

# STATE OF COLORADO

## Colorado Water Conservation Board Department of Natural Resources

1313 Sherman Street, Room 721  
Denver, Colorado 80203  
Phone: (303) 866-3441  
Fax: (303) 866-4474  
www.cwcb.state.co.us



**TO:** Colorado Water Conservation Board Members

**FROM:** Ted Kowalski, Program Manager

**SUBJECT:** **Agenda 9, November 17-18, 2009 Board Meeting**  
**Water Supply Protection Section – Platte River ESA**  
**Recovery Program**

Bill Ritter, Jr.  
Governor

Jim Martin  
DNR Executive Director

Jennifer L. Gimbel  
CWCB Director

Dan McAuliffe  
CWCB Deputy Director

### Background

As we discussed in July of this year, in 2006, the Governors of Wyoming, Colorado and Nebraska, and the Secretary of the Interior signed the Platte River Recovery Implementation Program ("Program" or "PRRIP") Agreement, and initiated the PRRIP on January 1, 2007. The Program is an incremental program with the first increment set at 13 years. Congress passed authorizing legislation that President Bush enacted into law in May 2008. As a reminder, there are financial obligations, land obligations, monitoring and implementation obligations, and water obligations. With regard to the water obligations each State is required to implement a plan for future depletions (which covers depletions that occur after July 1, 1997). Within this context, staff has been working with the Jackson County Water Conservancy District ("District"), the South Platte Water Activities Program, Inc. ("SPWRAP"), the federal government, and the other Program stakeholders to amend Colorado's plan for future depletions, and the way that it deals with new depletions in the North Platte River basin within Colorado. On October 13, 2009, the Platte River Program Governance Committee approved Colorado's amended plan for future depletions. This proposed change was developed in order to help the federal agencies meet its future depletion needs, but it has benefits for the North Platte water users. This amended depletion plan is most easily described as "the one-bucket concept." The North Platte future depletions plan had individual baselines for different types of uses (municipal, industrial, etc.). Therefore, the piscatorial, environmental, wildlife, and industrial uses were essentially "capped out", that is, post-1997 depletions had to be replaced on a one-to-one basis. This new plan is modeled after the Wyoming plan, where there is one consumptive use entitlement for the entire basin—as long as that baseline is not exceeded, the new use is covered under the Program. With this amendment, Colorado and the North Platte water users have additional flexibility regarding the development of water that can go forward under the Recovery Program. But this amendment does not amend the requirements of the North Platte decree or Colorado water law. A copy of the plan for future depletions is attached.

### Staff Recommendation

This item is informational only. There is no staff recommendation.

Attachment.

## **II. NORTH PLATTE RIVER BASIN**

### **A. Background Information.**

This document sets forth Colorado's Plan to address new water related activities in the North Platte River Basin, Jackson County, Colorado. Subject to ongoing NEPA and ESA reviews and verification of certain assumptions, the parties to the Program Cooperative Agreement have agreed that Colorado's Depletions Plan is a sufficient contribution to offset alleged effects on endangered species habitats in Nebraska of new water related activities in the North and South Platte River Basin in Colorado. Colorado's Depletions Plan for the South Platte is also summarized in this subsection of the Program Water Plan.

Colorado proposes to include new water related activities in the North Platte River Basin in the Platte River Recovery Implementation Program (Program) and to offset alleged effects on endangered species habitats in Nebraska in accordance with this agreement. The following summary provides an outline of the procedures and methods Colorado will use to monitor existing and new water related activities for the North Platte basin and how mitigation measures for endangered species issues might be implemented.

### **B. North Platte Decree.**

The decree in *Nebraska v. Wyoming*, 325 U.S. 589 (1945), *modified*, 345 U.S. 981 (1953) (the Decree), and modified by the Final Settlement Stipulation, March 13, 2001 enjoins Colorado from diverting water from the North Platte River and its tributaries for the irrigation of more than a total of 145,000 acres in Jackson County during any one irrigation season. The Decree also enjoins Colorado from storing more than 17,000 acre-feet of water for irrigation purposes from the North Platte River and its tributaries in Jackson County between October 1 of any year and September 30 of the following year. Finally, the Decree enjoins Colorado from exporting out of the basin of the North Platte River and its tributaries in Jackson County more than 60,000 acre-feet of water in any period of ten consecutive years. The Decree requires Colorado to prepare and maintain complete and accurate records of the total area of land irrigated and storage and exportation of water and to make such records available for inspection.

### **C. Existing Water Related Activities.**

In its 1945 opinion, the U.S. Supreme Court found that 131,800 acres were presently under irrigation in Jackson County in Colorado. Since then the number of acres being irrigated in any one year has been as high as 134,467. The Decree allows Colorado to irrigate annually up to 145,000 acres. For purposes of this Program, the parties to the Cooperative Agreement agree that depletions associated with the irrigation of up to 134,467 acres annually constitute existing uses and that depletions associated with the annual irrigation of between 134,468 and 145,000 acres in Jackson County constitute new water related activities. The irrigation storage and export limits in the Decree also represent existing uses as of 1945, and reflect the Supreme Court's recognition that transbasin diversions in some years exceed 6,000 acre-feet. Since the limitations in the Decree represent historical uses in Jackson County, any depletions within those limits constitute existing water uses. Storing more than 17,000 acre-feet of water for irrigation purposes between October 1 of any year and September 30 of the following year and exporting more than 60,000 acre-feet of water in any period of ten consecutive years are not permitted under the Decree, and, therefore, no new water related activities of these types are contemplated.

In addition to existing uses in accordance with the Decree, Jackson County's small population and limited industry consume a small quantity of water under prior existing rights. Colorado does not anticipate significant population growth in Jackson County during the term of the Cooperative Agreement or the First Increment of the program. The population baseline for Jackson County is 2022 people. Colorado estimates that the 2004 population for Jackson County is 1,554 people. The State demographer does not predict the Jackson County population to exceed 2022 people by the end of the First Increment.

Piscatorial, wildlife, and other environmental uses implemented on or before July 1, 1997 will constitute existing uses. Any water diverted for new uses for these purposes implemented after July 1, 1997 will constitute new water related activities.

#### **D. New Water Related Activities.**

For purposes of the Program Cooperative Agreement, the parties agree to the following:

1. *Agricultural Water Use:* Irrigation of more than 134,467 acres in any year will constitute new water related activities. The parties agree that new depletions (diversions less return flows) associated with irrigating additional acres as measured at the Colorado – Wyoming state line equal .83 acre-feet per acre during the irrigation season.

2. *Municipal and industrial use (M&I):* Colorado does not expect the Jackson County population to exceed 20,222 in the First Increment.

Similar to the methodology adopted for the South Platte new depletion plan, new municipal and industrial water uses are assumed to be .27 acre-feet per capita per year. Consumptive use is 35% of gross water use, unless otherwise reported to the Governance Committee by the State of Colorado. The parties agree that the monthly distribution of the depletive effect of this municipal and industrial water use is the same as that defined for the South Platte Basin, unless otherwise reported to the Governance Committee by the State of Colorado.

3. *Piscatorial, wildlife, and other environmental uses:* To the extent that these uses are not incidental to agricultural use, such uses implemented after July 1, 1997 will constitute new water related activities. Net depletions associated with such uses will be determined from Colorado Division of Water Resources information on actual annual net depletions. It is expected that all piscatorial, wildlife, and other environmental uses will have a federal nexus, but Colorado will monitor these uses through the Division of Water Resources and the water court resumes for Water Division No. 6. If there are significant piscatorial, wildlife, and other environmental (PWE) uses implemented after July 1, 1997, which are not incidental to agricultural uses, and that do or do not have a federal nexus, then

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the depletions associated with these new PWE's will have to be approved for coverage under the North Platte Baseline described in Section E. below.

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#### **E. North Platte Baseline.**

The overall consumptive use associated with the total covered levels of existing water related activities in the North Platte River Basin, identified above in Section D, is an appropriate overall baseline measure. The North Platte Baseline is the total depletion amount associated with the irrigation of up to 134,467 acres and a county population of 20,222, and the implemented uses, as of July 1, 1997 for industrial uses, and piscatorial, wildlife, and environmental uses that are not incidental to agricultural uses. Consumptive depletions associated with the difference between total measured irrigated acreage and the current Jackson County population in any one year, and the upper level of depletions associated with irrigation of 134,467 acres and the population of 20,222, may provide a positive balance of available consumptive depletion that can be allocated to other new water related activities. The available consumptive depletion that could potentially be available will be calculated using the agreed upon values of .83 acre-feet per acre

during the irrigation season and 35% of 1.27 acre-feet per capita per year. For example, if there were 100 acre-feet of consumptive depletions associated with proposed new piscatorial, wildlife, and other environmental uses that were not incidental to agricultural use, with approval, this amount of consumptive depletion could be covered by reducing the baseline allowance of 134,467 acres of irrigated acreage by 120 acres to a new allowance of 134,347 acres. This method of dealing with consumptive depletions associated with new water related activities in the North Platte Basin will allow Colorado to vary between the types of uses as long as the overall consumptive depletions do not exceed the North Platte Baseline, as described above. Data and information related to changes in the type of use, without exceeding the overall depletions associated with the North Platte Baseline will be provided through the attached accounting form that is also approved and agreed to by the Governance Committee. Conservancy's annual reports will advise the Governance Committee of any changes in the different types of uses as provided on the accounting form.

If a non-federal water user is going to exceed the baseline for a particular type of use but the North Platte Baseline for the entire North Platte River Basin within Colorado will not be exceeded, that water user shall file a request to the Jackson County Water Conservancy District for approval of this exceedence. The Jackson County Water Conservancy District will review the request in order to assure that the total North Platte Baseline will not be exceeded and will make an official determination of whether to approve or not approve the request to be covered under the North Platte Baseline. The Jackson County Water Conservancy District will report to the State of Colorado and SPWRAP all approved requests for depletion coverage from the North Platte Baseline, as well as denied requests and the basis for each denial, and the state will keep an accounting of all approved decreed water rights that vary from the original paces under the North Platte Baseline and Colorado will report these to the Governance Committee in the annual reporting. In addition, membership in SPWRAP must be demonstrated.

New water related activities are defined as: 1) industrial uses that occur beyond the 1997 level; 2) population increases that exceed the population baseline of 2022 people; 3) post-1997 piscatorial, wildlife, or environmental uses that are not incidental to agricultural uses; or, 4) irrigation of acres greater than 134,467 acres. All consumptive depletions associated with these new water related activities must be replaced on a one-for-one basis in the North Platte Basin unless those consumptive depletions are approved for coverage under the North Platte Baseline and said baseline of the entire North Platte Basin within Colorado has not been exceeded. New water related activities that exceed the entire North Platte Baseline (over-runs) will be

mitigated in a manner described in the accounting form, attached.

The State of Colorado, as a signatory to the Program Agreement, will provide its independent authority regarding administration of water-related activities in Jackson County for consistency with Colorado water law, and the objectives of the Program.

#### **F. Monitoring and Reporting.**

During the first increment, Colorado does not foresee any projected increases in: 1) irrigated acreage in Jackson County over 134,467 acres; 2) population over the 2022 person "population baseline"; or 3) significant non-nexus piscatorial, wildlife, or other environmental uses (which are not incidental to agricultural uses). Similar projections will be made at the beginning of each subsequent reporting period. At the end of the first reporting period, and at the end of each subsequent reporting period, Colorado will report to the Governance Committee: the irrigated acreage, irrigation storage, transbasin diversions, and population in Jackson County. Colorado will also report on any non-nexus piscatorial, wildlife, and other environmental uses (which are not incidental to irrigation uses) and any new industrial uses occurring since 1997.

The South Platte River Basin derived assumptions probably significantly overstate actual M&I water use in Jackson County. The gross per capita M&I water requirement of .27 acre-feet per year is probably high because lawn irrigation is less prevalent in Jackson County than in the South Platte River Basin. The actual monthly distribution of the depletive effects associated with M&I use in Jackson County is probably different than that of the South Platte Basin, since Jackson County's higher elevation and shorter, cooler summers limit lawn irrigation to a shorter time period than occurs in the South Platte Basin. Thus, M&I uses in Jackson County are likely to produce fewer depletions during the months of shortage to target flows at Grand Island in comparison with M&I uses in the South Platte Basin. However, in the absence of specific data, Colorado agrees to apply South Platte Basin assumptions to M&I use in Jackson County as of July of the year that begins the increment (e.g., July 2003, July 2008 etc.).

#### **G. ESA Compliance.**

Colorado commits to offset the new cumulative effects of depletions associated with new water related activities in the manner described within this depletion plan. It is the intent of Colorado that new depletions will be offset in accordance with Section I.A.4 and Section III.E.3 of the Program Document and this depletion plan.

ESA compliance for North Platte Basin future depletions in Colorado will conform to the Program Document.

### **DRAFT NORTH PLATTE ANNUAL ACCOUNTING FORM**

1. Irrigated acres in the previous year \_\_\_\_\_ X .83 af/acre\* = \_\_\_\_\_ acre feet
2. Population in the previous year \_\_\_\_\_ X .1 af/person (.27 af diversion and 35% c.u.) = \_\_\_\_\_ acre feet
3. New Industrial uses (post 1997 uses) (total) \_\_\_\_\_ acre-feet  
Listed out by absolute water right case no., type of use sought, applicant, diversion amount decreed, and acre-feet of consumptive use decreed.
4. New PWEUs (post 1997 uses), that are not incidental to agriculture (total) \_\_\_\_\_ acre-feet  
Listed out by absolute water right case no., type of use sought, applicant, diversion amount decreed, and acre-feet of consumptive use decreed.

TOTAL C.U. \_\_\_\_\_ acre-feet

TOTAL annual over-run or under-run \_\_\_\_\_ acre-feet

\*This .83 acre feet/acre consumptive use factor may be significantly higher if a high altitude crop coefficient is used. Current information demonstrates that the pasture grass consumptive use from irrigation water, assuming a full water supply, could be as high as 1.82 acre-feet per acre, or higher. Nevertheless, Colorado agrees to use the .83 acre-feet per acre factor for the first increment, and will not seek a change of this factor from the Governance Committee in the first increment.

If total acre-feet of consumptive use ever totals more than 111,799 acre-feet (191 acre-feet for population baseline and 111,608 acre feet for agricultural baseline) under the current set of assumptions, then Colorado would propose mitigation as described below. Note, this does not add in the c.u. for pre-1997 PWEUs or pre-1997 industrial uses because these uses will not be used to offset other types of uses that are new depletions.

If this were filled in for the January 1, 2009 report for 2008, it would look like this:

117,148 acres X .83 = 97,233 acre-feet

Population 1442 X .1 (assuming .27 acre-feet/capita delivery with 35% c.u.) = 144 acre-feet

Post 1997 industrial uses decreed = 0

Post 1997 PWEUS not incidental to agricultural uses = 0

Total c.u. = 97,377 acre-feet

14,422 acre-feet under-run

Total annual overruns and under-runs to these benchmarks will be quantified and reported. If a total over-run occurs, Colorado will provide a mitigation plan for the review and approval of the Governance Committee. The mitigation plan will identify the total annual overrun that occurred, and offer a means to replace the overruns in the year following the year the overruns occurred.