

DATE: February 13, 2013
TO: Mayor and Council
FROM: Water and Light Advisory Board
RE: Drinking Water System Capacity Expansion and Well Siting

Drinking Water System Capacity Expansion

Expansion of the drinking water supply is about one thing: continuing our implicit support for the use of treated drinking water for irrigation.

We spend a lot of money and city employees work very hard to ensure that our water is soft and safe to drink, only to have it used for irrigation and many other purposes that do not require the high-quality water that they deliver. There are much better ways for us to meet our various water needs and wants, and as an innovative community, it's time for us to find and implement them.

The Water and Light Advisory Board recommends that council direct city staff in multiple departments to develop a comprehensive water management plan that considers drinking water supply issues in conjunction with stormwater management, water re-use opportunities, irrigation policies, efficiency incentives, rate structures, and alternative, decentralized sources of supply for non-potable uses.

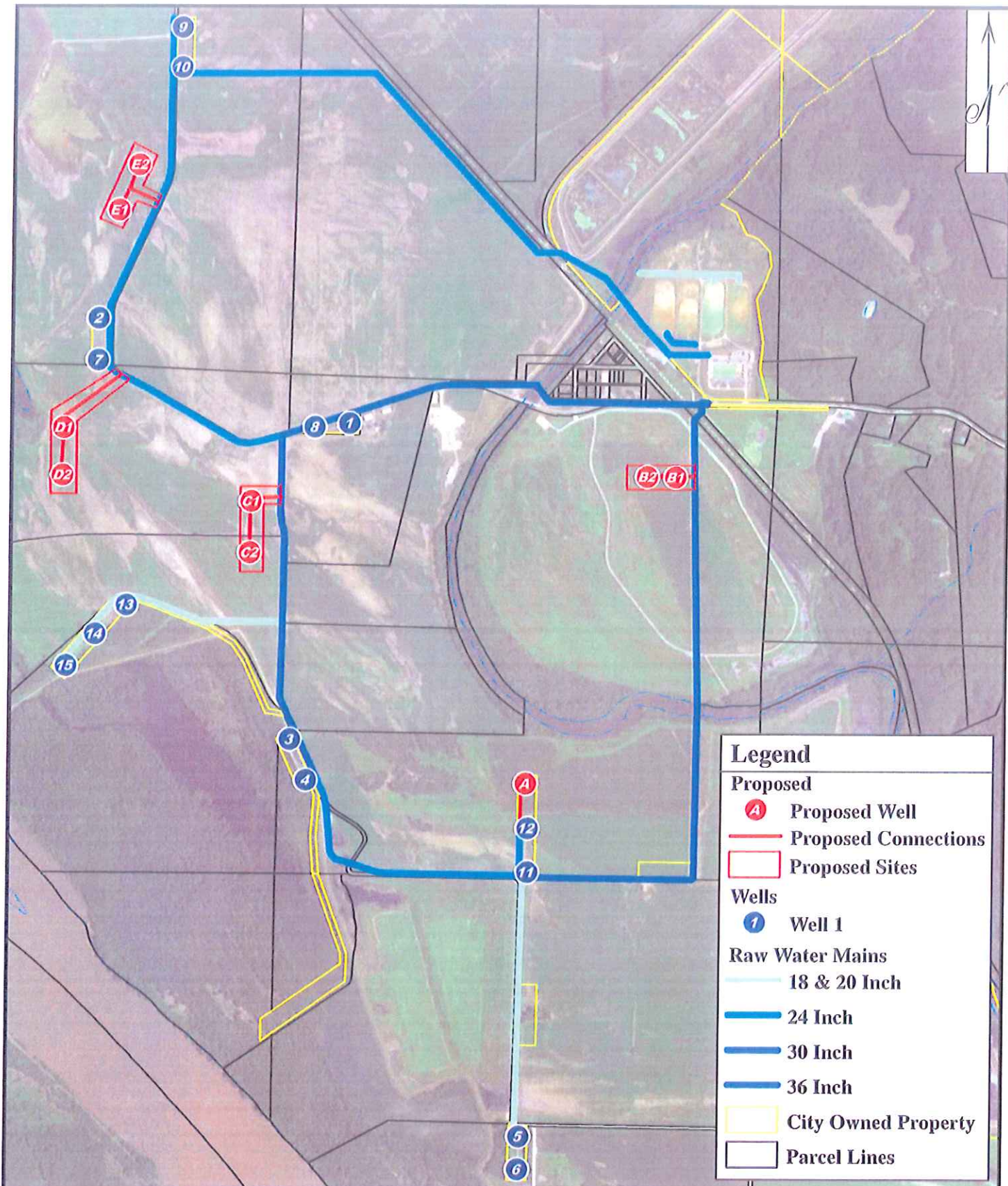
The goals of this comprehensive water management plan are to increase the efficiency and appropriateness of our water usage, improve our water security, defer the need for major capital improvements, and ultimately, decrease costs and improve service for the ratepayers.

All of that being said, it is unrealistic to think that we can make sufficient progress along these lines fast enough to avoid increasing our water supply capacity. Therefore, we do not oppose drilling more wells at this time, so long as it is done in conjunction with comprehensive water management planning.

Well Siting

Wells further south in the wellfield are more susceptible to groundwater migration from underneath the Eagle Bluffs conservation wetlands. The proposed well site A appears to be within the area of influence.

Proposed well sites B and C would be preferable from a water quality standpoint.



McBaine Proposed Wellfield Sites

1 in = 0.25 miles

Sheet 1 of 1

Water and Light Advisory Board
January 2, 2013

A meeting of the Water and Light Advisory Board was held Wednesday, January 2, 2013 at 8:05 a.m. in Water and Light Conference Room 4A, 701 E. Broadway. The meeting was attended by:

John Conway, Chair
Tom O'Connor, Member
Hank Ottinger, Member
Dick Parker, Vice Chair
Bob Roper, Member
Tad Johnsen, Water and Light Director
Ryan Williams, Assistant Director of Water and Light
Christian Johanningmeier, Power Production Superintendent
Jim Windsor, Manager, Rates and Fiscal Planning
Mike Anderson, Manager, Water Production
David Storvick, Engineering Manager
Carol Schafer, Management Support Specialist
Win Colwill, League of Women Voters
Tracy Frevert, Administrative Support Assistant

APPROVAL OF THE DECEMBER 5, 2012 MEETING MINUTES

The December 5, 2012 meeting minutes were approved as amended by voice vote on a motion by Dick Parker and a second by Hank Ottinger.

FINANCIAL REPORT

Tad Johnsen and Jim Windsor reviewed the Water and Electric Utility Fund Estimated Unaudited Preliminary Draft Balance Sheet for the month ended November 30, 2012 and 2011, which were distributed at the meeting. Cash and marketable securities is down compared to last month. Purchased Power has increased because both Prairie States units are operating.

MONTA WELCH RENEWABLE ENERGY ORDINANCE

John Conway introduced Monta Welch, speaking for Columbia Climate Change Coalition and Peoples' Visioning. She distributed information on the goals of Peoples' Visioning, which include focusing on education and energy efficiency, developing decentralized, distributed generation of renewable energy, and raising Columbia's renewable energy standard to 80% by 2015. She provided supportive data and website links which she asked the Board to review. She also urged all to attend the Tuesday, January 22nd mini-conference, "A People's Visioning".

NEW BUSINESS

No new business.

OLD BUSINESS

a) Alluvial Aquifer Well Siting – Tad Johnsen reported that Staff is preparing a resolution for Council consideration setting a public hearing for the construction of three additional wells in the McBaine alluvial aquifer that are currently programmed in the Capital Improvement Plan. The McBaine well field has 15 vertical wells with a design pumping capacity of 28 million gallons per day (MGD). Due to the age of the wells and partial plugging of the well screens and surrounding strata, the actual pumping capacity of the well field has been reduced to

approximately 24.5 MGD with all wells in operation; a reduction in capacity equivalent of nearly two wells. The addition of these three wells would return the well field to the design capacity of 28 MGD and to provide one standby well, as recommended by the Missouri DNR Design Guide for Community Water Systems.

A study completed by Black and Veatch has identified several potential locations for the three new wells to meet the City's production requirements while maintaining acceptable water quality. This study recommended construction of the new wells on the north end of the well field in order to protect raw water quality in the wells to the maximum extent practicable. Staff is instead recommending alternative sites "A", "C1" and "C2" as they will be able to utilize existing city owned property and utilize the higher hydraulic efficiencies of the larger mains in the southern portion of the well field while preserving the north section of the well field as a source of high quality water for future production needs.

Hank Ottinger would like to promote water demand reduction efforts as well as the addition of the three wells. Dick Parker recommended the addition of one well, and rapidly developing a strong water conservation program. David Storvick noted that the addition of only one well would provide a standby well, but would not help with capacity.

Tom O'Connor distributed a draft memo to Council he composed stressing the Board does not oppose drilling more wells at this time, so long as it is done in conjunction with comprehensive water management planning. Bob Roper noted that he does not oppose the recommendations in the draft memorandum, however he would like more time than available at this meeting to research and discuss the recommendations presented.

Bob Roper made a motion, seconded by John Conway, to recommend sites "A", "C1" and "C2" to Council. Hank Ottinger moved to amend Mr. Roper's motion to include sending Council the memorandum drafted by Tom O'Connor. Dick Parker seconded the motion. John Conway, Dick Parker, Tom O'Connor and Hank Ottinger voted yes. Bob Roper voted Nay. On the original motion, John Conway, Bob Roper, Tom O'Connor and Hank Ottinger voted yes. Dick Parker voted nay.

DIRECTOR'S REPORT

a) 2006C Refinance – Tad Johnsen reviewed the charts and graph explaining the electric debt service before and after 2006C refinancing. FY31 through FY33 show a considerable debt service drop, with savings occurring the last three to four years. Mr. Conway noted that in the future Water and Light will need to reflect changes in debt service for FY2018 through FY2022 budgets.

b) Annual NERC Compliance Report – Tad Johnsen reviewed the report prepared by NERC Compliance Officer, Ron Wyble. He noted that in 2010 Water and Light self-reported two possible violations, and a 2010 SERC/NERC Reliability Audit found an additional possible violation. All three violations were either dismissed or corrected. Water and Light is scheduled for an off-site Critical Infrastructure Protection Standards audit in February, 2013, and an on-site Operation and Planning Standards audit October 4-8, 2013.

c) Annual Director's Report – Tad Johnsen reported that the focus for 2013 is to finish projects:

- complete final phase of restructuring water laboratory services

- transition of Columbia Energy Center to Water and Light operating staff
- future expansion of the well field and a condition assessment of existing equipment at the Water Treatment Plant
- complete Condition Assessment Study of existing Power Plant equipment
- IRP update completed for review and presentation to Council
- complete study of smart grid and smart meters
- complete construction phase of Water and Light's primary control center
- complete space needs analysis for the water and electric distribution facilities
- implement initiatives and develop programs in coordination with the City Strategic Plan

Bob Roper continued to express concern at the amount of outstanding loans and asked if Finance had determined yet if a third party should review the program. Tad Johnsen has met with Finance Director John Blattel, who is not concerned at this time.

CHAIRMAN'S REPORT

a) Discussion of Power Purchase Agreement – Tad Johnsen reported that the proposed baseload power supply contract discussed at the December Board meeting will not be going to Council in the near future. John Conway asked the Board to review the materials supplied by Dick Parker. Mr. Parker requested that Staff develop two proposals in conjunction with the power supply contract, a virtual power plant and a photovoltaic system alternative. Tad Johnsen indicated this would be done.

b) Election of Officers - Dick Parker made a motion to reappoint John Conway as Chair of the Water and Light Advisory Board. Hank Ottinger seconded the motion, which passed unanimously.

Bob Roper made a motion to reappoint Dick Parker as Vice-Chair of the Water and Light Advisory Board. Hank Ottinger seconded the motion, which passed unanimously.

The next regularly scheduled meeting is February 6, 2013 at the Water Treatment Plant Conference Room, 6851 W. Route K, McBaine at 8:00 a.m.

The meeting adjourned at 9:55 a.m.

Respectfully submitted,