,076,237</b>	<b>19,272,452</b>	<b>19,932,613</b>	<b>20,321,360</b>	<b>20,736,171</b>	<b>21,179,407</b>
Operating Surplus/(Deficit)		5,370,534	9,699,523	4,279,630	771,497	4,707,827	5,674,303	6,689,254	7,754,416
<b><u>Non Operating Cash Flows</u></b>									
<b>Revenues</b>	Transfer In From Operating	3,613,206	1,271,169	6,437,582	4,200,000	4,200,000	4,200,000	4,200,000	4,200,000
<b>Revenues Sum</b>		<b>3,613,206</b>	<b>1,271,169</b>	<b>6,437,582</b>	<b>4,200,000</b>	<b>4,200,000</b>	<b>4,200,000</b>	<b>4,200,000</b>	<b>4,200,000</b>
<b>Expenses</b>	Capital Projects	3,613,206	1,271,169	6,437,582	4,200,000	4,200,000	4,200,000	4,200,000	4,200,000
<b>Expenses Sum</b>		<b>3,613,206</b>	<b>1,271,169</b>	<b>6,437,582</b>	<b>4,200,000</b>	<b>4,200,000</b>	<b>4,200,000</b>	<b>4,200,000</b>	<b>4,200,000</b>
Non Operating Surplus/(Deficit)		-	-	-	-	-	-	-	-

## Nevada Irrigation District 5-Year Cash Forecast at 2018: Electric Division

	2015	2016	2017 Fcst	2018 Bud	2019 Fcst	2020 Fcst	2021 Fcst	2022 Fcst
Total Surplus/(Deficit)	5,370,534	9,699,523	4,279,630	771,497	4,707,827	5,674,303	6,689,254	7,754,416
Encumbr Carryover			1,500,000	1,500,000	1,500,000	1,500,000	1,500,000	1,500,000
<b>Electric Cash Reserves</b>								
Operating Cash	14,450,280	2,799,578	2,479,017	3,250,514	3,458,341	3,332,644	3,321,898	2,976,314
Operating Reserve	5,909,737	10,000,000	15,000,000	15,000,000	17,000,000	18,800,000	20,500,000	26,100,000
Designated: Other	10,266,996	27,526,958	28,627,149	30,127,149	34,127,149	39,627,149	46,127,149	50,127,149
Restricted Reserves	0	0	0	0	0	0	0	0
<b>Total Cash</b>	<b>30,627,013</b>	<b>40,326,536</b>	<b>46,106,166</b>	<b>48,377,663</b>	<b>54,585,490</b>	<b>61,759,793</b>	<b>69,949,047</b>	<b>79,203,463</b>
Operating Reserve Policy	7,958,639	6,434,823	9,538,118	9,636,226	9,966,306	10,160,680	10,368,086	10,589,704
Months Operating Reserve	4.46	9.32	9.44	9.34	10.23	11.10	11.86	14.79



# Nevada Irrigation District

Short-Term Cash Forecast: Dec 2017 thru Dec 2018

Forecast ⇨						
	2017 Dec	2018 Jan - Mar	2018 Apr - Jun	2018 Jul - Sep	2018 Oct - Dec	
Wells Fargo	4,013,661					
LAIF	5,283,882					
Short-T Cash	\$ 9,297,543					
<u>Wells Fargo</u>						<b>Reconcile to Budget Total</b>
Budget Receipts		16,478,689	15,300,908	16,155,225	14,073,200	62,008,022
True-Up Receipts						-
Budget Disbursements		18,937,367	17,018,479	23,858,166	21,684,876	81,498,889
True-Up Disbursements						
Transfer Ins/(Outs)		2,400,000	1,800,000	7,700,000	7,600,000	
Ending Balance		3,954,982	4,037,411	4,034,471	4,022,794	
<u>LAIF</u>						
2016A Drawdown		5,000,000	-	5,000,000	-	(19,490,867) Budget Rec - Disb
Transfer Ins/(Outs) WF		(2,400,000)	(1,800,000)	(7,700,000)	(7,600,000)	1,513,940 Interfund, Interest
Transfer Ins/(Outs) UB		800,000	300,000	2,300,000	6,889,000	10,000,000 2016A Cash
Ending Balance		8,683,882	7,183,882	6,783,882	6,072,882	(7,976,927) Original Budget
<b>Total Short-Term Cash</b>	<b>\$ 12,638,864</b>	<b>\$ 11,221,293</b>	<b>\$ 10,818,353</b>	<b>\$ 10,095,676</b>		



# Nevada Irrigation District

## 2018 Short & Long-Term Cash Forecasting



# Short-term Cash Forecast



Forecast ⇨						
	2017 <u>Dec</u>	2018 <u>Jan - Mar</u>	2018 <u>Apr - Jun</u>	2018 <u>Jul - Sep</u>	2018 <u>Oct - Dec</u>	
Wells Fargo	4,013,661					
LAIF	<u>5,283,882</u>					
Short-T Cash	\$ 9,297,543					
<b>Wells Fargo</b>						
Budget Receipts		16,478,689	15,300,908	16,155,225	14,073,200	62,008,022
True-Up Receipts						-
Budget Disbursements		18,937,367	17,018,479	23,858,166	21,684,876	81,498,889
True-Up Disbursements						
Transfer Ins/(Outs)		<u>2,400,000</u>	<u>1,800,000</u>	<u>7,700,000</u>	<u>7,600,000</u>	
Ending Balance		3,954,982	4,037,411	4,034,471	4,022,794	
<b>LAIF</b>						
2016A Drawdown		5,000,000	-	5,000,000	-	(19,490,867) Budget Rec - Disb
Transfer Ins/(Outs) WF		(2,400,000)	(1,800,000)	(7,700,000)	(7,600,000)	1,513,940 Interfund, Interest
Transfer Ins/(Outs) UB		<u>800,000</u>	<u>300,000</u>	<u>2,300,000</u>	<u>6,889,000</u>	<u>10,000,000</u> 2016A Cash
Ending Balance		8,683,882	7,183,882	6,783,882	6,072,882	(7,976,927) Original Budget
<b>Total Short-Term Cash</b>	<b>\$ 12,638,864</b>	<b>\$ 11,221,293</b>	<b>\$ 10,818,353</b>	<b>\$ 10,818,353</b>	<b>\$ 10,095,676</b>	



# Long-term Cash Forecast

FY 2018 - 2022

## Revenue (Receipts) Forecast Assumptions:

- Water Sales = 6% Rate 2% Growth, Other Revenue = 3%, Taxes = 3%
- Electric Power = 5.5%, Recreation Rates = 2.5%, Interest Income flat
- Bond Proceeds Drawdown = \$13.6M

## Expense (Disbursements) Forecast Assumptions:

- COLA = 3%, Avg. Merits = 2.5%, O&M = 1.5%, Medical = 5%
- ER PERS = 6.5% increase (Rates: 29.97 – 31.92 – 33.99 – 36.20 – 38.55)
- Capital Spending (Water: \$82.9M, Electric: \$21M, Recreation: \$1.1M), Total = \$105M, OPEB = \$3.8M

Account & Usage Assumptions: Assumes 1% growth in account & demand

Treated Water Customers: 19,680 to 20,885

Raw Water Customers: 5,814 to 6,170

Treated Water Demand (AF): 12,346 to 13,102

Raw Water Demand (AF): 122,000 to 129,467



# Long-term Cash Forecast



## Water Rate Revenue Forecasting

### Expenses

- + Operating Budget (Long-term Assumptions)
- + Reserve building

### Revenues

- \_ Water Sales(6% Rate, 2% Demand)
- \_ Water Account & Demand (In Model)
- \_ Other Revenues Indicated
- \_ Transfers In from Hydroelectric (\$22.5M)
- \_ Non Operating Surplus (\$17.1M)
- = Over / (Under) Revenue Requirement