



JOSHUA BASIN WATER DISTRICT  
 REGULAR MEETING OF THE BOARD OF DIRECTORS  
 WEDNESDAY AUGUST 17, 2011 7:00 PM  
 61750 CHOLLITA ROAD, JOSHUA TREE, CA 92252  
 AGENDA

1. CALL TO ORDER
2. PLEDGE OF ALLEGIANCE
3. DETERMINATION OF QUORUM
4. APPROVAL OF AGENDA
5. PUBLIC COMMENT: At this time, any member of the public may address the Board on matters within the Board’s jurisdiction that are not listed on the agenda. Please use the podium microphone. The Board may not discuss at length or take action on items not on the agenda. During either "Public Comment" Item, please use the podium microphone. State your name and have your information prepared and be ready to provide your comments to the Board. The District is interested and appreciates your comments. A 3-minute time limit may be imposed. Thank you.
6. CONSENT CALENDAR: Items on the Consent Calendar are considered routine in nature and will be adopted in total by one action of the Board of Directors unless any Board Member or any individual or organization interested in one or more consent calendar items wishes to be heard.
  - A. Approve Minutes of the Regular Board Meeting of August 3, 2011
7. AUTHORIZATION TO APPLY FOR GRANT FOR GROUND WATER RECHARGE PROJECT  
 Recommend that the Board adopt Resolution #11-874 authorizing the General Manager to apply for a Proposition 84 grant in the amount of approximately \$4 million and authorize Dudek Engineering to prepare the grant application at a cost of up to \$11,000.
8. 2011/2012 SUPPLEMENTAL BUDGET APPROVAL  
 Recommend that the Board approve or modify the 2011/2012 Supplemental Budget.
9. COMMITTEE REPORTS
  - A: PUBLIC INFORMATION COMMITTEE: Kathleen Radnich, Public Outreach Consultant
  - B: AD HOC GENERAL MANAGER PERFORMANCE FACILITATED REVIEW PROCESS: Vice President Reynolds and Director Long:

Pg 1-5

Pg 6-8

Pg 9-18

10. PUBLIC COMMENT

At this time, any member of the public may address the Board on matters within the Board's jurisdiction that are not listed on the agenda. Please use the podium microphone. The Board may not discuss at length or take action on items not on the agenda.

11. GENERAL MANAGER REPORT

12. DIRECTORS COMMENTS/REPORTS

13. CLOSED SESSION

A. At this time, the Board will go into Closed Session to confer with Legal Counsel on existing litigation pursuant to subdivision (a) of Government Code Section 54956.9. (Re Joshua Basin Water District v. Robert Ellis, San Bernardino Superior Court - Joshua Tree District, Case No. CIVMS 900168).

B. At this time, the Board will go into Closed Session to confer with Legal Counsel on existing litigation pursuant to subdivision (a) of Government Code Section 54956.9. (Re Joshua Basin Water District v. Ironhead LLC a California Limited Liability Company, Praxedes Beard and Does 1 – 10 inclusive, San Bernardino Superior Court - Joshua Tree District, Case No. CIVMS 1100087).

14. REPORT ON CLOSED SESSION

15. ADJOURNMENT

INFORMATION

The public is invited to comment on any item on the agenda during discussion of that item.

Any person with a disability who requires accommodation in order to participate in this meeting should telephone Joshua Basin Water District at (760) 366-8438, at least 48 hours prior to the meeting in order to make a request for a disability-related modification or accommodation.

Materials related to an item on this Agenda submitted to the Board of Directors after distribution of the agenda packet are available for public inspection in the District's office located at 61750 Chollita Road, Joshua Tree, California 92252 during normal business hours.

**JOSHUA BASIN WATER DISTRICT**  
**Minutes of the**  
**REGULAR MEETING OF THE BOARD OF DIRECTORS**  
**August 3, 2011**

1. **CALL TO ORDER: 7:00 PM**

2. **PLEDGE OF ALLEGIANCE**

3. **DETERMINATION OF QUORUM:**

Bill Long	Present
Mickey Luckman	Present
Michael Luhrs	Present
Mike Reynolds	Present
Gary Wilson	Present

**STAFF PRESENT:**

Joe Guzzetta, General Manager  
Ben Ruffner, Accountant  
Keith Faul, GIS Coordinator  
Randy Mayes, Senior Administrative Assistant

**CONSULTANTS PRESENT:**

Gil Granito, District Counsel  
Kathleen Radnich, Public Outreach Consultant

**GUESTS 18**

4. **APPROVAL OF AGENDA**

MSC Long/Reynolds 5/0 to approve the Agenda for the August 3, 2011 Regular Meeting of the Board of Directors.

5. **PUBLIC COMMENT**

Janet Tucker, ratepayer, commented on Director Luhrs' prior request for information. She stated her frustration with the director's refusal to pay for requested materials and the inevitable financial burden that is passed onto the community.

Fred Klintworth, ratepayer, commented on Director Luhrs' recent absence from two prior meetings. He went on to ask Director Luhrs what the role of a Director is, how one shows leadership, and how the director's position benefits the ratepayers of JBWD.

Barbara Delph, ratepayer, recalled that Director Luhrs frequently brings up discrepancies of behavior with fellow board members. She went on to quote several points from the *Board of Directors Best Practices* and concluded that in her review she found no missteps with fellow directors, but rather within director Luhrs himself.

6. **CONSENT CALENDAR**

MSC Long/Luhrs 5/0 to approve the minutes of the Regular Board Meeting of July 20, 2011 and to approve the financial report for June 2011.

7. **PRESENTATION BY UNITED STATES GEOLOGICAL SURVEY (USGS)**

General Manager Guzzetta introduced Peter Martin of USGS who gave the report. The major findings are that the ground water basin is currently in an overdraft condition. If you continue to do so you will experience one foot of water decline per year. In other words there is more pumpage then natural recharge to the groundwater system. One of the main sources of recharge is the septic tank effluent that's good; however, it is bad in that it has high nitrate concentrations. So that water is able to make it to the aquifer it becomes a source for recharge, but it also increases the nitrate load and based off of projections it will cause nitrate

concentrations at much of the groundwater basin to be above the drinking water standard of 45 mg/L. So the water would have to be blended with water from Copper Mountain or other areas of the basin that have low nitrate concentrations. If you have artificial recharge, the benefit would be that it would reduce the water level decline and result in water level recovery. Instead of water levels dropping one foot a year they will actually increase and you will add water to the bank. You would be creating a storage reservoir that could be utilized during drought conditions when there is not available surface water. If you put water in the bank it will help future generations because you will have that increase water. Another advantage of recharge is that it has low nitrate concentrations. So by adding the water you would essentially dilute the high nitrate concentration that has been added from the septic tank effluent. So in your main production wells instead of being above the drinking water standard through artificial recharge you would be below the water drinking standard making potable water because of diluting it with zero nitrates. And then the tools we developed we can then use to predict in the future what's going to happen with new growth. So if you continue no growth, we have done those scenarios. If you have proposed 2% growth, where are you going to start seeing where your problems would be of increased nitrates, where will you see decrease of water levels. So that is the advantage of having a model that we have developed becomes a tool that you can do to predict the future and help you effectively manage your valuable groundwater resource.

**Mr. Martin answered questions from the Board and public with the following information:**

What will happen to salt deposits in the upper layer with recharge: There will be an initial first flush but because it represents a small amount compared to the quantity of water that recharged it will get diluted out.

Regarding: Subsidence potential without recharge: The sands and gravels in JBWD are very old, less compactable, and probably not subject to subsidence, which usually occurs in areas with clay which compacts as it is de-watered.

Regarding: Impact of salts from the State Water Project: When there is water available from state water there is relatively low salt issues. It's during drought conditions where you get higher chloride. So the salt concentration for the state water is low, around 200 milligram per liter which is similar to the native ground water, in comparison with Colorado River water which may be 1,000 milligram per liter.

Regarding: Impact of nitrates from the Joshua Tree Community Center and apartments near proposed recharge ponds: Those nitrates were considered in the model. Since Joshua Tree is a large basin, water levels will only rise about 40 feet and the water levels don't go up enough to entrain enough nitrates to create a significant increase.

Regarding: The rate of infiltration at the proposed ponds: Instruments will be there to monitor the rate. It is expected to be around 70 feet per day which is a very high rate.

Regarding how de-nitrification works: In an anaerobic, with lack of oxygen, bacteria will use the nitrate and convert it to nitrogen gas.

Regarding: impacts of new septic system versus older ones: Nitrates from older septic systems will reach the aquifer sooner than from newer systems. One management scenario could be to put treatment facilities in older parts of the community, or areas with greater density.

Regarding: Impacts of organic materials from the State Water Project: Organic material will be filtered out by the fine grain materials at the site. Hi-Desert Water District's recharge site has not shown an increase in dissolved organic carbon in the nearby wells.

Regarding: Potential for caliche at the recharge site: An auger rig drilled to 100 feet, which showed no caliche.

Regarding: Caliche at sites 800 to 1,000 feet from the proposed ponds: The recharge site is more of a stream channel where caliche hasn't had time to build up away from natural recharge. A caliche plateau would be expected further away from the stream channel.

Regarding: Infiltration rate of 70 feet per day in comparison with a much lower septic infiltration rate and an estimate of nitrates reaching water within 25 years: The twenty-five years is an average based on location and thickness of materials. The reason for a difference in infiltration rate between the JTUZ-1 and JTUZ-4 is the different materials. The materials at JTUZ-1 are the alluvial fan materials; down at JTUZ-4 there are

actually stream channel deposits without soil build up. Soil layers are what cause the spreading on the alluvial fan because sometimes the stream is going to the left and at other times the right.

Regarding: sampling from Well 15: USGS took samples until about four years ago and relies on Joshua Basin Water District for nitrate levels. When the wells were first placed, USGS looked for different trace metals and isotopes, etc.

Regarding: Nitrate levels south of the fault: Nitrates are measured from the wells. The levels of the nitrates are expected to be higher where they are due to housing. The model expects to see increases in the future from newer housing.

Regarding need for treatment for nitrates with recharge: Wells may need to be placed closer to the recharge locations, or water may need to be blended from Copper Mountain basin, but the wells that are adjacent to the proposed recharge grounds will not have to be treated. Without artificial recharge nitrates will exceed the drinking water standard. With recharge they won't.

Regarding: The premise that septage infiltrates faster once the ground is saturated: The desert has about a 2% moisture content so it's very dry. The first wetting front takes much longer than subsequent, because void spaces have been filled, which causes unsaturated hydraulic conductivity to increase as it related to the moisture content. The more moisture in the soil the more rapidly the water will move.

Regarding: The maximum housing density where the septic tank would not affect the groundwater: Septage from areas with less density will infiltrate slower than those with higher density due to moisture content difference. Different models are being run to provide an answer in the final report.

Barbara Delph, ratepayer, commented that this report confirms that recharge is necessary both for water quality and water in general, and is not a "growth" issue.

Regarding quantity and quality of water: There is a lot of water in storage, but the community needs to decide how to manage it – determine should that be my water, my kids' water, or their kids' water.

Jill (no last name given) asked if there is a way, other than a centralized sewage plant, to deal with these nitrate problems onsite. She was advised that package treatment plants such as required in JBWD's wastewater treatment strategy, do have denitrification; the problem with that is the management of them. There is no way to treat nitrates at an individual house. There is no chemical that you could put in to mitigate the situation. Pumping of a septic tank is good to keep leach fields from getting fouled up with oil and grease, but most of the nitrates are not being retained in the septic tank.

Karen Tracy of Joshua Tree asked about the construction of the parameters for modeling and in particular the hydrologic flow numbers. Numbers used were much lower than our recharge numbers out here; what was that based on? Cores were collected from the drilling site and lab analyses were run on those cores to get the unsaturated hydraulic conductivity. Grain size was used to come up with the properties. Infiltration rates are just representative of the upper materials; the upper three to five feet, so using infiltrometers is not representative of the total profile.

Steven Whitman of Joshua Tree asked when nitrates would exceed the standard with no recharge, and at that point if we start blending with copper mountain mesa water how many years until we draw down copper mountain to the same level as the current aquifer we are using now. Right now the upper shallow aquifer system is above the drinking water standard. The model projections show about twenty years both in this area the combined water from the upper aquifer would be above the drinking water standard. Well water is going to be a combination of all the aquifers that are perforated opposite. Another management strategy could be to drill wells and not perforate in the upper system; put casing on them and pump from the lower system. So that would give you lower specific capacity; you get more draw down for the same amount of water pumped, but you would have less direct nitrate. The nitrates are coming from the top down, so you will see the highest concentration right at the water table. So if you didn't perforate that then the nitrate will not come directly into the well it has to move down directly into the flow system. Eventually, it will get there but it could delay doing something. So that is a management alternative. You have a lot of management alternatives. The blending scenario has not been modeled.

Al Marquez, ratepayer, asked about the hydraulic region Colorado river bulletin 118 that was revised in 2004 and why there are different estimates of the amount of ground water available. It was clarified that there is a lot of water but that it is more difficult and costly to extract at deeper levels. The whole storage thing becomes an issue. It was also noted that some estimates came from a study conducted by individuals using a geologist license fraudulently.

Jill (no last name) asked about the ability to capture rain during monsoons. The problem with these storms is they have a lot of sediment if you put up a temporary dam. What happens is you get these flows which have a lot of sediment in them; it fills them up and there is a cost for removing that. So some options are taking water when it is really wet and let's say it goes out on the lake bed. You could take that water and pump it back and artificially recharge it in ponds. It was clarified that doing so would require removing a great deal of sediment and pumping water back to a recharge site.

It was confirmed that Well #10 is operational and that samples were taken while it was operational.

Mike McBride, Director from Bighorn-Desert View Water Agency, asked if the bacterium that converts the nitrogen to nitrogen gas to the consumption of the oxygen on the NO3 is aerobic and Heterotrophic bacteria or Nitrosomic. It is anaerobic and can be either Heterotrophic or Nitrosomic and is naturally-occurring.

**8. BOARD OF DIRECTORS TO CONSIDER APPROVING RESOLUTION #11-873 FIXING THE RATE OF TAXATION WITHIN ID#2**

Accountant Ben Ruffner presented the staff report.

MSC Reynolds/Long 5/0 to approve Resolution #11-873 fixing the rate of taxation within ID#2; with the understanding that there is a potential of change in the actual data.

**9. CAPITAL PROJECTS FOR 2011-2012 AND 2012-2013**

This item was continued to the next meeting.

**10. DONATION OF SCRAP WELL CASINGS FOR 29 PALMS PISTOL & RIFLE CLUB**

GM Guzzetta presented the staff report. A brief discussion ensued, and the following action was taken:

MSC Long/Reynolds 5/0 to approve staff recommendation to declare as surplus three six-inch 20-foot well casings and authorize transfer to the 29 Palms Pistol & Rifle Club.

**11. PROJECT PRIORITY LIST**

There was no discussion.

**12. COMMITTEE REPORTS:**

**A. Public Information Committee: Kathleen Radnich, Public Outreach Consultant:** Ms. Radnich reported that the public information committee meeting is next Monday 1 p.m. at the District. Items to be discussed include the website, public outreach issues, all water district convergence in the fall. The District and Rain Bird are sponsoring a landscape irrigation workshop on August 31, from 3-5 p.m. at the J.T. Community Center. The public education theme this month at the local farmers market is on aquifers.

**B. Ad Hoc General Manager Performance Facilitated Review Process: Vice President Reynolds and Director Long:** Director Long stated a proposal should be made available by the next meeting.

**C. Ad Hoc Pipeline Replacement Funding Committee: Director Luhrs and Director Wilson:** GM Guzzetta reported that this item is part of the capital projects list and can be accepted as done.

**13 PUBLIC COMMENT**

None.

**14. GENERAL MANAGER REPORT**

GM Guzzetta reported that he is authorizing an additional payment of \$4,300 to AToM Engineering for the D2-E1 booster Pumps based on additional documentation they have provided justifying some of the project delay. This has been evaluated and recommended by the District Engineer.

**15. DIRECTORS COMMENTS/REPORTS**

There were no Director comments or reports.

**16 CLOSED SESSION**

A. Closed Session to confer with Legal Counsel on existing litigation pursuant to subdivision (a) of Government Code Section 54956.9. (Re Joshua Basin Water District v. Robert Ellis, San Bernardino Superior Court - Joshua Tree District, Case No. CIVMS 900168).

B. Closed Session to confer with Legal Counsel on existing litigation pursuant to subdivision (a) of Government Code Section 54956.9. (Re Joshua Basin Water District v. Ironhead LLC a California Limited Liability Company, Praxedes Beard and Does 1 – 10 inclusive, San Bernardino Superior Court - Joshua Tree District, Case No. CIVMS 1100087).

President Luckman called a five minute recess at 9:00 pm; the meeting resumed in closed session at 9:05 pm. Open session meeting resumed at 9:18 pm.

**17 REPORT ON CLOSED SESSION ITEMS**

The Board of Directors consulted with legal counsel on Closed Session Items A and B. Director Luhrs did not participate in Closed Session Item A not due to a conflict of interest but rather because he previously engaged in several conversations with Dr. Ellis. No reportable action was taken during the closed session discussions.

**18. ADJOURNMENT 9:20 PM**

MSC Reynolds/Long 5/0 to adjourn the August 3, 2011 Regular Meeting of the Board of Directors.

Respectfully submitted;

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Joe Guzzetta, General Manager

The next Regular Meeting of the Board of Directors is scheduled for Wednesday August 17, 2011 at 7:00 pm.

JOSHUA BASIN WATER DISTRICT  
SUPPLEMENTAL DATA SHEET

Regular Meeting of the Board of Directors

August 17, 2011

Report to: President and Members of the Board  
From: Joe Guzzetta, General Manager 

TOPIC: AUTHORIZATION TO APPLY FOR GRANT FOR GROUND WATER RECHARGE PROJECT

RECOMMENDATION: That the Board adopt a resolution authorizing the General Manager to apply for a Proposition 84 grant in the amount of approximately \$4 million and authorize Dudek Engineering to prepare the grant application at a cost of up to \$11,000.

ANALYSIS: The State is seeking proposals for projects for Proposition 84 grants. The ground water recharge project meets the criteria for the grant.

Based on nearly-completed engineering plans Krieger & Stewart Engineers estimate that the construction will cost be as follows:

\$5,000,000	16" pipeline and related costs
	Water ponds including earthwork, piping,
<u>1,167,000</u>	landscaping and fencing.
<b>\$6,167,000</b>	<b>Total Construction Hard Costs to be incurred</b>
\$335,000	Construction Management
<u>    ???</u>	Mitigation Monitoring
<b>\$6,502,000</b>	<b>???</b> <b>Total Construction hard and soft costs to be incurred</b>
<u>\$1,233,000</u>	20% contingency
<b>\$7,735,000</b>	<b>Total construction costs plus mitigation.</b>

Other costs incurred to date or anticipated for grant purposes which may be grant-eligible include:

\$447,000	CEQA
480,000	Engineering Design
998,700	USGS Monitoring Well & Studies
210,900	Land Acquisition
<u>125,000</u>	Administrative & Legal
<u>\$2,261,600</u>	Other costs incurred or anticipated to date
\$9,996,600	Total probable hard and soft costs



If the engineering estimate changes as the final plans are completed, the grant will be modified accordingly. The above estimates do not take into account the current economy which may result in lower bids.

Anticipated funding other than this grant include:

\$2,261,000	Joshua Basin Water District from above
\$1,000,000	Mojave Water Agency (MWA)
\$ 600,000	Morongo Pipeline Refund
\$ 287,000	Environmental Protection Agency
<u>3,000,000</u>	Proposition 84 funds through MWA
7,148,000	Total anticipate funding to date
2,848,600	Total minimal funding required

In addition, the grant application will include any eligible costs which have already been paid or anticipated by JBWD, so that it will be in the range of \$3M to \$4M.

Dudek estimates that preparing the grant would require 56 hours of the grant writer's time and 12 hours of engineering time to prepare the grant for a total cost of about \$11,000.

The deadline for the grant is August 31. Since it is expected to be a highly competitive grant staff proposes to have Dudek prepare the application to assure the best opportunity for success in the most efficient way. The Board will recall that the cost to MWA to prepare the first Proposition 84 grant was \$80,000.

RESOLUTION 11-874

A RESOLUTION OF THE BOARD OF DIRECTORS  
OF THE JOSHUA BASIN WATER DISTRICT AUTHORIZING THE DISTRICT TO APPLY  
FOR A PROPOSITION 84 FUNDING PROGRAM GRANT AND AUTHORIZING THE  
GENERAL MANAGER TO SUBMIT AN APPLICATION

**WHEREAS**, the Board of Directors of the Joshua Basin Water District has the authority to construct, operate, and maintain the Joshua Basin Water District ;and

**WHEREAS**, the Board of Directors of the Joshua Basin Water District desires to enhance the provision and protection of the drinking water supplied to the consumers of the Joshua Basin Water District; therefore;

**BE IT RESOLVED** by the Board of Directors of the Joshua Basin Water District that, pursuant and subject to all of the terms and provisions of The Safe Drinking Water, Water Quality and Supply, Flood Control, River and Coastal Protection Bond Act of 2006 (Proposition 84) and all amendments thereto, application be made to the State of California for funding; and

**BE IT FURTHER RESOLVED** that the General Manager of Joshua Basin Water District is hereby authorized and directed to cause the necessary data to be prepared, investigations to be performed and application to be signed and filed with the State of California.

Passed and adopted at a regular meeting of the Joshua Basin Water District Board of Directors on the 17<sup>th</sup> day of August, 2011

Signature: \_\_\_\_\_

Mickey Luckman

Title: President, Board of Directors


Signature: \_\_\_\_\_

Joe Guzzetta

Title: Board Secretary/General Manager

JOSHUA BASIN WATER DISTRICT  
SUPPLEMENTAL DATA SHEET

Regular Meeting of the Board of Directors

To: President and Board of Directors  
From: Susan Greer 

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TOPIC: 2011/2012 Supplemental Budget Approval

RECOMMENDATION: Approve or modify 2011/2012 Supplemental Budget

ANALYSIS: The Supplemental Budget list of capital projects is attached for your consideration and approval.

The District has \$5,034,000 total cash as of fiscal year end, 6/30/11. Of that, \$1,708,000 is already obligated, \$1,217,000 is reserves (\$1,000,000 emergency reserve and \$217,000 equipment and technology replacement reserve), leaving \$2,109,000 available for capital projects.

The Supplemental Budget indicates proposed projects totaling \$831,500 in the next year and \$887,800 the following year. We already have \$2,109,000 available for capital projects. In addition, we anticipate net revenue each of the next two years, which will increase the funds available for capital projects.

The Supplemental Budget proposes capital projects of approximately \$800,000 in each of the next two years; total \$1,719,300. The 11/12 operating budget indicates net revenue of \$808,000. If we anticipate a similar operating budget for 12/13, then we will spend just about the same amount for capital projects as we're generating in net revenue each year. This will result in minimal reduction to the available fund balance as indicated below.

Year	Net Revenue	Capital Projects	Available Fund Balance
10/11			\$2,109,000
11/12	\$808,000	\$831,500	2,085,500
12/13	806,000	887,800	2,003,700

The information on the next page shows the total cash balance less obligated and restricted funds to arrive at funds available for capital projects.

<u>DESCRIPTION</u>	<u>AMOUNT</u>	<u>NOTES</u>
Cash Balance 6/30/11	\$5,033,825	
<u>Less Operating Funds:</u>		
Petty Cash Fund	-600	
Change Fund	-1,500	
General Fund	-84,305	
Payroll Fund	-5,000	
Credit Card Fund	-53,429	
<u>Less legally restricted:</u>		
CMM Restricted	-652,164	
Consumer Deposits	-188,135	
Project Deposits	-65,072	
Capacity Fees	-88,477	
<u>Less Board Reserves:</u>		
Equipment/Technology	-216,647	
Emergency	-1,000,000	
<u>Less Commitments:</u>		
Contingent liabilities AToM Engineering, Bartle Wells, Krieger & Stewart, USGS, Utility Service Co.	-508,353	Reflects unpaid balances of contracts.
<u>Less Union Contract:</u>		
Increases	-61,000	Increases already approved but not budgeted
<b>Total Available Funds</b>	<b>\$2,109,143</b>	

The table indicates total funds of \$5,033,825 with \$2,109,143 available for supplemental/capital projects. In addition, there is \$1,216,647 in reserves.

Staff will update the information above monthly, providing both the total cash as well as the available funds in the Financial Highlights report.

**SUPPLEMENTAL BUDGET PROJECTS**

**2012-2014**

**FIELD PROJECTS**

***High Desert Medical Center Waste Water Package Plant***

To be paid by HDMC - see matching revenue at end of list.

***Large Meter Bypasses***

Currently, in order to test or remove a large meter, the service needs to be disconnected. This is a serious problem for some large meters such as the hospital and Continuing Care. The bypass will allow the meters to be removed and replaced without discontinuing service.

***15,000 Feet Mainline Replacement***

A portion of the total 80,000 feet that needs replacing, already designed by Nolte. The board committee has proposed that this can be completed at a substantial savings of \$700,000 by allowing construction to be completed over an extended time.

***Well #10 & #11***

Noise and vibration at well #10 require diagnosis. Cost is to pull pump, disassemble and diagnose and perform a video log of the well. Well #11 has been off line for 6 years and the problem should be diagnosed for future planning.

***Valve & Fire Hydrant Maintenance Program***

Repair or Replace 100 Valves at \$1,000 each.

***Chlorination System***

***A. Replace Chlorination Pumps - 4 at \$3,000 each.***

Current pumps are over 10 years old and unreliable. New pumps will operate with SCADA.

***B. Chlorine analyzers w/telemetry programming***

Install analyzers to monitor chlorine residual at up to four remote sites.

***Relocate C-2-A Tank to H-Zone***

This project has already been designed and would relocate a 500,000 gallon tank from the "C zone" where it is no longer needed, to the "H Zone" where it is severely needed. The cost will eventually be reimbursed to the operational budget from future capacity fees in the H-Zone. Staff is reviewing the cost of moving the tank in comparison to the installing of a new one.

***D-3-1 New Booster pumps and Housing***

The pumps at this booster station operate at a very low efficiency rate such that it is timely to replace them.

***Security (Motion Sensors) at Shop and Well 10***

This would provide security to an expanded area at the shop.

***Flow Meter Refurbishment***

3 remaining flow meters with digital displays and telemetry plus DTS programming.

***Pressure Reducing Station replace/refurbishment***

Assess and overhaul or replace PRV/PSV/Altitude valve over a three year period. 12 are in use, estimated completion of 6 more at \$3,000 each plus \$2,000 for incidentals. 2 will be completed in year one, 4 in year two.

***Storage Bays for Rock, Sand, Asphalt***

This will allow for more orderly storage of rock, sand, and asphalt which are used regularly in normal district operations. This is a low priority, deferring until development necessitates.

	<i>Year 1</i>	<i>Year 2</i>	<i>Year 3</i>
	\$1,500,000		
		\$30,000	
	\$200,000		
	\$50,000		
	\$50,000	\$50,000	
	\$12,000		
	\$20,000		
		\$300,000	\$300,000
	\$250,000		
		\$20,000	
	\$20,000		
	\$20,000	\$40,000	
		\$6,300	
	<i>Year 1</i>	<i>Year 2</i>	<i>Year 3</i>

**Reservoir Land Acquisition**

The Master Plan identifies 27 to 37 million gallons of additional reservoir storage that will be needed to operate the District in the future. The Board has approved acquiring the land before the most ideal parcels are developed, especially for reservoirs which are constrained by altitude, proximity to the existing system, and other considerations.

**Hauling Station Coin/Card Reader – Under Study**

Staff is considering a system to enable selling of water at the hauling station. This will be used as a central location for contractors and county and state agencies to avoid drawing water from fragile areas in other zones. It will also be used for emergency water distribution. This will also allow us to eliminate our old hauling stations which are not up to code.

**Altitude Valve at C2B Tank -- SCADA Controls at C2-B, C-1, and C-3**

The three tanks in the C zone are at different altitudes. If the one at the highest altitude is filled, the other two overflow. These valves will prevent the overflowing.

**EMERGENCY PREPAREDNESS IMPROVEMENTS**

**System Reliability Upgrade for Hospital and County Complex C, B and D-3 Zones**

This entire area has one single water supply feed. It doesn't have a redundant water supply for emergency situations. Staff has proposed a secondary, "emergency," source.

Boring	\$90,000.0
Construction	\$168,000.0
	<u>\$258,000.0</u>

**Well 10 & 14 Soft Start Bypass - Generator Controls**

The new 600 KW generators need this equipment in order to operate properly at the two largest producing wells, well 10 and well 14.

**Earthquake Assessment of Tanks**

**Earthquake Shut Off Valves or Retrofit for Three Tanks -- C2-B, C-1 and B**

Currently, if a pipe from a reservoir is broken the entire reservoir can be drained unless a valve is manually located and shut off. This, or another similar system, will provide a feature to the two major C tanks and the B tank serving the hospital, that will shut off in the event of an earthquake or other event that results in an unusually large amount of water draining from the tank.

**Transfer Switches at Remaining Booster Sites**

These switches are needed in order to be able to use the emergency generators at the pump stations.

**Emergency Supplies**

These include food, water, cots, etc. for serious emergencies for employees

**OFFICE PROJECTS**

**Customer Service Account Filing System**

Parcel files have expanded past our current storage area and can't be locked. This will allow us to store, secure and access our current files and any new files for the foreseeable future.

**Office and Board Room Renovation**

This provides for the renovation of the Board Room and carpeting of all offices.

	Year 1	Year 2	Year 3
Reservoir Land Acquisition		\$50,000	
Hauling Station Coin/Card Reader – Under Study		\$15,000	
Altitude Valve at C2B Tank -- SCADA Controls at C2-B, C-1, and C-3	\$40,000	\$35,000	
<b>EMERGENCY PREPAREDNESS IMPROVEMENTS</b>			
System Reliability Upgrade for Hospital and County Complex C, B and D-3 Zones		\$258,000	
Boring			
Construction			
<u>\$258,000.0</u>			
Well 10 & 14 Soft Start Bypass - Generator Controls	\$20,000		
Earthquake Assessment of Tanks		?	
Earthquake Shut Off Valves or Retrofit for Three Tanks -- C2-B, C-1 and B			\$80,000
Transfer Switches at Remaining Booster Sites	\$30,000	\$30,000	
Emergency Supplies	\$8,500	\$8,500	
<b><u>OFFICE PROJECTS</u></b>			
Customer Service Account Filing System	\$30,000		
Office and Board Room Renovation	\$20,000		

**Fire Cabinet for Maps**

**Record Archival System**

This will eventually enable the District to maintain more electronic files for easier access and less physical storage.

**Incode Version 10 Upgrade**

Upgrade to more user-friendly software version, including more reporting and search capability, in addition to adding some lacking features. \$20,000 budgeted in Year 1 has not been spent; this replaces that budget.

**Update District Fees**

This will determine what rate changes are needed in the next several years to maintain services.

**Space Needs Assessment for Office Building Addition**

A needs assessment will determine how much space the District needs for an Emergency Operating Center in order to apply for grant construction funds.

**Total Capital Improvement Costs**  
**Income from HDMC Waste Water Package Plant**  
**Final Total**

\$6,000		
\$30,000	\$45,000	
		\$65,000
\$15,000		
\$10,000		
<b>\$2,331,500</b>	<b>\$887,800</b>	<b>\$445,000</b>
<b>\$1,500,000</b>		
<b>\$831,500</b>	<b>\$887,800</b>	<b>\$445,000</b>

**Replacement Reserve**

**Replacement Reserve Annual Allotment**

\$100,000      \$100,000      \$100,000

**Replacement Reserve Funded Items**

**2 Trucks - 3/4 or 1/2 Ton**

\$60,000

**Plotter**

\$10,000

**Vacuum Trailer – for pot holing and valve maintenance.**

\$7,000

**\$70,000      \$7,000**

## JBWD PIPELINE REPLACEMENT 10/11

Location	Size	Type	Year	Atlas Sheet	Footage	Priority	Explanation
La Brisa Dr. from Center to Border Ave.	4	Steel	1976	I-3/I-4	2310	1	1)This area is high pressure steel pipe. 2) Broken/Limited Valves is problematic for shutdown. 3) Repairs are typically extensive.
Easement E/O Center Ave. from Sunny Sands Dr. North to La Brisa	4-6	Steel	1976	I-3/I-4	2600	1	1)This area is high pressure steel pipe. 2) Broken/Limited Valves is problematic for shutdown. 3) Repairs are typically extensive.
From Border East to Desert Shadow Rd.	4	Steel	1976	I-3/I-4	3500	1	1)This area is high pressure steel pipe. 2) Broken/Limited Valves is problematic for shutdown. 3) Repairs are typically extensive.
E/O Center Ave. from Cielito Dr. South to Blair East to Desert Shadow Rd.	4	Steel	1976	I-3/I-4	2250	1	1)This area is high pressure steel pipe. 2) Broken/Limited Valves is problematic for shutdown. 3) Repairs are typically extensive.
E/O Border Ave. from La Brisa Dr. South to Sunny Sands Dr.	6	Steel	1976	I-3/I-4	2660	1	1)This area is high pressure steel pipe. 2) Broken/Limited Valves is problematic for shutdown. 3) Repairs are typically extensive.
La Brisa Dr. from Center Ave. east past Desert Shadow Rd.	6	Steel	1976	I-3/I-4	2730	1	1)This area is high pressure steel pipe. 2) Broken/Limited Valves is problematic for shutdown. 3) Repairs are typically extensive.
Aberdeen Dr. from Border Ave. East to Desert Acres Rd.	6	Steel	1976	I-3/I-4	1365	1	1)This area is high pressure steel pipe. 2) Broken/Limited Valves is problematic for shutdown. 3) Repairs are typically extensive.
Sunny Sands Dr. from Border East to Rice Ave.	6	Steel	1976	I-3/I-4	4800	1	1)This area is high pressure steel pipe. 2) Broken/Limited Valves is problematic for shutdown. 3) Repairs are typically extensive.
<b>Total</b>					<b>22,215</b>		



## JBWD PIPELINE REPLACEMENT 10/11

Location	Size	Type	Year	Atlas Sheet	Footage	Priority	Explanation
Juniper Rd. from Sunburst Dr. North	4	Steel	1980	D-2	630	2	Many leaks and Water Quality Issues.
Sunburst Dr. from Juniper Rd. east to Saddleback Rd.	4	Steel	1980	D-2	560	2	Many leaks and Water Quality Issues.
Saddleback Rd. from Sunburst Dr. north to Alley S/O Hwy 62	4	Steel	1980	D-2	2205	2	Many leaks and Water Quality Issues.
Alley S/O Hwy 62 from Outpost Rd. east	4	Steel	1980	D-2	1120	2	Many leaks and Water Quality Issues.
Outpost Rd. from Alley South of 62	6	Steel	1980	D-2	1000	2	Many leaks and Water Quality Issues.
Park Blvd from Division Street to Commercial	6	Steel	1969	D-3/E-3	1600	2	Many leaks and Water Quality Issues.
Alley behind Santanas East of Sunset to Park	4	Steel	1969	D-3	400	2	Many leaks and Water Quality Issues.
Commercial Street from Sunburst to Sunset	6	Steel	1969	E-3	2750	2	Many leaks and Water Quality Issues.
Sunset Road from Chollita to Commercial Street	4	Steel	1969	E-3	600	2	Many leaks and Water Quality Issues.
Veterans Way from Chollita to Commercial	4	Steel	1969	E-3	600	2	Many leaks and Water Quality Issues.
Center in between chollita and commercial	4	Steel	1969	E-3	600	2	Many leaks and Water Quality Issues.
Juniper Road North of Hwy 62	6	Steel	70's	E-2	750	2	Many leaks and Water Quality Issues
E/O Juniper North of 29 Palms Hwy	4	Steel	70's	E-2	2250	2	Many leaks and Water Quality Issues
<b>Total</b>					<b>15,065</b>		

## JBWD PIPELINE REPLACEMENT 10/11

Location	Size	Type	Year	Atlas Sheet	Footage	Priority	Explanation
Tamarisk Ln. from Golden South to Dixie Ln.	4-6	Steel	1981	G-3/G-4	1500	3	Many Leaks/Repairs can be extensive
Holiday Way from Border Ave. westerly to Polaris Ave. then to southerly to Highland View Dr.	4-6	Steel	1976	H-3	2010	3	Many Leaks/Repairs can be extensive
Campanula St. from McDowell Westerly	4	Steel	1976	H-3	2345	3	Many Leaks/Repairs can be extensive
Canterbury St. from Porter Blvd. east to McDowell	4	Steel	1976	H-3	3045	3	Many Leaks/Repairs can be extensive
Belmont St. from Manana Ave. west 525 ft. thence north 770 ft. thence west 350 ft.	4	Steel	1976	H-3	1645	3	Many Leaks/Repairs can be extensive
Aberdeen Dr. from Border Ave. east to Desert Acres Rd.	6	Steel	1976	H-3	1400	3	Many Leaks/Repairs can be extensive
Aberdeen Dr. from Border Ave. West to Avenida Del Sol	6	Steel	1976	H-3	5050	3	Many Leaks/Repairs can be extensive
Avenida Del Sol from Aberdeen South to Canterbury St.	8	Steel	1976	H-3	4500	3	Many Leaks/Repairs can be extensive
Canterbury St. from Avenida Del Sol East to Porter Blvd.	6	Steel	1976	H-3	900	3	Many Leaks/Repairs can be extensive
McDowell St. from Golden St. North to Campanula St.	6	Steel	1976	H-3	3000	3	Many Leaks/Repairs can be extensive
<b>Total</b>					<b>25,395</b>		

## JBWD PIPELINE REPLACEMENT 10/11

Location	Size	Type	Year	Atlas Sheet	Footage	Priority	Explanation
Torres Ave. from Sunburst Dr. North to North of Division ST.	4	Steel	1980	D-2	2240	4	Minimal Leaks / Inadequate Fire Protection
San Angelo Ave. from Torres Ave. North to Division St.	4	Steel	1980	D-2	1890	4	Minimal Leaks / Inadequate Fire Protection
Division St. from Torres Ave. east to Sunny Vista Rd.	4	Steel	1980	D-2	665	4	Minimal Leaks / Inadequate Fire Protection
Sunburst Dr. from Torres Ave. east to Sunny Vista Rd.	4	Steel	1980	D-2	700	4	Minimal Leaks / Inadequate Fire Protection
Juniper Rd. from Sunburst Dr. North	4	Steel	1980	D-2	630	4	Minimal Leaks / Inadequate Fire Protection
Total					6125		

Location	Size	Type	Year	Atlas Sheet	Footage	Priority	Explanation
Sunflower Rd. from Sunever Ave. east to Sunkist Rd.	4	Steel	1976	G-4/G-5/G-6	2590	4	Many Leaks (most fixed by hand) / Inadequate Fire Protection
Sun Mesa Rd. from Sunever Ave. east to Sun Kist Rd.	4	Steel	1976	G-4/G-5/G-6	2590	4	Many Leaks (most fixed by hand) / Inadequate Fire Protection
Sun Oro Rd. from Sun View Rd. east to Lawrence Ave.	4	Steel	1976	G-4/G-5/G-6	1295	4	Many Leaks (most fixed by hand) / Inadequate Fire Protection
Broadway from Sun View Rd. east to Lawrence Ave.	4	Steel	1976	G-4/G-5/G-6	1295	4	Many Leaks (most fixed by hand) / Inadequate Fire Protection
Cactus St. from Mile Sq. East	4	Steel	1981	D-6	630	4	Minimal Leaks / Inadequate Fire Protection
Total					8400		

## JBWD PIPELINE REPLACEMENT 10/11

Location	Size	Type	Year	Atlas Sheet	Footage	Priority	Explanation
ID PROJECT	6	Steel	60's	D-3 & D-4	Approx. 25000	4	Minimal Leaks / Inadequate Fire Protection / Zone Prone to Failure
Total					25,000		
Quail Springs Rd. from Alta Loma Dr. South to E-1 Resevior	12	Steel	1967	C-3 & B-3	9000	4	Minimal Leaks / Zone Prone to Failure
Park Blvd to Alta Loma Dr.	12	Steel	1966	D-3	1700	4	Minimal Leaks / Major Transmission Line
From C-1 Tank to Desert Air	16	Steel	1975	D-3	4500	4	Minimal Leaks / Major Transmission Line
29 Palms Hwy from Sunburst Dr. to Rice Ave.	16	Steel	1975	D-3	8250	4	Minimal Leaks / Major Transmission Line
On Sunset Rd. from Sunburst Circle North to Verbena Rd.	10	Steel	1980	D-3 & E-3	4500	4	Minimal Leaks / Major Transmission Line
Sunburst Ave. from Calle Los Amigos South to Hilltop Dr.	12	Steel	1981	E-3 & F-3	7000	4	Minimal Leaks / Major Transmission Line
Total					34,950		
<b>Grand Total</b>					<b>137,150</b>		