

RESPONSE TO COMMENTS ON DRAFT EA

Response to Comments on the Draft EA (September 2008)

COMMENT LETTER FROM:

Colorado Department of Public Health and the Environment

**Bonie B. Pate, Project Coordinator, Restoration and Protection Unit - Water
Quality Control Division**

October 14, 2008

CDPHE-1: As mentioned in the Draft EA, Wolford Reservoir is on the 2008 303(d) list of impaired waters as shown in Regulation #93 Section 303(d) List Water-Quality-Limited Segments Requiring Total Maximum Daily Loads for dissolved oxygen. Although there may be only minor changes in Wolford reservoir content, implications for compliance with the dissolved oxygen standard should be considered in the proposed action during substitution years.

Response: The project team coordinated with Phil Hegeman, CDPHE on October 23, 2008 regarding their comment letter. In summary, CDPHE is concerned about the changes in volume in Homestake and Wolford Mountain reservoirs and potential resultant change to dissolved oxygen content and temperature levels. Refer to Section 3.5.1 Affected Environment (Water Quality) and Section 3.5.2 Environmental Consequences (Water Quality) Proposed Action, which better clarifies the locations for the analysis determination. Further, as discussed in Section 3.3.2 Environmental Consequences (Hydrology), the hydrologic modeling for this project demonstrated that there would be minimal stream flow changes and a proportionate minimal change in content in these reservoirs. Specifically, the model results showed that a minimal drop in the Homestake Reservoir content occurred only one time in a 56-year period. Minimal changes in flow and content are within the natural variation of these water bodies and are not anticipated to result in water quality impacts from the project.

CDPHE-2: Potential changes to water quality in Homestake should also be considered since changes to reservoir content are likely to be more significant. Prevention of future impairments is highly recommended.

Response: See response to comment CDPHE-1, and revisions made to Final EA in Section 3.5.1 and 3.5.2.



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COMMENT LETTER FROM:

Bureau of Land Management

David Stout, Field Manager, Kremmling Field Office, Colorado

October 14, 2008

BLM-1: BLM requests clarification of the outstandingly remarkable values (ORVs) recognized for each of the eligible stream segments identified by BLM, portrayed in the EA. BLM provided clarifying information for Blue River Segments 2 and 3, and Colorado River Segments 3, 4, 5.

Response: Comment noted. See changes made to Final EA on Section 3.3.1.1 Blue River Basin and Section 3.3.1.4 Colorado River Basin, under the heading BLM Wild and Scenic Rivers Designation.

BLM-2: BLM is concerned about the cumulative effects analysis in this EA, particularly in relation to the proposed Windy Gap firming project. BLM notes that collectively, the individual reasonably foreseeable projects (which includes the Green Mountain Reservoir Substitution and Power Interference Agreements EA) could have substantial impacts on the ORVs over time. BLM suggests that Reclamation consider some limited measures to minimize cumulative impacts to the ORVs, such as operational restrictions on the proposed projects during very limited periods when changes in flow rates could be detrimental the ORVs.

Response: The changes in flow under the Proposed Action would be well within the normal range of flows that have historically occurred on the segments of the Colorado River and supported the flow-related ORVs as they exist today. Based on the magnitude and frequency of flow changes on the Colorado River, there would be no more than negligible direct impacts of this project on flow-related ORVs and a potential Wild and Scenic Rivers designation. Correspondingly, the incremental effect of the Proposed Action would be negligible in relation to other reasonably foreseeable projects. This response is reflected in the text on Page 3-51 of the Draft EA. The Final EA clarifies this in the cumulative effects analysis in Section 3.3.3.1 Cumulative Effects for the Proposed Action (Hydrology).

BLM-3: BLM presents a flow-related concern of this project and its effect on the Colorado River below the confluence with the Williams Fork River. When combined with potential flow decreases associated with the Windy Gap Project, does the additional flow decrease compound stream temperature impacts? BLM suggests that Reclamation and water users consider establishing triggers for both flow rates and stream temperatures when the substitution operation would not be implemented, to minimize impacts to fish populations. This may require establishing a real-time stream temperature monitoring station near the confluence with Williams Fork.



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Response: Because of the requirements of the Blue River Decree, Springs Utilities must implement the substitution operation in August if Green Mountain Reservoir does not fill. The flow changes that occur in August along the Colorado River mainstem are the result of changes in the location of substitution releases under the Proposed Action versus the No Action Alternative. More water is released from Wolford Mountain and Homestake reservoirs than from Williams Fork Reservoir under the Proposed Action. Springs Utilities diversions from the Upper Blue River do not deplete the Colorado River from the confluence of the Williams Fork downstream to the confluence to the Blue River. In substitution years, water released from Williams Fork Reservoir for substitution payback augments flows in the Colorado River below the confluence of the Williams Fork River. Therefore, the effect on flows in the Colorado River from the confluence with the Williams Fork River downstream to the confluence with the Blue River under the Proposed Action is a reduction in the amount of water **added** to the river due to a change in substitution releases from Williams Fork Reservoir. However, in both the Proposed Action and the No Action Alternative, flows in this reach are higher as a result of substitution operations than in years when there are no substitution operations.

The flow reductions BLM refers to are *maximum* flow reductions. The flow reduction of 4.1 cfs below the confluence with the Williams Fork River occurs in only **one** year out of a 56-year study period. The next highest flow reduction is 2.0 cfs and the average flow reduction in the driest years and substitution years is only 0.6 cfs and 0.2 cfs, respectively. The average flow change in the driest years and substitution years is also less than 1 cfs at the Kremmling gage. These flow changes are considerably less than the accuracy of flow measuring devices at these locations.

Additional discussion of instream flow requirements and flow reductions along the Colorado River was added to Section 3.3.2.2 Proposed Action (Hydrology) of the Final EA.

BLM-4: BLM presents a flow-related concern of this project and its effect on the Colorado River below Kremmling. When combined with potential flow decreases associated with the Windy Gap Project, does the additional flow decrease extend the length and frequency of periods during August when flows are not acceptable for floatboating? BLM suggests that Reclamation and water users consider establishing triggers for flow rates when the substitution operations would not be implemented, to minimize impacts to floatboating recreation.

Response: See response to comment BLM-3.



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COMMENT LETTER FROM:

**Trout Unlimited
Amelia S. Whiting
October 10, 2008**

TU-1 TU is concerned about the cumulative impacts of transmountain diversions on upper Colorado River, particularly the reach between Granby Reservoir and the Blue River. This reach of the river is a designated Gold Medal trout fishery and eligible for Wild and Scenic Rivers Act designation. TU states that a more detailed analysis of cumulative effects should be presented in the EA, even though the Proposed Action would create a negligible to minor cumulative effect in comparison to the reasonably foreseeable actions.

Response: Springs Utilities' transmountain diversions from the Upper Blue River do not deplete the reach of the Colorado River between Granby Reservoir and the Blue River. However, substitution operations affect the amount of additional water released to this reach. The cumulative effects analysis was supplemented and additional analysis completed of potential hydrologic effects due to reasonably foreseeable actions (Section 3.3.3 Cumulative Effects-Hydrology). See analysis and discussion added to Section 3.1.3 (Reasonably Foreseeable Water-Based Actions Considered in Cumulative Effects Analysis) and the cumulative effects analysis for all other resources (Sections 3.4.3 through 3.9.3) of the Final EA.

TU-2: TU recommends that Reclamation delay a determination of the Proposed Action pending the completion of the Windy Gap Firming Project Final EIS or supplement the Draft EA for this project.

Response: Reclamation does not believe that a delay in the decision on the Green Mountain Reservoir Substitution and Power Interference Agreements Project is warranted. The Windy Gap Firming Project (WGFP) is a proposed water supply project that would provide more reliable water deliveries to the Front Range and West Slope through additional physical connections to the Colorado-Big Thompson Project facilities. However, this Green Mountain Reservoir project is not to increase water deliveries but rather to provide operational flexibility in meeting substitution obligations under the Blue River Decree and the ability to assure replacement water and power generation to the West Slope of Colorado. This Green Mountain Reservoir project is also intended to fulfill Springs Utilities' obligations to Green Mountain Reservoir. Also, any potential changes to the Colorado River that would occur as a result of this Green Mountain Reservoir project would occur in a geographically distinct location and during a different season from those potential impacts resulting from the WGFP. Reclamation believes that the scopes of these separate actions are distinct and a decision on this project should not be contingent on a decision on the WGFP.



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Additional analysis and discussions of potential hydrologic effects due to reasonably foreseeable actions was included in Section 3.3.3 (Hydrology) and Sections 3.4.3 through 3.9.3 (other resource topics) of the Final EA, as described in the response to comment TU-1.

TU-3: TU states that the Draft EA should address the potential impacts of climate change on the project and whether the need for the project will be triggered more often in the future based on historical data (i.e., the substitution requirement has required more in the last five years than previous years combined).

Response: The Proposed Action would provide additional operational flexibility to Springs Utilities by allowing Wolford Mountain and Homestake reservoirs to be used as additional substitution sources. Under certain climatic conditions, effects associated with this project may change. However, it is not possible to predict those anticipated changes or if climate change would increase need for future substitutions. If future impacts under the Proposed Action are determined to be outside those analyzed in this EA, additional NEPA compliance would be completed. The Final EA includes a discussion (Section 3.1.2) on how climate change may influence water resources in the West.

TU-4: TU states that the cumulative impacts of the Green Mountain Pump Back project combined with the Proposed Action on the Blue River downstream of Green Mountain Reservoir should be evaluated in the EA.

Response: Refer to the new section in the Final EA, Section 3.1.3 Reasonably Foreseeable Water-Based Actions Considered in Cumulative Effects Analysis. The Green Mountain Pump Back project was not considered a reasonably foreseeable project because there is not reasonable certainty as to the likelihood of this action occurring. The Green Mountain Pump Back project has only been studied at the feasibility level, and the formulation of a project, if any, to move forward has not been made by the study participants. In addition, there is currently not sufficient information available to define this action and conduct an analysis to quantify the cumulative effects of pump back options.

TU-5: TU states that the use of gage data from Kremmling (0905800) is too far downstream to adequately assess the direct impacts of flow changes on the Colorado River below the Williams Fork confluence. TU recommends evaluating data from the Parshall gage (i.e., Colorado River immediately below the Williams Fork River confluence) in the EA.

Response: Table 3-12 in the EA shows the modeled differences in flows for the Colorado River immediately below the confluence with the Williams Fork River. The



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title of Table 3-12 was mislabeled and has been corrected in the Final EA to read “Colorado River below the Confluence with the Williams Fork River.”

TU-6: TU states that the EA should evaluate impacts on Colorado Water Conservation Board (CWCB) Instream Flow rights in the portion of the Colorado River between Granby Reservoir and the Blue River.

Response: Refer to the additional discussion of instream flow requirements and potential effects on these requirements that was added to Sections 3.3.1 and 3.3.2 in the Final EA.

TU-7: TU states that the use of a monthly time step model to assess impacts on aquatic resources within potentially affected streams is inadequate.

Response: As discussed in Section 3.3.2 of the Draft EA, a monthly model was considered adequate given the magnitude of hydrologic effects anticipated under the Proposed Action. Additional discussion regarding this issue was added to Section 3.3.2 in the Final EA.

TU-8: TU states that the discussion of direct and cumulative water quality impacts, particularly temperature, in the EA is too general to support that these impacts are not significant. Direct and cumulative impacts on water quality should be quantified.

Response: A qualitative water quality direct and cumulative analysis was conducted for the EA. It was determined that the Proposed Action would create none to minor short-term direct impacts on water quality. An agency is only required to conduct analysis to the point that the level of impacts can be determined. Since the qualitative analysis resulted in none to minor short-term impacts, a qualitative analysis is considered appropriate for this NEPA analysis.

TU-9: TU states that the EA should evaluate whether the Proposed Action will directly or cumulatively interfere with obligations under Senate Document 80.

Response: Reclamation does not believe that this project directly or cumulatively interferes with its obligations under Senate Document 80. Senate Document 80 specifies the manner of operation of Colorado-Big Thompson (C-BT) Project facilities. Green Mountain Reservoir is a component of the C-BT Project and is therefore subject to the provisions of Senate Document 80. There would be no change in Green Mountain Reservoir operations under the Proposed Action nor would there be any effect on other West Slope C-BT facilities, including Lake Granby, Grand Lake, Shadow Mountain Reservoir, and the Adams Tunnel. Green Mountain Reservoir will continue to be operated in accordance with Senate Document 80 under the Proposed Action. The



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explicit purpose of the requested substitution operation is to assure the fill of Green Mountain Reservoir which in turn assures and protects Reclamation's ability to perform its obligations under Senate Document 80.

TU-10: TU states that the Project Purpose and Need and the alternatives are too narrowly defined. Is the purpose of the project to "provide a reliable source of municipal water to the citizen owners and customers of Springs Utilities" as stated in § 1.1, page 1-1 of the Draft EA? Or is it to "allow Springs Utilities to comply with the Blue River Decree?"

Response: The purpose and need of the proposed project is adequately defined in Section 1.2 of the EA and provides Springs Utilities a broader range of operational flexibility under the Blue River Decree, which in turn provides Reclamation and WAPA the certainty they need to approve a long-term substitution plan.

The range of alternatives analyzed in the EA is sufficient for this level of NEPA analysis. An alternatives screening process was conducted (see Section 2.2 of the Final EA), where a reasonable range of alternatives was evaluated (Section 102(2)(E) of NEPA). Reasonable alternatives considered were those that were practical or feasible from technical and economic standpoints using common sense, rather than simply desirable from the standpoint of the applicant. The range of alternatives initially screened were assessed to determine if they could reasonably achieve the need that the Proposed Action is intended to address, while simultaneously minimizing environmental impacts. Unlike the Proposed Action, all of the preliminary alternatives that were considered required the construction of new facilities, which would result in significant environmental impacts.

TU-11: If a Power Interference Agreement were to be granted by Reclamation, specific conditions which reflect the scope and assumptions of the EA should be specifically stated in the Agreement. The 2003 Memorandum of Agreement is an agreement between private parties that could be subject to negotiated amendments. The Power Interference Agreement, on the other hand, is a federal agreement, subject to public review. Accordingly, the Agreement should contain all necessary conditions, including conditions that formed the basis of the assumptions used in the EA. In addition, the Agreement must include specific provisions precluding operation of the Agreement if such operation results in injury to the CWCB's Instream Flow water rights within pertinent reaches. Other terms and conditions may be needed to prevent or mitigate impacts to the human and natural environment as a result of the Proposed Action and to ensure compliance with Senate Document 80. Trout Unlimited would like to be notified if and when a draft Power Interference Agreement is ready for public review.

Response: WAPA may include language in the Power Interference Agreement referencing the Blue River Decree. The Power Interference Agreement is a means to document and formalize the terms of compensation between Springs Utilities and WAPA. WAPA has historically received compensation from Springs Utilities without



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the benefit of an agreement and will continue to do so in the absence of an agreement because WAPA is entitled to and has historically been compensated by court order (i.e., under the Blue River Decree). WAPA holds that the Power Interference Agreement can neither allow nor disallow stream depletions granted by the Blue River Decree and public review of and comment to the agreement is therefore not required.



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COMMENT LETTER FROM:

**Petros & White, LLC, on behalf of the Board of Commissioners, Summit County,
Colorado**

Charles B. White

October 14, 2008

SC-1: Summit County states that recent comments made by the Colorado Attorney General's Office in pending water court Case No. 03CW320 may have undermined and contradicted one of the 2003 MOAs assumptions. More specifically, 250 AF in the West Slope Account in the Upper Blue Reservoir would be administered as an exchange from Wolford Mountain Reservoir with a 2003 priority date, rather than a contractual bookover of storage between the two reservoirs. If implemented, this administrative policy would prevent the Substitution MOA from operating in a manner that the parties, including Summit County, intended. Summit County requests that the Proposed Action not be approved by Reclamation if the reservoir bookover cannot be implemented as contemplated by the 2003 MOAs.

Response: The Draft EA states (Section 1.2, Project Purpose and Need) that the MOAs form the basis of the Substitution and Power Interference Agreements. This NEPA action is being conducted concurrently to Colorado water court Case No. 03CW320, which is still pending a final determination. Any alteration to the terms and conditions of the agreements would require amendments to the agreements, and additional NEPA compliance if the impacts are determined to be outside those analyzed in this EA. Springs Utilities has not retracted their request to Reclamation for a substitution and power interference agreement. Therefore, Reclamation will continue to proceed with this NEPA process.

SC-2: The statement in the Draft EA that Springs Utilities' 1929 rights "are not governed by the terms and conditions of the Blue River Decree" is incorrect.

Response: The intent of this statement was with regard to substitution operations. This is clarified in the Final EA in Section 1.4.4 Springs Utilities' Collection Systems and Customers, under the heading Continental-Hoosier Transmountain Diversion System.



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SC-3: The EA should also discuss the water rights Springs Utilities claimed in water court Case No. 03CW314. The EA should evaluate the impacts of exercising these rights of exchange and expressly incorporate the limitations of the Exchange MOA.

Response: Springs Utilities pending exchange water rights claimed in Colorado water court Case No. 03CW314 are separate and distinct water rights, unrelated to substitution operations as described in the Blue River Decree. The exchanges proposed in that water rights case are not part of the Proposed Action or No Action alternatives. Please refer to Section 3.3.3 of the Final EA for further discussion of these pending exchange rights in the cumulative effects analysis.

SC-4: The discussion of Springs Utilities Reuse Program is incomplete. The Draft EA should discuss Springs Utilities' reuse obligations under the Blue River Decree and consider opportunities for additional reuse of water that would be created by the approval of the Proposed Action.

Response: Springs Utilities' Continental-Hoosier System diversions would not change under the Proposed Action or the No Action alternatives. While diversions would not change, the net yield to Springs Utilities Continental-Hoosier System under the Proposed Action may increase in a limited number of substitution years when releases are made from Springs Utilities Wolford account or from Homestake Reservoir since they would not have to release as much water from Montgomery Reservoir or the Homestake system to payback Denver Water for substitution releases made on Springs Utilities behalf on the West Slope. However, because of West Slope delivery obligations in the MOA, the net yield to Springs Utilities' system, and subsequently reuse opportunity, may be reduced in some non-substitution years under the Proposed Action. To the degree that Springs Utilities has any additional yield from their Continental-Hoosier System, that water would be reused consistent with their current reuse program and the Blue River Decree. Springs Utilities currently reuses all water generated from their Continental-Hoosier System and would reuse any additional yield if it is generated under the Proposed Action.

SC-5: The Draft EA states that Denver Water supplied Springs Utilities with additional water to operate a Williams Fork to Hoosier Tunnel exchange after Green Mountain Reservoir and the Continental-Hoosier water rights were our of priority. Summit County requests that Reclamation describe the amount of water exchanged, if approval was obtained from Reclamation for power interference, and whether the exchange was administered by the Division 5 Engineer.

Response: The Williams Fork exchange included in the Draft EA in Table 1-1 Summary of Historical Substitution Year Operations (Section 1.4.6 Substitution Year Operations) does not relate to substitution but was listed for informational purposes only. To avoid confusion, this exchange has been removed from the Final EA in Table 1-1 as well as



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from the discussion in Section 1.4.6 Substitution Year Operations under the heading 1964 Substitution Year.

SC-6: The EA should examine the implications for water rights administration of a power interference agreement, including the effect on the Green Mountain power call of the State Engineer's policy on administration.

Response: The administration of Springs Utilities' power interference is carried out under the authority of the Blue River Decree. Springs Utilities must replace the power that would have been generated by Reclamation at Green Mountain Reservoir's hydroelectric plant had Springs Utilities not diverted water. Springs Utilities has historically provided the replacement power year-to-year by mutual agreement with the WAPA. There would be no change in the Green Mountain Reservoir power call nor would there be any change in the administration of a power interference agreement under the Proposed Action. The Proposed Action would establish a long-term power interference agreement with Reclamation and WAPA that would be operated in the same manner as under the No Action Alternative.

SC-7: Under certain circumstances, a Summit County 1041 permit may be required for the change in operation proposed in this EA.

Response: Comment noted. Clarification was added to the Final EA in Section 1.5 Required Permits and Approvals to note that additional County permits may be required, including a 1041 permit.

SC-8: The assumption that Denver Water would provide replacement water under the No Action Alternative does not appear to be valid since they do not have a legal obligation to provide this water. Thus, under the No Action Alternative, Springs Utilities would not have sufficient replacement water to divert the projected volume in its Continental-Hoosier System in a substitution year. This would result in much different impacts on the Blue River than those described in the Draft EA.

Response: The assumption that Denver Water continues to provide replacement water in the future on behalf of Springs Utilities in substitution years under the No Action Alternative is reasonable given that it is consistent with the manner in which Springs Utilities' substitution obligation has been paid back in all but one substitution year and it is consistent with the letter provided by Denver Water to Springs Utilities dated July 23, 2008, which states that Denver Water is willing to consider performing similar operations in the future.



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SC-9: All or a portion of the 250 AF may be used for augmentation purposes, in which case it would be used to replace out-of-priority depletions to the Blue River or its tributaries, directly or by exchange, resulting in full consumption. Summit County beneficiaries of the water retain the right to reuse, successively use, and dispose of the effluent and return flows resulting from the use of that water.

Response: The assumption that all of the 250 AF is consumed is reasonable for modeling purposes and conservative from the standpoint of estimating flow changes. See additional discussion added to Section 2.4 in the Final EA regarding how this water might be used.

SC-10: Minimum bypasses from Dillon Reservoir are governed by the terms of the FERC Order. The relevant conditions require a bypass of 50 cfs or the inflow, whichever is less, without any exceptions.

Response: See discussion added to Section 3.3.1 in the Final EA regarding the 50 cfs bypass requirement per the FERC Order. The CDSS Model reflects the 50 cfs bypass or inflow, whichever is less, without exceptions, which is consistent with the FERC Order.

SC-11: The EA should identify the current issues surrounding the administration of the Green Mountain Reservoir water rights and the impact on the administration of the proposed substitution if the State Engineer's Interim Policy is changed (see pg. 3-14).

Response: The CDSS Model accurately reflects the current administration of the Green Mountain Reservoir water rights, which is defined in the 2008 Interim Policy adopted by the State Engineer. Potential changes to the State Engineer's Interim Policy and the associated effects on the administration of substitution operations are difficult to assess since there is no certainty regarding when or how the Interim Policy may change. Potential changes to the State Engineer's Interim Policy are not addressed in the Final EA since that is not a reasonably foreseeable action. Even so, the Interim Policy's primary effect is the calculation of the paper fill of Green Mountain Reservoir. Any change to this policy might result only in a change in the amount of fill deficit in substitution years, or the amount water required to complete the fill of Green Mountain Reservoir. However, regardless of how the fill deficit is calculated, the method of substitution operations under either the Proposed Action or the No Action Alternative would not be affected.

SC-12: Summit County refers to comment SC-8 [6], and refers to a statement in the CSU EA that assumes that CSU is able to obtain a sufficient supply of replacement water from Denver Water. Summit County suggests that there is a possibility under the No Action Alternative that CSU would not have sufficient replacement water to divert the projected volume in its Continental-Hoosier System in a substitution year.



Response: See response to comment SC-8.

SC-13: Summit County refers to the following statement “In years the substitution obligation is less than 2,100 AF and the total contents in the Upper Blue Reservoir are sufficient to fully payback the substitution obligation, there would be no difference in the location, amount or timing of substitution payback under the Proposed Action. Summit County indicated this statement does not take into account the requirement of the Substitution MOA that the timing or releases from Upper Blue Reservoir be coordinated between the River District, CSU and Denver Water to provide environmental benefits in the late summer and early fall.

Response: See additional discussion added to Section 3.3.2 in the Final EA.



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COMMENT LETTER FROM:

**White & Jankowski, L.L.P, on behalf of the Board of County Commissioners,
Grand County, Colorado**

David C. Taussig

October 30, 2008

GC-1: Grand County is concerned with the use of monthly averages rather than a daily stream flow model especially during the 13 substitution years. The use of monthly average flows is not adequate to address daily stream flows and the factors that affect the aquatic environment. The monthly timing and amount of average releases ignores the changed location of the releases from Williams Fork Reservoir to locations downstream. On any day when the release is at the downstream locations the effect is 100% decrease to the Williams Fork and Colorado River above the confluence with Muddy Creek.

Response: See response to Trout Unlimited's comment TU-7. Also, Tables 3-8 and 3-12 in the EA show the hydrologic effects to the Williams Fork River and Colorado River below the confluence with the Williams Fork River, respectively associated with the changed location of releases from Williams Fork Reservoir to locations downstream. Whether the analysis is completed on a daily basis or monthly basis, changes in substitution releases from Williams Fork Reservoir would only occur in years the last increment of Denver Water's substitution obligation is released from Williams Fork Reservoir. In those years, substitution releases from Wolford Mountain Reservoir would increase, while substitution releases from Williams Fork Reservoir would decrease. In years when the last increment of Denver Water's substitution obligation is released from Wolford Mountain Reservoir, the same amount of substitution water would be released from both Wolford Mountain and Williams Fork reservoirs as explained below. A break down of the 13 substitution years during the study period and the associated flow changes in the Colorado River reach of concern follows.

- In 5 years, contents in Upper Blue Reservoir are sufficient to cover Spring Utilities' entire substitution bill. In those years, there would be no change in releases from Williams Fork or Wolford Mountain reservoirs between the No Action and the Proposed Action alternatives.
- In one year (1977), contents in Upper Blue Reservoir would not be sufficient to cover Spring Utilities' entire substitution bill, which was estimated to be 1,606 AF. However, under both the No Action and Proposed Action alternatives, Denver Water would meet Springs Utilities' entire substitution obligation of 1,606 AF. Water would not be released from Springs Utilities' accounts in Wolford Mountain or Homestake reservoirs for substitution payback. Therefore, there would be no difference in releases from Williams Fork or Wolford Mountain reservoirs between the No Action and the Proposed Action alternatives.
- In 7 years, contents in Upper Blue Reservoir would not be sufficient to cover Spring Utilities' substitution bill, in which case releases from Springs Utilities' account in Wolford Reservoir would be made under the Proposed Action. In six of those years,



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the last increment of Denver Water's substitution obligation would be released from Wolford Mountain Reservoir. The total amount released from Wolford Mountain Reservoir for substitution payback would be the same; however, the amounts releases from Springs Utilities' and Denver Water's accounts would be different. Likewise, the total amount released from Williams Fork Reservoir would be the same; however, the amount allocated to payback Denver Water substitution bill would increase and the amount allocated to payback Springs Utilities bill would decrease by a commensurate amount. In summary, there would be no change in the total amount of substitution water released from Wolford Mountain and Williams Fork reservoirs and no corresponding change in flows along the Colorado River in those years under the Proposed Action. **Table 1** illustrates why there would be no change in flows in 6 of these 7 years.

In one of these substitution years (1963) there would be a flow change in the reach of the Colorado River downstream of the confluence with Williams Fork River because of the changed location of the releases from Williams Fork Reservoir to Wolford Mountain and Homestake reservoirs. In 1963, the total substitution bill would be 4,319 AF. Of that amount, Denver Water would release 2,100 AF for Springs Utilities, 1,750 AF would be released from Springs Utilities' account in Wolford Mountain Reservoir, and 470 AF would be released from Homestake Reservoir. In that year, the last increment of Denver Water's substitution obligation would be released from Williams Fork Reservoir. As a result, the total substitution release from Wolford Mountain Reservoir for Denver Water and Springs Utilities would increase, while the total substitution release from Williams Fork Reservoir would decrease. However, the reduction in release from Williams Fork Reservoir is only 570 AF instead of the full 2,100 AF released by Denver Water for Springs Utilities as shown in **Table 2**. Model results show the reduction in substitution water released from Williams Fork Reservoir occurs over the period from August 1963 through March 1964. It is possible that the daily flow changes could be greater than an average monthly changes predicted by the model in those months, depending on the schedule of releases from Williams Fork Reservoir. However, Springs Utilities diversions from the Upper Blue River do not deplete the Colorado River from the confluence of the Williams Fork River downstream to the confluence of the Blue River. In substitution years, water release from Williams Fork Reservoir in August and September for substitution payback augments flows in the Colorado River below the confluence with the Williams Fork River. Therefore, the flow change associated with the change in location of substitution release to downstream locations would be a reduction in the amount of water added to the river.

In addition to the monthly model results, historical daily substitution releases in 2002 were evaluated because it is a recent substitution year and the driest year in the 56-year study period evaluated. In 2002, Springs Utilities' substitution operations were consistent with the Proposed Action. Their total substitution obligation was 3,143 AF of which 1,923 AF was paid back with a release from Denver Water's account in Wolford Mountain Reservoir. Denver Water's substitution bill was paid back in part by a release from Williams Fork Reservoir of 10,000 AF. Had 1,923 AF of Springs Utilities' substitution obligation been paid back with a release from



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Williams Fork Reservoir consistent with the No Action alternative, the total release from Williams Fork Reservoir would have still been 10,000 AF. This is due to the manner in which Denver Water's substitution obligation is paid back with alternating releases from Wolford Mountain and Williams Fork Reservoir. Under the No Action alternative, 1,923 AF of the total substitution release from Williams Fork Reservoir would have been allocated to payback Springs Utilities obligation and the 1,923 AF released from Denver Water's account in Wolford Mountain Reservoir for Springs Utilities would have been released to payback Denver Water's obligation instead. As a result, there would have been no change in daily flows as a result of the Proposed Action in 2002.

GC-2: The maximum rate of exchange of 30 cfs is a significant amount of stream flow in the reach of the Colorado River below the confluence with the Williams Fork River. The 30 cfs rate of flow should be utilized as the maximum rate of impact under the Proposed Action to remove 30 cfs from the Williams Fork River and the Colorado River and instead release it from Wolford Mountain and Homestake reservoirs.

Response: The 30 cfs exchange referred to in Attachment A of the 2003 MOA is a separate exchange not associated with substitution operations. This exchange was included in the MOA and discussed in paragraph 4.e. as it pertains to the reuse of return flows from the 250 AF that would be provided to Summit County from Upper Blue Reservoir. The intent of that paragraph is that the reuse of any returns flows associated with the use of the 250 AF can not impact the exchanges listed in Attachment A. The 30 cfs should not be utilized as the maximum rate of impact from substitution operations as suggested by Grand County. The examples provided of potential flow changes in 2006 do not apply since that was not a substitution year, and Springs Utilities Proposed Action would not affect flows in these reaches of the Colorado and Williams Fork rivers during non-substitution years. Flows in 2006 are discussed in the response to Trout Unlimited's comment TU-6.



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**Table 1
Summary of Substitution Releases from Williams Fork, Wolford Mountain, and Homestake Reservoirs in 1966
Values in Acre-Feet**

	No Action Alt.			Proposed Action Alt.			Difference in Total Releases
	CSU	Denver Water	Total Release	CSU	Denver Water	Total Release	
Wolford Mtn Reservoir							
Release from Springs Utilities Account	0	0	0	224	0	224	
Release from Denver Water Acct.	0	13425	13425	0	13201	13201	
Total Release	0	13425	13425	224	13201	13425	0
Williams Fork Reservoir							
Release for Springs Utilities	2324	0	2324	2100	0	2100	
Release for Denver Water	0	7676	7676	0	7900	7900	
Total Release	2324	7676	10000	2100	7900	10000	0
Homestake Reservoir	0	0	0	0	0	0	0
TOTAL RELEASE	2324	21101	23425	2324	21101	23425	0



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**Table 2
Summary of Substitution Releases from Williams Fork, Wolford Mountain, and Homestake Reservoirs in 1963
Values in Acre-Feet**

	No Action Alt.			Proposed Action Alt.			Difference in Total Releases
	CSU	Denver Water	Total Release	CSU	Denver Water	Total Release	
Wolford Mtn Reservoir							
Release from Springs Utilities Account	0	0	0	1750	0	1750	
Release from Denver Water Acct.	0	25067	25067	0	23418	23418	
Total Release	0	25067	25067	1750	23418	25168	101
Williams Fork Reservoir							
Release for Springs Utilities	4319	0	4319	2100	0	2100	
Release for Denver Water	0	6251	6251	0	7900	7900	
Total Release	4319	6251	10570	2100	7900	10000	-570
Homestake Reservoir	0	0	0	469	0	469	469
TOTAL RELEASE	4319	31318	35637	4319	31318	35637	0



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GC-3: Grand County is concerned with the cumulative impacts of various pending projects on the Colorado River and tributary headwaters. The cumulative impacts analysis conducted does not comply with NEPA. This EA could be supplemented based on information developed from the Denver Water Moffat Collection System Project and Windy Gap Firming Project (WGFP) and the use of PACSM in the cumulative impacts review. Grand County stated that NEPA does not involve a comparison. Rather impacts can result from individually minor actions that have a collective significant impact over time. Grand County also stated the lack of utilizing a daily time step stream flow model limits the ability to conduct a proper cumulative impact review.

Response: As suggested by Grand County the cumulative effects analysis was supplemented based on available information from the WGFP and Denver Water's Moffat Collection System Project. Additional analysis was completed of potential hydrologic effects due to reasonably foreseeable actions. See analysis and discussion added to Section 3.3.3 of the Final EA.

GC-4: The EA needs to be supplemented to include the information from the Grand County Stream Management Plan (GCSMP) and to include a discussion of potential mitigation measures developed in the GCSMP. The GCSMP studies some of the same reaches impacted by this project. The EA needs to include a discussion of ways to mitigate the cumulative adverse impacts.

Response: The Final EA has been supplemented to include a discussion of *Grand County's Stream Management Plan, Phase 2, Environmental and Water Users Flow Recommendations*. See Section 3.3.1.7 (Grand County Stream Management Plan in the Hydrology Section), Section 3.5.2 (Environmental Consequences for Water Quality), Section 3.8.1 (Affected Environment for Recreation), and Section 3.8.2 (Environmental Consequences for Recreation) in the Final EA. The Final EA also includes a discussion of mitigation measures for the Blue River above Dillon Reservoir in Section 2.4 and 3.3.2.2. As discussed in response to Grand County comment GC-1, there would be little to no change in flows under the Proposed Action along the Williams Fork River, Muddy Creek, Eagle River, and Colorado River mainstem under the Proposed Action, therefore, mitigation measures have not been proposed for those river reaches.

The Draft EA states (Section 1.2, Project Purpose and Need) that the MOAs form the basis of the Substitution and Power Interference Agreements. Paragraph 9.a. of the 2003 MOA states the timing of releases from Upper Blue Reservoir for substitution payback will be coordinated between the River District, Springs Utilities and Denver Water with releases made in the late summer and early fall to provide environmental benefits.

