NPBRT Minutes: 4-23-13 Meeting

USFS Conf. Room (3-5 PM), 100 Main Street, Walden, CO

Members/Liaisons Present

Mike Alpe
*Jimmer Baller
Paula Belcher
*Kent Crowder
*Blaine Evans
*Tom Hackleman
Deb Heeney
Charles Mathis
*John Rich
Carl Trick II
*Barbara Vasquez
*Ty Wattenberg
*Rick Wyatt

Members Absent

*Mike Allnutt
Deb Alpe
*James Carothers
Pete Conovitz
*Scott Fischer
*Mike Honholz
*Randy Miller
Ann Timberman
Hunter Townsend

Visitors Present

Ray Beathard
Ben Clayton
Shanna Lewis
Greg Sherman
Cade Waldron

I. Agenda Review

The agenda was accepted as published.

II. Approval of Roundtable Minutes: March 23, 2012 Meeting

The minutes of the March 23 meeting were discussed and several changes were offered. They will be considered for approval at the next meeting.

III. Presentation on Public Education, Participation and Outreach Projects – Deb Heeney for Deb Alpe, Education Liaison

Deb Heeney read through Deb Alpe's update to the NPBRT.

1. Deb Alpe finished the Speaker Bureau slide show and put together a set of notes that future presenters can use in preparation for their presentations. Thanks to everyone who shared photos for the slide show. Notebooks still need to be put together and distributed.

2. Deb Alpe gave the first Speakers Bureau Presentation to a group of 15 women during their Woman's Club meeting on March 8th. The program was well received and generated a number of comments from the group. All in attendance were impressed with all the things that the NPBRT has accomplished. They emphasized that it would be really good for Roundtable members to get out and present this to as many people possible in our community because they felt that the information was important and interesting.

3. The CFWE has the following tour scheduled on their website. Deb sent a message to Kristin inquiring as to how the NPBRT members might be involved. Does the RT have any thoughts regarding this?

   "July 10-12: Platte River Tour - For the first time, the CFWE bus will cross state lines! Broaden your perspective on interstate water issues on the Platte Rivers system in Colorado, Wyoming, and Nebraska."

There was further discussion about the Platte River Tour. CFWE plans to take the group from Fort Collins to Pathfinder Reservoir, then on to Scotts Bluff, NE. It's a lot of windshield time. Kent requested suggestions from those present on what we might show the participants in North Park once they had crested Cameron Pass on July 10. Carl Trick mentioned Michigan Ditch and the Ft Collins trans-basin diversion as one possibility. Jimmer suggested we somehow convey to the participants how the Supreme Court decision makes the headwaters of the North Platte unique in the adjudication based on irrigated acreage rather than cfs. Kent noted it would be a good opportunity to use the pamphlet put together by the Education Committee. Please contact Kent with further suggestions.

The final point in the Education Committee update was on PEPO. The most recent PEPO notes are attached with these minutes.

4. PEPO met on Feb 19 (notes forward to Barbara for distribution to RT). Due to schedule conflicts, Deb has missed the past couple PEPO meetings in Sept and Feb. Is there anyone else willing to attend PEPO meetings? Would be great to share the job. One of the tasks to Ed Liaisons from PEPO meeting was to share and discuss "Consensus Messages" and consider the questions highlighted in yellow. Since Deb had already shared these in a prior RT meeting, here is her response thus far. If RT has additional comments, please let Deb know and she will forward on to Kristin Maharg to be considered in future discussions.

   CONSENSUS MESSAGES (adapted from IBCC in late 2011)

   I. We have a stakeholder driven process in the state working on solving our future water needs
   II. Our water needs exceed our planned supplies, creating a "gap." We need a portfolio of solutions that incorporates water from conservation, reuse, agricultural to municipal transfers, and the development of new supplies to minimize the impact to agriculture, the environment, and recreation

III. Balanced water solutions will cost money in the future
IV. We are also supporting agriculture, environmental, and recreational projects and many projects can be multi-purpose, meeting more than one need
V. Our water future is connected statewide (i.e. transbasin projects, agricultural and recreational economies, impacts of compact calls)
VI. Why and how to get involved in the current work of the IBCC
VII. A State Water Plan that incorporates a balanced portfolio of solutions will occur in 2016.

1. Take the consensus messages back to those interested in education on your roundtable and talk through how the messages can be adapted locally.

2. Which outreach approaches would be a best fit for your available resources/community needs? What other resources are needed to accomplish these locally and statewide?

Deb Alpe's email response Kristin--- "I had already once shared the consensus messages with our Roundtable in a previous meeting and discussed how we were addressing these in our basin. Our Roundtable members commented that we have integrated all of these into our NP Basin Report, our table top visual displays and stakeholder presentation …so far only done one but will be doing more presentations. "

IV. Presentation on Jackson County, Colorado Draft Nonpoint Source Watershed Protection Plan Sponsored by Owl Mountain Partnership – Dennis Murphy, Aqua Solutions, LLC, Montrose, Colorado

Due to weather, Dennis was unable to appear in person, but he made this presentation by phone, directing which elements of the Watershed Plan Draft to project.

By way of introduction, Dennis explained that he was formerly a hydrologist for the BLM. Since retiring a few years ago, he has been working as a consultant on projects like this. Dennis explained that the draft Plan is over 100 pages long and that he would give us a high level but focused review of the contents.

Creation of the Watershed Protection Plan is voluntary and was sponsored by Owl Mountain Partnership. It is a tool for all in the basin, private landowners, nonprofits, agencies, etc. A simple update of the existing plan was not sufficient, because the EPA NPS Program specifies that 9 elements must be included. Those 9 elements are 1) pollutant, 2) source 3) load of pollutants to be removed to come into compliance, 4) Best Management practices to be used to achieve the reduction, 5) estimated cost, 6) assistance needed, 7) time required, 8) monitoring to be put in place and 9) education. The Plan is being written, in part, to satisfy the requirements for possible future funding of projects in the basin from the EPA Nonpoint Source Program. The NPS Program makes technical assistance and possible funding available for correction of nonpoint source impairments to waters from any source including runoff from agriculture, public lands, urban areas, etc.

How is impairment determined? The State (CDPHE, WQCD) is required to classify then measure impairment relative to standards established for different uses including aquatic life, municipal water source, agricultural use and recreation. They use numeric and biological standards. Colorado is relatively unique in that they were rather aggressive in the initial listing. For 303d listing, one must do a total maximum daily load and then attempt to bring the level of the impairment into compliance. In

addition, the M&E listing is sometimes a 'purgatory list', waters that the State is unsure of whether to list or not. The M&E list is refreshed every 2 years with a 5 yr 'lookback'. The 2012 list based on data from 2005 -2010, was used in this report. Every 3 years, the State has a Triennial Revue staggered by basin. North Platte is up next year. This review provides the opportunity to bring data for listing or delisting.

Dennis commented multiple times (but I'll just report it once) that he considers the North Platte Basin water quality to be in relatively good shape. Almost all the items in NP are on the M&E rather than 303d listed. The Plan has been written with collaboration from OPM, BLM and FS. In addition, Dennis has mined water quality data for the basin wherever it exists, including River Watch, USGS, and JCWCD work done under contract by Greg Sherman for the past 10 years. Comments from the JCWCD have been recently incorporated.

Section 2.3.C lists potential and future sources of water quality impairment. He encouraged us to review this section in particular for his list of risks for the basin.

The findings are listed in Table 4. In reviewing the M&E and 303d listed waters, Dennis focused on what it might take to get the State to agree to remove certain waters from the 303d list or Monitoring & Evaluation. These topics included;

1) sample size used by the State (often amazingly small)

2) what changes in conclusions might be supported by inclusion of additional sample date which is available and within the time frame considered by the state and

3) what additional data might be needed to convince the State that certain impairments may be natural causes

S Fork Big Creek is M&E for E. coli. The State had only 3 samples which averaged above the standard of 126 E. coli colonies/100ml. When Greg added in 9 samples collected by FS (Liz Schnakenberg), the E. coli average was in compliance. Cu (copper) is also above the standard. Dennis offered the opinion that is was likely a natural source, as he was unable to find any evidence of mining as a source. Additional data, including from higher elevations near the border of the Zirkel Wilderness Area, would be required to make a convincing argument to the State to change the standard to 'ambient'.

Canadian is M&E for E. coli. The State has 4 samples only. The Geometric mean was 126.1 against a standard of 126. Dennis found an additional 34 data points but the samples were too old to fit in the 5 yr 'lookback'. He recommended collecting a few more during this season and, if lower, request the State to accept them as evidence of compliance to the standard. The Canadian is M&E for Fe (iron). The standard is 300ppb and the mean for this tributary was 450ppb. Historic data is consistent. This might be a good place to target to demonstrate natural source (likely Coalmont Formation) for this impairment. For the State, synoptic water quality sampling is the accepted technique. This gives a snapshot in time, requiring collection of samples on the same day from multiple sites in this sub-watershed and could provide a good map of where the Fe is entering the stream system.

Grizzly and Little Grizzly are M&D for aquatic life. This observation comes from the '80s or even the late '70s. Sediment loads had imbedded the stream bottom. Observations of suspended sediment at 5 different stations show the upstream reaches of Grizzly (near Spicer: 33 tons/day) and Little Grizzly (near Coalmont: 14 tons/day) carry larger loads than downstream reaches of Grizzly (near Hebron: 17 tons/day) and Little Grizzly (near Hebron: 9 ton/sday). Buffalo Creek was carrying only 0.83 tons/day. Dennis showed graphically a very strong correlation ($r^2 \geq 0.92$) between stream flow and sediment load. He suggested honing in on sources for the upper reaches of Grizzly and Little Grizzly which might include unstable stream banks or erosion. Greg Sherman commented that he had data for the headwaters of Colorado Creek which included total suspended sediment (TSS). Dennis and Greg agreed they'd get together and make sure that Dennis maximized the utility of Greg's data (generated over the past 10 years for JCWCD) for this report.

Little Grizzly M&E for E. coli. State only has 3 samples, which is very little data for a component that varies widely even within a single day. He noted that the 2001 data was in compliance and suggested more samples be taken. Fe(Trec) or total recoverable iron is M&E as well. (See discussion later about iron in general in the basin.)

Lake Creek is M&E for pH and Fe(Trec). For pH the State has only 1 sample measuring 9.2 against the standard of 9.0. Dennis felt a few more samples might bring the mean down below the standard. The Fe(Trec) was 1810 against a standard of 1000.

Big Creek Reservoir is M&E for aquatic life (mercury in fish). 15 fish have been analyzed for Hg (mercury) and the state plans to analyze another 15 (date tbd).

The Illinois River is 303d listed for Fe (Trec). The State data set include 14 samples on the Refuge and 9 samples hear Rand. Lots of history to show this is chronically high. Dennis commented there's a high correlation between Fe (Trec) which is measured on unfiltered water and TSS (total suspended sediment). It's been suggested that the high Fe in multiple streams/rivers in this basin are due to contributions from the Coalmont Formation. Again, synoptic sampling (a bigger job on this larger subbasin) would be necessary to produce a dataset that might convince the State that his is ambient background in this basin.

Spring Creek is 303d listed for dissolved oxygen. Dennis offered that there are a number of causes seen elsewhere for low D.O. that include cow manure, rotting aquatic vegetation, low stream flow, ice cover in the winter, etc. He also conceded that this is a tough measurement, affected by temperature, barometric pressure and other variable. However, the nutrient data don't show a problem. A photo supplied by Paula shows the wetland that provides the source of Spring Creek. The high iron could work in this situation to rob the spring water of oxygen. Ground water is usually low in oxygen. There's a high probability that the iron in the ground water is in the ferrous state (Fe^{++}) but that once it hits the surface, it scavenges what oxygen is available to go to the ferric (Fe^{+++}) state. Rusty color on stream bottoms would be that ferric oxide (rust) depositing on the substrate. So perhaps the high iron is the underlying cause of low dissolved oxygen.

Lake John and North Delaney Lake are M&E for pH. The State's dataset is based on 3 samples each. Dennis found 30-40 additional reading by CPW that are within compliance and are within the period of record.

Lake John is 303d listed for D.O. The State's dataset is only 4 surface samples. A larger sample size is necessary, including samples from below the surface. According to Pete Conovitz (CPW), the waters of Lake John are productive with a robust fishery, a finding inconsistent with low D.O.

At this point, Carl Trick questioned Dennis about whether Greg Sherman's data has been included. Dennis said he had received Greg's data set and used it where appropriate. He stated that repeat samples from the same location over time are not as useful in mounting a case to the State to remove a stream or lake from M&E or 303d listing. Again he referred to the States preferred technique of synoptic sampling. Carl said the JCWCD has been conducting this sampling and analysis through Greg's company (Western Environment and Ecology) for 10 years. Carl asked for Dennis's advice on how to make future work most useful. Dennis replied that we should review the 'additional data needed' sections where his recommendations are in order of priority. Paula is completing an appendix for this report there will be more details on additional data needs. Dennis said for bigger rivers (like the Illinois), synoptic sampling could take as many as 30-40 folks working over a few days to capture a snapshot to possible convince the State to accept that a particular impairment was from natural causes. Dennis gave an example of stream impairment from the coupling of natural formation and human activity. In his part of the State, there's a lot of Mancos Shale which is very high in selenium and salinity. Increases in irrigation and septic tank installations caused increased leaching of Se and salt into the creeks.

Ty asked about the BMPs. Dennis turned our attention to Chapter 3.4. In order to keep the size of the report reasonable, he shows the BMPS as links to already existing BMPs in many areas. Ty commented that in Chapter 2.3.c, when discussing risks from fracking, it would be good to include ground water risks, not just surface water. Dennis welcomed the suggestion.
Dennis turned our attention to Chapter 4: Actions that include selected BMPs. Carl asked whether beetle kill could cause nutrient loading of streams. Dennis explained the nutrients in greatest demand by plants and animals are phosphorus (P) and nitrogen (N) and that any excess is quickly taken up. In limited situations, like if a tree dropped a large load of needles directly into a stream, there may be an elevation in P&N, but it would be taken up quickly. After a fire, the biggest problem is usually sediment and ash. The effect can last 5 years or more. Barbara asked whether fertilization practices could load runoff with P&N. Dennis apparently hadn't known that many of the North Park hay meadows are fertilized. Greg commented that he has done sampling for nitrate, nitrite and total nitrogen in early spring run off and didn't see spikes. Barbara suggested Dennis consider adding that to the report as a positive with respect to agricultural practices.

Dennis drew our attention to Section 4.2 Goal 2 Action #8: Implement agricultural BMP's to reduce receiving water loading of nutrients, sediment and other potential pollutants. The table is blank and he's looking for input. Barbara suggested that Deb Heeney's projects to move CAFOs off riparian

habitat would be a good fit. Deb and Dennis will work on this and any other Ag practices that she might suggest.

Dennis stated that because he's not from here, he has 'no ax to grind'. He's attempted to be objective and thorough. He's looking forward to our comments and feedback to make this report as useful a tool for the Basin as possible.

And as an afterthought he added that he's had to wade through piles of reports on paper to gather and combine data. He suggested it would be advantageous for any user to have all of the North Platte basin water quality data electronically in one place, easily accessible to all.

VII. CWCB Update - Ty Wattenberg

Ty gave a brief update of the CWCB meeting held March 19/20..

General CWCB updates: The Governor has stated he wants a new directly in CWCB and has started looking for a new direction which includes replacing Jennifer Gimbel. Mike King accepted applications from April 4-18, and the Board will apparently be involved in helping with the candidate selection. Allof the CWCB staff are now housed in one building (Sherman). CPW is making a change. Jay Skinner, the water unit leader is moving to the ISF unit and CPW is interviewing for Skinner's replacement.

There are 12-15 oil/gas bills working through the legislature. Severance tax is expected to be $200m above 2012. The COGCC has put new rules in place to require ground water monitoring associated with oil/gas development. John Stulp has announced the IBCC will have more in-depth meetings. The CWCB Board also held a retreat on 4/18. The Governor has established a new timeline which includes an executive order with guidance to the CWCB (5/13), Legislation check point (11/13), draft plan check point (11/14) and a published statewide water plan (11/15).

VIII. Old Business/ New Business

Old:

Kent reported that the North Platte Basin Fund balance stands at $741,482 as of April 1. The Mutual Ditch project ($41,940) recommended to the CWCB by the NPBRT at our March meeting has not yet been considered by the CWCB.

Kent let those who hadn't heard yet know that the JCS has been purchased by Matt Shuler. It's continued operation means the decisions last month about how to inform the public about our meeting dates/time can be ignored.

Ty brought up the topic of the Nonconsumptive Tool Box which he meant to discuss in his CWCB update. Barbara commented that the CWCB staff plans a workshop (webinar) sometime in May, likely before the end of the current comment deadline (May 20) on the Toolbox. But at the last NPBRT meeting, Greg Johnson had offered to come to a NPBRT meeting with support from experts

to explain the NC Tool Box. He confirmed that by email today, reiterating his availability. Ty commented that he felt strongly about having such a presentation.

New:
Kent reiterated his request for suggestions for stop(s) in Jackson County for the July 10 CFWE Platte River tour. Barbara suggested he inquire whether CFWE plans to stop in Walden for lunch. Might provide an opportunity to share the brochure and do a bit more of a presentation.

Deb Heeney passed out a one page summary of the Colorado SNOTEL Statewide Snowpack Report as of April 23. It shows the North Platte River Basin-wide percent of average at 103%.

Carl went back to the Watershed Plan topic and asked how OMP is involved, and how implementation of recommendations would be advanced. Paula explained that the Plan doesn't propose implementation, but that acceptance of the Plan (yet to be completed) by the State would make it possible for entities to apply for 319 funding for projects. OMP doesn't have funding for nor does it plan to do new monitoring. For any situations where there's mixed public/private ownership, the JCWCD would have the lead. Spring Creek is an example where it's almost 100% federal ownership and in t his case the BLM might initiate a project.

Paula also reinforced the fact that the Plan is open-ended and doesn't preclude new data or new projects. She pointed out that much of Dennis's commentary during this presentation was aimed at addressing how to get sufficient data to convince the State to delist streams/lakes in the basin. Although the Plan is still in Draft form, there was a deadline of April 1 to provide the State with evidence. So OMP sent in a letter with some of the data and recommendations from the Plan to open the opportunity for JCWCD to discuss delisting with the State at the next review.

Carl asked more about the OMP board and how to get the best coordination between OMP and JCWCD. Paula reiterated that the Plan satisfies the requirements for future 319 funding from EPA's Nonpoint Source Program, not just for OMP but for any other entity (agency, WCD, nonprofit, etc). Carl said he was asking for coordination with OMP and for help from their contractor (Dennis) to refine the sampling program to optimize the efforts to get streams/lakes in this watershed delisted.

IX. ***Next Meeting Date set for Tuesday, June 4, 2013***, 7-9PM (NOTE: SUMMER HOURS)

X. Meeting Adjourned