



STRATEGIC PLANNING WORKSHOP AGENDA
CITY OF BIG BEAR LAKE
DEPARTMENT OF WATER AND POWER
BOARD OF COMMISSIONERS
OCTOBER 23, 2012 – 1:00 PM
41972 GARSTIN DRIVE
BIG BEAR LAKE, CA 92315

PUBLIC COMMUNICATIONS

The public may address the Board by completing a speaker card and submitting it to the Board Secretary. Speaker cards are located on the table in the back of the Board room. During “Public Forum,” your name will be called. Please step up to the podium and give your name and city of residence for the record before proceeding. All remarks shall be addressed to the Board as a body only. No person other than a member of the Board and the person having the floor shall enter into any discussion without the permission of the presiding officer. Public comment is permitted only on items not on the agenda that are within the subject matter jurisdiction of the Department of Water, City of Big Bear Lake. There is a three minute maximum time limit when addressing a respective board.

PLEASE NOTE: Materials related to an item on this Agenda submitted to the Board after distribution of the agenda packet are available for public inspection at the DWP office at 41972 Garstin Drive, Big Bear Lake, CA, during normal business hours.

If you are disabled in any way and need accommodation to participate in the meeting, please call Diego Chavez, Board Secretary, at (909) 866-5050 for assistance so the necessary arrangements can be made.

CALL MEETING TO ORDER

PLEDGE OF ALLEGIANCE

PUBLIC FORUM

OPEN SESSION

1. DISCUSSION/ACTION ITEMS

1.1. Strategic Planning Workshop

Board to review and discuss strategic plans with General Manager Lamson and Management.

ADJOURNMENT



**STRATEGIC PLANNING WORKSHOP
OCTOBER 23, 2012**

THE MISSION OF THE DWP

The mission of the DWP is to cost effectively deliver quality water to meet the needs of our current and future customers.

THE VISION OF THE DWP IS TO:

- Provide excellent service to our customers.
- Continue water conservation.
- Plan for and secure additional and diverse water supplies
- Increase operating efficiency.
- Challenge and motivate employees and improve morale.
- Continue infrastructure improvements.
- Encourage City and interagency communication and cooperation.
- Assure that revenues are adequate to meet needs.

CORE VALUES OF THE DWP:

- To ensure that quality water is available to our customers now and in the future.
- To maintain the Department's infrastructure over the long term.
- To improve our effectiveness as a Team.
- To support sound, prudent financial practices.
- To act in the best interest of the Department only when it also is in the best interest of the customer.
- To remain committed to open, honest, and unbiased government.

**ANALYSIS OF STRENGTHS, WEAKNESSES,
OPPORTUNITIES AND THREATS**

STRENGTHS

- Conservation Program
- Financial expertise
- Master plan (currently being updated)
-
- 2010 Urban Water Management Plan
- Dedicated, well-trained and knowledgeable Staff
- Excellent customer service
- Gravity Slant Wells
- Good water quality
- Demonstration garden
- Long term institutional knowledge of the DWP operation
- Design and construction engineering knowledge of water systems
- Ability to complete small capital projects in house
- Meet State & Federal Training / certification requirements
- Internal construction inspection

WEAKNESSES

- Administrative documentation of operational policies and procedures need updating
- Perceived high water rates even though DWP's average bill is lower than other water agencies
- High debt payments until 2022
- Short construction season
- Overall pumping plant efficiencies are low at many sites
- Lack of preventive maintenance

- Aging and under sized pipelines
- Minimal fire protection in several areas
- Water supply quantity and quality issues in Lake William's service area
- Lack of efficient gravity storage for the Sugarloaf service area
- Lack of an efficient method to transfer water from the east to the west side of the valley
- Production and customer meters are aging and in need of replacement
- Backflow prevention program needs to be enhanced
- Funding for Infrastructure

OPPORTUNITIES

- Expand the use of new technology to improve productivity (e.g. radio read meters)
- Pursue additional grants and low interest loans
- Establish ongoing rate adjustments tied to an index (e.g. ENR) subject to Board review
- Reduce operating costs through improving pumping plant efficiencies
- Complete updating of Master Plan
- Existing & future grants and low interest loans can accelerate infrastructure improvements
- Expand water conservation education at the elementary schools during the winter months
- If appropriately managed, the valley has sufficient water supply to meet it's long term demands
- Water plan for parks and schools
- Expand public information on various water issues
- Enforce backflow prevention requirements
- Conservation incentive program for highest volume water users
- Determine actual perennial yield of various subunits via stress testing

THREATS/CHALLENGES

- Natural disasters such as wild fire, drought or earthquake
- Deficient fire flow in some areas
- Large long term infrastructure replacement needs
- Changes to water quality standards (personal care products, pharmaceuticals, more stringent)
- Possible terrorism
- Continued poor economic conditions
- Public either misinformed or indifferent
- Climate change
- Poor water quality in Canvasback and Lake William
- Customer water meters need replacement
- Significant political changes at the City or other agencies
- Reductions in CLAWA water deliveries
- Misrepresentation by the media
- Cost of employee benefits

REVIEW OF STRATEGIC PROJECTS

1.0 MAINTAIN A RELIABLE LONG TERM WATER SUPPLY

During the early 2000's, the DWP's annual demands were approaching the perennial yield and under ideal conditions the supply capacity only slightly exceeded the max day demand. During the drought, slant well production and water table levels were down, which affected well production. On busy weekends, the production department ran all of the wells and reservoir levels would only recover after the weekend was over.

The DWP implemented an aggressive water conservation program and the economy went down and the usage per capita per day (gpcd) was reduced from 104 gpcd in 2002 to 77 gpcd in 2010. Over the last few years new wells were drilled and equipped which increased DWP's supply capacity, reliability, and efficiency (see table below).

FISCAL YEAR ENDING JUNE 30TH	ANNUAL PROD. (MG)	ANNUAL PROD. (AF)	AVG. DAY DEMAND (GPM)	MAX DAY DEMAND (GPM)	SUPPLY CAPACITY (GPM)
2000	930.70	2856	1771	3115	3735
2001	955.90	2934	1819	3200	
2002	985.20	3024	1874	3298	
2003	874.80	2685	1664	2928	
2004	875.74	2688	1666	2931	
2005	823.61	2528	1567	2757	
2006	800.26	2456	1523	2679	
2007	842.98	2587	1604	2822	
2008	828.18	2542	1576	2772	
2009	764.12	2345	1454	2558	
2010	734.29	2254	1397	2458	3560
2011	675.30	2073	1285	2260	
2012	728.70	2236	1386	2439	4800

Over the last ten years our annual production has decreased from 3,024 AF/Yr. to 2,236 AF/Yr., which is significantly below the generally accepted 3,100 AF/Yr. perennial yield. A recent USGS report regarding the Bear Valley aquifers' perennial yield has increased estimates to about 3,400 AF/Yr. Because of these reasons, the urgency of bringing new water into the Bear Valley to meet ultimate demands has been greatly reduced, if not eliminated. DWP gets 150 to 200 new customers each month, so an ongoing water conservation education program is essential in maintaining our current use per capita level.

DWP will have sufficient supply capacity to handle existing and near future demands once the three well pumping plants that are under construction become operational. Even if DWP lost the largest producing well in each system and all of the slant wells went dry, the supply capacity would still be 3,365 GPM, which exceeds the current Maximum Day Demand. DWP staff can now focus on improving operational efficiencies at the older pumping plant sites and prioritize using the more efficient pumping plants during low demand periods. For fiscal year ending June 30, 2012, DWP's pumping plant power expense was \$547,435 or \$244.83/AF. Considering DWP now has excess supply capacity, we now have the operational flexibility that will allow us to pump specific subunits within the valley to determine what the actual perennial yield is for each aquifer subunit.

One exception to DWP's improved supply capacity condition is our Lake William System. Quality and quantity are concerns for this part of our service area and these issues need to be addressed so the County's building moratorium can be removed from this area. DWP drilled a test hole approximately one mile east of the Lake William area and the results were positive. Constructing a well, well pumping plant, and a mile of transmission pipeline would fix Lake William's supply issues and is estimated to cost \$2,500,000.

DWP has thirty-four well pumping units and twenty-six booster pumping units. Many of these units are old and are operating inefficiently. The useful life of a pumping unit is in the range of 15 to 20 years. Three pumping units per year should be replaced to improve system efficiency and reliability. Also, wells require rehabilitation (10-30 years depending on water quality) because the well screen and gravel pack become clogged. \$100,000 per year should be budgeted for well and booster pumping plant rehabilitation.

STATUS: Long term water supply is an on-going issue. Increased operational efficiencies and system reliability can be achieved with O&M and rehabilitation type projects. The one exception is the Lake William service area and the proposed Camp Oaks well and pipeline project should be prioritized.

2.0 INFRASTRUCTURE IMPROVEMENTS

2.1 Pipeline Projects:

The 2006 Master Plan identified 44,610 feet of Priority I pipeline replacement projects. The majority of these projects occur where the existing pipeline is old, deteriorating, and too small to meet current fire flow standards. Over the last two years, DWP has constructed 35,151 feet (6.7 miles) of replacement pipelines. Twenty-four of the thirty-nine Priority I pipelines have been replaced. Because of recent excessive leaks, four of the Priority II pipelines have been replaced. These new pipelines will provide increased fire flow and reduce system water loss in the twenty-eight areas where these pipelines have been replaced. Eighteen of the twenty-eight street segments where pipeline was replaced received a full width AC pavement caps. The City of Big Bear Lake, County Public Works Department, and County Special Districts Department all contributed towards the cost of the pavement overlays.

Although installing 35,000 feet of pipeline is a major accomplishment, DWP still needs to replace 128,000 additional feet of undersized, aging pipelines throughout the 178 mile system. To change out DWP's entire system over a 100-year period will require us to replace about 10,000 feet per year. Total cost (Design, Survey, Construction, and Construction Management) is about \$200/LF or \$2,000,000 per year. If DWP acquires additional grants or low interest loans, the replacement process can be accelerated. Because of the large quantity of pipeline replaced over the last couple of years, DWP can probably take a year or two off of pipeline replacement and focus on other infrastructure needs.

STATUS: This remains a valid project of lower priority

2.2 Reservoir Projects:

DWP currently has sufficient storage to meet Operational, Emergency, and Fire Flow storage requirements. The Sugarloaf System and a portion of the Moonridge System share storage capacity in the Yosemite Reservoir. The Yosemite Reservoir is about 200 feet higher in elevation than it needs to be to serve the Sugarloaf System and the water needs to pass through a pressure reducing valve before it enters the Sugarloaf System.

Constructing the proposed Angel's Camp 1.0 MG Reservoir will have several benefits for DWP. It will provide storage capacity for future growth. The Sugarloaf and Moonridge Systems will no longer share a reservoir, improving fire protection for both systems. It will provide a more efficient means to transfer water from the east side of the valley to the west side of the valley (after the proposed Klamath Booster Pumping Station is constructed), and from the west side of the valley to the east side of the valley. It will reduce the pumping lift by 200 feet to serve the Sugarloaf area. It will be supplied by the new Magnolia Well Pumping Plant and the future Sawmill Well Pumping Plant and the Barton, Magnolia, and Santa Barbara Booster Pumping Plants can be placed on emergency standby service.

Constructing the proposed Santa Barbara 0.50 MG Reservoir will also have several benefits for DWP. It will provide storage capacity for future growth and will improve fire protection. It will reduce the pumping lift by an additional 93 feet to serve the Lower Sugarloaf area. The Santa Barbara Reservoir will be supplied by the Barton Booster Pumping Plant. Supply could also be delivered to the Santa Barbara Reservoir through pressure reducing valves from the Upper Sugarloaf Pressure Zone, although this is a less efficient means of supplying this proposed reservoir.

The majority of DWP's 16 storage reservoirs are steel tanks. The interior protective coating has a service life of twenty years. \$50,000 every other year should be budgeted for reservoir rehabilitation. The Cline Miller Reservoir is old and in need of replacement. This replacement should occur in the next five years.

STATUS: Construction of the Angel's Camp Reservoir is a high priority because it will reduce operational costs, increase operational flexibility, and improve fire protection. Reservoir rehabilitation is an on-going issue.

2.3 Meter Replacement Projects:

A large majority of DWP's production meters and customer meters are old and in need of replacement. Many of the 16,000 customer meters are over 40 years old. Only 1,500 of DWP's customer meters are radio read meters. Many of the existing radio read meters are approaching their 10-year battery life. The new style radio read meters now have a battery life of 20 years.

Converting to radio-read meters will improve our ability to read meters in the winter months when much of our service area is snowbound and meter readings are difficult to obtain. When staff is unable to read a meter, they estimate meter reading based on previous years' account records and this leads to numerous problems with complaints from customers about the accuracy of water bills and leaks go undetected for months. Beyond this, there are a number of other customer service related benefits from converting to radio-read meters including: leak detection, explaining water bills to customers, explaining usage patterns to customers and water conservation.

Some of the production meters are not able to be connected to our telemetry system. When our operators are operating the pumping plants remotely, having accurate and real time flow measurements is useful information. Some of the boosters pumping plants do not have flow meters.

Having accurate, reliable meters is important for the operation of a water system. Older meters tend to under register flow, resulting in lower water bills. The water loss computation is reported to the Department of Public Health and it is a measure of the quality of the water system. If the water loss calculation is overstating the water loss for a particular area of your system, you may prematurely prioritize pipeline replacement.

It will cost about \$3,500,000 to replace the remaining 14,500 customer meters and the production meters.

STATUS: Meter replacement is a high priority because it is essential to properly operate a water system. A five year (\$700,000 per year) meter change out program beginning July 1, 2013 should be considered.

3.0 WATER RATES AND REVENUE SOURCES

DWP is currently pursuing a \$9,000,000 WRDA grant and a USDA loan. The WRDA grant requires 25% DWP matching funds of \$3,000,000. The USDA loan can be used as matching funds and at today's interest rates it is prudent to pursue these low cost funds. Our current rate structure should be increased to provide adequate debt ratio coverage for existing and future loans and be able to fund on-going DWP infrastructure projects.

Operational standards and requirements continue to change and become more stringent, increasing operating costs. DWP staff will continue to look for ways to operate the organization more efficiently, which will minimize the impact to rates caused by increasing operating costs. Staff will use the updated Master Plan projects list, staff's knowledge of the water system and direction from the Board to prioritize the infrastructure projects over the next five years.

Staff will utilize the operational cost information and infrastructure requirements to determine the appropriate rate percentage increase. After the first year, rates will be tied to future increases to an index (e.g. ENR), which will eliminate the need to do a prop 218 process every year and increase rates in a slow and fair manner. The Board will evaluate the rate structure every two years to ensure that the proposed increase is reasonable.

STATUS: This is a high priority project.

4.0 PUBLIC INFORMATION

A well informed public is critical for a well managed water agency. DWP provides excellent service to its customers, so the public does not think about us much unless we begin a rate increase process. That is why it is important to inform the public through bill stuffers, flyers handed out at events, press releases, annual reports, website, presentations at public events, and presentation at schools. Water conservation is an important topic but general information is equally important for people understand why they get a water bill. Informing the public that over 90% of our costs are fixed, that we have to maintain 178 miles of pipeline, 60 pumping units, 9,000,000 gallons of storage, and we provide 60,000,000 gallons of water to 16,000 customers every month, helps them to understand why they have to pay \$50 per month for water service.

STATUS: Public information is an ongoing issue.

5.0 CITY AND INTERAGENCY RELATIONSHIPS

The construction projects this summer have helped to greatly improve DWP's relationships with other organizations on and off the hill. Frequent and face to face communication is essential in creating and maintaining interagency relationships. DWP now has good working relationships with the City of Big Bear Lake, San Bernardino County, Local Area Formation Commission (LAFCO), Municipal Water District (MWD), Community Services District (CSD), Big Bear Area Regional

Wastewater Agency (BBARWA), Fire District, Police Department, Southwest Gas Company, Bear Valley Electric Company, Big Bear Grizzly, and the Big Bear Chamber of Commerce.

STATUS: City and Interagency Relationships are ongoing issues.

6.0 ORGANIZATIONAL DESIGN, EMPLOYEE MORALE AND BENEFITS

DWP management has made some adjustments in staffing over the last year and they are summarized in the attached organizational chart. One additional revision will be presented for Board consideration on October 23, 2012. If that revision is approved, then no significant revisions should be needed in the near future.

DWP staff morale has improved over the last year. Having consistent, assessable management has developed trust between management and staff. Providing training and including all staff in the development and execution of projects also has improved morale.

Management continues to monitor the benefits landscape for changing legislation that may impact employee health and retirement benefits. Retirement contributions and health insurance premiums are a major annual expense for the Department, so management will work closely with the Board to identify opportunities for cost-sharing with employees.

STATUS: The City's Policies and Procedures that were adopted by DWP will be refined over the next year to better accommodate the operation of a water agency. Creating and maintaining good moral is an ongoing goal. Building trust and respect with your coworkers takes time and is essential for a successful organization. Managing the cost of employee benefits is an ongoing issue.

**Department of Water and Power
FY 2012/13 Organizational Chart**

- Board of Commissioners**
- *Stephen Foulkes*,
Chair
 - *Bill Giamarino*,
Vice Chair
 - *Bob Tarras*,
Treasurer
 - *Fred Miller*,
Commissioner
 - *Don Smith*,
Commissioner

Full-Time Equivalent Employees	FY2011/12	FY2012/13
Executive	2.0	2.0
Administration	9.0	9.0
Utility Plant & Operations	23.25	24
<i>Total FTEs</i>	<i>34.24</i>	<i>35</i>
<i>Accounts per FTE</i>	<i>459.5</i>	<i>447.7</i>

- General Manager
[FTE - 1]**
- *Reginald A. Lamson*

- Human Resources Generalist/Management
Assistant/Secretary to the Board [FTE - 1]**
- *Diego Chavez*

- Administrative Manager [FTE - 1]**
- *Danielle McGee*

- Water Resource Manager [FTE -1]**
- *William La Haye*

- Water Superintendent [FTE - 1]**
- *Steve Wilson*

- Customer Service
Supervisor [FTE - 1]**
- *Kelle Barrette*

- Accounting
Supervisor [FTE -1]**
- *Christine Jeffers*

- Public Information/ Water
Conservation Specialist [FTE -1]**
- *Amelia Ray*

- Production
Supervisor [FTE -1]**
- *Jason Hall*

- Customer Field Service
Supervisor [FTE - 1]**
- *John Gross*

- Transmission & Distribution
Supervisor [FTE - 1]**
- *Danny Ent*

- Customer Service
[FTE - 4.0]**
- *Evelyn Poelking*,
Senior Customer Service
Representative
 - *Di Eichenlaub*,
Senior Customer Service
Representative
 - *Robyn Bratton*,
Customer Service
Representative II
 - *Sonja Reeves*,
Customer Service
Representative I

- Billing [FTE - 2]**
- *Aimee Chlebig*,
Senior Utility
Billing Specialist
 - *Lisa Kinney*,
Utility Billing
Assistant II

- Conservation Technicians
[FTE - 0.75]**
- Seasonal Laborer

- Pump Technicians
[FTE - 3]**
- *Bruce Fellman*,
Pump Technician II
 - *Russ Vickery*,
Pump Technician II
 - *Tracy Delbridge*,
Pump Technician I

- Meter Technicians
[FTE - 5.75]**
- *Larry Wormsbecker*,
Utility Technician II
 - *Earl Forthun*,
Meter Technician II
 - *Mike Whalen*,
Meter Technician II
 - *Jeff Sayegh*,
Meter Technician I
 - *Todd Clanton*,
Meter Technician I
 - Seasonal Laborer

- Purchaser/
Inspector I [FTE - 1]**
- *Kevin Moran*

- Utility Technicians
[FTE - 7.5]**
- *Randy Coleman*,
Utility Technician/
Equipment Operator II
 - *Jason Beck*,
Utility Technician/
Equipment Operator II
 - *Dave Emig*,
Utility Technician II
 - *Rene Granillo*,
Utility Technician II
 - *Brian Cohen*,
Utility Technician I
 - *Wade Pieper*,
Utility Technician I
 - Seasonal Laborer
 - Seasonal Laborer