

UNITED STATES OF AMERICA  
FEDERAL ENERGY REGULATORY COMMISSION

Project No. 2035-099

BOULDER COUNTY'S UNOPPOSED MOTION TO INTERVENE

The Board of County Commissioners of the County of Boulder, Colorado ("Boulder County") requests that the Commission grant the County intervenor status in the Final Hydropower License Amendment Application for FERC Project No. 2035-099 (the "Application") made by the City and County of Denver, Colorado, acting through its Board of Water Commissioners ("Denver Water") related to the Gross Reservoir Hydroelectric Project (also known as the Moffat Collection System Project). In support of its motion, Boulder County states as follows:

1. Denver Water's facility, known as Gross Dam and Gross Reservoir, and the current and proposed boundaries of the Federal Energy Regulatory Commission (the "FERC") license area for Gross Reservoir (FERC Project No. 2035-099) are located entirely within Boulder County, Colorado. Denver Water has informed Boulder County that, while it is not agreeing to the substantive arguments raised by Boulder County in this Motion to Intervene, it is not opposed to Boulder County seeking leave to intervene in this matter.
2. Denver Water has an existing hydropower license from the FERC and has filed a Hydropower License Amendment Application (the "Application") in order to enable Denver Water to increase the height of Gross Dam from its current 340 feet to 471 feet and increase the capacity of Gross Reservoir from its current 42,000 acre feet to 119,000 acre feet.
3. The proposed enlargement of Gross Dam will result in more than doubling the surface area of Gross Reservoir from 418 acres to 871 acres. If licensed and completed, the proposed enlargement of Gross Dam and Gross Reservoir will be the largest construction project in the history of Boulder County.
4. The Board of County Commissioners of Boulder County is the executive body for Boulder County government and is comprised of three commissioners who have been elected by Boulder County's citizens. Boulder County's citizens have expressed an avid interest in whether and how Denver Water's project proceeds. Boulder County's intervention in this Application is in the public interest.
5. Boulder County has been interested in, and an active participant in the review of, Denver Water's proposal to expand Gross Reservoir since the project was first publicly proposed by Denver Water. In 2003, in connection with Denver Water's proposal, Boulder County submitted comments to the U.S. Army Corps of Engineers (the "Corps") related to its scoping of the Environmental Impact Statement ("EIS") for the project. In 2008, Boulder County sent comments to Denver Water after reviewing Denver Water's Pre-Application Document in relation to its permit amendment application to the FERC. In 2010, Boulder County submitted

combined comments to the Corps and the FERC on the Draft EIS and Draft FERC License Amendment Application. In 2014, Boulder County submitted two rounds of comments upon the Corps' Final EIS for the project. Because the Record of Decision on the Final EIS has still not been issued, and because the FERC is relying upon the Corps' EIS for its environmental review of Denver Water's Application, Boulder County believes those comments to be applicable to the FERC's review of the Application and has attached a copy of its 2014 comments to the Corps to this Motion to Intervene. *See Exhibit A.* Finally, Boulder County has maintained and continues to maintain that Denver Water must obtain required County permits before it undertakes its project.

6. Despite the extensive record that has been created related to the EIS and Denver Water's draft and final Application to the FERC, Denver Water's Application to the FERC is deficient because it relies upon stale data and data that are factually inaccurate. Further, it fails to adequately develop and consider several issues that are of critical importance to Boulder County and its citizens. These issues must be resolved before the FERC acts upon Denver Water's Application.

7. When Denver Water first proposed its project to expand Gross Reservoir, it anticipated that it would complete the project in 2016 and that 2016 was the first year that, without the expansion, its customers would experience water shortages. The project has not yet commenced construction but, despite experiencing years of drought over the past 15 years, Denver Water has not seen any water shortages. This lack of a predicted water shortage occurred because, despite a rapidly growing customer base, Denver Water's customers are using less water, not just per person, but as a whole. Denver Water is to be lauded for the water conservation initiatives it has implemented, but the fact that it can serve more customers with less water means that the assumptions made in the EIS as justification for the need for this project are incorrect. Boulder County asks that FERC require a new analysis of Denver Water's demand and whether the preferred alternative can be properly categorized as the least environmentally damaging way to meet Denver Water's water supply needs. *Alliance to Save the Mattaponi v. U.S. Army Corps of Engineers*, 606 F.Supp. 2d 121, 130 (D.Colo. 2009) (Agency performing EIS must take a new look at alternatives if there is evidence of reduced need and higher cost for a proposed reservoir project.) Denver Water should be required to achieve greater security in its water supply by adopting increased water conservation measures before it is permitted to de-water streams on the West Slope and in Boulder County.

8. As set forth in Boulder County's July 1, 2014, comments to the Corps, the EIS is deficient because it does not address the anticipated impacts of climate change upon the projected future streamflows in the Upper Colorado River Basin. Denver Water has alleged that, because there is uncertainty regarding what these impacts will be, it is appropriate to ignore the impact that climate change may have upon the availability of water supply to fill Gross Reservoir in the event that the dam and reservoir are enlarged. Denver Water cites no law to support this approach and it is contrary to federal guidance related to the consideration of the impacts of climate change in the National Environmental Policy Act process. (*See August 1, 2016, Memorandum for Heads of Federal Departments and Agencies*, from Christina Goldfuss, Council on Environmental Quality, which finds that "[f]ocused and effective consideration of climate change in NEPA reviews will allow agencies to improve the quality of their decisions.")

9. “The analysis of climate change impacts should focus on those aspects of the human environment that are impacted by both the proposed action and climate change. Climate change can make a resource, ecosystem, human community, or structure more susceptible to many types of impacts and lessen its resilience to other environmental impacts apart from climate change. This increase in vulnerability can exacerbate the effects of the proposed action. *For example, a proposed action may require water from a stream that has diminishing quantities of available water because of decreased snow pack in the mountains, or add heat to a water body that is already warming due to increasing atmospheric temperatures. Such considerations are squarely within the scope of NEPA and can inform decisions on whether to proceed with, and how to design, the proposed action to eliminate or mitigate impacts exacerbated by climate change.*” *Id.* p. 21. (emphasis added)

10. The scientific literature shows a consensus that climate change will likely cause a future decrease in streamflows in the Upper Colorado River Basin because, even in the event that there is an overall future increase in precipitation, more precipitation will fall as rain, rather than snow, and there will be more evapotranspiration. *See for e.g.,* Lukas, J., Barsugli, J., Rangwala, I., and Wolter, K., *Climate Change in Colorado: A Synthesis to Support Water Resources Management and Adaptation* (2014); Gordon, E., and Ojima, D., *Colorado Climate Change Vulnerability Report* (2015); Ficklin, D., Stewart, I., and Maurer, E., *Climate Change Impacts on Streamflows and Subbasin-Scale Hydrology in the Upper Colorado River Basin* (2013); as well as the articles cited in Boulder County’s 2014 comments to the Corps. If there is less water in the tributaries of the Upper Colorado River and South Boulder Creek, there will be less water available for Denver Water to divert into Gross Reservoir. Denver Water has defined its purpose and need for the expansion of Gross Reservoir as to develop 18,000 acre feet of new, firm yield to the Moffat Treatment Plant and that it can reach this “firm yield” only if it can divert at least this much in 75% of the years and if it can have a “savings account” of four times that figure. If the scientific literature is correct, Denver Water will be unable to meet these standards it has established as the underpinning of its proposed project and the purpose and need of the project cannot be met. If the preferred alternative fails NEPA’s most basic test of viability, the proposed alternative must be rejected. Boulder County encourages the FERC to perform a robust review of the available scientific literature and take a hard look at whether the EIS’s ignoring the anticipated impacts of climate change upon the ability for Denver Water to fill Gross Reservoir in the future is appropriate or whether the EIS needs to be supplemented to study these impacts in earnest.

11. In its application to the FERC, Denver Water has included minimal information and analysis related to the impacts of its proposed project on the local transportation system. Boulder County is the local government responsible for the operation and maintenance of many of the roads that will be affected by the project as proposed. To evaluate transportation impacts and adequately determine potential mitigation measures, a much more detailed analysis of the impacts of construction-related traffic must be performed before the FERC issues any permits to Denver Water. Further, any permit issued must include binding mitigation measures to protect the health and safety of area residents.

12. In Section 2.2.12.1 of its application, Denver Water references a regional transportation plan (Metro Vision 2030 Plan) that is 10 years out of date, having been replaced by the 2040 Regional Transportation Plan in 2015. The application's financial data related to the Colorado Department of Transportation are also almost 10 years out of date. In Table 3.3.12-1, Denver Water discusses plans for the Colorado Department of Transportation to expand two state highways Denver Water plans to use to bring workers and supplies to and from the project site (SH 72 and SH 93) from 2 lanes each to 4 lanes each. However, there are no plans, nor have there ever been, to expand either of these state highways. These obvious errors indicate that the other factual underpinnings of the Denver Water application are likely unreliable.

13. In its application, Denver Water refers to a traffic study that it commissioned in the summer of 2013. The people who live in the vicinity and monitored the study testified to the Board of County Commissioners at a public hearing in 2014 that the trucks were only half-way full, that they did not travel during commuter traffic, that they could not maintain a speed close to the speed limit, and that the trucks repeatedly had to cross double yellow lines in order to navigate turns. It is essential that a new traffic study be conducted, by an objective third party, that replicates the actual conditions upon which truck traffic will be conducted (full trucks, travelling both up and down Coal Creek Canyon, during the times of day when trucks will actually be travelling, and including an analysis of speeds travelled, cueing behind trucks, and whether, and how often, trucks either crossed the centerline of the road and/or violated state and local noise limits). After the prior study, Denver Water told Boulder County that the study had shown that the intersection of SH 72 and Gross Dam Road would need to be re-engineered, yet there is nothing in Denver Water's application to the FERC that refers to this required change.

14. The EIS and the FERC application include disparate numbers used for the number of trucks that will be used to bring construction materials to the project site, largely dependent upon how much aggregate is mined on site. The application also ignores the impacts that will be caused by workers driving to and from the project site each day. Denver Water should be required to develop a plan for shuttling workers to and from the job site to relieve traffic congestion and for increased safety and a reduction in vehicle miles travelled. Because trucks traveling to the work site will be in part on Boulder County's roads, and this 5 year construction project will have major impacts on Boulder County roads and the citizens who live in the vicinity of the project, any permit issued by the FERC must include specific conditions of approval related to which roads will be used, for which purposes, at what times of day, with what necessary improvements, and with what maintenance responsibilities.

15. Tree removal will also have significant transportation and environmental impacts. Denver Water has estimated that, to expand Gross Reservoir, it will need to remove more than 200,000 trees greater than 4" in diameter. Yet, despite the fact that this will require thousands of truck trips to haul these trees away from the project site, Denver Water has not created a plan for how it will remove the trees, upon what roads, to what destination/s, or what it will ultimately do to dispose of these trees. Denver Water has stated that it would like to find a market for as many of these trees as possible but Boulder County's experience in performing forestry management in the area is that there is no viable market in the vicinity for wood products derived from the small-dimensioned pine and fir trees that will be removed.

16. How these trees are removed, upon what roads, and how they will be disposed of are of tremendous importance to Boulder County and to its citizens. Denver Water's application says that tree harvesting and removal will require use of several existing unpaved and four-wheel drive roads around Gross Reservoir. However, Denver Water has failed to identify which roads it plans to use. Certain county roads (Flagstaff Road, Magnolia Road and others) are windy with low volume residential traffic and would be inappropriate for use by trucks hauling trees. In addition, it may not be possible to safely navigate SH 72 with trucks full of trees. These heavily laden trucks will cause damage to the roads and present safety concerns for road users. Denver water must identify who will responsible for maintaining these roads during and after the project is over. Denver Water has proposed that, after it receives its permit from the FERC, it will consult with Boulder County about how it will remove its 200,000 trees. This proposed consultation after its project has been approved is anemic and unacceptable to Boulder County. The FERC doesn't currently have the information upon which these decisions can be made; it will require additional study. Boulder County's concerns need to be studied, addressed, and resolved prior to issuance of any permits by the FERC.

17. Boulder County is also concerned about the climate change and greenhouse gas impacts of tree removal. Federal agencies are encouraged to use the incremental contribution of a proposed action as a proxy for assessing the proposed action's potential impacts on climate change (*See August 1, 2016, Memorandum for Heads of Federal Departments and Agencies*, p. 10). If more than 200,000 trees are burned, the carbon impact of the tree removal may exceed the carbon impact of the construction of the remainder of the project. The FERC should mandate that Denver Water study the greenhouse gas impacts of various methods of tree removal and disposal and mandate that Denver Water create biochar from the trees that are removed or pursue some other solution that doesn't result in the release of so much carbon into the atmosphere.

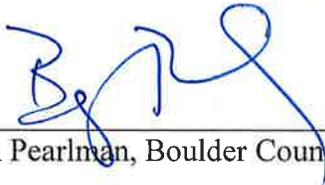
18. Denver Water's application proposes that its recent purchase and transfer of a portion of the Toll family property to the United States Forest Service be its sole effort to mitigate the environmental impacts of constructing the project and inundating more than 450 acres of national forest. While this acquisition, a part of a much larger multi-party conservation initiative, is a positive step, it will only maintain the status quo for this property, and protecting the watershed above Gross Reservoir from potential future development directly benefits Denver Water's future operations. The Toll acquisition, and the rest of Denver Water's application, does nothing to address other environmental impacts of the project, such as increased mercury loading in the reservoir due to methylation or any of the impacts of project noise, dust, and light pollution that will plague Gross Reservoir's neighbors for the 5 years that the project will be built. Denver Water must be required by the FERC to avoid these environmental impacts to the greatest degree possible and mitigate them to the degree they cannot be avoided.

19. "In deciding whether to issue any license under this subchapter for any project, the Commission, in addition to the power and development purposes for which licenses are issued, shall give equal consideration to the purposes of energy conservation, the protection, mitigation of damage to, and enhancement of, fish and wildlife (including related spawning grounds and habitat), the protection of recreational opportunities, and the preservation of other aspects of environmental quality." 16 U.S.C.A. § 797(e). Because this project, if constructed, will have longstanding impacts upon Boulder County's citizens and the environment, it is critical

that the FERC provide a hard look at the project's impacts and that the FERC determine that the project is the least environmentally damaging alternative that meets the purpose and need Denver Water seeks to address with the project. This requires further study and analysis by the FERC to look at the issues that have not yet been adequately addressed. If any permit is granted by the FERC, it must contain binding mitigation measures that protect the health and safety of Boulder County residents, preserve and protect the natural environment, and represent the least environmentally damaging way to construct the project.

NOW THEREFORE, for the reasons set forth above, Boulder County moves to intervene as a party in the Denver Water's Application.

Respectfully submitted this 23<sup>rd</sup> day of March, 2017.

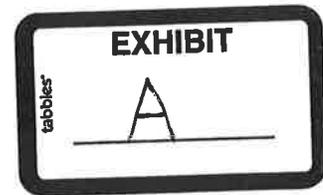


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Ben Pearlman, Boulder County Attorney



## Board of County Commissioners



June 5, 2014

Rena Brand  
Moffat EIS Project Manager  
U S Army Corps of Engineers  
Omaha District, Denver Regulatory Office  
9307 S. Wadsworth Blvd  
Littleton, CO 80128

*RE: Boulder County's Comments on the Final Environmental Impact Statement for the Moffat Collection System Project*

Dear Ms. Brand;

Boulder County appreciates the opportunity to comment upon the Final Environmental Impact Statement (FEIS) for the Moffat Collection System Project but must state at the outset that we are disappointed that, despite the approximately 16,000 pages in the FEIS and accompanying appendices, the response time was not extended beyond 45 days. Because the Proposed Action, if selected and constructed, would be the largest construction project in Boulder County's history, we would have preferred to have been able to perform a more thorough review of the FEIS before responding. In addition, the response time was not long enough for us to schedule a public hearing at which our citizens could provide input to us on the FEIS so that we could incorporate what we learned at that hearing into our comments. Despite the fact that the response time expires on June 9<sup>th</sup>, we have scheduled a public hearing on the FEIS for June 16, 2014. If we believe it warranted after that public hearing, we will send supplemental comments on the FEIS to the Corps and we hope that they will be considered.

In 2010, Boulder County submitted extensive comments about deficiencies in the Draft Environmental Impact Statement for the Moffat Collection System Project (DEIS). While some of Boulder County's concerns have been addressed in the FEIS, the analysis in the FEIS remains inadequate on most issues raised in our 2010 comments and we urge you to review those comments anew in light of the FEIS.

In performing its review under the NEPA, the Corps is required to identify the "least environmentally damaging practicable alternative." 40 C.F.R. Part 230.10. Before Denver Water imposes the Proposed Action upon us, there should be a requirement for a more robust discussion of the purpose and need for the project and alternatives to the Proposed Action, rather than simply accepting as an article of faith that the purpose and need are reasonable objectives that can't be met through conservation and a combination of smaller projects that are less environmentally detrimental. Based upon the experience of other metropolitan communities in

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the arid southwest, we believe that the potential for water conservation and efficiency in Denver Water's existing system have been understated and the Denver Water's price structure is too low, sending a weak conservation price signal.

Even if the Corps does not deny approval of Denver Water's Proposed Action based upon a failure to demonstrate that it is the least environmentally damaging preferred alternative, the Proposed Action should not be approved unless and until there is, at a minimum, a description of the project design and its implementation that is specific enough that its impacts can be known. As it currently stands, the FEIS does not provide an adequate description of the project because it does not describe what its design will be, how it will be constructed, or what impact its construction will have upon the environment and the surrounding community. There is no description of the construction plans for the dam, how it will be constructed, what volumes of various construction materials will be used, where those materials will be sourced, what transportation routes will be used for what purposes, what the quarry size on site will be, or how trees will be removed and disposed of. Depending on the answers to these questions, the environmental impacts to Boulder County and its citizens will be very different.

Rather than describing what construction truck traffic levels will be and their timing, the FEIS just acknowledges that there will be vehicle queuing behind slow-moving trucks. How much, when, and for how long? We don't know. The FEIS states that Denver Water has met with CDOT to discuss potential alternatives for reducing construction delays, including improving turnouts on SH 72 for slow-moving traffic. The recommendation from the HDR Borrow Haul Study regarding the installation of turnouts on SH 72 pre-dated the DEIS yet, apparently, no further progress has been made on firming up plans for pullouts. Why isn't the installation of pullouts on SH 72 a mandatory component of the Proposed Action? Table 5.13-9 lists "possible control measures to minimize fugitive dust" but doesn't require these measures. Why not? Without this information the analysis necessary to conclude this is the least damaging environmental alternative is insufficient and the FEIS must be rejected.

The FEIS assumes that 60% of aggregate materials will be developed on site and that 40% will be hauled from Longmont. Upon what are these assumptions based and what is the change in impacts, and to whom, if the actual results are different? We don't know and no justification or analysis is provided. The lack of details on this issue alone warrants rejection of the FEIS. The on-site aggregate mining could have tremendous impacts to the environment. Additional loss of habitat, forested lands and impacts to views will be permanently altered. The FEIS assumes that trucks hauling materials to and from the project site and construction activities at the site will comply with local and state noise standards but there is no analysis of actual testing that indicates this is possible. At public hearings conducted a few years ago, neighbors and truckers each stated their skepticism that noise standards could be met. Without knowing these data points, the Corps cannot be in a position to judge the impacts on the human and natural environment unless it determines that, no matter what the impacts are, they are the "least environmentally damaging." We don't believe this is reasonable.

A major flaw in the FEIS analysis of the Proposed Action is its failure to adequately analyze how more than 400 acres of trees, including more than 200,000 trees of greater than 4" in diameter, will be removed to accommodate the larger reservoir. Denver Water has commissioned a study

of potential methods of removal and potential methods of disposal, but the FEIS does not discuss what will actually occur or the relative environmental impacts of each method. The FEIS states that "Denver Water will work with the USFS to determine the best disposal option, which may involve the use of an air curtain incinerator onsite, grinding the trees and removing the chips, and/or sale of merchantable timber." Denver Water has elsewhere said it will collaborate with the USFS and Boulder County to review and approve a plan and contractor to remove trees to ensure the final plan maximizes product utilization and minimizes traffic and environmental effects. The method that is selected matters. While it would be most beneficial if a commercial use could be put to the timber, Boulder County's experience has been that there is not a market for the Ponderosa pine and Douglas fir found in the project area. This leaves Denver Water with limited options. One listed option is burning the timber. In addition to smoke and risk of fire, the 50,000 tons of trees contain the equivalent of 66,000 tons of sequestered carbon dioxide, which is several times more than the carbon footprint of the remainder of the Proposed Action (as shown in Table 5.13-1), but this impact is not thoroughly analyzed and/or compared to the impact of hauling the timber to a landfill. If the timber were to be hauled to a landfill, the FEIS does not tell us how many truck trips that would take, by what routes, at what times, and with what impacts to traffic congestion and/or the noise impacts of heavily laden trucks applying their brakes while descending small mountain roads. Boulder County believes that these are important decisions, having serious consequences on our citizens, and that these decisions should be made before, and not after, the Record of Decision is issued.

Appendix M to the FEIS is Denver Water's "Conceptual Mitigation Plan." Its stated purpose is to mitigate the various unavoidable adverse environmental effects identified in the FEIS and "Additional Environmental Protections for Grand County through the Learning by Doing Cooperative Effort." It also includes a summary of additional enhancement efforts Denver Water has committed to accomplish in related agreement, which will be incorporated as Section 404 Permit conditions for the Moffat Project.

While the NEPA requires that proposed mitigation be considered throughout the process, no agreements exist regarding issues outside the Colorado River basin and with which Boulder County has expressed concern in its comments about either the DEIS or the FEIS. The public deserves binding mitigation measures acceptable to residents regarding impacts to roads, traffic levels, traveler safety, access to homes during emergencies, noise, light, and air pollution. The FEIS states that "Denver Water is working closely with Boulder County to address concerns regarding temporary construction impacts on the area around Gross Reservoir. Denver Water is proposing measures to minimize, to a reasonable extent, noise, dust, traffic congestion and road wear in the Project area during construction. Some of the types of measures that are being negotiated include restricting truck hauling times during the day and night to minimize noise and traffic congestion, providing shuttle transportation for workers to minimize traffic, restricting truck traffic from using Flagstaff Road, and maintaining soft-surface County Roads used by Project construction traffic and rehabilitating as determined by the Boulder County Transportation Department. Denver Water has offered to maintain all of Gross Dam Road (County Road 77S) during construction." While we have engaged in discussion, Denver Water has made no commitments on any of these issues and there has not been any agreement between Boulder County and Denver Water on any mitigation at all. In fact, the FEIS is so lacking in necessary project details that we still don't know the full impacts and, therefore, what acceptable

mitigation measures need to be applied. This should be seen by the Corps as evidence of failure to fully analyze the alternative and identifies the need for binding mitigation measures, not that these issues have been adequately addressed elsewhere.

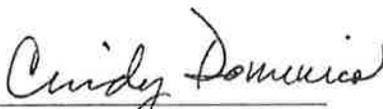
Some of the impacts from the Proposed Action would involve a permanent loss of natural resources. Denver Water has said that it will purchase credits from a wetland mitigation bank to compensate for 1.95 acres of wetlands lost and it will establish a riparian vegetation plan to compensate for 4 acres of riparian area lost. Boulder County has asked that wetland and riparian mitigation occur within the South Boulder Creek watershed and that forest acreage lost through inundation be compensated with like amounts of additional forest protection as compensatory mitigation. These requests have not been agreed to by Denver Water or addressed in the FEIS.

The FEIS contends that the impacts from construction of the Proposed Action would be analogous to ordinary construction activity and are temporary. No part of the construction of the Proposed Action is ordinary; there has never been a construction project of this size anywhere in Boulder County and Boulder County has deliberately zoned its rural mountain areas to preclude large-scale industrial development. And, while some of the impacts to Boulder County and its residents are associated with the construction of the Proposed Action are not permanent, the FEIS unfairly diminishes their impact by calling them "temporary." A four-year construction schedule does not seem temporary to those residents in the vicinity who will have to live through it. Our residents deserve more consideration than has been offered to them in the FEIS.

For the forgoing reasons, we urge you, on behalf of all of Boulder County citizens, to not approve of the Proposed Action unless and until our concerns are addressed. Thank you.

Sincerely,

THE BOARD OF COUNTY COMMISSIONERS OF BOULDER COUNTY

By:   
Cindy Domenico, Chair

By:   
Deb Gardner, Vice-Chair

By:   
Elise Jones, Commissioner



## Board of County Commissioners

Rena Brand  
Moffat EIS Project Manager  
U S Army Corps of Engineers  
Omaha District  
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9307 S. Wadsworth Blvd.  
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July 1, 2014

RE: *Boulder County's Supplemental Comments on the Final Environmental Impact Statement for the Moffat Collection System Project*

Dear Ms. Brand;

Thank you for the Corps' agreement to consider substantive comments received before it renders any decision with respect to the Moffat Collection System Project FEIS, even though the formal comment period has expired. The purpose of this letter is to communicate to you supplemental comments on issues of substance that were raised to us during the 2.5 hours of public testimony we received at our public hearing on June 16, 2014. A video of the public hearing may be found at [bit.ly/20140616moffat](http://bit.ly/20140616moffat). We encourage you to view the hearing to see the full breadth and depth of issues raised by the public.

*The Proposed Action Does Not Meet the Purpose and Need for the Project*

The starting point for drafting and reviewing all environmental impact statements is the statement of the purpose and need of a project; for the FEIS for the Moffat Collection System Project, this is appropriately set forth as Chapter 1. The Corps has evaluated and accepted the following Purpose and Need statement as the basis for defining and evaluating alternatives as part of the Corps' decision-making process:

*The purpose of the Moffat Collection System Project is to develop 18,000 acre-feet per year of new, 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.*

Denver Water determined that 18,000 acre-feet of new firm yield was needed based upon its predictions of a potential demand of 34,000 acre-feet greater than its supply and reliance upon 16,000 acre-feet of savings being realized from implementation of additional conservation efforts. According to the FEIS, the Corps independently reviewed Denver Water's Near-Term Strategy and concluded that the development of 18,000 acre-feet per year of new firm yield *is the only action to be analyzed in the EIS.* (1-23)

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Boulder County believes that the range of alternatives has been unreasonably restricted by its narrowly defined Purpose and Need, precluding the consideration of any alternative that would serve Denver Water's customers with a secure and reliable water supply, such as enhanced conservation and efficiency or a combination of other small projects throughout its system, but which would not bring 18,000 acre-feet of water per year through the Moffat Treatment Plant. Nonetheless, even if the stated Purpose and Need for the project are accepted, the Proposed Action fails to meet that Purpose and Need.

In explaining and analyzing the alternatives, the Corps, together with its contractors and cooperating agencies, analyzed historic stream flows for the 45 year period from 1947 through 1991 to determine the amount of supply that is estimated to be available to meet Denver Water's stated needs. The conclusion that there is enough water available to meet the firm yield criteria of the Purpose and Need is fundamentally flawed in two respects: 1) it does not recognize that historic flows fail to meet the Purpose and Need; and 2) it does not consider the impact to water supply that will be caused by predicted climate change.

The FEIS defines firm yield to be "the maximum average annual demand that can be met by Denver Water's system without shortages." (1.4.2). In order to meet the goal of providing 18,000 acre-feet per year of new firm yield, it has been determined in the FEIS that it is necessary for the enlarged reservoir to have a "savings account" of four times this amount of storage capacity so that it could supply 18,000 acre feet of water during a drought equivalent to the 1953-1957 drought. (1.4.3). Under the LP2 screening criteria, the firm yield goal of 18,000 acre-feet per year must be met 75% of the time. According to the Firm Yield Analysis conducted by Lisa Buchanan and attached to The Environmental Group's June 9, 2014, comments as Addendum IV, the Corps' firm yield criteria for the project is not met for the Proposed Action because, using the Corps' study period, the expanded reservoir would have only filled in 1 out of 44 years and 18,000 acre-feet would not have been available in 45% of the years. This is alarming to us; please give this analysis a hard look.

The FEIS says that, while climate change is reasonably foreseeable and that, as a result, it is likely that stream flow will peak earlier, evapotranspiration will increase, and droughts may be longer and more severe, anticipated climate change should be ignored when considering the impacts of the Proposed Action because there is no accepted scientific method for taking the impact of climate change into account when predicting future stream flows. We don't think this position is warranted.

We are not scientists and we are not experts at modeling the impacts of climate change on stream flows. However, it seems that the Corps' conclusion that there is no way to include climate change in its modeling is wrong, as there is a consensus in the scientific community that there are accepted scientific methods to predict future stream flows and there is a consensus that climate change will cause a reduction in runoff from streams, on both the east and west slope of Colorado, in measurable amounts, in the near future. Several studies that look at the effects of climate change on stream flows and reservoir levels are cited on pp. 92-93 of the comments submitted by The Environmental Group. In our cursory research, in addition to the articles cited by The Environmental Group, we have found others that reach similar conclusions (Christensen et al. (2004); Milly (2005); Hoerling and Eischeid (2006); Christiansen and Lettenmaier (2007); Seager et al. (2007); McCabe and Wolock (2008); Lazar and Williams, 2008; Wang

et al. (2009); Wang and Robertson (2011)). Each of these studies predicts that runoff will diminish as a result of climate change. The amounts of predicted reductions range from 6% to 45%, with the majority of the studies predicting a diminished flow of between 15-30%. Even if changes to stream flows are at the lower end of this range, this is a substantial issue that needs to be considered when analyzing the impacts of any alternative. We think that it is especially important that the impacts of climate change on anticipated future stream flows be considered by you in your decision about the FEIS in light of Section III of the Draft NEPA Guidance on Consideration of the Effects of Climate Change and Greenhouse Gas Emissions issued by the Council on Environmental Quality on February 18, 2010, which advocates for this type of consideration.<sup>1</sup>

Most of the water for the enlarged Gross Reservoir would come from tributaries of the Colorado River. In the Corps' 2012 Colorado River Basin Water Supply and Demand Study, the Corps recognized that concerns regarding reliability of the Colorado River system to meet future basin resource needs are more apparent than in studies done over the past several decades "given the likelihood of increasing demand for water throughout the Basin coupled with projections of reduced supply due to climate change." (Executive Summary at p. 4). If the Corps accepted predictions of reduced supply due to climate change in this report about Colorado River water supply, why doesn't it accept it in the FEIS?

Denver Water has told Boulder County that if stream flows are reduced because of climate change it will increase its need for the Proposed Action. It is undoubtedly true that the demand for water use by Denver Water's customers will go up as a result of climate change,<sup>2</sup> but demands by other interests, including the natural environment, will also go up and these impacts have not been studied in the FEIS.

If stream flows diminish by 15-30% within the next 35 years, as predicted in the scientific literature cited above and in The Environmental Group's (TEG) FEIS comments, Denver Water will not be able to fill an enlarged Gross Reservoir, an enlarged Gross Reservoir will not provide a firm yield of 18,000 acre feet per year and the Proposed Action will not meet the stated Purpose and Need for the project. If an alternative doesn't meet the Purpose and Need set forth at the outset for the project, it must be rejected by the Corps.

If these predictions about the reduction of stream flows are correct, using the past as a prediction of what future stream flows will be is not good science and decisions made upon bad information are bad decisions. We urge you to take a hard look at the most recent and reliable climate change studies to

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<sup>1</sup> "Climate change can increase the vulnerability of a resource, ecosystem, or human community, causing a proposed action to result in consequences that are more damaging than prior experience with environmental impacts analysis might indicate. . . . The level of detail in the analysis and NEPA documentation of these effects will vary among affected resource values. For example if a proposed project requires the use of significant quantities of water, changes in water availability associated with climate change may need to be discussed in greater detail than other consequences of climate change. . . . [A]gencies need not undertake exorbitant research or analysis of projected climate change impacts in the project area or on the project itself, but may instead summarize and incorporate by reference the relevant scientific literature." Draft NEPA Guidance on Consideration of the Effects of Climate Change and Greenhouse Gas Emissions issued by the Council on Environmental Quality on February 18, 2010, Section III.

determine whether the FEIS's supposition that there is no accepted scientific method for taking climate change into account in predicting future stream flows is factually and legally defensible.

*Transportation Impacts Have Not Been Thoroughly Studied*

In our prior comments, we questioned the lack of specifics on the impacts of construction-related traffic upon our local roads and requested that mitigation measures be enumerated and made mandatory. After our recent hearing, we are even more worried about the impacts that construction of the Proposed Action and attendant tree removal will have on our roads and our citizens' safety.

Denver Water conducted a traffic study during the summer of 2013 related to the feasibility of driving laden trucks on local roads that will be used during construction of the project and impacts. Last summer, we were told that this study was done to provide additional information to help inform development of the FEIS. However, there is no reference to the truck study in the FEIS. We were told at our public hearing that video from the study was initially on Denver Water's web site but has been taken down. Why isn't this study a part of the FEIS?

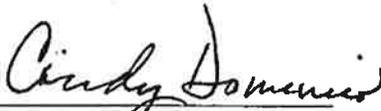
At our hearing we heard evidence from those who observed the study that Denver Water's trucks were only hauling half the load that trucks would actually have to haul materials to the site during actual construction. While the trucks only travelled one way, after morning commuter traffic was completed, and were only half-way laden, the trucks had a hard time staying within their lanes or negotiating turns, and observers noted that the trucks repeatedly crossed double yellow lines and violated state and county noise standards. We were also told by a professional truck driver that it is unsafe to drive fully laden semis on Gross Dam Road, that there is not enough room for these trucks to pass each other on Gross Dam Road or on turns on SH 72, and that truck brakes will not be able to slow descending trucks (especially if they are laden with trees being removed), meaning that jake brakes will be required, which will violate noise standards. The FEIS assumes that truck traffic will obey laws and be operated safely. We don't believe these assumptions are warranted.

A Record of Decision considering the Proposed Action cannot be issued until we know more about how many trips construction will generate, on which roads, in what types of vehicles, at what times of day, hauling loads of what dimension and weight, and what modifications will be made to which roads for safety and efficiency of travel. We also need to know what is happening with the 200,000 trees over four inches in diameter being removed from the site so that we know whether and how often fully laden trucks will need to descend the roads. The impacts of Tree removal will also have tremendous impacts to the environment, neighbors and roads west of the Reservoir. Trucking routes, times of day, loads, etc. have not been analyzed in those areas. If road improvements or construction is required for tree removal the full extent of environmental impacts needs to be evaluated. Once this information is known, the Corps needs to commission traffic studies that replicate actual conditions under which truck traffic will go to and from the construction site so we have real knowledge as to whether this type of traffic can be handled by the affected roads in a safe manner that doesn't violate noise state and local safety and noise regulations. Without this knowledge, the Corps cannot have the information upon which to make a decision as to whether the impacts of the Proposed Action will have upon the people who live and work in the vicinity.

For the forgoing reasons, we reaffirm our request, on behalf of all of Boulder County's citizens, to reject the Proposed Action unless and until it is proven that the Proposed Action meets the Purpose and Need the Corps has established for the project and our other concerns are sufficiently addressed. Thank you.

Sincerely,

THE BOARD OF COUNTY COMMISSIONERS OF BOULDER COUNTY

By:   
Cindy Domenico, Chair

By: \_\_\_\_\_  
Deb Gardner, Vice-Chair

By:   
Elise Jones, Commissioner

