COLLABORATIVE PROCESSES®

Shaping the Future of the Treasure Valley Aquifer

A Situation Assessment and Options for Moving Forward

January 13, 2010

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Facilitation and Collaboration **www.collaborativeprocesses.com**

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Greetings:

Collaborative Processes®, in association with the Center for Natural Resources and Environmental Policy, is pleased to present to you *Shaping the Future of the Treasure Valley Aquifer: A Situation Assessment and Options for Moving Forward* ("Report"). This Report is based on a series of face to face and phone interviews with people interested in the long term future use and protection of the Treasure Valley Aquifer.

The Report includes a discussion of the general areas of agreement and divergent perspectives of the interviewees. The Report also discusses the key issues and concerns, together with discussion of the options potentially available to address those issues.

After we received comments on the draft version of the Report, we created and included in this Report (see pages 3-5), an Addendum that very briefly summarizes those comments. We will continue to receive comments during the Treasure Valley CAMP process, and are happy to receive any further comments that you wish to present.

Sincerely,

Joseph P. McMahon Jr.
Manager, Collaborative Processes®

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Executive Summary

The principal purposes of the Treasure Valley CAMP process are to:

1. Provide reliable sources of water, projecting 50 years into the future.
2. Avoid conflict related to conjunctive management of surface and ground water (i.e., the experience in the Eastern Snake Plain Aquifer).
3. Prioritize future state investments in water.
4. Bridge the gaps between future water needs and supply.

Source: Why are we developing a CAMP? IDWR website, TVCAMP brochure

Meeting the water needs of the Treasure Valley over the next 50 years will require thoughtful approaches to the ongoing transition, in land and water use, from agricultural to domestic, municipal and industrial use. Our interviews with stakeholders uniformly confirm that, although slowed by the current economic recession of 2008 and 2009, the Treasure Valley will experience a continuing transition to domestic and municipal use as the Valley's economic driver. Urbanization will continue as the Valley's population grows.

Interviewees state that the water systems and patterns of use, originally designed for irrigated agriculture, will need to change to respond to the new demographics and economy. Essentially all interviewees see the need to adapt – yet they differ as to how to best respond to these changes.

When conducting CAMP interviews, we found that it was difficult for interviewees to easily separate (a) aquifer issues from general water issues and (b) water quantity from water quality and environmental protection. The reader will note comments in this report that broadly consider water and environmental quality. The CAMP process will need to consider:

A. How to identify a useful scope for its work; and thereafter,
B. When an important issue should be referred to another agency or process because the issue is outside of the CAMP scope.

Our interviews suggest the following six are among the key issues that should be considered in developing the CAMP:

1. Ensure reliable water supplies for existing and future demand
2. Increase the efficiency of existing and future water use
3. Consider options to address the existing fragmented system for water management/administration
4. Protect and improve water quality in the Treasure Valley
5. Improve flood protection in the Treasure Valley
6. Protect the environment and Boise River corridor

The Facilitation Team notes that although water quality and flood protection are not expressly aquifer issues – those issues were frequently raised and are seen as important to many stakeholders.

On each of the above issues, options were discussed and proposed for consideration in the CAMP process. From our interviews, we see agreement on the fact that change is occurring - urbanization; the divergence is centered on how to respond to this change. These divergent opinions concern water development, management and administration:

- Is more storage needed? Is reservoir water appropriately used for domestic and municipal use? Will climate change affect the need for more storage? Can storage be used to meet domestic and municipal demands? How is excess runoff saved for future use?
- Do existing water systems, including legal and administrative processes, impede efficient water use in the Valley?
- Is there a need and how should conjunctive management be undertaken?
- How can the market for water be improved and made more efficient?
- What is the prospect for water conservation? Do stakeholder groups have different motives or interests about water conservation?
- Can future water needs be met in whole or in part with more efficient water use? Or does additional water need to be developed and stored?
- What methods can be used to capture excess/spring runoff?
- Who is using how much water? What are the consumptive uses of surface and ground water? What changes when gravity agricultural water moves to pressurized irrigation?
- What are the real impacts of urbanization? On water quality? On water needs? On adjacent agricultural land?

Others expressed concern over water usage data and how to clarify what is being now used and what will be needed in the future. In addition, there was essentially universal concern with how to best ensure the quality of the water and environment as the Treasure Valley continues to urbanize. Stakeholders also expressed concerns over the increased impervious surfaces as the Valley develops, increased use of ground water and growing threats to surface and groundwater quality.

Addendum

This Addendum summarizes the input and advice we received on the draft report – *Shaping the Future of the Treasure Valley Aquifer: A Situation Assessment and Options for Moving Forward* ("Report"). Thank you to everyone who provided feedback. The Report was distributed to: (a) all interviewees; (b) people who were identified by interviewees as potentially having an interest in the project; and (c) key decision-makers – the Idaho Water Resources Board and area legislators.

Some feedback was largely editorial in nature, such as clarifying facts or typographical errors. We have incorporated those types of changes into the Report itself. Where feedback was more substantive and rather than change the substance of the Report itself, we have placed that feedback into this Addendum. Our experience is that this is a more effective and efficient way for people to review the nature of the feedback – rather than searching through the Report to see how or whether the Report has been changed.

The following comments are not listed in any order of priority. Rather, they are organized by substantive topic. Keep in mind that the following comments are the opinions of one or more people. The comments are not presented here as generally accepted facts per se.

Comments on the Scope of CAMP

1. One reviewer mentioned the need to include discussion of the link between groundwater and stream flow; specifically how, where and how much they influence one another in the Treasure Valley.
2. Another reviewer felt the assessment took into consideration more issues than expected. The issues described in the report "will greatly expand the initial purposes of the creation of a CAMP to attempt to create an entirely new water outlook for the Treasure Valley." There are other legal and administrative mechanisms in place that already address concerns about flood mitigation and water quality/environmental protection.
3. Privatization of water is a concern. Sometimes if a water system is private – along with the water rights – a municipality is locked out of providing water to its citizens because it cannot construct a system or get water rights. Should water system be publicly owned in order to assure the lowest cost service?

Comments on Flooding

1. "Flood mitigation" is preferred to "flood control" or "flood protection" because flood mitigation sets a more accurate level of expectation in the citizenry. Water managers can guarantee neither control nor protection from floods, but managers can take action to mitigate inevitable flooding.

2. Storage is not the only solution to flood danger. Floods are essential parts of the ecological health of the Boise River. Flood management of existing dams could be improved if there were not competing mandates to store water for irrigation.

Comments on Water Management in general

1. Big issue: where water will come from to meet future demand – surface water or ground water?
2. An option for preserving recharge would be to utilize water rights originally assigned to farm lands that now apply to land used for urban and business development. Because there are no new sources of recharge to the area's aquifers, assigning these water rights to preserve recharge would be most beneficial.
3. Wildlife and aesthetics, in fact, are beneficial uses, and the Report references legal concerns that conservation for wildlife/aesthetics is not a beneficial use.
4. Growth in future domestic and municipal water demand is not agreed on by all stakeholders. There is the potential to use less water in 50 years than we use today.

Comments on additional information needed

1. CAMP needs to identify areas within the Valley where ground and surface water resources are ample, as knowledge of those areas will be helpful in crafting overall water-supply solutions.
2. Improved streamflow forecasts, even under flooding, need to be developed. Improved streamflow forecasts might influence several of the issues listed in the report:
    a. Ensure reliable water supplies for existing and future demand
    b. Increase the efficiency of existing and future water use
    c. Improve flood protection in the Treasure Valley
3. How does land use planning affect water supply/delivery?
4. There is confusion regarding whether there are different sources of water for the various aquifers (shallow, intermediate, deep, and geothermal.)

Comments on CAMP Advisory Committee

1. Boise County and Upper Boise River Watershed stakeholders must be involved in the CAMP.
2. The Advisory Committee should not meet at the Water Center because of the formal dynamics and the cost/difficulty of parking. Half of the meetings should be in Canyon County, and meeting should also be held in Boise

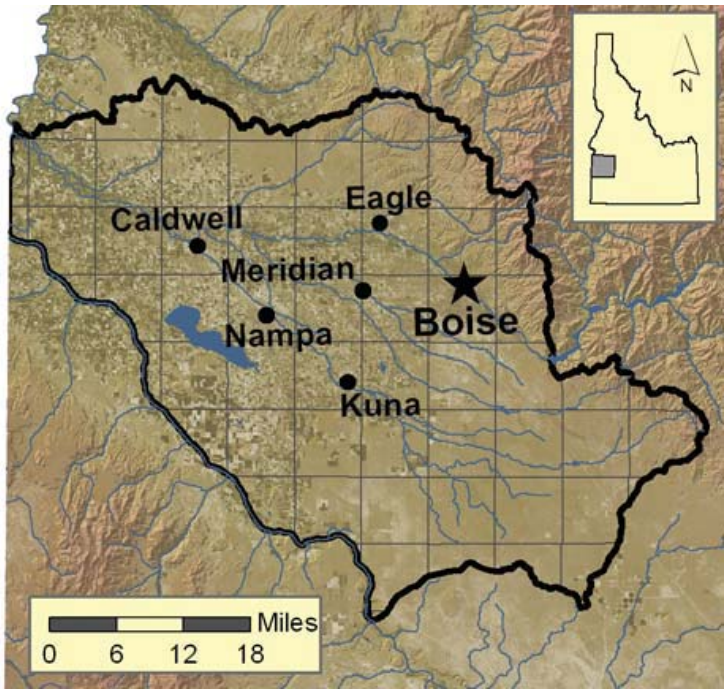
County. Meetings should not be held during work hours to allow for maximum citizen involvement.

3. The Advisory Committee recommendations should consider separating the local government into city interests and county interests.
4. The "agricultural groundwater" interest is more than likely a "rural landowner" interest.
5. Some processes like this tend to get stuck in "business as usual" format, including how meetings are run, where located, and the mindset of participants. Often this results in the "usual" ideas and proposed solutions – rather than the creative solutions. We should find ways to open up this process and not get stuck in old thinking.

The Treasure Valley Aquifer

General

The Treasure Valley Aquifer Area spans Ada and Canyon Counties and includes, among others, the municipalities of Caldwell, Meridian, Nampa, Eagle, Kuna, and Boise.



The Community Planning Association of Southwest Idaho estimates that population in the Treasure Valley has increased 44% since 1990, and population will increase another 60% from just over 500,000 to nearly 800,000 by 2030[1].

Groundwater

In the *Characterization of Groundwater Flow in the Lower Boise River Basin*[2], Petrich and Urban describe:

> The Treasure Valley aquifer system resides in a complex series of interbedded, tilted, faulted, and eroded sediments extending to depths of over 6,000 feet (Wood and Clemens, in press). These sedimentary aquifers contain shallow, local flow systems (with ground water residence times

[1] http://www.compassidaho.org/comm/faqs.htm

[2]http://www.idwr.idaho.gov/WaterInformation/Publications/misc/tvhp/TVHP_Characterization-final.pdf

ranging from days to tens of years), and a deep, regional flow system (with residence times ranging from hundreds to tens of thousands of years). Only a few wells extend beyond a depth of 1,200 feet.

Water levels indicate general ground water movement in a westerly to southwesterly direction. Individual hydrographs indicate relatively stable water levels in many areas.

Some areas, such as southeast Boise and an area south of Lake Lowell, have experienced water level declines of approximately 30 and 65 feet, respectively. A number of wells in other areas (primarily in the eastern portion of the valley) have also experienced water level declines over the last several years. These declines have generally been less than 10 feet.

The largest component of recharge to shallow aquifers is seepage from the canal system and infiltration associated with irrigated agriculture. Recharge to the deeper aquifer occurs in the eastern portion of the valley and along the Boise Front. Ground water discharge to rivers, drains, and canals represents the dominant form of discharge from the Treasure Valley aquifer system. The primary form of natural discharge from the deeper aquifers is thought to be regional upwelling in the southern and western portions of the basin, with ultimate discharge to the Boise River and/or Snake River.

Ground water residence times in the deeper, regional aquifer system were found to increase with depth and with distance along a regional east-to-west-trending flow path. Residence time estimates ranged from thousands to tens of thousands of years.

Relatively long residence times in the regional flow system (over 20,000 years) imply that (1) regional aquifers are marginally transmissive, (2) recharge rates to the deeper regional aquifers are limited, and/or (3) regional aquifers are discharge-limited. Although there are abundant silt and clay layers with low hydraulic conductivity, productive sand layers are present throughout central portions of the valley. These sand zones are tapped by many irrigation and municipal wells. Recharge to the deeper, regional system is limited, but generally has been sufficient for current rates of withdrawal. Thick lacustrine clays at the distal end of the valley likely inhibit upward (discharge) flow, limiting the amount of water that can flow through the system.

Surface Water

Unpublished drafts of the Lower Boise River Comprehensive Basin Plan describe the history of the Treasure Valley surface water:

The first recorded diversion from the Boise River was made in 1863 and the first water right was issued in 1864 to Thomas Davis who used the water to irrigate orchards and crops. Tapping the river for that first water right marks the beginning of vast changes in the Boise River valley and how water in the basin is used and managed.

The first canals were also built in 1863 to serve farms in river bottom areas (Anderson 1997). Crops were grown to supply food to miners to the north of the valley and eventually in Silver City (Caldwell and Wells 1974). The demand for water grew, and by 1900 there were an estimated 465 miles of canals and laterals delivering water to approximately 100,000 acres (Bureau of Reclamation 1997). During dry years and low flows in August and September there was increasing competition for water from the Boise River. In 1904 the USGS reported that diversion of the Boise River "is now so great that frequent complaints of scarcity are heard" (USGS 1904). Intense competition for water led to two judicial decrees concerning water rights on the Boise River. Both decrees determined priorities for water rights and one provided a mechanism for water distribution during periods of low flow in the Boise River (Warnick and Brockway 1977; Pruitt 1978). These early water rights were based on the amount of water that could be diverted from the river and were appropriated for milling, manufacturing, floating logs, irrigation, and for sewage purposes (Warnick and Brockway 1974)…

Most early irrigation development was financed through private investment. These privately financed projects, particularly the New York, Ridenbaugh, and Phyllis canals still remain the "heart of modern irrigation in the Boise Valley" (Caldwell and Wells 1974). Creation of more surface water storage to increase the acreage under irrigation was accomplished by the federal government. The United States Reclamation Service was created in 1902 and shortly after, surveyors began looking for water storage sites in the Boise River basin. Development of storage in the Boise basin was a part of a larger project that also involved the Payette River basin (Caldwell and Wells 1974). Federal projects in the Boise basin began in earnest in 1906 with the construction of Diversion Dam, enlargement of the New York canal, and construction of embankments at Deer Flat in 1908. Construction continued for many years with the completion of Arrowrock Dam in 1915 and its enlargement in 1937; completion of Anderson Ranch Dam in 1950; and the completion of Lucky Peak Dam in 1955. See Map 3. Total active storage in the Boise River system is about 970,000 acre-feet.

Through the Idaho Department of Water Resources, the Statewide Ambient Ground Water Quality Monitoring Program observed several trends in their 2001 report.

While testing at most of the sites in the program indicated the groundwater was suitable for human consumption, there were several constituents of concern in the Treasure Valley: arsenic, bacteria, fluoride, gross alpha, gross beta, nitrate and some volatile organic compounds. Of those, the highest concern was for nitrate levels in the groundwater, which can come from a variety of sources such as septic waste, animal waste, commercial fertilizer, and other organic material in the soil. Another concern was for Fecal Coliform bacteria, or fecal material (human or animal). The Idaho Department of Water Resources recommended that private, domestic wells get tested for both of these constituents. [3]

[3]http://www.idwr.idaho.gov/WaterInformation/Publications/gwq/gwq_tv_2001.pdf

The Situation Assessment

The 2008 Idaho Legislature approved House Bill 428 and House Bill 644 establishing the Statewide Comprehensive Aquifer Planning and Management Program and the Aquifer Planning and Management Fund. This legislation authorizes characterization and planning efforts for ten different basins in the next 10 years.

The Aquifer Planning and Management Program is designed to provide the Idaho Water Resources Board ("IWRB") and Idaho Department of Water Resources ("IDWR") with the necessary information to develop plans for managing ground and surface water resources into the future.

The specific goals of the Comprehensive Aquifer Management Plan ("CAMP") are to:

1. Provide reliable sources of water, projecting 50 years into the future.
2. Avoid conflict related to conjunctive management of surface and ground water (i.e., the experience in the Eastern Snake Plain Aquifer).
3. Prioritize future state investments in water.
4. Bridge the gaps between future water needs and supply.

The program has two phases:

Phase 1: A technical component to characterize the surface and ground water resources of each basin; and,

Phase 2: A planning component that will integrate the technical knowledge with an assessment of current and projected future water uses and constraints.

This program will culminate with the development of long-range plans for conjunctively managing the water resources of each basin. The program will integrate hydrologic realities with social needs. The program is intended to investigate strategies and develop plans that will lead to sustainable water supplies and optimum use of the water resources. The IWRB is committed to creating broad-based and inclusive Advisory Committees to help draft the comprehensive aquifer management plans in different regions throughout the state.

To initiate the Treasure Valley Comprehensive Aquifer Management Plan (Treasure Valley CAMP), the IWRB hired the Facilitation Team of Collaborative Processes®, including Joe McMahon, Matt McKinney, and Daisy Patterson. The team's first step to facilitate the development of the Treasure Valley CAMP was to complete a "situation assessment" – this report. The purpose of this assessment was to interview people with diverse viewpoints to learn about their interests and concerns related to water resources, identify issues that should be addressed in the

Treasure Valley CAMP, generate a menu of options on how to address these various issues, explore how people want to be involved in the development of the Treasure Valley CAMP, suggest how to create an Advisory Committee and present a preliminary set of ground rules and work plan for that committee.

This report is a summary of interviews conducted in September and October 2009. It also builds on numerous conversations with IDWR staff, the consultant hired to complete the water demand study for the Treasure Valley CAMP, and a review of various documents and reports related to the aquifer.

To conduct the interviews, the Facilitation Team and the IWRB staff developed a list of eleven open-ended questions and a letter of introduction to potential interviewees (see Appendix B). The letter and questions were sent to approximately seventy people. Throughout the interview process, interviewees suggested several other people interested in and concerned about water management in the region.

The Facilitation Team did not interview every person identified due to time and resource constraints, as well as the availability (or lack thereof) of potential interviewees. The Facilitation Team distributed the draft of this report to all of the interviewees and those we tried, unsuccessfully, to interview. The list of interviewees is located in Appendix C. (Note: The draft report will be distributed to: (a) all of the interviewees; and (b) those people the Facilitation Team tried to interview). Most of the interviews were conducted face-to-face and lasted approximately 60 to 90 minutes. All interviewees were encouraged to contact the Facilitation Team after the interview with any further thoughts or questions.

The interviews were not intended to statistically represent the views of any particular social group or sector, so the Facilitation Team made no effort to weigh one idea more than any other. Rather, the emphasis was on capturing the range of attitudes and perceptions of the interviewees, and to focus on "what was said, not who said what."

Findings from Interviews

This section of our report presents our findings from interviews, organized according to the following sub-sections:

A. General Areas of Agreement

B. Divergent Viewpoints

C. Key Issues by Stakeholders and Options to Address Them

1. Ensure reliable water supplies for existing and future demand
2. Increase the efficiency of existing and future water use
3. Consider options to address the existing fragmented system for water management/administration
4. Protect and improve water quality in the Treasure Valley
5. Improve flood protection in the Treasure Valley
6. Protect the environment and Boise River corridor

D. Information needed to develop the CAMP

A. General Areas of Agreement

The Treasure Valley has a long history of agricultural production, and almost all of the interviewees spoke about how traditional farmland is being transformed into urban and suburban areas. Stakeholders note that, in addition to upstream storage, there is a complex and diverse set of water delivery and drainage systems throughout Treasure Valley – for both agricultural and municipal needs. In addition to surface systems, there are many groundwater systems. In the face of this fragmented system, and given the emerging hydrologic and economic transformation, most interviewees called for higher levels of collaboration among water uses.

To some interviewees, however, the idea of collaboration may be inconsistent with the culture of independence that is common to many western states. Several interviewees referenced the importance of property rights in the valley, which goes along with that sense of independence. Many interviewees said the development of the CAMP should acknowledge the fundamental transformation in land use – which has obvious implications for managing surface and groundwater in the valley.

Many interviewees also suggested that the CAMP should consider a wide range of water issues, not merely aquifer issues. For example, the use of storage, protection of distribution systems, flood mitigation, improvements in water marketing, facilitating change of water use, water quality, and maintaining recreation were all

issues interviewees expect to fold into the CAMP process while simultaneously staying adequately focused to achieve legislatively-defined goals of the CAMP.

B. Divergent Viewpoints

Although the growth in future domestic and municipal water demand seems accepted by all interviewees, how to best satisfy that demand is an area of diverging viewpoints. Some favor and see new storage as an imperative – others believe that new upstream storage is unnecessary and not likely to occur due to anticipated resistance. Still others see the diversion of excess runoff to aquifer storage as being better than building a new dam. Some interviewees believe that water allocation is fundamentally a financial issue – and water will eventually follow demand.

Interviewees also described the Treasure Valley Aquifer multiple ways. Most interviewees discussed a significant level of interaction between shallow groundwater and surface water systems. When talking about the deeper aquifers, some interviewees were confident those aquifers are isolated, and therefore not influenced by the actions close to the surface. Other interviewees were certain that shallow and deep aquifers are connected and that the potential exists for shallow wells to affect deep aquifers.

Other interviewees were more specific when describing the aquifers in the Treasure Valley. Rather than considering just one aquifer, or even shallow and deep aquifers, these interviewees talked about a complex system of small aquifers that overlap other aquifers at various depths (a variably stratified depiction of multiple aquifers). These interviewees stressed that management and policy must consider the specific location and capacity of these smaller aquifers and not focus on an oversimplified view of groundwater in the valley.

Interviewees had differences of opinion regarding how much water various users are consuming. The transition from agriculture to urban uses has some interviewees thinking that there is extra water left over when land is converted from farms to development. Other interviewees are sure that lawn irrigation in new developments will use as much water as was needed for agriculture. Some interviewees commented that the timing of use changes when water moves from agriculture (where a field may be irrigated in a sequence of sections of a field) to municipal use (where water use was more constant).

C. Key issues Identified by Stakeholders and Options to Address Them

During the interviews, interviewees often identified key issues while simultaneously mentioning possible approaches to addressing the issue. Often, a potential solution

addressed more than one issue or problem. Conversely, interviewees may describe an issue or problem without identifying solutions.

This section presents the issues and options together – recognizing the broad interrelationship among issues and options mentioned above. The inclusion of an issue or option below does not suggest any form of endorsement by the Facilitation Team, merely a recording that the issue or option was mentioned.

1. Ensure reliable water supplies for existing and future demand

Population growth and the transition from agriculture to urban uses have created a system where some users wonder if their supply of water will depend on whether their use is prioritized. In an attempt to increase the predictability of available water for domestic consumption, interviewees mention that developers have tried to secure water beyond what is needed for short-term build outs. One interviewee describes fear for a potential domino effect or "water grab" from developers attempting to get water rights for 30+ year build out.

Interviewees described a common concern in rural areas of the Treasure Valley: future development will render domestic wells useless by creating a "cone of depression," or drawdown in the aquifer from neighboring water consumption. Yet, many proposed developments often target sources other than a shallow aquifer. One interviewee points out that the convenient locations, in regards to water availability, have already been developed. New developments tend to seek deeper aquifers, but with several new developments proposed in dry areas, many interviewees wonder, where will the water come from?

Regarding the transition from agriculture use to urban uses, some interviewees fear that if water continues to be managed with the current allocations and without a thriving water market that contributes flexibility in how that allocated water is used, there will not be enough potable water to supply the Valley. Interviewees described the difficulty in predicting the capacity of the aquifer and how much development can occur over it. One interviewee says, "Punching a hole in the aquifer will not work forever."

Many interviewees are quick to point out that a reliable water supply does not just mean having enough water for everyone to use – an equally significant concern, they say, is having enough water that is clean enough to use. This concern is discussed in Issue 4 Protect and Improve Water Quality.

With climate change and potential for water recycling, some interviewees expressed concern that downstream users will come up short on their water allocation. Downstream users already have claim to water that has run off upstream/upvalley

farmers. Many interviewees pointed out that between the reservoirs and the confluence with the Snake River, Boise River water has been used multiple times.

A few interviewees express concern that if the aquifer is being mined, or is mined in the future, many users will have trouble meeting future needs: systems that rely on geothermal sources, deep municipal wells, shallow domestic and agriculture wells – essentially, everyone.

If municipalities continue allowing irrigation districts (that formerly provided water for agriculture) to provide domestic irrigation water, some interviewees think municipalities have more than enough water to provide potable water to residents for the duration of the CAMP goals, 50 years. Interviewees shared multiple theories regarding future plans for water and how those plans will impact the ability of others to ensure their own reliable water supply.

Options Proposed Concerning Issue 1

In the course of our interviews, the following options were suggested as responsive to Issue 1:

Option 1.1 Capture excess water (for example, high spring flows) for later use, including the exploration of new or upgraded storage facilities, off line storage and aquifer storage and recovery ("ASR").

Option 1.2 Locate suitable new water sources.

Option 1.3 Conserve water and improve efficiency.

Option 1.4 Consider the development of a conjunctive water administration system.

Option 1.5 Develop management systems that align the various water needs with the most suitable water sources (storage, direct flow, shallow and deep aquifer).

Option 1.6 Better understand/monitor all water uses including unregulated domestic wells.

Option 1.7 Address the risk that shallow wells may dry up.

2. Increase the efficiency of existing and future water use

Many interviewees would like to support, and in some cases create, water market systems to increase the efficiency of water use. According to some interviewees, the current mechanisms are either underused or need improvement because (1) there is lack of demand; (2) the legal and administrative process that would otherwise facilitate these types of transactions gets bogged down when people object to proposed transfers based on potential harm; and (3) concerns that IDWR seems to

be very cautious and ad hoc about making these types of decisions given the political volatility of the issues.

Some interviewees suggested current water market mechanisms need expansion for both long and short-term water use/exchange. Short term leasing can be convenient but does not provide adequate predictability of water availability for developers or industries seeking a reliable water source.

Some interviewees suggest that newcomers, people who have recently relocated to the Treasure Valley, have unrealistic expectations and lack understanding for the rules and dynamics of water. The Idaho Water Users Association is working with realtors and developers to inform and educate new residents on ways to conserve water, but interviewees expressed a desire to make improvements in the education of and water use within this user group.

Some interviewees expressed a preference to permit conserved water to be sold/transferred to other users, so that conserved water does more than merely increasing state line flow. When talking about conservation, many interviewees make the point that the "use it or lose it" doctrine provides little incentive for water conservation.

There are legal concerns that water conservation for aesthetic or wildlife benefit is not currently considered a "beneficial use." As explained by some interviewees, under the Beneficial Use Doctrine, water must be used or appropriated for "beneficial use," therefore reducing opportunities to leave water in the river for environmental needs. Some interviewees suggested that there might not currently be enough water for species to overwinter or enough habitat for species to find cover to protect themselves from predators; other interviewees would like to see the status quo continue with agriculture and urban needs prioritized.

Options Proposed Concerning Issue 2

In the course of our interviews, the following options were suggested as responsive to Issue 2:

Option 2.1 Support and create open water market systems to make water readily available.

Option 2.2 Enable and expand systems for both long and short term water use/exchange.

Option 2.3 Create education and outreach programs on water and water efficiency.

Option 2.4 Improve and coordinate water conservation and reuse/gray water programs.

Option 2.5 Provide legal and financial incentives to promote water efficiency without inappropriate penalty to water users.

Option 2.6 Permit conserved water to be sold/transferred to other users (rather than merely increasing state line flow).

Option 2.7 Change Bureau of Reclamation storage contracts to more readily permit municipal use of stored water.

Option 2.8 Work for increased water efficiency through financial incentives rather than mandates/regulations.

Option 2.9 Persuade residents and water users to think regionally – to accept that "we are all in this together."

3. Address the existing fragmented system for water management and administration

Some interviewees suggested that there are several entities with authority and responsibility to manage and allocate water resources. Some interviewees assessed that land use planners do not always understand water issues, and the fragmented system of jurisdictions doesn't provide many opportunities for coordination. Some say that better land use control will stop new developers from merely drilling a new well into the aquifer.

Some also say that each new entity (new residential land development) means another who will go it alone – "every man for himself." Agencies are isolated, and each acts with its own autonomy. The comments related to this point seem to say that, for example, when a developer seeks to build-out land and needs residential water, the simplest approach is to sink new wells rather than connect to an existing water delivery system.

Complaints include that the "go it alone" approach to water delivery is inefficient – both in water and energy. So, although there has been a lot of water – energy is not unlimited. Said an interviewee: "Coordinated water use and delivery through centralized treatment and distribution is better than small disbursed systems; yet does the idea of coordination run up against the 'don't tell me what to do' frame of mind? A CAMP should be about efficiency in water and energy usage."

Fragmentation allows for substantial inefficiencies in water usage. Some interviewees perceived others as thinking, "I have it (water) and I will use it." Or, instead of coordinating water usage, "I'll just drill another well." Interviewees said the fragmentation has been problematic in the development of water markets, conservation plans, and water policy that addresses the relationship between surface and groundwater.

Some interviewees suggested that the current autonomous system will become even more problematic if municipalities are forced to drill deeper wells in the future. The issue of water system fragmentation was usually discussed generally rather than specifically. We interpreted this to mean that systems and approaches for water delivery and management were handled by multiple independent approaches or entities. For example, separate delivery of irrigation and drinking water; separate administration of surface and ground water; and independent or substantially independent systems for agricultural and municipal water, separate storage for irrigation water.

One interviewee suggested a "conjunctive use" district rather than one district that manages surface water and another district that manages groundwater. The interviewee suggested starting with irrigation wells and municipal wells, and leaving open the question of shallow domestic wells. Other interviewees discussed the option of conjunctive use/management more vaguely, and most interviewees sensed some kind of conjunctive management would be inevitable. Building on this conjunctive use idea, another interviewee prescribed management systems that align water need with the most suitable water sources like storage, direct flow, shallow and deep aquifers.

Encroachments on easements and delivery systems have caused nearby residents and ditch/canal concern. Maintenance personnel have begun gating ditches/canals to reduce foot and bicycle traffic which has led to canal damage in the recent past. Some interviewees suggested that urban development would lead to more of these situations.

As an example of problems securing reliable water sources, one interviewee suggested that domestic wells around Lake Lowell consume water that reduces the levels of the lake. The water in the lake has been allocated to the irrigation districts who have spent significant financial resources on canal maintenance to ensure water reaches the lake, and consequently to the irrigation district customers. The delicate balance between domestic water consumption and agriculture water application seems to be present throughout the valley.

Options Proposed Concerning Issue 3

In the course of our interviews, the following options were suggested as responsive to Issue 3:

Option 3.1 Preserve and protect existing land and water structures, and recreational uses.

Option 3.2 Protect existing water delivery and drainage systems.

Option 3.4 Develop options that can preserve farm lands for both shallow aquifer recharge and land use benefits – particularly in the face of a transition from agricultural to urban land uses.

Option 3.5 Consider the development of conjunctive use districts that could both manage surface and ground water.

Option 3.6 Consider methods to best allocate water from among the four principal water sources to the various needs (agricultural irrigation, residential irrigation, domestic water, and municipal and industrial) rather than merely using water as historically allocated and from the historically used structures.

Option 3.7 Manage water to support the Boise River and associated recreation.

Option 3.8 Move away from the "just drill a well" mindset to the use of coordinated, efficient and sustainable water delivery systems.

Option 3.9 Develop a financial structure that supports coordinated water delivery; the move from unmanaged to coordinated delivery systems will cost money.

4. Protect and improve water quality in the Treasure Valley

Although not often identifying specific sources of pollution, many interviewees stress the importance of protecting and improving water quality. For example, interviewees said that the Valley currently lacks an incentive mechanism to reduce nutrient pollution or a plan to address Total Maximum Daily Loads ("TMDL"). One interviewee described a previous attempt to establish TMDLs on the Boise River upstream of the confluence with the Snake River. Although the details regarding why the plan never came to fruition were vague, no TMDLS seem to have been established.

While the monitoring of domestic wells came up in reference to fragmented systems and ensuring future water supplies, many interviewees thought domestic well construction and maintenance practices also need to be monitored and standards enforced regarding potential impacts to water quality. Interviewees said drilled wells without a proper seal create the potential for contaminants to seep into the aquifer via an unprotected path along the well shaft.

Storm water from developed areas runs into drains and creates an opportunity for conflict between ditch companies and developers/municipal interests. Interviewees suggest that developers and road builders don't have enough options for storm water disposal, and ditch companies are concerned about the liability of transferring contaminants to other customers or into the Boise River.

Some interviewees said that nitrates and phosphates found in agriculture return flow and septic seepage threaten water quality in the Valley. Although interviewees reference other contaminants more often, a less common concern involves perchlorates, a chemical used in dry cleaning. A few interviewees describe the presence of "perc" blooms, contamination in the ground that is difficult to remediate and poses a threat to the quality of water in the aquifer.

One interviewee mentioned that several public works directors from the municipalities have gathered to talk about the problem of and possible solutions for nitrates. There may be opportunities to support or enhance these efforts.

Other threats to water quality could come from truck and rail issues or industrial non-point pollution. Some interviewees suggest that substandard well construction could provide a mechanism for potential contaminants to spread. Other interviewees feel there is no specific threat.

Options Proposed Concerning Issue 4

In the course of our interviews, the following options were suggested as responsive to Issue 4:

Option 4.1 Provide incentives to reduce nutrient pollution.

Option 4.2 Develop a plan to address TMDL.

Option 4.3 Monitor and enforce well construction and maintenance practices.

Option 4.4 Implement programs to further reduce the risk of aquifer pollution.

Option 4.5 Enhance cooperation and collaboration on water quality among stakeholders, such as among public works directors.

5. Improve flood protection in the Treasure Valley

The Facilitation Team recognizes that flood mitigation, although related to water, is only indirectly related to future water needs. Nonetheless, the issue arose frequently in interviews. Some believe that flood mitigation is directly tied to the issue of additional storage.

We were told that from November until July, flood mitigation is a priority. One interviewee says that the capacity of the river is about one-third of what it was in the 1940's, and interviewees all recognize the importance of storage to reduce flood peaks. While more storage may be a likely solution to flood danger, some interviewees suggest developing or redeveloping the river corridor to improve its carrying capacity. Another suggestion includes purchasing the development rights

on agriculture land in the flood plain to increase flood storage and prevent further development in areas prone to flooding.

Options Proposed Concerning Issue 5

In the course of our interviews, the following options were suggested as responsive to Issue 5:

Option 5.1 Develop storage to reduce flood peaks.

Option 5.2 Develop or redevelop the river corridor to improve its carrying capacity.

Option 5.3 Purchase the development rights on agricultural land in the flood plain to increase flood storage.

Option 5.4 Coordinate and/or consolidate flood regulatory agencies.

6. Protect the environment and Boise River corridor

As in many locations where the economy is tied to population growth, environmental quality is important. One priority discussed by stakeholders, when considering environmental protection on the Boise River, is the restoration of the Boise River fishery. Some interviewees reference the fishery's harm after the construction of Lucky Peak. Other environmental needs are to maintain flows for Salmon and create protection for the Black cotton wood tree.

There are legal concerns that water conservation for aesthetic for wildlife benefit is not currently considered a "beneficial use." Under the Beneficial Use Doctrine, water has to be used or appropriated for "beneficial use," therefore reducing opportunities to leave water in the river for environmental needs. Some interviewees suggested that there might not currently be enough water for species to overwinter or enough habitat for species to find cover to protect themselves from predators.

Options Proposed Concerning Issue 6

In the course of our interviews, the following options were suggested as responsive to Issue 6:

Option 6.1 Educational programs on water quality and need to protect recreation on the Boise River

Option 6.2 Preserve agricultural lands and ditches/water rights as a heritage.

D. Information needed to develop the CAMP

Although interviewees often reference studies that have been completed, some interviewees feel that those studies, or the data collected in those studies, need to be compiled in a user-friendly way that will help policy makers make decisions . Beyond the compiling of previous efforts, interviewees mentioned the following questions regarding what needs to be known in order to produce a successful CAMP.

Questions Concerning Basic Water Usage Information

Water usage: Who is using what? What is diverted and what is consumed? For both surface and ground.

What are the gaps between current and future demand?

Questions Concerning Climate Change

What are the likely consequences of climate change?

Questions Concerning Aquifer Hydrology and Management

What is the hydrological connectivity among multiple groundwater levels, and between surface and groundwater?

Where are the aquifer pockets? Is there water in the foothills? How do the fault zones isolate different aquifers?

Is the deep aquifer being mined?

What is the amount, source, and timing of recharge? How long does it take to recharge the aquifer? What groundwater may (or may not) be influenced by surface water?

Where are the hotspots where the water resource is marginal? Where are the locations where water resources are ample? Including variability over time – annual as well as over multiple years.

What are the aquifer trends (based on data from needed monitoring wells)?

Questions Concerning Land Development and Agriculture

Systems that clarify water availability for future development: how does a city or county know that a developer really has the needed water?

Where do I go today to know if water is available for a certain development that is proposed?

How does a large development affect a farmer?

What is the "build out" of the valley? What are the limits? What is the carrying capacity? What are our mutual goals?

Do we have maps of farmland?

What is the impact of development on groundwater recharge?

What are the options to manage storm water?

Questions Concerning Process

Do we have the political will to accomplish this?

What are the legal and policy constraints for this process?

What economic expertise is needed to discuss an open market for water?

Proposals for new storage: what are the best sites and why?

What are the true costs of a dam? Is a new dam the best way to spend money?

Designing the Right Process to Develop the CAMP

Process Considerations

This section summarizes some of the most important elements of the draft ground rules and work plan, which is presented in Appendix D.

Defining Roles and Responsibilities

The development of the Treasure Valley CAMP will be accomplished through a collaborative effort among a variety of individuals and organizations. It is absolutely critical to ensure a common understanding of the roles and responsibilities of these various actors from the beginning.

The IWRB will make the final decision regarding the Treasure Valley CAMP and the composition of the Advisory Committee. The staff of the IWRB will provide technical assistance and advice to the Board and the Advisory Committee throughout the development of the Treasure Valley CAMP.

The Advisory Committee, once approved by the IWRB, will provide recommendations to the IWRB. Technical consultants will provide scientific and technical input to the Advisory Committee, including the IDWR. At appropriate places throughout the process of developing the Treasure Valley CAMP, citizens will have an opportunity to provide input and advice to the Advisory Committee and the Board.

Finally, the role of the Facilitation Team is to promote communication, understanding and agreement among all the individuals and organizations involved in developing the Treasure Valley CAMP.

Public Participation

The Advisory Committee, in consultation with the IWRB, will develop a public information, education, and participation strategy as part of the work plan (please note that interviewees offered several suggestions along this line, and these ideas are reflected in the ground rules and work plan, Appendix D). In addition, the Advisory Committee should consider the public participation plan used to develop the Eastern Snake CAMP.

If external guidelines are useful to the IWRB, its public participation strategy could be guided by the core values of the International Association for Public Participation. Those are as follows:

- Public participation is based on the belief that those who are affected by a decision have a right to be involved in the decision-making process.
- Public participation includes the promise that the public's contribution will

influence the decision.

- Public participation promotes sustainable decisions by recognizing and communicating the needs and interests of all participants, including decision makers.
- Public participation seeks out and facilitates the involvement of those potentially affected by or interested in a decision.
- Public participation seeks input from participants in designing how they participate.
- Public participation provides participants with the information they need to participate in a meaningful way.
- Public participation communicates to participants how their input affected the decision.

Nomination and Selection of the Advisory Committee

Consistent with the above description of the CAMP and role of the Advisory Committee, the CAMP process seeks an Advisory Committee that is adequately inclusive of all key interests in the Treasure Valley and can perform the intended work. As noted above, the names of nominees for the Advisory Committee will be presented to the IWRB for consideration in an open meeting.

We suggest that the Advisory Committee be comprised of approximately 10 to 20 persons. We believe that a group of 20 people is manageable when roles and ground rules are made clear.

Based upon our discussions and interviews, we believe that, among others, the Advisory Committee may include members associated with the following broad categories:

1. Local Government (Cities, Towns and Counties)
2. Business and development
3. Municipal Water Providers
4. Irrigation Water Providers
5. Agricultural Ground Water
6. Recreation
7. Conservation
8. Small domestic well owner
9. Specific or unique agencies or entities
10. Other important but uncategorized interests

Three Approaches for Obtaining Advisory Committee Nominations

1. The Open Nomination Process.

Any person, group or organization that has a recommendation for Advisory Committee membership, including self nominations, may submit a nomination by email or mail. We expect that response to the open nomination process can be stimulated through emails, news releases and the IWRB website.

We suggest that the nomination message (whether by email, mail or phone) include the following data:

a) Name, address, phone and email of the nominee
b) Identification of category to represent (for example, business, conservation, water provider, and so on)
c) A short statement of the nominees' interest in the CAMP, that may include qualifications, experience and knowledge supportive of the nomination

d) Organization affiliation of the nominee, if relevant
e) If it is not a 'self nomination,' the person, group or organization submitting the nomination and relevant contact information (name, address, phone and email); and if desired/available, names and contact information of persons and organizations that join in or otherwise support the nomination of this person.

We ask that nominations for the Advisory Committee be submitted on or before January 29, 2010. Interested persons may submit nominations to either the IDWR or the Facilitation Team, or both, using the information below.

Making Advisory Committee Nominations to IDWR	Helen L. Harrington, Manager, Water Planning Section, Idaho Department of Water Resources, 322 East Front Street, PO Box 83720, Boise, Idaho 83720-0098, Office: 208-287-4848, FAX: 208-287-6700, E-mail: helen.harrington@idwr.idaho.gov
Making Advisory Committee Nominations to the Facilitators	Joseph McMahon, Collaborative Processes, 617 Steele St., Denver CO 80206, jpmcmahon@jpmcmahon.com FAX: 480-393-4745

2. Collaborative Nominations From Stakeholders With Common Interests.

In many instances, the categories listed above may be served by gathering together with similar organizations to discuss how that interest is best represented on the Advisory Committee. For example, the following could be groups that may desire to meet for such purposes: local governments, irrigation water providers, or conservation. We ask that any collaborative nomination messages be submitted by the same date, and include the same information, listed in paragraph 1 above concerning the open nomination process.

3. Special Requests to Stakeholders.

Some stakeholders may be potential Advisory Committee members because they are uniquely situated and are not part of a larger interest category. Examples could include the Board of Control, Idaho Power Company or United Water. To those types of stakeholders, we anticipate a direct request that they consider participation.

Ad Hoc Resource Network

In addition to the Advisory Committee, we recommend that state and federal resource management agencies should serve as an ad hoc resource network to the Advisory Committee – not as members of the Advisory Committee per se. These agencies will provide scientific, technical, legal, budgetary, and other information as appropriate. The following state and federal agencies were identified as potential members of the network (and others may be added as the process moves forward):

- Central Health District
- Department of Environmental Quality
- Idaho Department of Lands
- Idaho Department of Water Resources
- Idaho Department of Fish and Game
- Natural Resources Conservation Service
- US Bureau of Reclamation (potentially an Advisory Committee member)
- US Geological Survey
- US Army Corps of Engineers
- US Fish and Wildlife Service
- US Forest Service
- US Environmental Protection Agency

The Ad Hoc Resource Network should also include persons or organizations that can address or speak about issues of interest to the Advisory Committee such as the expected growth in the Treasure Valley, river issues, or other topics. The Ad Hoc Resource Network membership should remain fluid to meet the needs of the Advisory Committee. We note that the Bureau is a federal bureau and, although closely involved in Treasure Valley water delivery, the IWRB may prefer having on the ad hoc resource network rather than on the Advisory Committee.

Examples of other potential members of the Ad Hoc Resource Network are listed below:

- Treasure Valley Partnership
- Idaho Ground Water Association
- Idaho Water Users Association
- Idaho Water Resources Research Institute (IWRRI)
- Boise State University
- Idaho Forest Industries Association
- Idaho Mining Association
- University of Idaho
- Idaho State University
- Ada County Association of Realtors
- Idaho Association of Commerce and Industry
- Idaho Farm Bureau
- Idaho Rural Water Association

Subcommittee Recommendation

The Facilitation Team will meet with the Subcommittee on the Treasure Valley Aquifer and include recommendations from those Board members.

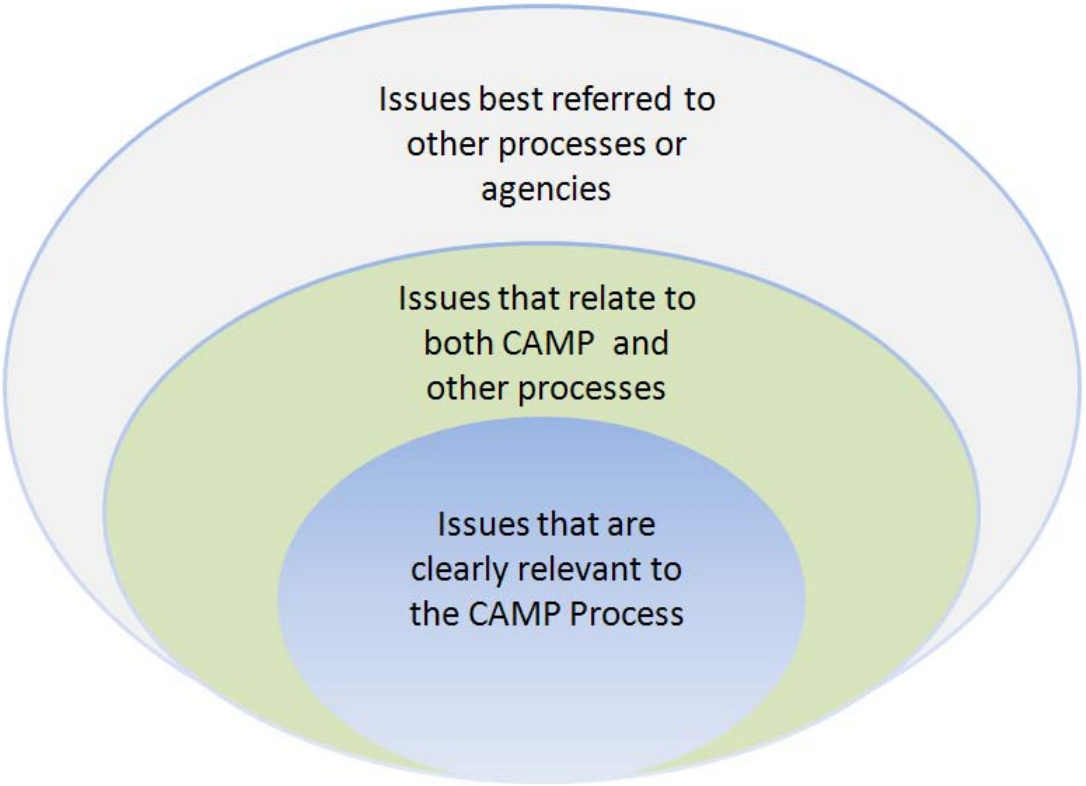
Moving Forward and Maintaining Focus

To effectively and timely accomplish the Advisory Committee tasks, the Facilitation Team recommends that the Advisory Committee periodically consider whether the issues proposed for consideration and eventual recommendation are within the scope of the CAMP. The Facilitation Team has noted that issues that are very important to the Treasure Valley future many nonetheless be outside of the CAMP scope.

The principal purposes of the Treasure Valley CAMP process are to:

1. Provide reliable sources of water, projecting 50 years into the future.
2. Avoid conflict related to conjunctive management of surface and ground water (i.e., the experience in the Eastern Snake Plain Aquifer).
3. Prioritize future state investments in water.
4. Bridge the gaps between future water needs and supply.

We suggest that there may be three broad categories that the Advisory Committee may use to determine how it should use its time – as noted below. The four purposes listed above are in the core of the CAMP work.



We recommend that the Advisory Committee focus its initial work on: (a) identifying the issues that fall into each of the broad categories above; and (b) undertaking the issues that are clearly relevant to the CAMP. At appropriate points

the Advisory Committee can then determine how to address issues in the other two categories. As a starting point on which issues are clearly within the CAMP process, we suggest that the Advisory Committee start with the issues list in this Assessment in the section entitled “Key issues Identified by Stakeholders and Options to Address Them.”

Conclusions

The variety of users and the multiple entities that manage and deliver water to those users creates a complex situation for water planning in the Treasure Valley. Most of the interviewees share similar concerns and potential solutions, and many of the divergent perspectives are likely to converge with new studies and scientific data.

Some interviewees mentioned a lack of understanding and trust among various users and players, but they also mentioned that the CAMP process has the potential to bring parties together.

All of the interviewees felt that agricultural interests will have a significant role as their future needs must be considered along with other users in the Valley, but interviewees were unsure of how agricultural interests, who mostly use surface water, would engage in the CAMP process, which is overseen by an agency focused on groundwater. The Facilitation Team has included agricultural interests in the suggestions for the Advisory Committee by including the irrigation and canal districts.

Many of the water supply/demand issues discussed by the interviewees lead to larger, more encompassing issues like how to address flooding and fragmentation water systems. Although these issues will likely be relevant as we move forward in this CAMP process, it is imperative to stay focused on the CAMP goals as are mandated to the Idaho Water Resource Board by the legislature:

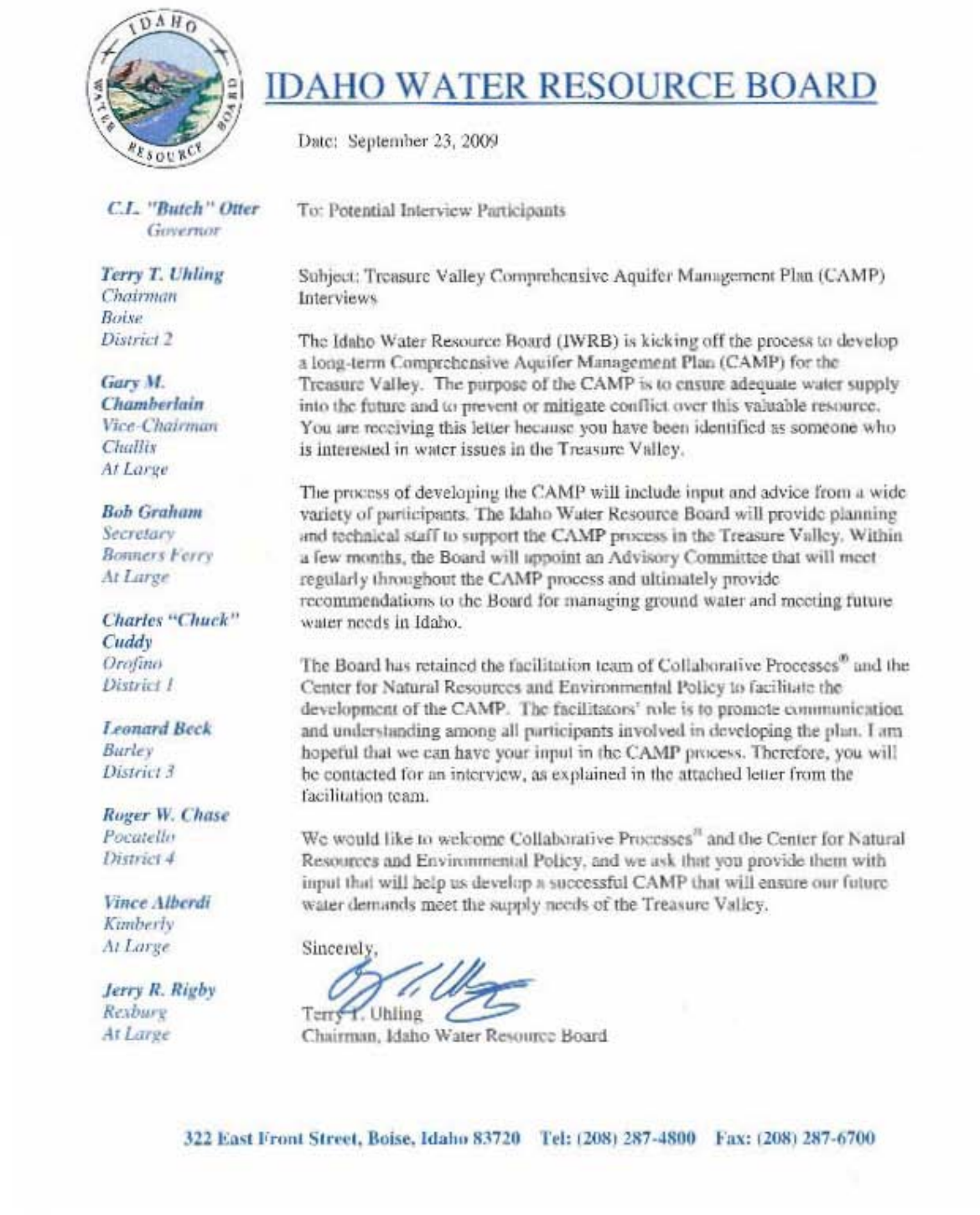
1. Provide reliable sources of water, projecting 50 years into the future.
2. Avoid conflict related to conjunctive management of surface and ground water (i.e., the experience in the Eastern Snake Plain Aquifer)
3. Prioritize future state investments in water
4. Bridge the gaps between future water needs and supply

The Advisory Committee will need to work to keep within its scope and refer issues outside of the CAMP process to other agencies and processes.

Although the Facilitation Team has observed that there can be substantial differences in views on a specific issue (for example, the need for construction of new or increased upstream storage), we also see a high level of motivation to plan for the future and avoid unnecessary conflict.

Appendices

Appendix A: Letters of Introduction



IDAHO WATER RESOURCE BOARD

Date: September 23, 2009

C.L. "Butch" Otter
Governor

To: Potential Interview Participants

Terry T. Uhling
Chairman
Boise
District 2

Gary M. Chamberlain
Vice-Chairman
Challis
At Large

Bob Graham
Secretary
Bonners Ferry
At Large

Charles "Chuck" Cuddy
Orofino
District 1

Leonard Beck
Burley
District 3

Roger W. Chase
Pocatello
District 4

Vince Alberdi
Kimberly
At Large

Jerry R. Rigby
Rexburg
At Large

Subject: Treasure Valley Comprehensive Aquifer Management Plan (CAMP) Interviews

The Idaho Water Resource Board (IWRB) is kicking off the process to develop a long-term Comprehensive Aquifer Management Plan (CAMP) for the Treasure Valley. The purpose of the CAMP is to ensure adequate water supply into the future and to prevent or mitigate conflict over this valuable resource. You are receiving this letter because you have been identified as someone who is interested in water issues in the Treasure Valley.

The process of developing the CAMP will include input and advice from a wide variety of participants. The Idaho Water Resource Board will provide planning and technical staff to support the CAMP process in the Treasure Valley. Within a few months, the Board will appoint an Advisory Committee that will meet regularly throughout the CAMP process and ultimately provide recommendations to the Board for managing ground water and meeting future water needs in Idaho.

The Board has retained the facilitation team of Collaborative Processes® and the Center for Natural Resources and Environmental Policy to facilitate the development of the CAMP. The facilitators' role is to promote communication and understanding among all participants involved in developing the plan. I am hopeful that we can have your input in the CAMP process. Therefore, you will be contacted for an interview, as explained in the attached letter from the facilitation team.

We would like to welcome Collaborative Processes® and the Center for Natural Resources and Environmental Policy, and we ask that you provide them with input that will help us develop a successful CAMP that will ensure our future water demands meet the supply needs of the Treasure Valley.

Sincerely,

Terry T. Uhling
Chairman, Idaho Water Resource Board

322 East Front Street, Boise, Idaho 83720 Tel: (208) 287-4800 Fax: (208) 287-6700

Appendix A – Text of the Letter to Potential Interviewees

Collaborative Processes and the Center for Natural Resources and Environmental Policy have been hired by the Idaho Water Resource Board (IWRB) to assist in developing a comprehensive aquifer management plan (CAMP) for the Treasure Valley. The goal of the CAMP is to develop an aquifer management plan that will address water supply and demand issues looking out 50 years into the future. The program is intended to investigate strategies, and develop plans, which will lead to sustainable water supplies and optimum use of the water resources.

We are exploring groundwater and other water interests that affect current and future needs for water resources on the Treasure Valley with the intent to (1) gather specific interests and concerns regarding water management (2) explore options for creating an advisory committee to provide further input on this process.

You have been identified as someone who might be interested in this process, and we would like to meet with you for about 60 minutes to listen to your interests and concerns regarding water management. Our goal is to interview a cross section of people throughout the communities within the Treasure Valley that represent diverse viewpoints on groundwater management and planning.

The interviews are *voluntary* and *confidential*. Our plan is to conduct the interviews in Boise area during October 16-18, 2009. We will be contacting you in the next few days to schedule a time to meet. If you would prefer not to be contacted, please let us know.

Once we have completed the interviews, we will synthesize our findings into a report that will inform and invigorate this planning process. We will not specifically attribute any ideas or information to you or anyone else in our report. A draft will be distributed to everyone we interview for review and comment, as well as to other people interested in or affected by these issues.

Thank you in advance for your participation. Please contact either one of us with any questions or suggestions. We look forward to working with you in the near future.

Joe McMahon, Collaborative Processes
303-333-1960
www.collaborativeprocesses.com

Matt McKinney and Daisy Patterson,
Center for Natural Resources and
Environmental Policy
406-360-9204 www.cnrep.org

Appendix B: Treasure Valley CAMP: Interview Questions

Interests and Concerns

1. What are your interests with respect to water in the basin?
2. What are the most important issues and concerns regarding water in the basin?
3. What is your sense of how this region might grow and development over the next 50 years?
4. What are the most likely needs or demands for water in the future (e.g., domestic, commercial, agricultural, recreational, environmental, other)?

Options and Information

5. From your perspective, what are the most promising options to meet future water demands (e.g., conservation, new storage, reallocate existing uses, conjunctive use, etc.)?
6. What scientific and technical information would be most helpful to you in terms of understanding future water demand and options on how to meet such demand?

Citizen and Stakeholder Participation

7. How, if at all, would you like to be involved in developing the CAMP for the basin?
    a. Would you (or another representative of your stakeholder group) be willing to serve on an Advisory Committee if asked?
    b. What type of technical, legal, or policy experience might you and your constituents bring to the table?
    c. What other interests should be represented on the Advisory Committee?
8. What issues do you think everyday citizens care most about?
    a. What is the best way to inform and educate these people, and to seek their input and advice?
    b. Would you and your organization/constituents be willing to help inform and educate people, and seek their input and advice?

Conclusion

9. Is there anything else you would like to share?
10. Who else should we talk to?
11. May we list your name in an appendix to our report?

Appendix C: List of Interviewees

1. Ron Abramovich, Natural Resources Conservation Service
2. Peter Anderson, Trout Unlimited
3. Phil Bandy, City of Eagle
4. Al Barker, Barker Rosholt Firm
5. Rex Barrie, Boise River Water District 63
6. Jim Bartolino, US Geological Survey
7. Tim Breuer, Land Trust of the Treasure Valley
8. John Chapman, Micron
9. Rick Clinton, City of Meridian
10. Sara Cohn, Idaho Conservation League
11. Mike Creamer, Givens Pursley
12. Shelley Davis, Barker Rosholt Firm
13. Rick Dees, City of Meridian
14. Sherrill Doran, CH2M HILL
15. Jeff Fereday, Givens Pursley
16. Jerrold Gregg, Bureau of Reclamation
17. Steve Holt, TO Engineers
18. Dave Hoover, Natural Resources Conservation Service
19. Matt Howard, Bureau of Reclamation
20. Rob Howarth, Central District Health
21. Chris Jones, Trout Unlimited
22. Gail McGarry, Bureau of Reclamation
23. Mary McGown, Idaho Department of Water Resources
24. James McNamara, Boise State University
25. Garret Nancolas, City of Caldwell
26. Ken Neeley, Idaho Department of Water Resources
27. Liz Paul, Idaho Rivers United
28. Christian Petrich, SPF Water Engineering

29. Walt Poole, Idaho Fish and Game
30. Fred Price, Bureau of Land Management
31. Kyle Radek, City of Meridian
32. Scott Rhead, United Water Idaho
33. Terry Scanlan, SPF Water Engineering
34. Norm Semanko, Idaho Water Users Association
35. Dave Shaw, ERO Resources Corporation
36. Bruce Smith, Moore, Smith, Buxton, and Turcke
37. Daniel Steenson, Ringert Law Chartered/Nampa-Meridian Irrigation District
38. Warren Stewart, City of Meridian
39. Clive Strong, Attorney General's office, Natural Resources Division
40. John Thornton, US Forest Service
41. Lynn Tominaga, IGUA
42. John Tracy, Idaho Water Resources Research Institute
43. Terry Uhling, Simplot
44. Rick Ward, Idaho Fish and Game
45. John Westra, Idaho Department of Water Resources
46. Will Whelan, Nature Conservancy
47. Dick Whitehead, Former USGS
48. Paul Woods, City of Boise
49. Greg Wyatt, United Water Idaho
50. Norman Young, ERO Resources Corporation
51. Rick Yzaguirre, Ada County

Appendix D: Suggested Ground Rules and Work Plan

Advisory Committee Purpose

The purpose of the Advisory Committee is to develop recommendations to the Idaho Water Resource Board (Board) regarding the Treasure Valley Comprehensive Aquifer Management Plan (CAMP).

Advisory Committee Charge

The Advisory Committee (Committee) will develop recommendations to meet current and future demand for water resources in the Treasure Valley region.

During its first couple meetings, the Committee -- along with the Board – will seek agreement on the scope of the CAMP (i.e. determine whether and how such issues as surface and ground water interactions, water quantity and quality interactions, and the link between land and water decisions are addressed).

Once the Committee has reviewed and approved the ground rules and work plan to develop the CAMP, they agree to be governed by these ground rules and work plan.

Background

The 2008 Legislature approved House Bill 428 and House Bill 644 establishing the Statewide Comprehensive Aquifer Planning and Management Program and the Aquifer Planning and Management Fund. This legislation authorizes characterization and planning efforts for ten different basins in the next 10 years.

The Aquifer Planning and Management Program is designed to provide the Idaho Water Resource Board and the Idaho Department of Water Resources with the necessary information to develop plans for managing ground and surface water resources into the future.

The program has two phases:

> Phase 1: A technical component to characterize the surface and ground water resources of each basin; and
> Phase 2: A planning component that will integrate the technical knowledge with an assessment of current and projected future water uses and constraints.

This program will culminate with the development of long-range plans for conjunctively managing the water resources of each basin that integrates hydrologic realities with the social needs.

The water management plans will be designed to address water supply and demand issues looking out 50 years into the future. The program is intended to investigate strategies and develop plans that will lead to sustainable water supplies and optimum use of the water resources.

Roles and Responsibilities

Idaho Water Resource Board

The Board holds final decision-making authority regarding the CAMP. It agrees to give serious consideration to both Committee recommendations and public input.

Specific Board members agree to attend and participate in Advisory Committee meetings.

The entire Board will be briefed on the CAMP process at each regularly scheduled Board meeting.

Board members agree to indicate, as early as possible, areas of concern regarding the Advisory Committee process.

Advisory Committee Members

The list of Advisory Committee Members established by the Board serves as the record of official Committee membership. Each member of the Advisory Committee is expected to:

- Regularly attend and prepare for committee meetings;
- Clearly articulate and represent the interests of his/her group and be able to articulate an aquifer-wide perspective;
- Listen to other points of view and try to understand the interests of others;
- Openly discuss issues with people who hold diverse views and participate in a cooperative problem solving procedure to resolve differences;
- Generate and evaluate options to address the needs expressed by the Committee; and
- Keep his/her constituent group(s) informed about activities and progress of the Advisory Committee, and solicit their input about ongoing deliberations.

Ad Hoc Resource Network

In addition to the Advisory Committee, state and federal resource management agencies should serve as an ad hoc resource network to the Advisory Committee – not as members of the Advisory Committee per se. These agencies will provide scientific, technical, legal, budgetary, and other information as appropriate. As of the

drafting of this report, we are uncertain as to what the needs of the Advisory Committee will be for this proposes Resource Network. This should be a topic for early consideration by the Advisory Committee.

If formed, the following state and federal agencies were identified as potential members of the network (and others may be added as the process moves forward):

- Central Health District
- Department of Environmental Quality
- Idaho Department of Lands
- Idaho Department of Water Resources
- Idaho Department of Fish and Game
- Natural Resources Conservation Service
- US Bureau of Reclamation (potentially an Advisory Committee member)
- US Geological Survey
- US Army Corps of Engineers
- US Fish and Wildlife Service
- US Forest Service
- US Environmental Protection Agency

Various statewide associations should be kept informed throughout the process, and that the Advisory Committee should seek their input and advice. These associations include, but are not limited to the following:

- Treasure Valley Partnership
- Idaho Ground Water Association
- Idaho Water Users Association
- Idaho Water Resources Research Institute (IWRRI)
- Boise State University
- Idaho Forest Industries Association
- Idaho Mining Association
- University of Idaho
- Idaho State University
- Ada County Association of Realtors
- Idaho Association of Commerce and Industry
- Idaho Farm Bureau
- Idaho Rural Water Association

Facilitators

Facilitators from Collaborative Processes LLC (CP) will design Committee agendas in consultation with the Advisory Committee. CP will facilitate all Advisory Committee meetings.

Additionally, CP may facilitate, on an as needed basis, agreed upon subcommittee meetings and dialogue between meetings.

The facilitators will remain impartial toward the substance of the issues under discussion.

- The facilitators are responsible to the whole group and not to any one member or interest group.
- The facilitators will enforce ground rules that are accepted by the group.
- In addition, the facilitators will ensure that important information is available to Advisory Committee members in advance of each meeting.
- The facilitators will prepare and distribute meeting notes after each Committee meeting, and make information presented at the meetings available to the public through the established website (www.idaho.gov) and email distribution.

CAMP Decision making

Idaho Water Resources Board

As noted above, the final responsibility for CAMP decision-making rests with the Board.

- The Board will give serious consideration to the recommendations, perceptions and interests developed by the Advisory Committee.
- Additionally, through public meetings and other means of public input, Treasure Valley stakeholder's views will be documented, summarized and provided to the Board prior to decision making.

Advisory Committee

The Advisory Committee will strive to reach consensus on recommendations to the Board regarding the CAMP.

- Consensus in this context is defined as a process for reaching agreement that does not rely on voting, and consensus recommendations are generally ones with which all members can agree.
- However, consensus does not necessarily mean unanimity. Some members may strongly endorse a particular solution while others may accept it as a workable agreement.
- A consensus is reached when all parties agree (1) that their major interests have been taken into consideration and addressed in a satisfactory manner; and (2) to help implement the Committee recommendations.

- Prior to key decisions, Committee members agree to solicit and share constituent input with the Committee.

In the event that a consensus is not reached on a given issue, the Committee has several options:

- A member who is not in agreement with the general opinion in the group may "stand aside" and not block the consensus;
- A member may stand aside, allow the rest of the group to reach a consensus and request that a minority report detailing the other view(s) be added to the final agreement/document; and/or
- If no consensus is reached, the group may announce that there was not an agreement on a particular question or issue. The complete views and perspectives of committee members will be forwarded to the Board for their decision-making.

Technical Support

Members agree that the dialogue and deliberation of the Advisory Committee will be based on the best available information, regardless of the sources.

The members agree to engage in joint fact-finding and collaborative learning to clarify what is known, not known, and needed to make timely, well-informed recommendations.

The Ad Hoc Resource Network and water demand consultants will support the Committee.

Members may bring staff from their organizations or agencies, or members of their constituency groups to support the problem solving process.

Advisory Committee members can defer to those individuals when their expertise is required or when requested by the Advisory Committee as a whole. However, the use of support persons must not disrupt deliberations.

Guidelines for Dialogue and Deliberation

The following guidelines will be used to encourage productive deliberations and decision-making. Members of Advisory Committee will commit to "best efforts" at following the guidelines and give the facilitators the authority to enforce them:

- It is crucial that everyone have a chance to be heard and to hear others. Therefore, Advisory Committee Members will:
    - Pay attention to what is being discussed in the meeting and avoid side conversations
    - Allow people to speak and refrain from making interruptions

    - Be brief and speak to the point
- It is important to find creative, innovative solutions. Therefore, Advisory Committee Members will:
    - Provide opportunities for each other to bring forward proposals and requests for technical analysis
    - Avoid judging ideas prematurely
    - Look for the need or interest that gives rise to the idea
    - Look for ways to improve proposals
    - Try to remain open minded
- Disagreements are inevitable; however they should be focused on the issues involved rather than on the people holding a particular view. Therefore, Advisory Committee Members will:
    - Promote cooperative interactions and avoid competitive behaviors that denigrate other Participants
    - Promote positive behaviors that promote productive discussions and agreement and avoid behavior that is disruptive to the work of the group
    - Address one another in respectful ways

Representation of Other Interest Group Views

To enhance creativity during meetings, individuals who represent constituencies and agencies are not expected to restrict themselves to prior positions.

The goal of the Advisory Committee is to have frank and open discussions of the issues in question and options to address these issues.

Therefore, ideas raised in the process of the dialogue, prior to agreement by the whole group, are for discussion purposes only and should not be construed to reflect the final position of an Advisory Committee Member or his or her constituent group.

Constituents

Informed constituencies will enhance the prospects for approval and implementation of the recommendations of the Advisory Committee.

The members of the Advisory Committee will inform their constituents and solicit their opinions about the issues under discussion. They will represent the interests of their constituent group and bring their constituents' concerns and ideas to the deliberations.

Members of the Advisory Committee may elect to hold regular meetings with their constituent group (a formal caucus), to provide copies of Committee meeting notes

to their constituents and request comments, and to communicate informally with their constituents.

The Advisory Committee will also explore other means to broaden public awareness and encourage broader involvement.

Observers and Public Involvement

Advisory Committee meetings will be open to the public.

- However, in order for the Advisory Committee to achieve its objective, discussion and deliberation at Committee meetings must be focused and manageable.
- Participation by non-members of the Advisory Committee will be at the discretion of the Advisory Committee.
- Advisory Committee meetings will include a period for public comment.

In addition, the Committee will hold public meetings during the process of developing recommendations to inform the public about progress being made and solicit feedback.

- Committee members are encouraged to provide outreach assistance for public meetings to raise broader awareness of the issues under discussion.
- Information, including meeting notes, will also be posted on the Idaho Department of Water Resources website.

Communications with the Media

The Advisory Committee meetings will be open to the public, including the media. However, Committee members may choose to caucus and caucuses may not be open to the public.

The consensus process is a solution-oriented, problem solving approach, not a platform for lobbying the public through the media. The deliberations of the Advisory Committee should not be used as opportunities for individual members to posture in order to gain the attention of the media.

If the Advisory Committee decides that there is a need for the Committee to communicate formally with the press, Advisory members will designate a spokesperson(s) and/or draft a statement. Stakeholders can refer members of the press to CP for questions about the process.

In communicating with the media and the general public, a clear distinction should be made between preliminary information, concept papers, or proposals under consideration and final decisions. It is important to differentiate between the

discussion and decisions. Preliminary documents will be marked with "DRAFT" or "FOR DISCUSSION PURPOSES ONLY."

Each Advisory Committee member is free to speak with the press on behalf of the constituency or agency he or she represents, and must make it clear to the press that his or her comments should not be attributed to the whole stakeholder group.

- No Advisory Committee member will formally speak for or represent the Advisory Committee without expressed authorization by consensus of the Advisory Committee as a whole.
- No Advisory Committee member will characterize to the press the point of view of other representatives.

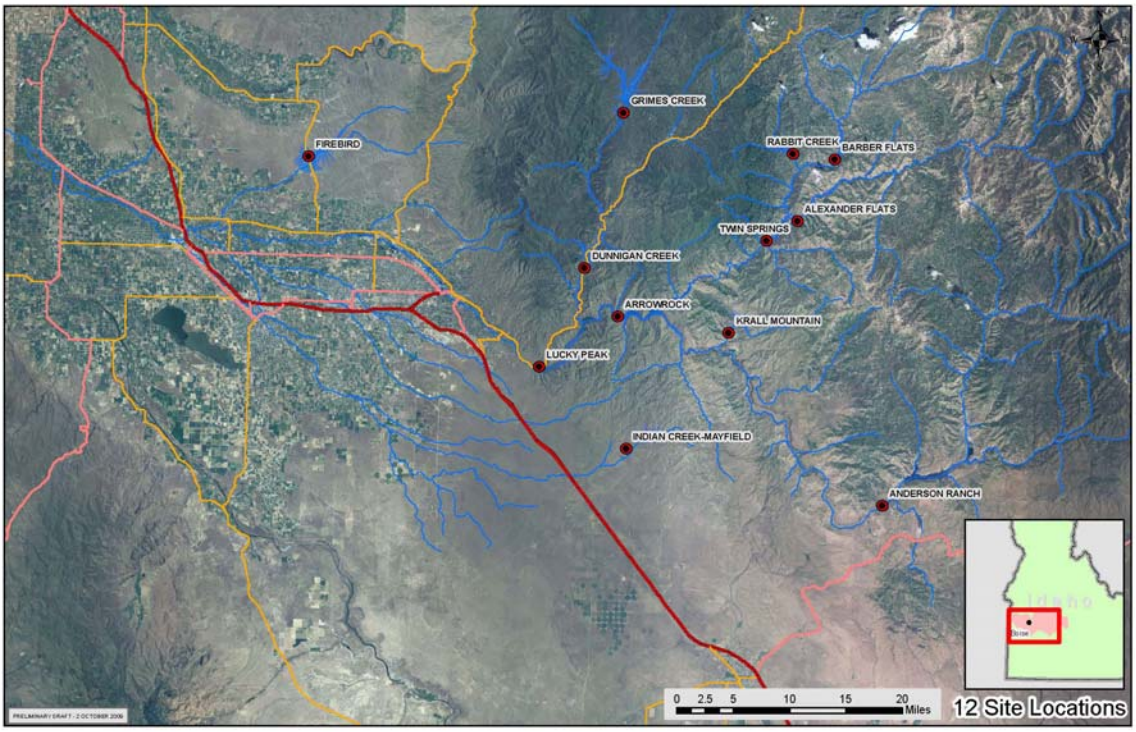
Appendix E Proposed CAMP Work Plan

The CAMP will be developed over the next 16-18 months. Predictable meeting dates and locations will be developed in conjunction with the Advisory Committee. The basic scope of work and schedule is as follows:

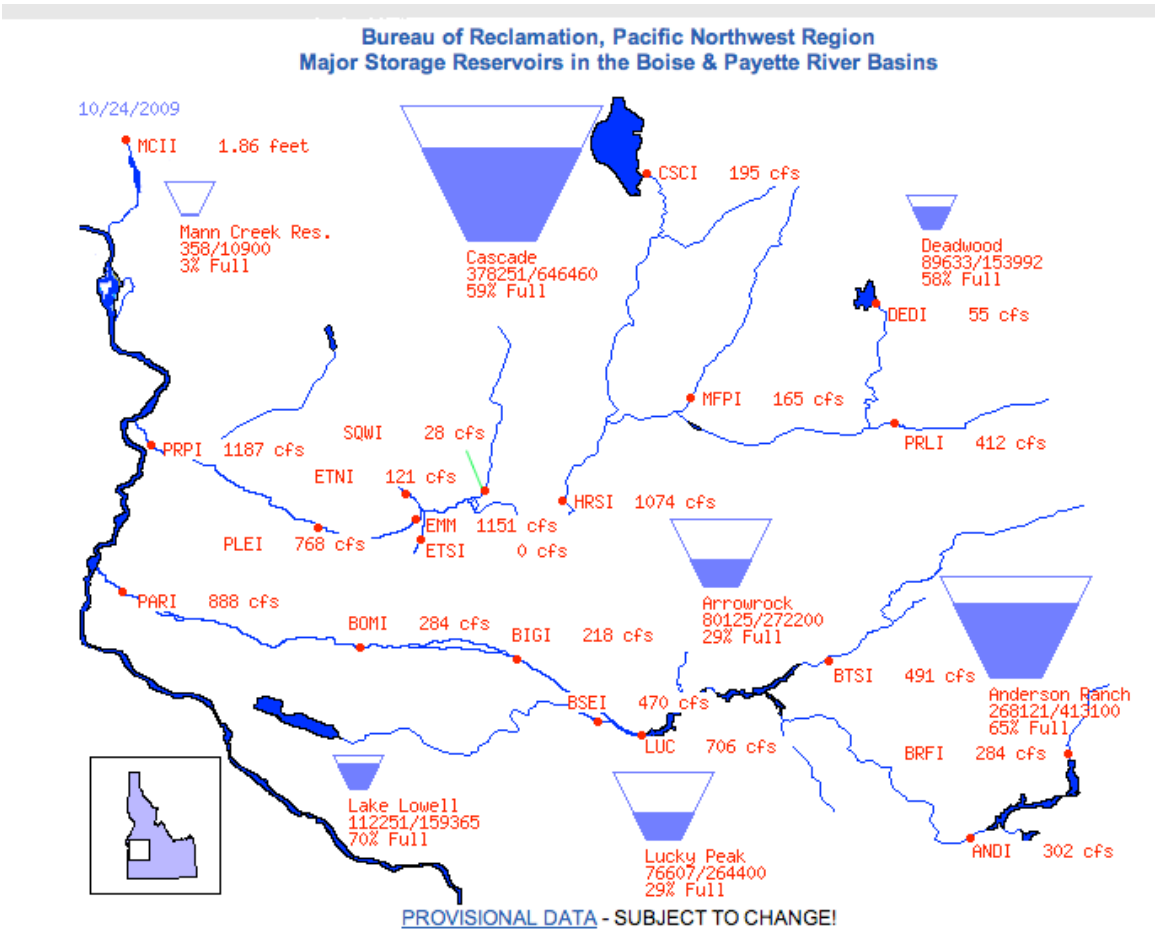
Month	Who is doing what?	Deliverable
September and October 2009	Facilitation Team (FT) conducts interviews	
November	FT drafts situation assessment	Draft Report
December	FT circulates draft situation assessment report/conceptual framework/ground rules and seeks feedback FT distributes final report,	Revisions to report
January 2010	FT revises report and seeks broader input; FT gathers names of AC nominees, confers with Board subcommittee and Board as needed to finalize AC Confirm nominations; set agenda for AC meeting #1	List of AC Nominees Draft Agenda for AC meeting #1
February	FT convenes 1st AC meeting to review ground rules and work plan, and for initial education on water demand study, etc.	Agreement on ground rules, work plan, etc.
March	FT convenes 2nd AC meeting for additional education and initial naming of problems	Preliminary list of problems and concerns
	FT creates web-based platform to facilitate public education and feedback (time-permitting and based on consultation with AC and others)	Web-based platform *(NOTE --no time allocated for this task/product yet*)
April		
May	FT convenes 3rd AC meeting to review naming of problems and framing initial alternatives	Refined list of problems and concerns; preliminary list of alternatives

Month	Who is doing what?	Deliverable
June	*Future Water Demands Study Completed* FT convenes 4th AC meeting to refine alternatives and start considering trade-offs	Refined list of alternatives; preliminary list of trade-offs
July	FT convenes 5th AC meeting to finalize alternatives and trade-offs	Final list of alternatives and trade-offs
August		
September	FT convenes 6th AC meeting to generate one or more options for a fee structure	Draft CAMP
October		
November	FT works with AC to convene public meetings on draft CAMP	Public input & advice
December	FT convenes 7th AC meeting to respond to public input	Revised CAMP
January 2011	FT convenes 8th AC meeting to finalize recommendations to Board	Final recommended CAMP
February	FT is available as a resource during public hearings convened by the Board	

Appendix F: Reference maps, images and graphics



Map 1 Potential BOR Storage Sites

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Boise River system (Anderson Ranch, Arrowrock, Lucky Peak) is at  45 % of capacity.
Total space available:        524847 AF
Total storage capacity:       949700 AF
Natural Flow:                    992 CFS

Payette River system (Cascade, Deadwood) is at  58 % of capacity.
Total space available:        332568 AF
Total storage capacity:       800452 AF
Natural Flow:                   1526 CFS
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Figure 1 Example of "Teacup" Diagram taken from http://www.usbr.gov/pn/hydromet/boipaytea.cfm

Map 2 Boise Region

Lower Boise River Basin =
Lucky Peak Dam to Snake River confluence