

## Eastern Snake Plain Aquifer (ESPA) Comprehensive Aquifer Management Plan

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### Advisory Committee

#### Meeting Notes

**Date:** Thursday, May 29, 2008

**Time:** 10:00 a.m. to 5:00 p.m.

**Location:** Holiday Inn, Pocatello

#### MEETING AGENDA

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1. Welcome, Introductions, Agenda Review and Meeting Note Finalization (March and April meetings)
2. Presentation: Recharge on the Wood River
  - Bill Hazen – Idaho Water Alliance

**Goal: Committee understanding of potential opportunities for recharge on the Wood River.**
3. Presentation and Discussion: Management Alternatives and Initial Packaging
  - IDWR

**Goal: Outline of management options and initial packaging of alternatives; Committee direction regarding packaging of alternatives.**
5. Presentation and Discussion: Environment, Fish and Wildlife Sub-Committee
  - Status of Modeling Efforts – IDWR and Idaho Power
  - Status of Features and Factors – Will Whelan
  - Update on Next Steps and Plans

**Goal: Committee understanding of Fish and Wildlife Sub-Committee progress and discussion of issues of interests/concern and next steps.**
6. Discussion: Economic Sub-Committee Briefing
  - **Goal: Report back from Economic Sub-Committee and briefing on the status of economic analysis.**
7. Discussion: Next Steps and Future Meeting Agenda Development
8. Public Comment
  - *All presentations are posted on the website*

**Next Meeting: June 19, 2008 in Aberdeen (10 am – 5 pm)-** Mennonite Church meeting hall (corner of 381 W. Washington Street and 4<sup>th</sup> Street, Aberdeen, ID 83210)

## **WELCOME, INTRODUCTIONS, AGENDA REVIEW AND MEETING NOTE FINALIZATION**

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Jonathan Bartsch, the facilitator, opened the meeting with comments on the meeting purpose and the primary focus of the Advisory Committee at this point in the CAMP process. He emphasized again that the Committee must now transition from information sharing to decision-making/recommendations. Jonathan noted that from this point forward, meeting formats will be focused on decision discriminators (benefit, cost, impacts, policy etc.). The meeting notes from the April 24, 2008 Committee meeting were finalized.

Vince Alberdi noted that a recent newspaper article in Twin Falls outlined the challenges of implementing the CREP program (see Associated Press article on website). Due to commodity prices and the need for land to support dairies (to grow corn for feed and provide space for nutrient management) it has become difficult to implement CREP. Dairies in the ESPA are expanding and in some instances buying CREP acres to support their need for more land. It was noted that nationwide there is a similar dynamic, i.e. CRP/CREP programs losing ground due to the high price of commodities. Others suggested that more money is required to increase CREP enrollment and gave their opinion that there is significant value to increasing CREP acreage due to the opportunity to leverage federal dollars. The CREP program term lasts 15 years and if the financial incentives were increased to boost enrollment, some felt this would likely need to be coupled with a longer commitment. A different Committee member noted that the real value of land lies with the water, and a permanent retirement of water rights would fundamentally change land values. Others noted that the Committee is focused on the long-term management of the aquifer and should evaluate the history and success of such programs without hitting the 'panic' button.

## **PRESENTATION: RECHARGE ON THE WOOD RIVER**

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Linda Lemmon and Bill Hazen (Water Alliance) outlined the background of the Lower Snake River Aquifer Recharge District (LSRARD) and highlighted opportunities to increase recharge on the Wood River System. Linda noted that the LSRARD was established following a reduction in spring flows to proactively focus on recharge. The statutory authorization to form recharge districts was created in 1978 through the Groundwater Recharge Act. Through the LSRARD, recharge water rights were established on the Snake (1200 cfs) and Wood Rivers (800 cfs) with a 1980 priority date. LSRAD cannot raise resources from assessments and consequently focuses on monitoring and collecting data.

Bill Hazen gave a presentation on recharge opportunities on the Wood River System. Bill noted that with the federal title transfer of the Milner-Gooding Canal to AFRD #2, opportunities for recharge have increased. In his opinion, the potential political problems that have been discussed and debated for years have now gone away. Managing recharge on the Big and Little Wood poses challenges since in some years there is not much water and other years there are enormous flows that result in flooding. The Deitrich main canal has been designed for flood control and could be used as a recharge site. Bill referenced four potential recharge areas: Devils head-gate; Richfield; Barry's River (named after Judge Barry Wood); and the Shoshone site. A number of these sites would require engineering support to deliver decreed water rights on the Wood.

Linda Lemmon reiterated that one reason for such keen interest in recharge on the Wood is the expectation that it would generate increased spring flows in the Thousand Springs area, in particular at Blue Lakes and Bliss. Historically the big water flows on the Wood Rivers come from early snow melt, and managing such flows for protection of towns and cities is another benefit of building recharge facilities on the river.

Bill noted that existing IDWR reports (posted on the website) assume that recharge will be conducted exclusively through the use of existing canals. Based on this assumption, he believes that IDWR's estimate that on average 33,000 acre-feet of water could be recharged from the Wood system is accurate. However, the primary goal of the presentation was to raise other opportunities, outside the canals, to deliver recharge. Bill will continue to coordinate with the IDWR on recharge activities in the Wood River System.

## **PRESENTATION AND DISCUSSION: MANAGEMENT ALTERNATIVES AND INITIAL PACKAGING**

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Brian Patton (IDWR), in response to Committee input in April, developed both a list of management options and a set of initial packages (small, medium and large) for discussion. The table describes the option, estimated average supply, estimated cost and timeline for implementation. The intent is to provide all the options, and infrastructure required, in a user friendly fashion that helps to focus Committee attention. The packages were developed using input from the Committee from April, including the most cost effective and quickest to implement.

Jonathan noted that once there is agreement on how to proceed with the package of alternatives, they will be evaluated from a hydrologic, economic and environmental perspectives. The goal is to provide distinct alternatives that provide the basis to compare and contrast each other.

The Committee discussed the management options, refinements and additions to the presented packages as well as ideas for new packages of alternatives in small groups. The small groups reported back to the full Committee and the discussion notes are captured below. The Committee discussed three primary areas of interest – a package focused on an increase in demand reduction components, the viability of recharge (water supply) and how to portray weather modification. IDWR will present revised options that incorporate the input of the Committee at the June 19th meeting.

### **Discussion Notes - Management Options**

The following notes document discussion points and questions raised during review of management options.

#### *Recharge*

A number of Committee members expressed interest in the Eastern Idaho Water Rights Coalition (EIWRC) proposal for recharge and want the key components incorporated into the analysis

and/or the revised Management Alternative Matrix. The EIWRC proposes the use of rental pool water (carry-over water) to provide for recharge activities. Brian Patton noted that while the current options do not account for use of rental pool water in recharge, it can be considered further. Committee members wondered if 'carry-over' water could be used for recharge. Others noted that renting water could result in a space-holder losing their 'space' the following year if the space does not fill. Rich Rigby noted that space-holders are cautioned that renting water carries some risk. For example, the Palisades Reservoir 1939 water right accrued 17% in 2001, and nothing in 2002, 2003, and 2004. Palisades was 'built to stay' filled. Significant interest was expressed in outlining the risks and opportunities of using rental water for recharge and exploring how it would be work. This item will be placed on a future agenda.

Aquifer recharge estimates, outlined in the analysis, require resolution to the Milner hydropower right issue; the estimates assumed that this issue would be resolved either through administrative decision or through negotiation. While aquifer recharge activities could occur without such resolution, the amount of water available for recharge on an annual basis would be quite small (estimated 10 kaf on average). The costs associated with a negotiated solution to the Milner hydropower right have not been incorporated into the cost analysis. Brian Olmstead requested a change to the recharge description; a note that recharge would still occur with or without resolution of the Milner hydropower right. He mentioned that a small amount of recharge is still better than nothing, given the relatively low-cost of the option.

A Committee member asked how the assumption of water available for recharge in each year was developed. IDWR responded that the calculation of water available for recharge was based on the 27-year model analysis. It was suggested that the estimates seem unrealistic and maybe the high water year (1997) and the low years should be eliminated and the recharge estimates re-examined. There was broad interest in ensuring data/numbers were credible and as accurate as possible for making sound decisions.

Another Committee member solicited information on assumptions in timing of recharge made when estimating the water availability. IDWR responded that they had assumed a recharge period of March through July. A Committee member noted that a fall recharge program, ideally in November, may make a lot of sense.

### *Demand Reduction*

Committee members expressed interest in the assumptions regarding demand reduction. A sensitivity run that would evaluate the cost effectiveness of bigger increments of demand reduction was advocated. It was noted that Bryce Contor's report on Crop Mix changes could accomplish a change of 350 kaf a year and that this option also kept businesses viable and farming and should be examined more closely. Importantly, demand reduction actions are the most spatially sensitive of the management options and there is a real need to be precise about location. The constellation of boundaries and permutations must be examined. Others noted that in some of the 'sweet spot' areas of the aquifer the cost of permanent buy-out would be higher than the stated \$1250 af/\$2500 an acre.

The Committee discussed how to characterize demand reduction, and stated that it should really be talked about in terms of ‘irrigation demand reduction’, not necessarily for new development or for municipal use. It was claimed that only half of the benefits from an irrigation demand reduction may be realized since Idaho is growing so fast and we are planting ‘sub-divisions’ that have water needs. Committee members asked if previous buyouts have made any assumptions about what happens with the land afterward. Those who had knowledge of previous buyouts responded that there are a variety of situations. Bell Rapids agreements had no provisions regarding what happens to the land. The Committee may want to make such policy recommendations.

One of the challenges is that we have not examined the third party (indirect) impact of demand reduction on the economy. This is an area that has some serious problems as it relates to keeping businesses viable, especially if demand reductions are focused on buy-outs versus fallowing or crop mix. One of the outstanding questions for the Committee is how to value demand reductions and compare them equally across alternatives.

### *Minidoka Dam Enlargement*

Numerous Committee members encouraged the Minidoka Dam feasibility study to examine a range of different options. One member cautioned against ‘getting talked into doing all (a 5 ft. raise) or nothing.’ Hal Anderson and Rich Rigby noted that all the increase level options would be considered and the scope of work for the feasibility study indicates ‘up to 5 ft. raise’. Rich mentioned that the year-long study will put all of the issues on the table (including 1, 2, 3, 4 and 5 ft raises) and solve them when information is available.

Hydropower issues connected with raising the dam were discussed as well as the issue of whether the raise will increase recharge. The groundwater modelers have indicated that increased recharge is likely for one or two years before the dam seals, afterward there will be less. Vince Alberdi noted that there will be downstream impacts to Twin Falls and North Side Canal by reducing natural flows as a result of a Minidoka raise. These issues, sizes and impacts, will be examined in the feasibility study.

### *Weather Modification*

Weather modification, for the point of most recent analysis, was treated as a stand alone to evaluate and not included in the package alternatives. Numerous Committee members expressed support for weather modification as a tool to evaluate and others expressed caution. Points raised during discussion include:

- It is not directly an aquifer management tool, although it is the only option that will increase supply, primarily surface water supply from snowpack in the headwaters. Others noted that an increase in available supply would provide greater flexibility to the system.
- One of the issues is that no one owns the additional water that comes as a result of weather modification; others mentioned that it increased natural flow and thus becomes appropriated by senior surface water users, helping to address conflicts.

- There would be increased snow on the plains as a result of weather modification; others clarified that the mountains are required to make cloud seeding work, i.e. it does not work on the plains.
- Others wondered about the unintended consequences of weather modification. Introducing silver iodide into clouds does not create more water. A concern is the deleterious affects of cloud seeding and possible reduction of precipitation at some other location. It was explained that the tool increases such a small portion of the precipitation that in current literature it does not have deleterious effects.
- A Committee member asked, “what part of the aquifer are we not trying to manage,” when expressing support for weather modification.
- The other impediment to implementing weather modification is overall public perception. The general public is not scientifically convinced; “conversations around cloud seeding make people laugh and they make fun of it.” If it is on the top of the list then people will say “is that all you have done is look at cloud seeding?” Others emphasized that an educational outreach effort accompanying a well-run weather modification program that would be continually evaluated was necessary.

### *Soft Conversions*

It was noted that there were additional opportunities for soft conversions below American Falls with the title transfer on the Milner-Gooding canal. Soft conversions could be incentivized in the upper valley, to at least address the cost of the infrastructure.

### **Alternative Package Descriptions**

Brian Patton presented three alternative packages (small, medium and large) for the Committee’s discussion. After the presentation, the Committee was asked to work in small groups to refine, modify and/or suggest a new alternative to those listed. It was noted that agreement on what to study further would not ‘box’ the Committee in, but rather provide direction to the economic and hydrologic analysis. The Committee tasked IDWR with developing revised packages that emphasized demand reduction and recharge elements. While weather modification will be a likely component of the CAMP, it was undetermined how best to advocate for this tool.

The following points were raised prior to dividing into small groups:

- Overall the Committee has not identified what standards to use and how much we should be willing to pay. What type of context should we put \$1.5 billion dollars in over a 30 year period? The Committee has been asked to do much more than develop an aquifer plan, the CAMP will be the cornerstone of long-term state water policy.
- We need to ensure that what gets accomplished keeps moving forward, like incidental recharge, and make sure we are not increasing our challenges. A component of the plan should be incentives to keep incidental recharge at levels of today. This should be a policy recommendation to the Board.
- Conservation, the wise and efficient use of water, must be a component of the plan including educational outreach efforts to raise awareness, measuring including water metering and others to change the mind set of the public. The input of Terry Uhling, IWRB member, was to consider reasonable conservation components, recognizing the

complexity of the issue. If we look at the issue from a ‘bathtub approach’ we need to stop the leaks and conservation is an important component.

### **Report from Group #1**

- Weather Modification - Weather modification should be included in the plan; however there are years it will work and years it will not work. Idaho Power has had great success and demonstrated the scientific validity of such actions. While others thought that weather modification should be a part of the CAMP, the decision to leave it out of the packages was wise. What is needed is a sophisticated operational program that is well documented scientifically over a multi-year period. There is too much potential to ignore even given the perception problems it has.
- Enhance CREP programs – Piggyback on CREP by adding money to encourage greater participation, getting the bang for the buck out of the federal program. If you want to idle ground – portion of CREP, don’t replant those lands with houses. CREP can protect the property from new sub-division development. It was suggested that any new sub-divisions need to be supplied with existing surface water. There is a perception that new housing developments can drill a well and others will mitigate the impacts – this is wrong and needs to be changed.
- Soft Conversion - There is more soft conversion potential if you can find a supply of water. For example, in Twin Falls water may not be available year round but it may be at the end of the year. From a deep well pumper’s perspective, creating value on top of the ground has a lot more value than in the ground. Soft conversions provide the potential to create a revenue stream and create economic value and thus may be easier to fund because there is direct value to individuals.
- Recharge – we need to look at the water available for recharge – and determine what is realistic by taking the high and low years out and fully account for system constraints.

### **Report from Group #2**

- Funding - How much money do we have to spend and where are we going to get the money? How much does each component cost and where is the low hanging fruit? We discussed beyond the Legislature and Idaho Power’s resources, where are we going to find the money? How much user money will be required and what is the user participation rate? Is it greater than state participation? People are going to pay for it – it is whether the state will carve out a line item. Irrigated agriculture should not bear the entire brunt of the plan. We need to be careful about asking for the moon and need a realistic plan that will demonstrate benefits and results. One idea is to have the state play the role of a banker, similar to the Pristine Springs deal. The 2004 Strawman proposal was instructive in that it laid out an approach to who would pay. Maybe we should discuss this. Others thought that until the plan is developed we cannot outline who will pay, “we have the cart before the horse.”
- It is inadvisable to put out per acre or acre-foot numbers in fear of pricing the market. We think that the buy-down program and fallowing program should begin with an RFP process. Identify our budget, say 30 or 40 million dollars, and determine how far it will

get us. Wise to piggyback with CREP, because it creates more value and less cost to Idaho water users. What are the numbers based on? Are we escalating the costs? We need to let the market set the price and we need to test the water and start talking to people and find out what the real cost are.

- We support weather modification in some shape or form, a conservation component and incentives to sustain recharge.

### **Report from Group #3**

- Demand reduction is the best opportunity for the Committee to be flexible and creative (as Wall Street). We also have a concern that with the use of \$1250 we are setting a benchmark. Rather than fixating on one number, we need to use a range of numbers. We think an RFP process that asks people what they would be willing to support, is the best way to move forward. In addition, the impact on the aquifer was uncertain, and estimates are a bit low (small packages – more robust alternatives). Group three suggested that the packages be modified to include the following amounts of demand reduction in the three packages - Small (100 kaf) – Medium (250 kaf) – Large (350 kaf). The issue is what changes in the existing packages.
- Outside the packages we need to look at education and conservation measures including monitoring and measurements. In addition, adaptive management will be essential as we attempt to move forward successfully.

### **Report from Group #4**

- Group #4 suggested the following elements be considered in both the packages and the overall plan
  - Smart conservation – metering, monitoring, enforcement, crop mix and xeriscaping
  - Funding for public information - water 101
  - Management tools will require mitigation and costs should be allocated to reflect such actions
  - Funding for Galloway and Twin Springs – Salmon exchange water
  - Plug the leaks first – flows past Milner is intentional and in the aquifers best interest
  - Intelligently apply every management tool, i.e. optimize them (ask or demand reductions occur in place where they are most effective); the legislature will be disillusioned with projects that don't work well and we need to get started with winners
  - Residential water use addressed
  - Enforce water laws – cheating and stealing of water (no resource to track this down).
- Targeted buyouts are the most effective from a hydrologic standpoint, when you can pick the wells and target it for buy-outs; still most cost effective; be creative with the buyouts;

provide incentives to use a minimal impact use of the farm. Value could be added regarding other uses such as sage grouse and mule deer habitat creation.

- The CREP program needs to be maximized and we have to creatively piggy back on it; maybe we could use a RFP process to get specific areas to CREP.
- We need a range of costs for each of the demand reduction alternatives(crop mix etc.) and scale the packages appropriately. Secondary economic impacts – lost revenue from demand reduction will likely reduce benefits of demand reduction, it may have unacceptable socio-economic costs.
- Idea of a curve – 1<sup>st</sup> increment less expensive versus last increment more expensive. The question is how much can you achieve for how much money? We need a market analysis to determine what amount would motivate a seller.

## **PRESENTATION AND DISCUSSION: ENVIRONMENT, FISH AND WILDLIFE SUB-COMMITTEE REPORT**

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David Blew (Idaho Power) presented the modeling results to the Committee (PPT on website.) David noted that the revised alternative packages will be modeled and future information provided to the Committee. The modeling procedures and assumptions were outlined and can be viewed on the presentation.

Will Whelan (TNC) provided an overview of the features and factors document that was prepared to create a checklist of important environmental issues. Will noted that environmental observations are hard to make because of the complexity and that the analysis was similar to ‘meatball’ biology versus a sophisticated analysis. Regardless of limitations, potential impacts include spring flows in the Middle Snake including white sturgeon and other water quality issues (see Features and Factors document). The environmental sub-committee will provide further observations and suggestions for mitigation strategies at later meetings.

## **PRESENTATION: ECONOMIC SUB-COMMITTEE REPORT**

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Hal Anderson provided a brief update on the economic sub-committee including the focus on defining the primary objectives and secondary effects. It is hoped that that either the June or July meeting can assist in providing observations.

## **NEXT STEPS AND MEETINGS**

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### **Advisory Committee Meetings**

Thursday, June 19, 2008 – Advisory Committee meeting in Aberdeen (10 am – 5 pm) at the Mennonite Church meeting hall (corner of 381 W. Washington Street and 4<sup>th</sup> Street, Aberdeen, ID 83210)

Wednesday, July 23, 2008 – Advisory Committee meeting in Burley (10 am – 5pm)

### **Next Sub-Committee Meetings**

June 12, 2008 - Economic Sub-Committee (10:30 am – 12:30 pm)

June 23, 2008 – Environmental Sub-Committee (1:30 pm – 3:30 pm)

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**MEETING ATTENDEES May 29, 2008**

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## Advisory Committee Members

1. Don Parker WD 110
2. Steve Howser ASCC
3. Randy Bingham BID
4. Albert Lockwood NSCC
5. Vince Alberdi Northside Canal CO
6. Jared Fuhriman City of Idaho Falls
7. Roger Chase City of Pocatello
8. Lance Clow City of Twin Falls
9. Dave Parrish ID Fish and Game
10. Rebecca Casper Land Dev. Interests
11. Damien Miller USFWS
12. Linda Lemmon IAA/TSWUA
13. Jeff Raybould Fremont Madison Irrigation District
14. Lloyd Hicks Great Feeder Canal System; Burgess Canal
15. George Katseanas Domestic Wells
16. Steven Serr Bonneville County
17. Bob Muffley Mid Snake Regional Water Resource Comm.
18. Rich Rigby Reclamation
19. Barry Burnell Idaho DEQ
20. Sean Vincent IDWR
21. Hal Anderson IDWR
22. Brian Patton IDWR
23. David Blew IPC
24. Brian Olmstead TFCC
25. Harriet Hensley Idaho Attorney General's Office
26. Peter Anderson Trout Unlimited
27. Jon Bowling Idaho Power
28. Patrick Naylor MWH
29. Matt Howard Bureau of Reclamation
30. Walt Poole Idaho Dept. of Fish and Game
31. John Chatburn Office of Governor C.L. "Butch" Otter
32. Dean Stevenson WD 130-140
33. Craig Evans WD 120

## Other

## Attendees

34. Bert Stevenson Idaho Leg. District 26
35. Stan Clark Eastern Idaho Water Rights
36. Will Hazen Idaho Water Alliance
37. Jonathan Bartsch CDR Associates
38. Ellen Ball Shoshone Bannock Tribes Water Resource Commission

39.	Lyle	Swank	WD 1/IDWR
40.	Bill	Jones	Spring User
41.	Stephen	Goodson	Gov. Office
42.	Julie	Conrad	Milner Irrigation District
43.	Walt	Mullins	Milner Irrigation District
44.	Elese	Teton	Shoshone-Bannock Tribes: Tribal Water Resources Department
45.	Gail	Martin	Shoshone-Bannock Tribes: Tribal Water Resources Department
46.	Lynn	Tominaga	IGWA
47.	Clarice	Villa	TWRC