



March 17, 2010

VIA E-MAIL and U.S. Mail

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Re: Moffat Collection System Project Draft Environmental Impact Statement and Associated Application for a Clean Water Act Section 404 Permit

Dear Mr. Franklin:

This letter contains the comments of the Colorado River District (“River District”) on the Moffat Collection System Project (“MCSP”) Draft Environmental Impact Statement (“DEIS”) and the related Clean Water Act Section 404 permit application. The River District is a political subdivision of the state of Colorado, created pursuant to C.R.S. § 37-46-101, *et seq.* The River District is comprised of all or parts of 15 western Colorado counties within the drainage basin of the Colorado River and its principal tributaries, including the Yampa, White and Gunnison Rivers. The River District was formed for the purpose of the conservation, use and development of the water resources of the Colorado River Basin for the benefit of all of the inhabitants of the District. The River District also is charged with safeguarding Colorado’s entitlement to water under the Colorado River Compact.

The River District has consulted with Grand County, Summit County, Middle Park Water Conservancy District, NWCOG, Trout Unlimited, and Western Resource Advocates in preparing a Joint Rebuttal Statement to the DEIS (“Joint Rebuttal Statement”). The Joint Rebuttal Statement is incorporated herein by this reference. The River District has serious concerns with the DEIS, however, we remain committed to working with the Army Corps of Engineers (“Corps”), Denver Water, Grand and Summit Counties, Middle Park Water Conservancy District, NWCOG, Trout Unlimited, Western Resource Advocates and other interested entities on ways to improve the DEIS and determine appropriate mitigation measures for the Moffat Collection System Project. The River District, Denver Water, and other entities are currently involved in an extensive mediation process

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that we hope will result in a comprehensive agreement that would address the River District's concerns with the DEIS and the Proposed Action. However in the absence of a comprehensive agreement, the River District maintains that the DEIS fails to sufficiently demonstrate the project need and fails to analyze the true impacts of the Proposed Action. The DEIS shortfalls make the identified and undisclosed impacts unacceptable and the proposed mitigation measures almost meaningless.

The River District's primary comments are summarized below:

1. Denver Water's future water requirements should not be based on its full, average-year (unrestricted) demands.
- 2.. The DEIS overstates Denver Water's growth in demand (particularly, in the near-term) calling into question the need for, and timing of, the project.
3. The DEIS is flawed because the Purpose and Need Statement is too narrow, effectively predetermining the Proposed Action.
4. Denver Water's Intergovernmental Agreement with the City of Arvada should not be used to justify a shortfall in yield to Denver Water's system nor should it be included in the No Action Alternative.
5. The DEIS understates the actual difference between current conditions and the action alternatives. The DEIS therefore does not accurately portray the impacts of the Proposed Action or other alternatives.
6. The DEIS does not adequately analyze the impacts on stream flows, aquatic resources, and water quality caused by the Proposed Action.
7. The DEIS does not address whether the Proposed Action can be implemented legally. Questions exist regarding whether Denver Water is legally entitled to store water diverted from the Fraser and Williams Fork Rivers in an enlarged Gross Reservoir.
8. The DEIS fails to adequately analyze the existing conditions and consider the effects of past actions when addressing the cumulative impacts of the Proposed Action or Action Alternatives.
9. The Proposed Mitigation is inadequate.

I. Denver Water's future need should not be based on unrestricted demands.

The entire DEIS is based on meeting Denver Water's unrestricted demand despite the fact that Denver Water has recognized that its customer demand can be greatly reduced during periods

of drought by education, voluntary reductions, and the implementation of reasonable restrictions on water-use. The DEIS should have accounted for the decrease in Denver Water's customer demands during times of drought and evaluated alternatives to serve future demands with drought restrictions in place. Denver's critical drought service period must be considered with drought response measures in place.

The DEIS identifies, based on the 2002 IRP, that Denver Water's current unrestricted demand is 312,500 AF. DEIS, Table 1-1. Actual demand for treated water in 2002 and 2003 averaged 215,742 AF.¹ DEIS, 1-8. As noted in the DEIS "[t]his represents a decrease of 16% since 2000 and reflects the impact of drought restrictions and conservation programs imposed during 2002 and 2003." *Id.* Denver Water ended the 2002 water year with 309,874 AF in storage or 46% of system capacity. *See* Denver Water's 2002 Comprehensive Annual Financial Report ("Financial Report") available at <http://www.denverwater.org/search/?criteria=financial+reports>, last visited March 16, 2010.

Denver Water's conservation efforts have continued to restrain demand growth even as population served by Denver Water grows, demonstrating that conservation is possible and effective. Denver Water has reduced overall per capita water use from 222 gallons per capita per day ("gpcd") in 1990 to 170 gpcd in 2008, 19% lower than average use before the 2002 drought. *See* 2008 Financial Report. Despite an increase of 13% in tap sales from 1998, Denver Water's demands continue to be lower than before the dry years of 2002-2004 because Denver Water's "customers have embraced the culture of conservation [Denver Water] has been promoting." *Id.* Denver Water's conservation efforts and Drought Response Plan have worked well in the past and should be expected to perform just as well in the future.

Additionally, any shortfall between supplies and demand identified in the DEIS exist only when comparing dry year supplies to unrestricted average year demands. This is an apples to oranges comparison. The DEIS fails to analyze if a shortfall would exist in Denver Water compared dry year supplies with dry year demands or average years supplies with average year demands

II. The DEIS overstates Denver Water's growth in demand calling into question the need for the project.

"The purpose of the Moffat Collection System Project is to develop 18,000 acre feet per year of new, annual firm yield to the Moffat Treatment Plant and raw water customers upstream of the Moffat Treatment Plant pursuant to the Board of Water Commissioners' commitment to its customers." DEIS, ES-4. The DEIS appears to overstate Denver Water's growth in demand and raises questions regarding the need for the Proposed Action. The DEIS states that Denver Water's current demands are 285,000 AF/yr (2006) DEIS, ES-15. Full use of Denver Water's existing

¹ 2002-230,810 AF, 2003-200,673 AF, 2003 Financial Report.

system is projected in the DEIS to be 345,000 AF. *Id.* This represents an increase of 60,000 AF over the 10 years from 2006 to 2016.

Denver Water's 2002 Integrated Resource Plan indicates that while population has increased substantially overall water demand has declined.² (2002 IRP at 9). Denver Water has, historically, made considerable progress matching its demand with available supply through management actions. Its pre-2002 demand of 331,500 AF/yr was reduced to 255,792 per year in the time since the 2002 drought. 2008 Financial Report. There is no reason to believe that Denver Water will not be able to make similar reductions in its future demand.

A review of Denver Water's 2000-2008 financial reports reveal that the average growth in the number of taps served is 2,922 per year (1991-2008). See Table 1 attached. Denver Water reports that the growth in taps served in 2007 and 2008 amounted to 2,472 taps for an average of 1,236 taps per year. *Id.* This illustrates a decrease in Denver Water's tap sales in recent years. This is contrary to the projected growth of 6,000 AF/yr identified in the DEIS. Increases in taps served provide a good metric by which to assess Denver Water's growth in water demands.³ As noted above the DEIS discloses that Denver Water average annual current demand, reflecting conditions in 2006, is 285,000 AF/yr and that on average this demand is projected to grow by 6,000 AF/yr through 2016. Whether considering the documented recent growth rate of 1236 taps per year or the documented long term average growth of 2,992 taps per year and generously allowing 0.5 acre-foot per tap (per Denver Water's 2008 Financial Report, pg. 1-17 "Households served by Denver Water use an average of 0.40 acre-feet of water per year"), Denver Water's actual demand growth, as represented by growth in taps, appears to be far less than the projected growth represented in the DEIS for the period of 2006 to 2016 of 60,000 acre-feet.⁴

According to the DEIS Denver Water is capable, without further expansion of Gross Reservoir, of taking 60,000 additional AF/yr through its existing system. DEIS, ES-15. The 60,000 AF/yr of additional supplies plus the 29,000 AF/yr in conservation identified in the 2002 IRP equals

² It should be noted that the DEIS does not account for the recent economic downturn and the significant role it will likely play in reducing Denver Water's estimated future demands.

³ Denver Water also provides raw water, recycled water and reuse water as reported in the annual financial reports. This number is variable, for instance in 2008 Denver Water delivered 10.6 billion gallons compared with 2006 deliveries of 15 billion gallons, admittedly making the assessment of demand growth for this type of water difficult. Growth in taps was used as an indicator of increases in Denver Water's new demands because the information is the metric most commonly represented in the description of service demands throughout the years. Presumably the 2006 demand reported in the DEIS of 285,000 AF includes the reported 15 billion gallons of non-potable water delivered in 2006. Likewise, the projection of future demand in the DEIS would include the trend which resulted in only 10.8 billion gallons of non-potable water delivered by Denver Water in 2008.

⁴ Assuming 0.5 AF per tap and 2992 taps per year the annual average growth in water demand would be 1,496 AF/yr.

89,000 AF/yr. Based on Denver Water's documented average annual growth in taps, 89,000 AF/yr is more than sufficient to serve Denver Water's needs well past 2030.

The actual growth in taps realized by Denver Water in recent years does not support the stated need for 18,000 acre-feet of new supply from the Moffat Collection system and therefore the impacts to the environment inherent in the expansion of Gross Reservoir cannot be justified and a 404 permit for the proposed action may not be warranted. The Corps should reevaluate Denver Water's demand and reconsider alternatives prematurely screened based on Denver Water's demand numbers.

III. The DEIS is flawed because the Purpose and Need Statement is too narrow, effectively predetermining the Proposed Action.

- A. The scope of the Purpose and Need Statement of the DEIS is so narrow that it precludes reasonable alternatives.

The consideration of alternatives is the "heart of the environmental impact statement." 40 CFR §1502.14. Given the importance associated with the consideration of a reasonable range of alternatives the purpose and need statement may not be defined "so narrowly that it foreclose[s] a reasonable consideration of alternatives." *Davis v. Mineta*, 302 F.3d 1104, 1119 (10th Cir. 2002). Denver Water describes its need for the MCSP as having four components (1) a reliability need, (2) a vulnerability need, (3) a flexibility need, and (4) a firm yield need. These purposes support a broader "purpose and need statement" than "to develop 18,000 acre-feet per year of new, annual firm yield to the Moffat Treatment Plant and raw water customers upstream of the Moffat Treatment Plant pursuant to the Board of Water Commissioners' commitment to its customers." (DEIS, Sec. 1.2). Moreover, there is no justification for why all four of Denver Water's objectives must be met or should be met through one federal action, as indicated by the purpose and need statement, when more sustainable and less environmentally damaging practicable alternatives may be available. Such a narrow statement prevents objective review of other viable and potentially less environmentally damaging alternatives which may serve Denver Water's needs.

The Corps is required by CEQ NEPA regulations to "rigorously explore and objectively evaluate all reasonable alternatives" in preparing an EIS. 40 CFR 1502.14(a). Additionally, the alternatives analysis must comply with the Corps' obligation under its 404(b)(1) guidelines which mandate that "no discharge of dredged or fill material shall be permitted if there is a practicable alternative to the proposed discharge which would have less adverse impact on the aquatic ecosystem, so long as the alternative does not have other significant environmental consequences." 40 CFR 230.10(a).

Accordingly, the least environmentally damaging practicable alternative ("LEDPA") must be the focus of the alternatives analysis. The Corps' 404(b)(1) guidelines provide that an alternative is practicable if it is "available and capable of being done after taking into consideration, cost, existing technology, and logistics in light of the overall project purposes." 40 CFR 230.3 (q).

Additionally, the Corps must satisfy the public interest review imposed by 33 CFR 320.4(a), which requires that any decision to issue a permit be “based on an evaluation of the probable impacts, including cumulative impacts, of the proposed activity and its intended use on the public interest.” It is under this rubric that the Corps must proceed with its alternatives analysis while ensuring that the LEDPA is not eliminated from further consideration. The narrow Purpose and Need Statement precludes analysis of less environmentally damaging alternatives.

- B. The action alternatives identified in the DEIS do not represent a reasonable cross-section of practicable alternatives.

The underlying purpose and need for Denver Water is to enhance its overall water supply to meet perceived deficiencies on the north-end of its system. The additional reliability, reduced vulnerability, flexibility, and the firm yield required to meet Denver Water’s alleged future demands could be met from many different sources other than additional diversions through the Moffat Collection System. The narrow purpose and need statement has resulted in alternatives that are virtually indistinguishable in that they all require additional diversions from the already environmentally stressed headwaters of the Colorado River basin. This is contrary to NEPA which requires a comparison of alternatives which provide a “clear basis for choice among options by the decisionmaker and the public.” 40 CFR 1502.14.

The action alternatives analyzed in the DEIS are as follows:

- Proposed Action (Alternative 1a) -Gross Reservoir Expansion (Additional 72,000 AF) Using existing collection infrastructure Fraser River, Williams Fork River, and South Boulder Creek water would be diverted and delivered via the Moffat Tunnel and South Boulder Creek to enlarged Gross Reservoir.
- Alternative 1c-Gross Reservoir Expansion (Additional 40,700 AF) / New Leyden Gulch Reservoir (31,300 AF) Combine additional Moffat Collection System supplies from Fraser River, Williams Fork River, and South Boulder Creek with storage in an enlarged Gross Reservoir and new Leyden Gulch Reservoir.
- Alternative 8a-Gross Reservoir Expansion (Additional 52,000 AF) / Reusable Return Flows / Gravel Pit Storage (5,000 AF) Alternative would divert additional Moffat Collection System supplies from Fraser River, Williams Fork River, and South Boulder Creek (approximately 13,000 AF/yr of new, firm yield) for storage in enlarged Gross Reservoir combined with storage of reusable return flows in gravel pit storage facilities (approximately 5,000 AF/yr of new firm yield).
- Alternative 10a-Gross Reservoir Expansion (Additional 52,000 AF) / Reusable Return Flows / Denver Basin Aquifer Storage (20,000 AF)

Diversion of additional Moffat Collection System supplies from Fraser River, Williams Fork River, and South Boulder Creek (approximately 13,000 AF/yr of new, firm yield) for storage in enlarged Gross Reservoir combined with reusable return flows injected into Denver Basin deep aquifer for storage (approximately 5,000 AF/yr of new firm yield).

- Alternative 13a-Gross Reservoir Expansion (Additional 60,000 AF) / Transfer of Agricultural Water Rights / Gravel Pit Storage (3,625 AF) Diversion of additional Moffat Collection System supplies from Fraser River, Williams Fork River, and South Boulder Creek (approximately 18,000 AF/yr of new, firm yield) for storage in enlarged Gross Reservoir combined with transfer of South Platte River senior agricultural water rights stored in new gravel pit storage (approximately 3,000 AF/yr of new firm yield).

The CEQ states that the emphasis of the alternatives analysis should be on “what is reasonable rather than on whether the proponent or applicant likes or is itself capable of carrying out a particular alternative. Reasonable alternatives include those that are practical or feasible from the technical and economic standpoint using common sense, rather than simply desirable from the standpoint of the applicant.” *Forty Most Asked Questions Concerning NEPA, Question 2a*. The DEIS, however, is not true to that mandate. The alternatives accommodate one objective– the objective of Denver Water– to fill an enlarged Gross Reservoir with additional transmountain diversions from the Fraser and Williams Fork Rivers.

As noted above each of the action alternatives relies to some degree on increased diversions from the Colorado River basin. Although alternatives 8a, 10a, and 13a, rely in part on water from sources other than the Colorado River basin, the environmental impacts of those alternatives to the Colorado River basin are almost indistinguishable from the environmental impacts identified in the Proposed Action and Alternative 1c which rely solely on additional diversions from the Colorado River basin. DEIS 4-7.

The uniformity of these impacts calls into question the range of alternatives evaluated and raises serious questions about whether other practical alternatives were even evaluated. Regardless, the similarity in impacts makes clear that the DEIS fails to provide a broad cross-section of alternatives as required by NEPA.

IV. Denver Water’s Intergovernmental Agreement with the City of Arvada should not be used to justify a shortfall in yield to Denver Water’s system nor should it be included in the No Action Alternative.

- A. Intergovernmental Agreement with Arvada should not be used to justify a shortfall in yield to Denver Water’s Moffat Collection System.

Denver Water's estimate of total system demand by 2030 (363,000 AF/yr) includes 3,000 AF/yr for use by the City of Arvada pursuant to a 1999 Intergovernmental Agreement. DEIS 1-14. Denver Water may not use this contract in support of its need for the MCSP. Denver Water's obligation to Arvada under the contract only exists if the MCSP is constructed. *Id.* Denver Water cannot reasonably rely on this 3,000 AF commitment to justify a system shortfall and need for the project—a commitment that would not exist absent the project. To do so makes the enlargement of Gross Reservoir and increased diversions from the Upper Colorado River basin a self fulfilling prophecy.

- B. The No Action alternative does not represent the status quo and the Arvada Agreement should not be included in the No Action Alternative.

Despite the fact that Denver Water will have no obligation to Arvada unless the MCSP is constructed, the 3,000 AF "obligation" to Arvada is included in the No Action Alternative. DEIS 2-83, 2-92. By erroneously overstating this 2030 demand by 3,000 AF/yr, the Corps has inflated Denver Water's supply shortfall by 20 % from 15,000 AF/yr to 18,000 AF/yr. *Custer County Action Ass'n v. Garvey* 256 F.3d 1024, 1040 (10th Cir.2001) ("In requiring consideration of a no-action alternative, the Council on Environmental Quality intended that agencies compare the potential impacts of the proposed major federal action to the known impacts of maintaining the status quo."). Overstating Denver Water's demand by 20% in the No Action Alternative artificially diminishes the impacts associated with Proposed Action and Action Alternatives and fails to accurately represent the true environmental impacts and their relationship to the *status quo*.

V. The DEIS understates the actual difference between current conditions and the action alternatives. The DEIS therefore does not accurately portray the impacts of the Proposed Action or other alternatives.

There are three temporal definitions developed and utilized by the Corps in the DEIS:

- **Current Conditions (2006)** reflects the Denver Water-related current administration of the Colorado River and the South Platte River basins, demands, infrastructure, and operations.
- **Full Use of Existing System (2016)** reflects the operation of Denver Water's existing system and water rights exercised in 2016 at an annual average demand of 345,000 AF/yr, without the proposed project on line.
- **Full Use with Project (2030)** reflects conditions in Denver Water's system when Moffat Project is completed and in full use in 2030.

DEIS 4-1. These definitions provide the backdrop for the analysis of water based impacts in the DEIS. However, in many regards the true impacts of the action alternatives are masked because of how these temporal definitions have been utilized. The full extent of the environmental impacts have

not been identified. This makes it impossible for the Corps and the public at large to fully assess the action alternatives as required by NEPA. Additionally, by not fully understanding the impacts, the Corps does not have the ability to avoid impacts as required to issue a 404 permit.

- A. Modeled “Current Conditions”, as represented in the DEIS are misleading and inaccurate.

The DEIS does not use actual diversion records and recorded stream flow data to reflect “Current Conditions”. DEIS pages 4-11. Instead the DEIS uses modeled diversions to reflect current conditions. *Id.* The modeled diversions when compared with Denver Water’s actual diversions are grossly overstated, thus minimizing the impacts of the depletions associated with the Proposed Action and other alternatives.

For instance actual diversion records for Denver Water’s collection system show average annual Moffat Tunnel deliveries (1984-2008) in the amount of 57,322 AF/yr. While the modeled “current” diversions through the Moffat Tunnel included in the DEIS are represented as 63,799 AF/yr (DEIS, Table H-7.1) This overstates average annual diversions by 6,477AF. *See* Rebuttal Report, Section II.A.

Likewise the DEIS overstates average diversions through Denver Water’s Gumlick Tunnel and Roberts Tunnel by 17,372 AF collectively. *Id.* By overstating the average annual diversions the DEIS masks the relative significance of actual future depletions that will be caused by the Proposed Action. Additionally, if the artificially inflated diversions (in excess of 23,000 AF/yr) represents Denver Water’s “current” ability, it raises additional questions about the overall need for the project.

NEPA requires that an EIS contain high quality information that is scientifically accurate. 40 CFR 1500.1(b). Actual diversion and delivery records exist and should be given preference over the predictions of modeled diversions which contain substantial complicated assumptions that are not readily ascertainable by the general public.

There are numerous other examples of how the modeled average diversions do not correlate with actual diversions. *See* Joint Rebuttal Report, Section II.A . By relying on the modeled versus actual diversions, the DEIS does not truly portray the impacts to the flow based resources, making the conclusions regarding those impacts baseless. By not truly evaluating the impacts the Corps cannot uphold its obligations under NEPA to compare the environmental consequences of the Proposed Action and the alternatives. *See* 40 CFR §1502.16. Moreover, the Corps cannot determine whether there are alternatives that would have less of an adverse impact as required by 40 CFR §230.10.

B. The DEIS “front loads” projected future diversions and impacts.

The DEIS front loads projected future diversions between “Current Conditions” (2006) and “Full Use Existing System” conditions (2016) thereby masking and understating the true impacts of the MCSP at Build-out (2030). The DEIS states that Denver Water’s current demand (2006) is 285,000 AF/yr and projects that the demand will increase to 345,000 AF by 2016 at Full Use Existing System. DEIS ES-16. This accounts for a 60,000 AF increase in demand or an average increase in demand of 6,000 AF/yr from 2006 to 2016. In contrast, from 2016 to 2030, a fourteen year span, the DEIS discloses that the projected increase in demand will be 18,000 AF or 1,286 AF/yr. *Id.*, *see also*, Section II.A. of Joint Rebuttal Report.

There is no justification for the “front loaded” projected increase in demand between 2006 and 2016 in the DEIS. Nor is the reason for front loading these demands substantiated in the DEIS. *See* DEIS, Appendix A. This calls into question the Corps’ scrutiny of these demand numbers. The front loading of projected demands masks the relevant significance of future depletions related to the project between 2016 and 2030 by significantly understating them. As a result, the DEIS neglects the impacts that will occur to all flow-related resources between current conditions and 2016 or the Proposed Action. The impacts to the flow-related resources will only be exacerbated by additional diversions. *See generally*, Section II.A. of the Joint Rebuttal Report.

C. Utilizing Full Use Existing System (2016) as the baseline against which to analyze impacts is inappropriate.

The baseline against which predictions of the effects of the proposed action and reasonable alternatives are compared is a critical component of the NEPA process. *American Rivers v. FERC*, 201 F.3d 1186, 1195, fn.5 (9th Cir. 2000). If the baseline conditions are not adequately represented in the DEIS there is “simply no way to determine what effect an action will have on the environment and, consequently, no way to comply with NEPA.” *Id.*

As noted above, the DEIS inexplicably front loads projected future demands from 2006-2016. The DEIS then compares impacts between Full Use Existing System (2016) and Full Use with Project (2030). Assuming for the sake of argument that the 2006-2016 projected future demands are legitimate establishing, 2016, rather than 2006, as the baseline for measuring impacts and assessing projected future stream flows effectively dismisses and understates the majority of the new diversions and impacts on flow-related resources, resulting in 60,000 AF of the 78,000 AF of depletions over current condition unanalyzed. Utilizing 2016 flows and current environmental conditions as the “baseline” by which to measure impacts is inadequate for determining the effects of the action alternatives on the environment and leaves the Corps without the proper tools to comply with NEPA.

VI. The DEIS does not adequately analyze the impacts on stream flows, aquatic resources, and water quality caused by the Proposed Action.

- A. The Study Period used in the DEIS does not reflect the driest and most critical years for the West Slope source streams, thereby ignoring the environmental impacts of the Proposed Action on the source streams under dry year conditions.

The DEIS utilizes the modeling results from Denver Water's Platte and Colorado Simulation Model ("PACSM") to model the operation of Denver Water's system. PACSM utilizes, as its period of record, the forty-five years between 1947 and 1991. DEIS 1-15. The representative period, while sufficiently long enough to capture a variety of hydrologic conditions, fails to capture some of the driest and wettest years for the Upper Colorado River basin – the source of the water for the MCSP.

The DEIS states that during the study period, from 1947-1991, the five driest years on the West Slope were 1954, 1955, 1963, 1977, and 1981 based on estimated natural flows at the U.S. Geological Survey (USGS) gage on the Colorado River near Kremmling (Kremmling Gauge). DEIS 4-13. However, given the limitation of the period of record utilized in the DEIS a number of the driest years on record are missed. *See* Joint Rebuttal Report, Section II.A. By excluding these dry years and the related project operations necessary to recover from these years the DEIS fails to truly analyze the impacts to flow based resources.

Likewise, the PACSM hydrology period utilized in the DEIS misses a number of the wet years in the Upper Colorado River basin. *Id.* This demonstrates that the modeled hydrology, which is now nearly 20 years out of date, misses the driest and a number of wet conditions in the Upper Colorado River Basin. By excluding the extreme high and low flow conditions the conclusions reached regarding the effects of these diversions on the Upper Colorado River basin are unreliable as they may underestimate the impacts of the project. The hydrology chosen for PACSM may reflect the critical period in terms of total water supply on Denver Water's system, however it is not reflective of the critical period in terms of hydrology and the impacts to the flow based resources in the Upper Colorado.

- D. Average daily streamflows are a poor metric for determining impacts to fisheries.

The DEIS, through PACSM, relies on average monthly streamflows in Appendices H-3 and H-6. Monthly averages are a poor tool in evaluating impacts to fisheries. Fish and the macroinvertebrates which they consume are flow dependant and need water continually. Averages can mask acute low flows. PACSM output on a daily, monthly and annual basis should be analyzed for the entire study period at the affected study area locations to assess the impacts on the fisheries.

- E. The DEIS fails to adequately address the sediment supply to the source streams, the impacts of pine beetle infestation and the potential for fire.

As discussed in the Joint Rebuttal Report the DEIS fails to adequately address sediment supplies, pine beetle infestation, and associated fire risks. The sediment supply equations used in the DEIS were developed for the South Platte River and the Two Forks DEIS in 1988. Although the DEIS maintains that this data can be extrapolated to other river basins (DEIS, 3-66) information regarding erodibility in the Fraser River and Williams Fork River basins exists and should have been consulted as a check against the sediment supply equations. Additionally, the DEIS fails to describe potential pine beetle impacts on the existing (2006) and estimated 2016 “baseline” conditions.

Review of the soil characteristics and potential erodibility of the soils in the Fraser and Williams Fork River basins (see Figure 1, attached) along with the location of the Moffat Collection System diversions in the Fraser and Williams Fork River basins demonstrates that the diversion points are often located just downstream of the most erodible soils. Increased diversions from these streams may lead to accumulation of additional sediments.

The Fraser and Blue River basins have been heavily impacted by the Mountain Pine Beetle epidemic. While there have not yet been significant fires on the scale realized in the South Platte watershed, the potential for catastrophic fire has increased dramatically in the period from 2002 to 2006, see Figures 2 and 3, attached. Even absent a fire the die-off of the of the infected forest cover in the basins will result in increased sediment yields at the same time Denver Water will be reducing flows by increasing diversions. The potential for increased sedimentation resulting from forest canopy die-off or wildfire and the related ecological effects have not been considered in the DEIS. Consideration of the condition of the Fraser and Blue River water sheds and the potential for the effects of wildfire or forest canopy die-off may indicate significant probability of the conditions Denver Water is seeking to avoid to meet their vulnerability and reliability needs and may show the Proposed Action, and any alternative relying on Fraser or Blue River diversions ineffective as alternatives to meet those needs.

VII. The DEIS does not address whether Denver Water is legally entitled to store water diverted from the Fraser and Williams Fork Rivers in an enlarged Gross Reservoir.

NEPA regulations mandate that:

To better integrate environmental impact statements into State or local planning processes, statements shall discuss any inconsistency of a proposed action with any approved state or local plan and laws (whether or not federally sanctioned). Where an inconsistency exists, the statement should describe the extent to which the agency would reconcile its proposed action with the plan or law.

Changes of Denver's water rights and possibly new water right appropriations are necessary to implement the preferred alternative. Under Colorado water law a change of water right is defined to include change in place of use, time of use, point of diversion, place of storage, and direct application to storage. C.R.S. §37-92-103(5). A change of water right and the "approval of the water use practices they encompass are mandatory not discretionary." *Empire Lodge Homeowners' Ass'n v. Moyers*, 39 P.3d 1139, 1158 (Colo. 2001). A water right in Colorado is obtained by the diversion, in priority, and beneficial use of a specific quantity of water. However, in order to be administered within the prior appropriation system the water right must be lawfully decreed pursuant to statute.

Denver Water has not demonstrated that it has the legal right to store Fraser River and Williams Fork River water in Gross Reservoir Enlargement. Additionally, Denver Water has not demonstrated that its use of water outside the Denver metropolitan area will result in a *pro tanto* reduction of Blue River diversions as required by the Blue River Decree (Consolidated Cases Civil Nos. 2782, 5016, 5017 in the United States District Court for the District of Colorado) or that it has the right to divert water owned by the City of Englewood from Meadow Creek for storage in Gross Reservoir absent the approval of the United States Department of Interior pursuant to the Blue River Decree. Additionally, Denver Water has a legal obligation to reuse its water pursuant to the Blue River Decree. Increased reuse of this water would help satisfy its perceived need for additional supplies.

The need for changes to Denver Water's water rights, the water rights of others and/or the possible need for new junior appropriations is not discussed or disclosed in the DEIS despite the requirement of NEPA that the Corps describe its ability to reconcile the Proposed Action with state law. In fact a number of alternatives were eliminated in the screening process due to the need for water rights or other authority which could not be secured within a time certain. The Corps should not issue a permit to Denver Water unless and until Denver Water has demonstrated compliance with Colorado law and that compliance has been confirmed by the Corps.

VIII. The DEIS fails to adequately analyze the effects of past actions when addressing the cumulative impacts of the Proposed Action or Action Alternatives.

Diversions made by Denver Water and others have already depleted the native supply of the Fraser River (Fraser River near Winter Park) by 60%. Denver Water's future projected depletions at buildout would deplete the virgin flows at this location by roughly 80%. *See* Figure 1 of Rebuttal Report. Likewise, as disclosed in the DEIS native flows on the Colorado River at Windy Gap and Hot Sulphur Springs have been significantly reduced— 62% and 57% respectively.

These past actions and threshold changes should be taken into account by the Corps when considering the Proposed Action. *See*, CEQ, Guidance on the Consideration of Past Actions in Cumulative Effects Analysis, June 24, 2005, at 1 ("CEQ 2005"), available at <http://ceq.hss.doe.gov/nepa/regs/guidance.html>, last visited March 11, 2010. "CEQ interprets NEPA and CEQ's NEPA regulations on cumulative effects as requiring analysis and a concise description of the identifiable present effects of past actions to the extent they are relevant and useful in analyzing whether the

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reasonably foreseeable effects of the agency proposal for action and its alternatives may have a continuing, additive and significant relationship to those effects.” *Id.* While Chapter 5 of the DEIS (Cumulative Effects) recognizes a number of trans-basin diversions it fails to adequately analyze the cumulative impacts of these diversion on the Upper Colorado River basin. *See* DEIS 5-4.

The fact that the Corps did not analyze these past actions infers that the Corps believes these past actions and their impacts are not relevant and or useful in determining whether the Proposed Action will have continuing or additive impacts on the resource—an untenable conclusion when faced with the fact that these stream systems have already been dramatically altered by more than a 50% decrease in virgin stream flow.

IX. The Proposed Mitigation is inadequate

The DEIS discloses impacts of the project for which no mitigation is proposed. In addition as identified in the comments above and in the Joint Rebuttal Report the DEIS fails to take into account already degraded existing conditions in the Upper Colorado River system. Additionally the methodology used leads to erroneous conclusions of no impact. The Corps 404(b)(1) guidelines requires the mitigation of impacts.

The only mitigation proposed in DEIS for West Slope impacts is limited temperature monitoring and mitigation and improvements to Colorado River cutthroat trout habitat. The proposed mitigation is inadequate to mitigate the impacts that are likely to occur under the Proposed Action. The Joint Rebuttal Report suggests a number mitigation measures and conditions for protection of the aquatic environment. We believe that these mitigation measures and conditions are all appropriate and warranted, however, given that the true impacts of the project have not been adequately disclosed there may be the need for additional mitigation and/or conditions prior to the issuance of any permit by the Corps.

Sincerely,



R. Eric Kuhn
General Manager

cc: CRWCD Board of Directors
Brian Gogas, Denver Water
Hamlet Barry, Denver Water
Dave Little, Denver Water
Mike Collins, U.S. Bureau of Reclamation