

**CITY OF BOULDER, COLORADO
BOARDS AND COMMISSIONS MEETING MINUTES**

Name of Board / Commission: Water Resources Advisory Board	
Date of Meeting: 15 July 2013	
Contact Information of Person Preparing Minutes: Kaaren Davis; 303-441-3233	
Board Members Present: Chuck Howe, Dan Johnson, Vicki Scharnhorst, Ed Clancy Board Members Absent: Mark Squillace	
Staff Present: Jeff Arthur, Director of Public Works for Utilities Bret Linenfelser, Water Quality and Environmental Services Manager Joe Taddeucci, Water Resources Manager Russ Sands, Water Conservation Program Manager Michelle Wind, Drinking Water Program Supervisor Vicki Jones, Process Optimization Specialist Steve Folle, Acting Co-Water Treatment Manager Mike Emarine, /Acting Co-Water Treatment Manager Jake Gesner, Hydroelectric Manager Niall Stewart, Process Optimization Specialist Kevin Clark, Engineering Project Manager Steve Buckbee, Engineering Project Manager Kaaren Davis, Board Secretary	
Meeting Type: Regular	
Agenda Item 1 – Call to Order	[6:58 p.m.]
This meeting was called to order at 7:00 p.m.	
Agenda Item 2 – Approval of the 17 June 2013 Meeting Minutes:	[7:00 p.m.]
Motion to approve the 17 June minutes with requested corrections by: Scharnhorst; Seconded by: Johnson	
Motion Passes; 4:0	
Agenda Item 3 – Public Participation and Comment (General)	[7:03 p.m.]
Public Comment:	
None	
Agenda Item 4 – Information Item – Overview of Water Treatment Operations	[7:03 p.m.]
Michelle Wind, Steve Folle, Mike Emarine, Niall Stewart, Bret Linenfelser, Steve Buckbee and Jeff Arthur presented the item.	
Executive Summary from the Packet Materials:	
<p>In January 2013, staff provided the Water Resources Advisory Board with an overview of water supply and demand management with a focus on evaluating 2012 operations (January 2013 WRAB Information Item). This information item is intended to supplement the water supply and demand management information by providing a more in-depth look at the water treatment processes and challenges at the city's two water treatment facilities.</p> <p>The City of Boulder (city) operates two water treatment facilities, the Betasso Water Treatment Facility (BWTF) and the Boulder Reservoir Water Treatment Facility at 63rd Street (BRWTF). The BWTF functions as the city's primary treatment facility with the BRWTF serving to optimize management of the city's water rights portfolio, meet peak demands, and provide reliability. Both facilities use conventional treatment processes with the key difference being that the BWTF clarification process relies on sedimentation while the BRWTF uses flotation.</p> <p>Treatment processes are evaluated on an ongoing basis to maintain regulatory compliance and deliver a high quality product to customers. The city adds fluoride to its treated water in accordance with a 1969 ballot initiative. The BWTF is a key focus in the upcoming Utilities Capital Improvement Program (CIP), including preliminary design of an improvement project in 2014.</p>	

This item is intended to provide WRAB with an overview of water treatment operations as context for future WRAB agenda items. No formal action by the WRAB is requested at this time.

WRAB Discussion Included:

- How decisions are made to do studies.
- Effects on water quality and water treatment /costs associated with allowing so much recreational use of Boulder Reservoir.
- Clarifying questions regarding the different treatment methods used at each of the water treatment facilities.
- Issues surrounding water quality based on local geology (ambient contaminant levels) versus Safe Drinking Water Act and Water Quality Act.
- The need to replace and/or rehabilitate much of the equipment at the treatment plants due to age and older, less effective technologies. Plans/projects moving forward to do this.
- Relative costs of current treatment methods between plants and cost savings potentials with rehabilitation/replacement.

No formal action by the WRAB is requested at this time.

Agenda Item 5 – Information Item – Hydroelectric Program Update

[8:25p.m.]

Joe Taddeucci, Kevin Clark, and Jake Gesner presented the item.

Executive Summary from Packet Materials:

Boulder began developing the hydroelectric power potential of its municipal water system in the 1980s. Between 1985 and 2004, the city built or acquired eight hydroelectric power plants with a present day capacity of roughly 16 megawatts (MW). Currently, the city has four hydroelectric facilities on its raw water delivery system and four facilities on the treated water system. Annually, the city produces an average of approximately 45,000 megawatt hours (MWh) of hydroelectricity, which results in annual revenue of about \$2 million to the water utility. This revenue offsets capital and operating costs that would otherwise be borne by water utility customers through higher water rates.

Since the 1980s, it has been city policy to develop hydroelectric potential within the municipal water supply system where environmentally and economically feasible. Hydropower projects have been environmentally feasible since municipal water supply infrastructure is already in place. Economic feasibility has been defined as a hydroelectric facility's ability to pay for its construction, operation and maintenance costs over its lifetime. Seven of the city's facilities have met or are expected to meet this goal in significantly less than the assumed 50-year project lifetime. Boulder Canyon Hydro (BCH) underwent a major renovation completed in 2012 at a cost to the city of \$4.75 million. It is expected that generation revenue will pay back this cost in under 20 years.

While much of the municipal water system hydroelectric potential has been developed, staff continues to monitor potential hydroelectric development options within the system. Future projects may rely upon additions to the water supply infrastructure, operational adjustments, future power sales markets and advancements in hydroelectric generation technology.

Staff is presenting the information to WRAB at this time as an overall status of the city's hydro program and to provide background in advance of upcoming projects, which will be coming to WRAB in the next several years as part of the capital improvement program.

WRAB Discussion Included:

- The changing role of Kossler Reservoir as hydro technology changes.
- Clarifying questions about the function and yields of the various hydro plants.
- The financial benefits of the hydro facilities 7 of 8 of which have positive net revenue.
- How the hydro program might feature in a potential municipalization program.

No formal action by the WRAB is requested at this time.

Agenda Item 6 – Matters

[9:17 p.m.]

From the Board: (9:17 p.m.)

- Clancy raised the following matters:
 - Had questions regarding Boulder's compliance with contaminants such as Arsenic,

Hexavalent Chrome and Cyanide. Staff: Meeting effective limits on the latter two, Arsenic, as discussed previously is largely affected by ambient levels in the local geology.

- Howe raised the following matters:
 - Completed a tour of the water utility system for six leading water officials from the Middle East and Eastern Europe. Thanks to staff for an excellent tour.

From Staff:

[9:23 p.m.]

- **Submitted for two federal grants** to help with Regulation 85/Nutrient Levels. Should find out prioritization of the submittals next week.
- **Critical Facilities Ordinance** Going to Council for first reading on August 20th and second reading on September 17th.
- **Flood Warnings:** EOC activation late last week, particularly applied to the Fourmile burn area.
- **Revenue:** Beginning of the year low due to the wet spring, but won't have a good sense of how the year will be until after August/ Sept. Plant Investment Fees up a bit.
- **New Website:** Goes live Wednesday morning.
- **CRM:** Part of the new website. Should streamline the request for service process.

Agenda Item 8 – Discussion on Future Schedule

[9:35 p.m.]

- Tour of the Wastewater treatment plant.
- Activated Sludge upgrade.
- Water Conservation Future Study to September
- Table Water Supply Climate Change Item
- Add a "Matters" item on South Boulder Creek in October.

Agenda Item 9 – Adjournment

[9:44 p.m.]

There being no further business to come before the Board at this time, by motion regularly adopted, the meeting was adjourned at 9:44 p.m.

Motion to adjourn by: Scharnhorst ; Seconded by: Johnson

Motion Passes 4:0

Date, Time, and Location of Next Meeting:

The next WRAB meeting will be August 19, 2013 at 7:00 p.m., at the 75th Street Wastewater Treatment Facility

APPROVED BY:

ATTESTED BY:

Board Chair

Board Secretary

Date

Date

An audio recording of the full meeting for which these minutes are a summary, is available on the Water Resources Advisory Board web page.