# November 4, 2009

# THE BOARD OF

# BENTON COUNTY

# COMMISSIONERS

# AGENDA PACKET

| AGENDA ITEM | ACTION NEEDED | DISCUSSION TYPE |
|---|---|---|
| Meeting Date: 04 Nov 2009 | Execute Contract | Consent Agenda |
| Subject: South County water | Pass Resolution | Public Hearing |
| Memo Date: 26 Oct 2009 | Pass Ordinance | 1st Discussion |
| Prepared By: AJF | Pass Motion | 2nd Discussion |
| Reviewed By: | Other | Other X |

## SUMMARY & BACKGROUND

This memo is information for the Board's upcoming workshop on water planning issues across the Horse Heaven Hills in Benton, Klickitat, and Yakima Counties. There are several items to update, culminating with a detailed discussion of the storage study.

*Presenters*:

Watershed Planning Coordinator: David McClure

Water Resource Planning and Advisory Committee Chairman: Adam J. Fyall

Project Technical Support Team: Tim Flynn and Steve Germiat (Aspect Consulting) and Bob Montgomery (Anchor Environmental Services)

### Introduction and Brief Update on Status of WRIA 31 Watershed Plan Implementation

The WRIA 31 Watershed Management Plan was approved by the Benton, Klickitat, and Yakima Boards of County Commissioners in April, 2009. We are in the first year of plan implementation and have received a $100,000 basic program grant and a $39,000 planning unit support/administration grant. The primary deliverable under the basin program grant is a Detailed Implementation Plan, discussed below. We have received a $60,000 grant to develop a water quality improvement plan for Rock Creek and other streams in WRIA 31, discussed below. We have also received a $170,000 grant to conduct a water storage pre-feasibility study in WRIA 31, discussed below. In addition to these three projects, emerging issues related to permit exempt wells and salmon/steelhead recovery will be discussed briefly.

### Detailed Implementation Plan

The Water Resource Planning and Advisory Committee (the Committee) is initiating the Detailed Implementation Plan (DIP), which provides the framework for how to implement the recommended strategies to achieve the water quantity, water quality, and aquatic habitat objectives identified in the Watershed Management Plan. It further prioritizes actions presented in the Management Plan, identifies the entities that have agreed to implement the prioritized actions, and defines schedule milestones based on those priorities as well as possible funding mechanisms. Submittal of a DIP to Ecology is a condition of receiving grants for the second and all subsequent years of Phase 4 implementation. The DIP is scheduled for completion in Spring 2010.

**Emerging Issue, Permit Exempt Wells**: Over the last few years, concerns related to permit exempt wells have increased state-wide. Most recently, upper Kittitas County was closed to new appropriations, including permit exempt wells, due to lack of information needed to make water resource management decisions. Many expect that the closures to appropriations will occur in other basins in the future due to lack of data. In WRIA 30, in association with the watershed planning effort and with the voluntary cooperation of private water well owners, Klickitat County is monitoring water levels in a network of water wells and developing hydrologic models to inform water resource

decisions; however, several years of data collection are needed. The WRIA 31 watershed management plan calls for a similar effort, but it is limited in geographic scope to the Rock Creek basin and is a medium priority. The watershed plan is based on an assessment that concluded in 2004. Given the emerging exempt well issues, during development of the Detailed Implementation Plan it may be appropriate for the Committee to revisit the need for groundwater data collection and analysis with respect to the level of urgency and, perhaps, the geographic scope of the effort.

**Emerging Issues, Salmon/Steelhead Recovery:** Consistent with the watershed planning statue and provisions of the watershed management plan, David McClure has been working with National Marine Fisheries Services (NMFS) on the steelhead recovery plan applicable to WRIA 31, seeking to addresses steelhead recovery plan activities or policies that are inconsistent with the watershed plan. Evaluating and monitoring watershed health is an important component of the watershed plan, as well as the steelhead recovery plan. The Committee is starting development of a Detailed Implementation Plan for the watershed plan implementation effort and NMFS is starting development of an implementation plan for fish recovery. Klickitat County is interested in supporting implementation of the steelhead recovery plan within its boarders. We need to start discussion among the initiating governments regarding steelhead recovery, the role of watershed planning in that effort, and the geographic scope of any coordination of the watershed planning and steelhead recovery efforts.

## Water Quality Improvement and Protection Plan

Rock Creek is listed as Category 5 (303d-listed) in Ecology's water quality assessment because of elevated water temperature. While not listed as impaired for water temperatures, other streams in the WRIA may exceed the applicable temperature criteria. Achieving water quality standards for temperature in Rock Creek is a high priority issue in the WRIA 31 Watershed Management Plan.

A Water Quality Improvement and Protection Plan (WQIPP) would be developed to evaluate the origin of elevated water temperature in Rock Creek (i.e. effect of natural conditions versus human activity), and to define voluntary local landowner implementation of BMPs to ensure that human effects on temperature are within acceptable levels, and to otherwise guide implementation of water quality improvement projects. The intent is that, once developed, and with continued, documented implementation, the WQIPP could be used to re-categorize Rock Creek from Category 5 to Category 4B, or potentially Category 1 or 2, and avoid the formal TMDL process which limits local involvement.

## Pre-Feasibility Storage Project

The WRIA 31 Planning Unit's vision for its Watershed Management Plan (WMP) includes the statement: "Implementation of this plan will provide dependable and high quality water supplies for our communities, economies, and natural environment". To that end, a priority recommendation of the WRIA 31 WMP is to develop water storage within WRIA 31 to address multipurpose water demands identified in the planning process. Identified strategies in the WMP consider both surface (e.g. surface reservoir) and groundwater (e.g. aquifer storage and recovery) storage to meet this need.

Under its legislative mandate to "aggressively pursue the development of water supplies to benefit both instream and out-of-stream use", Ecology has provided funding from the Columbia River Basin Water Supply Development Account to the WRIA 31 Planning Unit for a pre-feasibility water storage assessment. A key purpose of the pre-feasibility assessment is define and assess the range of applicable water storage alternatives to meet defined out-of-stream and instream demands, and select a preferred alternative(s) that can move forward for feasibility study and conceptual design.

The area of WRIA 31 with the greatest total water demand, and which also could achieve the greatest economic growth if new water supplies were made available, is the Horse Heaven – the broad agricultural center of the watershed. The majority of the irrigated agriculture in Horse Heaven relies on water diverted from the Columbia River. However, the existing surface water conveyance systems do not deliver water to irrigable lands in the northern portion of Horse Heaven, farthest inland from the river. Consequently, the farms at distance from the river pump groundwater from the Wanapum Basalt aquifer for irrigation supply.

Groundwater levels in the Wanapum Basalt aquifer have declined locally, hundreds of feet in some cases, forcing well deepening and increased pumping costs, and raising uncertainty for the sustainability of irrigated agriculture in these areas.

The WMP identifies four general priorities for developing additional water supply that are applicable to the Horse Heaven:

1. Replacing non-sustainable groundwater withdrawals for irrigation;
2. "Shoring up" interruptible water rights;
3. Economic development principally through expansion of irrigated agriculture; and
4. Improving instream resources.

Priorities 1 and 2 are aimed at sustaining the existing level of irrigated agriculture, whereas Priority 3 supports economic growth for the area. Priority 4 provides for instream benefits in balance with out-of-stream benefits achieved under the other three priorities.

Depending on the size of a water storage project to meet one or more of the priorities, water potentially could also be made available to other WRIAs, either those downstream on the Columbia River or the Yakima River basin immediately north of the Horse Heaven. In addition, pumped storage for power generation could be another use to consider for incorporation into a storage project. Adding additional uses such as these into a multipurpose water storage project may increase opportunities for project funding through a variety of funding sources.

In accordance with the grant agreement, project activities to date have included summarizing the previous studies regarding storage for the area, developing preliminary estimates of water quantities associated with each demand priority, meeting with the local community to outline the project and gain feedback, and preparing an initial list of nine storage alternatives that will be compared relative to a set of screening criteria to arrive at a preferred alternative to be evaluated in greater detail.

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