

Draft of 05 May 2010

NOTE – This is a working document to integrate and organize all of the ideas discussed to date around the issue of water supply. A drafting subgroup of the Advisory Committee conferred by phone on April 23 to further refine the document. The Advisory Committee will need to review and refine this document as the conversation unfolds.

4.0 Meeting Future Demand for Water

4.1 Issue Statement

The Future Water Demand Study completed in 2010 concluded that it is unlikely that projected growth over the aquifer will create demand that exceeds the aquifer's annual recharge rate. However, because of the uncertainties of how and where future development will occur, shortages could occur in certain locations or times of year. Therefore, the Advisory Committee recommends that the Board consider certain measures to ensure a steady supply of water during the next 50 years. The Committee recognizes the difficulty in predicting future growth and suggests that the Board periodically review the conclusions from the Future Water Demand Study and to adapt the recommended strategies presented below as appropriate. At this time, there are no quantity issues relating to surface water concerns in Idaho. Therefore, in stream needs on the intrastate aspect of the aquifer are addressed in other sections of this Report.

4.2 Fifty-year Vision

The following recommendations are made to maintain a sustainable supply to meet demand during the period of 2010 through 2060 and beyond. The Advisory Committee wishes to recognize and, where applicable, support existing documents regarding the Aquifer. Many of the following goals are also found in the Management Plan for the Rathdrum Prairie Ground Water Management Area (“RPGWMA”) adopted by Idaho Department of Water Resources in 2005. The Advisory Committee has referenced the RPGWMA goals and recommendations where applicable to this committee’s recommendations. The RP-CAMP Advisory Committee suggests these plans be reviewed and revised, perhaps using citizen committees, as necessary over time to stay relevant to our changing environment.

4.3 Goals and Options/Action Items

The Advisory Committee has identified four specific goals to achieve the 50-year vision for meeting future water demand -- (1) maintain a sustainable aquifer; (2) better link land use and water planning; (3) meet surface water needs; and (4) implement a comprehensive water conservation plan. The following narrative presents each goal and a set of options/action items to achieve that goal.

4.3.1 Maintain a sustainable aquifer (specifically the Rathdrum Prairie Aquifer) to provide a reliable source of water for human and environmental needs. The Advisory Committee defines

“sustainable” as [fill in the long term values and benefits, such as economic viability and social/environmental health].

The Advisory Committee has identified the following options/action items to achieve this goal (*and in future meetings will move some of the options/action items into recommendations*). The Advisory Committee notes that the RPGWMA deals with many of these issues. As such, we do not restate the content of Sections RPGWMA and merely summarize them.

4.3.1.1 Implement any relevant and yet unadopted provisions of the ~~the adopted~~ Rathdrum Prairie Groundwater Management Plan. The Advisory Committee recognizes that the Groundwater Management Plan has many of the goals and recommendations that are appropriate for implementation into the future. The Advisory Committee notes that the RPGWMA was signed by many agencies and the Committee strongly recommends implementation of this plan. The Groundwater Management Plan should be reviewed and updated every 5 years. [Facilitators seek clarification on this point and any additional needed specifics re the plan from AC and Bob Haynes]

4.3.1.2 Consider the potential effects of growth, specifically development and construction, on the watershed and on the aquifer. The RPGWMA addresses these issues and has been approved by all relevant agencies. The Advisory Committee recommends that interagency coordination continue to address potential effects of growth per the RPGWMA. These effects will likely influence both quantity and quality, so this action item will be referenced again in the aquifer protection chapter.

4.3.1.3 Encourage retention of water in the aquifer service area; for example carefully reviewing the effects of transfers of water out of the basin where recharge/return flow does not return to the aquifer. Any such proposed transfers should be thoroughly reviewed by the Board. This review process should be closely restricted.¹

4.3.1.4 Complete the documentation and adjudication of Coeur d’Alene Basin and Tribal water rights per recommendations in the GWAMA.

4.3.1.5 Assess the effectiveness of recharge options to increase aquifer beneficial use to support aquifer sustainability. This is to encourage that return flows come back to the aquifer.

4.3.1.6 Recognize precipitation as the sole source of water to the aquifer, as recognized in the USGS study and the SVRP Atlas. As such, the State should monitor climate and manage the aquifer to maintain sustainability. This could be done using models and the studies to effectively look at the precipitation that recharges the aquifer.

4.3.1.7 Monitor the collective/cumulative impact of private, individual permit exempt wells, with consideration of whether private wells should have increased regulation. Determine how much land should be irrigated by a permit exempt well. These recommendations are per RPGWMA. [Does this need to be more specific and clear?]

¹ [insert reference to current law on transfers]

4.3.2 Better link land use and water planning. The Advisory Committee discussed the influence of land use and growth on water supply. The Advisory Committee believes that the future health and usability of the aquifer is directly linked to how land use decisions are made. Consequently, the Advisory Committee has identified the following recommendations to achieve this goal.

4.3.2.1 Encourage growth (land use) that minimize impacts on the aquifer

a. Use the city and county comprehensive land use plans, RPGWMA, storm water permits, wastewater permits, conservation plans, agency education and aquifer studies as tools to (1) encourage growth in areas to minimize impacts and (2) foster interagency communications (3) education among agencies and (4) coordination on the relationship between land and water.

b. Strongly encourage retention of topsoil in areas other than where constructible materials are necessary (i.e., roads, building footprints). Encourage additions to existing topsoil which would promote water holding capacities in the root zone layers.

c. Evaluate and log current analytic tools to assist interagency communications, coordination and education. Determine if new analytic tools are needed to support interagency communication and coordination.

d. Determine the locations where the negative effects of pumping are minimized, and encourage large, new draws on the aquifer (new developments) to those locations. This recommendation is intended to support Goals 4 and 5 of RPGWMA.

e. Carefully consider the permitting of any new large draws on the aquifer (for example 10,000 af/year) per recommendations in the RPGWMA. See RPGWMA Goal 2.

f. Continue to use and enhance the aquifer model to inform these options/action items.

4.3.2.3 Consider what standards should be used to determine whether a sewer system should be utilized instead of septic. [Note: consider moving this to the water quality section.]

4.3.3 Implement an effective conservation plan to avoid waste and ensure that aquifer users have adequate supplies of water. The Advisory Committee notes that substantial preparatory work has been completed on conservation² and do not repeat such in this Report. Rather, the Advisory Committee encourages local practices that support conservation.

The Advisory Committee believes that water consumers and users can take small steps towards conservation without undergoing massive changes or experiencing “pain” from operating in a completely new way, but the Committee also suggests that the Board or other appropriate agencies utilize voluntary, incentive-based mechanisms as well as regulatory requirements. Many of the modeling output scenarios used to develop this plan assumed moderate conservation

² [\[source documents\]](#)

steps among water users. Some number of the following items must be utilized to maintain the status quo assumed in those runs.

The Advisory committee recognizes that conservation is one of the few measures that the population has to control water use. Though some technologies are emerging that may influence precipitation, precipitation is largely beyond our influence. From that we encourage utilization of the existing documents, education and future studies/modeling to assist in better refining and accomplish the conservation goal.

The Advisory Committee has identified the following specific recommendations to achieve this goal.

4.3.4.1 Focus conservation efforts on lawn watering.

4.3.4.2 Promote and support existing water conservation strategies, such as those being implemented in the cities and irrigation districts.

4.3.2.3 Utilize both the RPGWMA and the IDWR Water Conservation Measures and Guidelines for Preparing Conservation Plans

4.3.4.3 Promote water conservation performance standards or consider performance standards for the amount of land to be irrigated by private and public wells

4.3.4.4 Reuse water where feasible, with consideration to uses such as industrial consumption (steam, etc.). Encourage water reuse plans and purple pipe.

4.3.4.5 Continue education and development of new technologies to promote conservation.

4.3.5 Continue monitoring, assessing, and updating future water demand. Given the 50-year vision to not exceed the aquifer supply, the Advisory Committee has identified the following recommendations to achieve this goal.

4.3.5.1 Create a technical team to continue collecting and analyzing data to review and update the Future Water Demand Study.

4.3.5.1 Plan for future contracts to update the Future Water Demand Study.