



September 29th Meeting Summary For the Treasure Valley Comprehensive Aquifer Management Plan Advisory Committee

On September 29, 2010, the Treasure Valley CAMP Advisory Committee met at Meridian City Hall from 8 am until 4 pm. The objectives of this meeting were to

1. Review progress to date and plan for moving forward.
2. Review final results from the Future Demand Study and identify key findings for the CAMP.
3. Continue committee discussions aimed at agreement on options to achieve CAMP Goal # 1 – provide a reliable source of water for the future.
4. Review and refine the options to address CAMP Goal # 2 – manage future conflicts.

List of Advisory Committee Members and Staff Attending

Note: In the meeting summaries, the Facilitation Team refers to Advisory Committee members as “Member(s).”

Ron Abramovich
Brent Adamson
Jamie Anderson
Michelle Atkinson
Rex Barrie
Gayle Batt
Russ Dane
Paul Deveau
Dave Dixon
Gary Duspiva

Allen Funkhouser
Stephen Goodson
Matt Howard
Chris Jones
Bill Larson
Lynn McKee
Greg Nelson
Brian Patton
Kathy Peter
Clinton Pline

John Prigge
Jayson Ronk
Gary Shoemaker
Lon Stewart
Warren Stewart
John Thornton
Rick Ward
Paul Woods
Mark Zirschky

Note: Seventy two percent of the appointed Members attended this meeting.

Facilitation Team: Joe McMahon and Daisy Patterson

IDWR Staff: Helen Harrington, Sandra Thiel, Cynthia Bridge Clark



Welcome, Introductions, Work Plan and Review of Agenda

The Facilitation Team, the Advisory Committee and the public observers all introduced themselves. Daisy Patterson reviewed the meeting goals and agenda for the day. Joe McMahon reviewed the work plan and asked for feedback on CAMP's current schedule and proposed topics of discussion. The current draft of the CAMP work plan aims to complete the recommendations in December before holding an open house in January. Following the open house, the Committee could then integrate comments and make final revisions in February before delivering the final recommended plan to the Board in March, 2011.

The Facilitation Team emphasized the value of education and learning in the CAMP process while simultaneously noting that our schedule requires that informational sessions in CAMP need to be brief and to the point. This means that AC members need to read the materials distributed in advance of the AC meetings.

Message from the Idaho Water Resource Board (IWRB)

Gary Chamberlain, Vice-Chairman and Treasure Valley subcommittee member for the IWRB, thanked the Committee for their participation and hard work. Gary said that he wants to see Boise and Ada County continue to grow, and he reminded the Committee that IDWR, in supervising and addressing the TV CAMP, consistent with Idaho law, will recognize existing water rights. He asked the Committee to continue to discuss how the region can provide for future demands, and he said that the Board is assisting this process by providing information through Brian Patton, Helen Harrington, and other at IDWR.

When asked about the currently proposed Treasure Valley section of the new draft of the State Water Plan, Gary told the Committee the Board is waiting on conclusions from the Treasure Valley CAMP process before finalizing any drafts or ideas.

Future Demand Study

Elias Tijerina from WRIME, Inc. presented the conclusions of the Future Demand Study. The WRIME draft study is on the IDWR website in the Treasure Valley CAMP section under Documents.

The discussion began with questions regarding the population projections. WRIME used data from the Census website, but one Member expressed concern that the numbers were inaccurate. Some Members would like to see more explanation of how population factors into the results.

A Member requested the addition of a paragraph describing the source of water for the Treasure Valley: snowpack.

Another request was to put the diagrams from the presentation into the study document.

The Committee agreed that the diagram titled Treasure Valley Water Demand (with DCMI depicted in an increasing acre-feet slope over time and Agricultural depicted in a decreasing acre-feet slope over time) needs a comment that clarifies demand from supply. The graph shows demand for the water by a particular use, not who is providing the water.

One Committee member said the land use transition curve was surprising and different from earlier WRIME presentations.

A Member noted that it is important to note that in DCMI usage, return flow is a component of supply – water is diverted and rediverted. As such we cannot merely mechanically add up demand and assess the demand against supply. A key component is where and when the water is needed – not just the aggregated amounts of supply and demand. Some Members felt that the WRIME study was helpful for “demand” but that an evaluation of “supply” was needed – how will water be provided for the various specific demands. A Member suggested the use of some form of “stick diagram” to help better understand the points of demand for water and who/how supplied.

WRIME referenced several studies, and Elias said there were two studies that were particularly helpful: the Treasure Valley Hydrological Project and the 2001 DCMI Projections for Ada and Canyon County. Elias said the John Upchurch study projections are now dated and do not reflect the current economic situation.

WRIME did not include the role of agriculture water rights in supplying domestic water in the study, but some Members felt that the study makes claims about the usefulness of agriculture water rights. WRIME says that rights are a supply issue – and not relevant in the demand study.

A Committee member requested that WRIME modify charts to show more operational purposes such as agricultural delivery for domestic irrigation.

Elias explained that the reason treated, pressurized water is not included in irrigation estimates is because new systems will receive non-treated water. Elias also said that no conservation measures were applied to irrigation in the study.

A Member asked if the Future Demand Study could feed an update of the Treasure Valley Hydrological Project or some other kind of groundwater modeling.

Due to delays in the development of the draft document for the Future Demand Study and the limited time to review prior to the meeting, the Advisory Committee has another opportunity to ask WRIME questions before the Committee provides final comments on the current draft. Members may submit written questions to clarify understanding of the data and results. Those questions must be submitted no later than close of business to Daisy Patterson (daisy@cnrep.org) on Wednesday, October 13. A conference call will be scheduled for Friday, October 15. During that call, WRIME will respond to the written questions.

Box 1

Three Step Process for Members to Comment on Future Demand:

1. Submit clarifying questions to Daisy Patterson (daisy@crnep.org) by October 13
2. Participate in a conference call on October 15
3. Submit final comments to Daisy Patterson (daisy@crnep.org) by October 29

Option to address CAMP Goal #1 – Informational Session on Water Marketing

Monica Van Bussum of IDWR, presented information about the Board’s water supply bank, and Brian Patton presented information about Boise’s rental pool. Both of their presentations are online at IDWR’s website in the Treasure Valley CAMP section under Legislation, Documents, and Presentations.

Monica pointed out some of the differences between the Board’s bank and rental pools. She explained that the Board’s bank is managed by IDWR for the IWRB, applies throughout Idaho, and involves ground and surface water. She said that rental pools are managed by local committees, apply to specific watersheds, and are largely comprised of storage water.

Rex Barrie described Water District 63’s rental pool. He said that the rental pool is an opportunity to market stored water between willing buyers and willing lessors, and rentals are for one year unless otherwise noted. He said that the rental pool rates are based on the Nez Perce agreement and will increase to \$17.00 AF in 2013. Lastly, Rex pointed out that there are renter priorities that must be followed when utilizing the market pool: priority first goes to irrigation entities owning contracted space in the various reservoirs; then priority goes to all water users within the district; after that, other users (out of basin) may apply for water for beneficial use.

Some of the discussion focused on the rental period length of time. Brian pointed out that in the Upper Snake, 50-year leases are possible, but those are not available in Boise.

Brian explained that with rental pool options there is no dry up requirement for the land where the water right was originally applied. He also said that through the rental pool mechanism, you can replace groundwater use with surface rights in the Upper Snake.

Option to address CAMP Goal #1 – Informational Session on Cloud Seeding

Shaun Parkinson, Paul Deveau, Don Griffith, and Brian Patton provided information on cloud seeding and some of the various cloud seeding programs that exist around the country. Their presentations are on IDWR’s website in the Treasure Valley CAMP section under Legislation, Documents, and Presentations.

Shaun Parkinson’s presentation gave an overview of cloud seeding for the purpose of increasing snowpack. Shaun explained that ice formation, which is necessary for flakes of snow, is induced by tiny particles called ice nuclei. He said that cloud seeding provides additional ice nuclei that function at warmer temperatures, allowing ice formation to begin sooner. Shaun said that cloud seeding is only effective when ice nuclei are limiting and

nature is performing the other required precipitation processes (cloud seeding doesn't create clouds and will not end a drought). Program suspension is an integral part of any cloud seeding program.

In order to create the nuclei, an agent (like silver iodide), is burned to release particles (ice nuclei) of an appropriate size to the atmosphere. The burning process can occur in aircraft or in ground generators.

Please reference the presentations for more information on the mechanics of cloud seeding, advantages/disadvantages, and details on the various cloud seeding programs that currently exist.

During the discussions on cloud seeding, some Members expressed concern that the potential for flood could create liability for cloud seeding programs.

A Member asked if it is possible to have the necessary precipitation conditions in a drought. The answer was that yes, the potential exists, but those conditions will occur less often in a drought.

Dialogue Session: Seek Agreement on Strategic Actions for Goal #1 – Provide a Reliable Source of Water

At the June meeting, the Advisory Committee developed a list of potential strategic actions to address goal 1 – Provide a reliable source of water. During the July meeting, the list was refined. The list is attached as Appendix 1 to this document and we have used parentheses to identify the numbered list item.

This dialogue session was to identify actions on the list where it was evident that there was a significant amount of agreement *or* where it was evident that the group will need to spend some time further refining the actions. There was a mix of ideas, some generally identified as evident and others that with some adjustment and clarification could be obvious inclusion our recommendations.

The Facilitation Team will develop a detailed framework for these actions and deliver it to the Committee one week prior to the next meeting.

The numbers in the following paragraphs reference the document: Regarding Goal 1: Considerations for Reliable Water Supply that is attached to this summary as Appendix 1. The attempt is to capture the discussion that occurred before revising the current list of considerations.

The Advisory Committee felt like conservation (4) and education (4.3) were general ideas that were acceptable to everyone. Some of the specific points under conservation still need more of the Committee's attention. Rather than say, "Improve efficiency (4.5)," some Members like, "Improve management with training and new technologies (or best practices)." Some Member had concerns about the viability of conservation in agriculture given the increase in shallow aquifer recharge that occurs as a result of agricultural practices. Many Members agreed distinctions need to be made between DCMI and

agriculture when discussing this topic because conservation has different meanings within those two contexts.

When discussing reuse (4.1), Committee members suggested that smaller communities may be better positioned to implement reuse. One option the Committee considered was to have any action involving reuse apply to new facilities or “as needed.” The Committee decided any reuse option needs to consider (1) water quality; (2) impacts on agriculture; and (3) impacts on flood mitigation. The Committee expressed different opinions on whether reuse should be implemented when economically feasible or whether the CAMP needs to push the economics to achieve a conservation goal.

Regarding the option to explore the cost to meter non-agricultural, non-metered uses of water (Action 4.2), the Committee had a fear that metering could lead to threats to water rights, such as forfeiture or abandonment. The water right is for an amount of water on the land, regardless of metering. The Committee asked if there are ways to encourage efficient water use without loss of water rights. The Committee discussed two other relevant options within this metering context: 11.4 Review legal impediments to efficient water use, and 9.2 Protect against claims from entities outside Idaho.

Some Committee members suggested that Development of Decision-making Tools and Data (2) should include an action that calls for a review of CAMP periodically or based on triggers.

For utilize and improve the market system (11), the Committee would like to see an increase of incentives for buyers/sellers and more flexibility that will encourage investment in market programs. The Committee discussed banking the difference between agriculture demand (4.3 acre-feet per acre) to urban demand (3.2 acre-feet per acre) in a way that is mutually advantageous to rights holders and users. [Please see the future demand study for explanation of the 4.3/3.2 conversion.]

The Committee also discussed taking the difference, the extra 1.1 acre-feet per acre of that would occur in areas that experience a change in use from agricultural to urban.

The Committee discussed whether cloud seeding (3) would be more effective when using year-in and year-out, with intermittent suspension. Some said cloud seeding should only be considered if additional storage is made available.

The Committee would like to study the potential for a location of an ASR project and has suggested that the topic of storage (6) will need significant attention from the Committee.

Box 2

Likely Subjects for Goal 1 Recommendations (list those topics that had the most discussion (Uses the numbering from Appendix 1))

Topic 2 Data
Topic 3 Cloud seeding
Topic 4 Conservation
Topic 6 Storage
Topic 11 Market system

Review and Revision of the Options to Address CAMP Goal #2 – Manage Conflict

The Committee began preliminary discussions on the Options to Address CAMP Goal #2. The purpose of this session was to highlight the topics which the AC seemed most interested in addressing first. The Advisory Committee used the list developed at the July meeting which is attached to this summary as Appendix 2.

The Committee discussed the potential need for conjunctive management. One member suggested creating a framework for recharge and credits. Another member suggested that a suite of options to avoid curtailment would be helpful for users who may be facing curtailment. Another option suggested was to improve monitoring to avoid over-appropriating. The terms conjunctive administration and conjunctive management are not interchangeable.

The Committee decided that there are several other areas of conflict that also need to be focused on in CAMP. The list of items is not in any particular order:

1. Water quality
2. Potential for out of basin claims on water that appears unclaimed by Idaho
3. Flow augmentation required by ESA
4. Expectation of the public (for example, recreation on Lake Lowell)
5. Impact of development on irrigation infrastructure (for example, stormwater run off)
6. Aging, and deteriorating, infrastructure (with the potential for complications from invasive species)
7. Growth versus economics – the Valley could grow too big and destroy the supporting agricultural economy

Future Process for Goal 1 and 2 Recommendations

The facilitation team discussed the need to develop drafting groups in the future to expand on these subjects away from the meetings. The drafting groups will develop the language for the various actionable portions of the plan, and the full Advisory Committee will have the final say on the content that is finally included in the recommendations that the Committee will send to the Board.

Public Comment

Liz Paul, Idaho Rivers United, submitted an article, “California’s Next Million Acre-Feet: *Saving Water, Energy, and Money*,” for inclusion on the IDWR website. Liz suggested that there are several similarities between California and Idaho, including the dependence on agricultural economy and snowpack as a water source. She mentioned conservation several steps referenced in the article like metering of multifamily units in urban areas and conversion to sprinkler or drip irrigation for agriculture. The article is located on the IWRB website in the CAMP section under Ancillary Documents.

Shelley Davis from Barker Rosholt & Simpson said that she has been following the state water plan and wants the Committee to be sure that the long-term goals in the current draft fit within the CAMP’s planning process. Shelly suggested that the Committee may want to invite members of the Eastern Snake Plain Aquifer CAMP to a Treasure Valley meeting to share lessons learned and offer suggestions.

Work Plan and Next meetings

Daisy will send an online scheduling mechanism to determine what days most Advisory Committee members are available in December and January. The dates that will be considered are December 7, December 14, and January 3, 4, 6, and 7.

The next meeting will include more discussion on the policy implications of the Future Demand Study. The Committee would like more information on DCMI reuse, and Warren Stewart volunteered to contribute to those discussions. There was also a request for information on municipal conservation from other locations, specifically Seattle or San Antonio.

Currently scheduled meetings are:

- October 20, Idaho Association of Realtors
- November 10, location to be determined

Appendix 1

Regarding Goal 1: Considerations For Reliable Water Supply Developed at the 30 July 2010 Meeting

1. Integrated land use and water planning

- 1.1. Reduce future demand per household through land use planning/efficiency of use
- 1.2. Manage growth through land use planning
- 1.3. Direct development to appropriate locations through land use to ensure recharge/other benefits
- 1.4. Floodplain/flood control management through land use planning
- 1.5. Integrate land use planning with water planning/management (storage, distribution, recharge, etc.)

2. Development of Decision-making Tools and Data you Need

- 2.1. Improve or continue to study future demands
- 2.2. Improve groundwater and surface water (and interaction) modeling
- 2.3. Improve cooperative measurement and management (consistent data-collection) to increase efficiencies
- 2.4. Continue to study and monitor/testing surface water and groundwater system (shallow and deep) to increase knowledge and adjust actions as needed

3. Utilize cloud seeding (NEED PRESENTATION TO UNDERSTAND BETTER) (The storage is temporary via snowpack only – has to be tied to long-term storage)

4. Conservation (how do we get the most value of the water we have right now)

- 4.1. Reuse of wastewater treatment plant
- 4.2. Explore the cost to meter non-agricultural, non-metered uses of water
- 4.3. Education
- 4.4. Low flow toilets/faucets
- 4.5. Improve efficiency of water delivery system

5. Distribution

- 5.1. Capture water at the end of the basin through pump back
- 5.2. Explore feasibility of interbasin transfers/exchanges
- 5.3. Consider new distribution systems (pumps and pipes) to move water where needed
- 5.4. Local storage and delivery systems
- 5.5. Review existing delivery systems from current storage units

6. Explore strategies for storage that utilize surface and ground opportunities

- 6.1. Increase/manage surface water storage
 - 6.1.1. New facilities (consider location of storage, distribution, and need)
 - 6.1.1.1. Upstream
 - 6.1.1.2. Downstream
 - 6.1.2. Increase capacity of existing reservoirs via raising dam height
 - 6.1.3. Optimize reservoir operations through increased/improved modeling/data/sensing/forecasting for more accurate releases – *perhaps technical optimization*
 - 6.1.4. Buy water rights for reservoir water and use differently from ag to municipal
 - 6.1.5. Recognize and adhere to contractual obligations of storage
- 6.2. Utilize underground storage
 - 6.2.1. Recharge
 - 6.2.1.1. Recharge somehow of excess that now goes past Weiser Gauge
 - 6.2.2. ASR

7. Protect and maintain (or improve) existing irrigated agriculture infrastructure

- 7.1. Use and improve existing irrigation delivery system for recharge
- 7.2. Flood control (?) on into the future (like canals into storage/recharge areas if flood)

8. Flood Control (related to a number of topics above so cross cutting interest/topic)

9. Administrative and Legal

- 9.1. Focus on conjunctive management
- 9.2. Protect against claims from entities outside Idaho

10. Encourage effective use of geothermal resources as technologies evolve, including reinjection

11. Utilize and improve the market system

- 11.1. Lessons from other states/what's been done/what's worked and not
- 11.2. Investigate other Idaho rental pools (multiple year leases) (talk about current rental pool/bank system)
- 11.3. Market mechanisms across a variety of means
- 11.4. Review legal impediments to more efficient water use
- 11.5. Reallocate storage and release times (through new contractual arrangements) – *perhaps contractual optimization*

Appendix 2 Items Listed in July 2010 Meeting As Potential Triggers for Conflict

1. Endangered Species Act
2. DCMI taking over the world
3. Conjunctive management and a call that requires the Department to Act (only something to lose for GW users) – what number do we need to factor in for this (there are impacts as of today to senior surface rights – material injury today?)
4. Growth versus economics – Valley can grow too big and destroy ag economics
5. Goal is to avoid conflict through demand reductions and new supplies
6. Put in system to make more open, friendly, cooperative system that delivers to needs/uses
7. Current water right holders have bought and paid for those rights
8. Invasive species (already issue with Zebra mussels and others)
9. Las Vegas principle should be avoided– taking all rights from non-municipal users
10. If so much water flows beyond our political boundaries, could become to be seen as a downstream right/expectation that creates future conflict with us here
11. Out of basin entity trying to get hands on our water
12. Deteriorating conveyance systems and possible failures and conflicts that would arise (aging infrastructure)
13. Water quality, regulation in the future, treatment in ppb, ability to use and for what – future conflicts then may arise
14. State and local governments ideally spreading costs fairly – more and more conflict if less and less money
15. Water markets that are inefficient or go against community needs/values
16. Municipal versus agricultural
17. Changes in the water law as water uses change
18. Inability to meet public's expectations or changing expectations for recreation, ecology, agriculture (moving target over time)
19. Jurisdictional cooperation or lack thereof – creating haves and have nots
20. Conjunctive administration
21. River water quality standards and how that impacts current users
22. Increased mining requests upstream and impacts on water quality both surface and ground (and conflicts with down stream users)
23. Diminishment of local food supply leading to conflict
24. Don't sell off current investments/wealth at expense of future well being
25. Don't grow more than we can collect, ensure adequate water supply and recharge in this high desert climate
26. Loss of current culture and agricultural way of life
27. QUESTION: How far were Arrow Rock and Anderson Ranch looking ahead when planned/built?
28. Easements/access to canals in face of growth
29. Landscaping of future residences and what people are willing to do/or not
30. Increased urbanization and increased irrigation efficiency practices, then less recharge
31. Increased storage means increased conflict with the rest of the country – hate dams

32. Security both in terms of infrastructure (terror attack on dam) and on quality (contaminating water supply)
33. Cost conflicts (who pays and how much)