



September 12, 2008

Chandler J. Peter
Denver Regulatory Office
9307 South Wadsworth Boulevard
Littleton, Colorado 80128

Re: Northern Integrated Supply Project

Dear Mr. Peter,

On behalf of Trout Unlimited, Colorado Trout Unlimited and Trout Unlimited's Rocky Mountain Flycasters chapter (collectively, "TU"), we are pleased to offer these comments on the draft environmental impact statement ("DEIS") that the Army Corps of Engineers ("ACE") has prepared on the proposed Northern Integrated Supply Project ("NISP"). The NISP proponents are the Northern Colorado Water Conservancy District ("NCWCD") and 12 individual participating entities (the "Participants"). NCWCD and the Participants intend for the project to serve a portion of the Participants' water needs through the years 2025 and 2050.

TU is a non-profit conservation organization with approximately 150,000 members nationally and approximately 10,000 in Colorado. TU's mission is to conserve, protect and restore coldwater fisheries and their habitats. In Colorado, where depleted and altered stream flow regimes are amongst the most serious threats to fishery health, TU works to maintain and restore stream flows for healthy coldwater fisheries, to assure sound water management decisions and to increase meaningful public participation in decisions regarding water allocation. TU is interested in the NISP project because of its potential to impact streams and fisheries in the Poudre River basin and because it invokes important water management questions.

As outlined below, TU submits that the NISP DEIS is inadequate under the National Environmental Policy Act ("NEPA") and §404(b) of the Clean Water Act. As such, the ACE must prepare a supplemental environmental impact statement ("SEIS") and provide additional opportunity for public comment before issuing a final environmental impact statement ("FEIS") or record of decision ("ROD").

The DEIS fails to establish the need for the NISP project.

The DEIS assumes that the Participants require firm yield of 40,000 acre-feet of water annually, based on each individual Participant's specific firm yield requests. DEIS, p. 1-5 – 1-6. The DEIS lacks explanation of the methods, data and procedures Participants used to estimate their future water demands, and while the DEIS indicates that the ACE independently evaluated the Participants' population projections and water demands, DEIS, p. 1-5, the DEIS does not

include an explanation of the review process. Further, the DEIS does not address recent developments in the housing and real estate markets or the resulting slowdown in growth of water demand. Without a credible independent assessment of the data, assumptions, basis and procedures used to develop the Participants' demand estimates, the need for the proposed project has not been demonstrated and a fundamental objective and requirement of the NEPA process has been not been attained.

Although the DEIS devotes considerable effort to comparison of per capita or household water use among the Participants, the DEIS indicates that additional demand reductions will be "difficult and costly," DEIS, p. 1-17, and the DEIS appears to discount or ignore the possible reductions in the Participants' future demand achievable through additional water conservation efforts. Even if it were true that additional conservation savings would be difficult to achieve, an assumption for which there is no justification, the DEIS cannot properly disregard conservation as a means of reducing demand. At an absolute minimum, the DEIS must account for natural conservation, the reduction in per capita demand that naturally occurs as more modern appliances, practices and land uses replace older, more water-consumptive ones. As it is, the DEIS fails to consider one of the most promising means of curbing water demand.

The DEIS distinguishes long-term conservation from use restrictions implemented during drought, DEIS, p. 1-14 – 1-15, but, as with conservation, fails to adequately account for the impact of such restrictions on demand. Dry year use restrictions are an effective and important tool for lessening water demand during drought and can reduce the amount of storage needed to supply demand during dry years. The DEIS, however, fails to consider the opportunities for dry year use restrictions and other drought management measures. Thus, again, the DEIS overstates the Participants' demands for NISP water.

To arrive at the conclusion that Participants require firm yield of 40,000 acre-feet annually, the DEIS adds to the demand projection a 10% safety factor and an additional 5% factor to account for modeling inaccuracies. DEIS, p. 1-5 and 1-21. While there may be reason to include additions to the demand estimate to deal with such concerns, an explicit discussion of the manner in which these factors were selected is essential, given their magnitude and significance with respect to the project capacity, costs and impacts. No such discussion is included. It should also be noted that, in effect, the safety factors serve the same purpose as the possibility of imposing dry year use restrictions. Both the safety factors and the possibility of dry year use restrictions create an extra source of water, beyond the otherwise projected demands, that could be used during dry conditions. The SEIS should address the relationship between dry year use restrictions and the safety factors in justifying the projected demands.

Building on the dubious assumption that Participants require firm yield of 40,000 acre-feet annually, the DEIS applies a 4:1 storage to yield ratio to reach the conclusion that Participants require storage of 160,000 acre-feet. DEIS, p. 2-7 and 2-18. The DEIS does not describe the basis or logic for the selection of the 4:1 storage to yield ratio, making it impossible for the public to evaluate whether Participants have a legitimate requirement for storage of 160,000 acre-feet. The selection of the storage to yield ratio is a critical element in the analysis of the NISP storage requirements, and the rationale for its use must be discussed explicitly. The need for explanation of the 4: 1 ratio is amplified by the comment in the DEIS regarding the use

of a “conservative” storage to yield ratio of 2:1 for the Halligan and Seaman Water Management Projects. DEIS, p.1-47.

In sum, as written, the DEIS does not establish the need for the NISP project. DEIS fails to provide the analysis needed to demonstrate the need for a project in the size proposed, and the DEIS fails to account for factors that would lessen or alter the projected demand. The SEIS must include a more thorough and less biased explanation of the need for the project.

Because the alternatives screening analysis in the DEIS is improperly restrictive, the DEIS does not include an adequate range of alternatives.

To comply with the requirements of NEPA, an environmental impact statement must evaluate a range of alternatives to a proposed action, and in issuing permits under §404(b) of the Clean Water Act, the ACE is required to select the least environmentally damaging practicable alternative, a requirement that, like NEPA, necessitates that the ACE consider a range of alternatives to a proposed action. Here, the DEIS presents the proposed action, two other action alternatives and a no action alternative. To formulate the action alternatives, the ACE screened 16 general water supply concepts and 215 specific water supply elements, eliminating from inclusion in an action alternative concepts and elements that did not meet the screening criteria. DEIS, p. 2-3. The screening criteria were inappropriately restrictive, and were biased in favor of large storage and against small storage and non-structural water supply approaches such as permanent agricultural transfers, agricultural purchase and lease-back, agricultural conservation, dry year leases and water reuse. Accordingly, the range of alternatives assessed in the DEIS is too narrow to satisfy the NEPA requirement or to allow the ACE to conduct its required §404(b) review.

The ACE screened concepts and elements based on their capacity to meet the projected firm annual yield requirement of 40,000 acre-feet. The DEIS, as discussed above, has not established that there is a legitimate need for firm yield of 40,000 acre-feet, and if the needs projections were more realistic, the DEIS would not have eliminated particular water supply approaches from further analysis in an action alternative. For example, the DEIS eliminated the concept of purchasing and transferring Colorado-Big Thompson (“C-BT”) irrigation water to municipal use, an approach which, according to the DEIS, conservatively could be expected to produce firm yield of 37,000 acre-feet annually. DEIS, p. 2-10 – 2-11. Given that the firm yield demand projection of 40,000 acre-feet is unsubstantiated and appears inflated, the ACE should not have applied the 40,000 acre-foot firm yield screen as rigidly as it did and, in particular, should not have eliminated from analysis transfer of C-BT irrigation water, an approach that, at worst, would produce over 92% of the projected firm yield requirement.

The DEIS eliminated from analysis individual water supply concepts not capable of providing annual firm yield of 12,000 acre-feet, 30% of the total projected firm yield demand, DEIS, p. 2-5, and the DEIS screened out elements that would not store a minimum of 25,000 acre-feet. DEIS, p. 2-7. The reason the ACE offers for both of these screening criteria is to limit the number of concepts and elements included in, and reduce the complexity of, any one alternative. While NEPA and §404(b) only require consideration of reasonable or practical alternatives, there is no reason that developing several smaller concepts or elements is less

reasonable or practical than developing fewer larger project components. Indeed, smaller components may well be less costly, financially and environmentally. The effect of the 12,000 acre-foot firm yield and 25,000 acre-foot storage screening criteria, for which there was no well-founded justification, was to eliminate smaller scale storage and non-structural water supply approaches, like agricultural purchase and lease-back, DEIS, p. 2-10, from in depth consideration in an action alternative and to create a bias in the DEIS in favor of large storage.

Eliminating concepts and elements not “regional” in scope had the same effect. DEIS, p. 2-5. The notion that NISP should be a regional project is sensible, but for the purposes of the DEIS, the ACE appears to have used “regional” to mean a single concept or element that would provide water to several Participants. That NISP is intended to be regional need not mean that individual components of the project must serve numerous Participants, and the ACE should not have applied the regional screen to eliminate smaller project components from the alternatives analysis.

The ACE also applied the timeliness screening criteria in an overly restrictive way. The ACE eliminated concepts and elements that could require extended periods of time to develop, such as agricultural purchase and lease-back arrangements. DEIS, p. 2-5, 2-10. The DEIS does indicate that most Participants will demand NISP water before 2010. DEIS, p. 1-45. Even if the demand projections in the DEIS are accepted, however, at the beginning of the project, the Participants would need only 10,000 to 15,000 acre-feet of yield. DEIS, p. 2-31. The Participants will not demand the total 40,000 acre-feet of firm yield until approximately 2025. DEIS, p. 1-45. As such, water supply tools that might take longer to develop could be coupled with more immediate concepts and elements without causing a water supply shortage, in the short- or long-term. The ACE should have crafted the timeliness criterion more narrowly to reflect this reality.

While the ACE eliminated many of the concepts and elements raised in the DEIS through application of overly narrow screening criteria, the ACE eliminated other water supply approaches for reasons that are unclear or unsound. For example, while the DEIS eliminates the possibility of meeting the projected 40,000 acre-feet of firm yield demand through permanent transfer of C-BT irrigation water because this approach would yield, conservatively, only 37,000 acre-feet, none of the action alternatives couples this 37,000 acre-feet with other concepts or elements, and none considers the possibility of meeting the projected demand through transfer of non-C-BT irrigation water or a combination of C-BT and non-C-BT irrigation water. The ACE’s reasons for omitting these approaches are unspecified and unclear.

The DEIS does retain the use of permanent agricultural transfers as one component of Alternative 4, but only for 12,000 acre-feet of firm yield. DEIS, p. 2-34. Clearly, agricultural transfers could yield significantly more water than 12,000 acre-feet; transfer of C-BT irrigation water itself could yield over 37,000 acre-feet annually. The DEIS does not explain why the action alternatives do not rely more heavily on agricultural transfers. And, the DEIS seems to disregard the extent to which the population growth to be served by NISP would occur on currently irrigated lands, making greater amounts of irrigation water available for municipal use.

Equally flawed and inadequate is the DEIS's explanation for eliminating agricultural water conservation from detailed analysis in an alternative. The DEIS recognizes that improving irrigation delivery or application systems or changing crops, irrigation techniques or land management practices can decrease irrigation water use and make additional water available for municipal supply. DEIS, p. 2-11. But, the ACE eliminates this concept "because Colorado water law does not allow an entity to take direct ownership of salvaged or saved water . . ." DEIS, p. 2-11. Though it is true that Colorado law does not allow a water right holder to use or market water "conserved" through reduction in return flows, Colorado law does allow transfer of water made available by reduction in historic consumptive use. Reductions in historic consumptive use can be achieved, without drying irrigated agriculture, in a number of ways, including changing to a less consumptive crop or less consumptive water delivery schedule. The legal obstacle cited in the DEIS as the reason for eliminating agricultural conservation from consideration is a fallacy, and eliminating agricultural water conservation on this basis represents a significant flaw in the DEIS.

An additional concept removed from analysis in an action alternative for unconvincing reasons is water reuse. The DEIS considered the possibility that Participants could discharge reusable effluent to the river for recapture at the South Platte Water Conservation Plan ("SPWCP") headgate. DEIS, p. 2-16. The ACE eliminated this concept, in part, because some Participants would discharge effluent downstream of the SPWCP diversion. The DEIS, however, did not consider other configurations for implementing water reuse, including reuse by exchange, and did not acknowledge the fact that most Participants would discharge effluent above SPWCP. The other reasons the ACE gives for eliminating reuse – that Participants are expected to use their NISP water for different purposes at different times of the year and that there could be a different blend of NISP water delivered to participants each year – are unexplained and do not appear to justify the elimination of reuse as a concept. Notably, the DEIS does not address reuse of transbasin water and does not explain its failure to do so.

The DEIS eliminates from the alternatives analysis one of the most promising water supply concepts – the establishment of a water bank – for spurious reasons. Because legislation exists in Colorado to encourage and establish water banks, and because the NISP project area has one of the world's most well established and sophisticated water markets, a market over which NCWCD has significant influence and control, the area is extremely well suited for the establishment of a water bank. Nevertheless, the DEIS eliminates this possibility from consideration. It is unfair to assume that a water bank in the NISP area would be unsuccessful because the Arkansas Valley water bank has not been used often. Further, while it is true that the yield from a water bank would vary from year to year, a water bank could be one component of a multifaceted water supply project, including other concepts such as agricultural transfers, small storage and water reuse, and the DEIS should have considered the water bank concept as such.

Finally, the DEIS fails to consider fully municipal conservation as a means of balancing water supply and water demand. The DEIS purports to account for conservation as a reduction in demand for NISP water, DEIS, p. 1-15, though, as discussed above, it is not at all clear that the demand projections actually reflect any reduction in demand as a result of conservation. Likewise, the DEIS fails completely to consider water conservation savings as a new supply of water. Whether as a reduction in demand or a source of supply, the DEIS must account for

conservation. Viewing conservation as a source of supply would, appropriately, allow for its incorporation into alternatives.

The effect of the overly restrictive alternatives screening analysis and the elimination of sound water supply tools from consideration is that the three action alternatives in the DEIS are fundamentally very similar to one another, all embodying the same basic water supply approach. All three alternatives involve a large reservoir of 170,000 or 180,000 acre-feet downstream from the mouth of the Poudre River Canyon, and all three include Galeton Reservoir near the confluence of the Poudre and South Platte Rivers at 20,000 acre-feet. The three action alternatives use similar or identical water exchanges and diversions and water rights. The only real differences among the alternatives are that Alternative 3 would include Cactus Hill Reservoir rather than Glade Reservoir and that Alternative 4 would supply 12,000 acre-feet of yield annually through agricultural transfers. DEIS, p. 2-34. The DEIS does not include a reasonable range of alternatives, and the water supply tools eliminated from consideration, including both smaller storage and non-structural water supply arrangements, all have the potential to provide water with less environmental (not to mention economic) cost than the large storage approach embodied in the action alternatives.

To meet its obligation under NEPA of analyzing a reasonable range of alternatives, and to meet its obligation under §404(b) of the Clean Water Act of selecting the least environmentally damaging practicable alternative, the ACE must prepare an SEIS. The SEIS must present a fuller range of alternatives, including action alternatives which rely more heavily than any of the existing alternatives on small scale storage and non-structural water supply approaches. In particular, the SEIS must look much more carefully than the DEIS at action alternatives that include a combination of small scale storage, particularly in the abundant gravel pits in the area; permanent and temporary agricultural transfers; dry year leases; savings in agricultural consumptive use water; water reuse including, in particular, reuse by exchange and direct reuse and reuse of C-BT or other transbasin water; water banking; and municipal conservation. Further analysis is likely to reveal that these innovative approaches, in some combination with each other or in connection with a scaled-back version of NISP, are capable of meeting Participants' water supply needs – even as the DEIS currently projects those needs but especially if those needs projections are revised – with less impact on the environment than any of the current action alternatives in the DEIS.

The no action alternative is inadequate and flawed.

While the DEIS improperly screened water supply concepts and elements from analysis in the action alternatives, the DEIS's presentation and discussion of the no action alternative is similarly flawed. Because the current no action alternative is inadequate to allow for meaningful public comment, the SEIS must include a more well-developed no action alternative.

Some of the concepts excluded from analysis in the action alternatives do appear in the no action alternative. Agricultural transfers, small storage, potentially making use of the abundant gravel pits in the area, and reverse osmosis, presumably as a means of facilitating water reuse – none of which received appropriate attention in the action alternatives – are the primary concepts included in the no action alternative. The no action alternative, however, is extremely

vague and entirely undefined, including only broad concepts and lacking any specific elements. Indeed, the DEIS characterizes the no action alternative as “conceptual” only, arguing that additional detail cannot be provided because it is impossible to know what water supply approaches the Participants will develop in the absence of NISP. DEIS, p. 2-20. Though NCWCD may find it difficult to more clearly define the no action alternative or may not wish to do so, NEPA provides no exception to the requirement that an environmental impact statement include a no action alternative for public review. It is therefore incumbent on the ACE to prepare an SEIS with a more well-defined no action alternative.

The ACE should focus on several tacks in developing the revised no action alternative. The basic concepts included in the current no action alternative are credible and are worthy of additional attention. Other ideas that should be further considered for the no action alternative are dry year leasing, agricultural conservation and the notion of developing and storing the Grey Mountain water right in gravel pits along the Poudre River as a full or partial alternative to storing Grey Mountain water in Glade Reservoir. The latter idea, which also might be incorporated into an action alternative, could satisfy Participants’ needs with less impact on irrigated agriculture than permanent agricultural transfers. In developing the revised no action alternative, the ACE should also request detailed descriptions from the individual Participants of what their plans would be in the absence of NISP.

As it is currently written, the no action alternative is so vague that the public cannot understand the consequences that would arise from the ACE’s refusal to issue the permits necessary for the NISP project. It is unclear what water sources the Participants would develop, what physical features would be necessary to develop those sources or what the environmental, economic or social impacts of that development would be. To the extent that the DEIS purports to describe the environmental impacts of the no action alternative, its economic costs or its impacts on irrigated agriculture or values, the assertions are completely speculative because, again, the no action alternative is undefined. In particular, because the no action alternative is undefined, the DEIS’s analysis suggesting that the no action alternative would be more expensive, would dry more irrigated acreage and would lead to loss of more wetlands than the action alternatives is wholly lacking in credibility.

One of the reasons that NEPA requires that environmental impact statements include a no action alternative is to provide a baseline against which the impacts of the action alternatives can be compared. Because the current no action alternative is vague and only conceptual, it fails to serve this purpose. The DEIS does include a table distinguishing the action and no action alternatives and summarizing their impacts. DEIS, p. 4-15 – 4-18. But, the distinctions and comparisons to the no action alternative are essentially meaningless, given that there is no concrete no action alternative included in the DEIS.

One additional point must be noted regarding the no action alternative. The DEIS asserts that without NISP, “obtaining new water supplies in the region likely would become more challenging because the demand for a finite supply of sources would increase.” DEIS, p. 2-20. This is a mischaracterization. In the absence of NISP, water providers in northern Colorado may be required to pursue innovative and non-traditional water supply tools; there may even be some competition amongst providers for the water sources that are easiest and least costly to develop.

There is no reason to believe, however, that demand for the finite water supply will increase. Demand is shaped by factors such as the uses to which water is applied, water use efficiency, consumer preferences and lifestyles, and local water use regulation. Demand is not affected by available supply.

The SEIS must include a no action alternative of sufficient specificity to allow the public to understand and comment on its consequences, features and impacts and to provide a point of comparison against which the effects of the action alternatives can be measured.

The impacts of the alternatives are not adequately described or characterized.

The DEIS fails to adequately describe and characterize the action alternatives and their effects. As discussed above, part of the problem is that the no action alternative does not provide a baseline against which the action alternatives can be compared. There are additional shortcomings in the DEIS's description of the alternatives and their impacts.

Aquatic Impacts Description

Chapter 4 of the DEIS includes the discussion of the environmental consequences of the alternatives, and attached to the DEIS is a Reasonably Foreseeable Actions and Cumulative Effects Technical Report. Neither Chapter 4 nor the cumulative impacts attachment adequately describes the impacts of the NISP project. Instead, the analysis and description of the impacts of the project are purely cursory and superficial and fail to supply the information needed to properly evaluate the impacts at the appropriate level of detail and specificity for an environmental impact statement. The cumulative impacts report recognizes a number of reasonably foreseeable future actions including, among others, the Halligan and Seaman Water Management Projects, the Windy Gap Firing Project, the Moffat Collection System Project and Aurora's Prairie Waters Project, but fails to fully consider or describe the cumulative impacts of the alternatives when combined with other past, present or reasonably foreseeable future actions.

Aside from this broad problem with the DEIS's description of the direct and cumulative impacts of the alternatives, there are several more specific issues with the DEIS's characterization or description of impacts on aquatic resources and fisheries. For example, the DEIS categorizes the loss of a "few" species of fish or invertebrates as a minor impact. DEIS, p. 4-59. Given the paucity of fish species, especially in cold water reaches, the loss of a few species would be better characterized as severe. Similarly, the DEIS suggests that a reduction in maximum flows in the Poudre River in May, June, July and August would increase habitat availability for brown and rainbow trout. DEIS, p. 4-61. While it is true that reductions in high spring flows can increase trout habitat in the short-term, it is equally true that the long-term health of a riverine ecosystem, including its trout fisheries, depends on seasonal channel maintenance and flushing flows. The SEIS must fairly acknowledge this reality and incorporate it into its discussion of the impacts of the alternatives.

Operational Flexibility

One reason that the DEIS is unable to adequately describe the action alternatives and their effects is that the DEIS leaves operation of the NISP project very flexible. The DEIS describes the anticipated operation of the NISP project only in general terms, leaving actual operations completely open and including no specific operational prescriptions. This flexibility, while attractive and convenient to NCWCD, makes description of the impacts of the project impossible. The SEIS must describe the operations of the project alternatives with sufficient particularity to enable an understanding of the impacts.

The DEIS lists seven specific points on which NCWCD “needs” operational flexibility. DEIS, p. 2-30. Many of these areas of flexibility are troublesome. For example, the DEIS indicates that diversions to Glade Reservoir could be made either at the Poudre Valley Canal or the Munroe Canal, five miles upstream. DEIS, p. 2-33. The document does not describe how often, when or under what conditions diversions would be made at one or the other diversion point. Accordingly, the DEIS cannot accurately anticipate or disclose the impacts of the project.

The DEIS’s assertion that diverting water at the Munroe Canal rather than the Poudre Valley Canal would improve flows in the Poudre River is unexplained and creates confusion. DEIS, p. 2-33 and 4-10. Given that the Munroe Canal is five miles upstream from the Poudre Valley Canal, the assertion that diverting at Munroe would be beneficial for stream flow is counterintuitive. The SEIS must explain the reasoning behind the assertion and provide an understandable description of the impacts of the two potential diversion points.

Another area in which NCWCD claims the need for operational flexibility is the use of sources of water other than the Grey Mountain water right. DEIS, p. 2-31. Like using the Munroe Canal rather than the Poudre Valley Canal to fill Glade Reservoir, using water rights other than the Grey Mountain right could change the impacts of the project. The DEIS does not describe these impacts. The SEIS must do so, for the possibility of using other water rights as well as for the other points on which NCWCD is seeking to retain operational flexibility.

Transbasin Issues

The DEIS lists four sources of water as possible alternatives to the Grey Mountain right: C-BT units, Windy Gap, Grand River Ditch and the Laramie-Poudre Tunnel. DEIS, p. 2-31 – 2-32. All four are transbasin sources of water, diverting water from the Colorado River basin or, in the case of the Laramie-Poudre Tunnel, the Laramie River basin to the South Platte basin. As indicated above, the DEIS does not evaluate the impacts of using water sources other than the Grey Mountain water right in the NISP project. In particular, the DEIS fails to address whether the use of these transbasin water sources in NISP would cause impacts in the basins of origin. Such impacts could include reduction in stream flows necessary to sustain aquatic life, particularly in the upper Colorado River, which includes a state-designated Gold Medal trout fishery, but which is also heavily flow-depleted; increase in water temperature and potential violation of state water quality standards; other water quality impacts, particularly in Grand Lake, the largest natural lake in Colorado; and increase in algae and deterioration of aesthetic

qualities. Similarly, the DEIS fails to evaluate the impacts to the receiving basin of diverting transbasin water to, and storing transbasin water in, the South Platte Basin.

The DEIS fails to address the extent to which use of transbasin water sources may conflict with federal, regional, state and local policies and controls for the area concerned, as required by CEQ regulations. See 40 CFR § 1502.16(c). As an example, TU contends that neither the Blue River decree nor the Windy Gap decrees contemplate storage of C-BT or Windy Gap water, respectively, in Glade Reservoir. Storing these waters in Glade Reservoir would, therefore, be inconsistent with Colorado water law, unless such storage is approved through a new decree. Likewise, TU contends that storage of C-BT water in new reservoirs could violate the federal Senate Document 80 authorizing construction and operation of the C-BT project, particularly in the absence of conditions that ensure that fisheries in the Colorado River are protected. The DEIS does not discuss these potential conflicts with state or federal law.

In addition to potentially using transbasin water as an alternative to the Grey Mountain water right, NISP would also use C-BT facilities for storage and exchange of NISP water, and NISP might include a pipeline between Glade Reservoir and Horsetooth Reservoir, a C-BT facility. DEIS, p. 2-36. The DEIS acknowledges that NCWCD would need contracts from the Bureau of Reclamation to use, or connect a pipeline to, C-BT facilities. DEIS, p. 2-36. Yet, the DEIS does not address the impacts of the contemplated use of C-BT facilities, indicating that “the NISP EIS will evaluate and disclose any such impacts.” DEIS, p. 2-36. What is meant by this statement is unclear, given that the ACE has already issued the DEIS without addressing the impacts on the C-BT project. Under NEPA, the impacts of NISP on C-BT must be disclosed for public review and comment. TU suggests that the impacts be disclosed in the ACE’s SEIS.

Modeling Concerns

With respect to the modeling of surface water impacts of the alternatives, the DEIS uses MODSIM, a modeling tool, to simulate hydrology for the Poudre River basin. DEIS, p. 4-21. There are a number of shortcomings in the modeling that disable the DEIS from fully and fairly disclosing the impacts of the alternatives.

The DEIS reports anticipated changes in stream flow in terms of monthly averages. DEIS, p. 4-21. While monthly time steps may be adequate for displaying historical data, projections of future flow impacts due to project operations should be based on shorter time steps so that short duration flows that would adversely affect aquatic life can be identified. The analysis of flow alteration on a monthly time step is inadequate to identify the impacts of alternatives on downstream fish and aquatic life. Modeling analysis on a daily basis should be used to identify the downstream flow impacts during critical seasons and years.

The DEIS model does not quantify the impacts of exchanges made for the purpose of delivering water to the Northern Participants. DEIS, p. 2-29. While the DEIS indicates that there is an explanation for the failure to quantify these impacts, DEIS, p. 2-29, TU can find no such explanation. Similarly, the DEIS acknowledges that the MODSIM does not represent in full detail the diversion and delivery exchanges from the Munroe Canal. DEIS, p. 4-23. It is unclear how the ACE could accept the DEIS with these omissions. The DEIS’s failure to fully

analyze exchanges and the diversions at the Munroe Canal suggests that the ACE has failed to properly evaluate one of the most critical impacts of the alternatives – flows along an important coldwater reach of the Poudre River.

The period of record used for the hydrological analysis and modeling studies does not include the recent, critically dry period of 2000-2004. The proffered reason for excluding the 2000-2004 dry period from the study was that including 2000-2004 would end the study in the middle of a dry period which would be inconsistent with general engineering practices. Water Resources Technical Report, p. 65. TU is unaware of any generally accepted engineering practice which recommends exclusion of the most recent extended critical low flow period from water supply planning or impact assessments. The DEIS also attempts to justify the exclusion of 2000-2004 from the model by suggesting that, because the 2000-2004 drought was likely to be more severe than the one in 25 year drought of the 1950s, there would be minimal diversions for NISP and, consequently, limited project impacts. Water Resources Technical Report, p. 65. However, the DEIS explicitly recognizes that NCWCD would like the operational flexibility to use the NISP facilities during drought for storage or delivery of water sources other than the Grey Mountain water right, DEIS, p. 2-30, 2-32, a recognition that undercuts the justification offered for excluding 2000-2004 from the modeling. Finally, the exclusion of the recent drought from the model disables an evaluation of the NISP project's reliability and capacity to provide firm yield, the purported purpose of the project, and the exclusion of these dry years is especially troublesome given that the DEIS also fails to consider potential climate change issues. Thus, there is no justification for excluding the 2000-2004 period from the modeling. The SEIS must include the recent drought period and must assess the impacts of using the NISP facilities under equivalent conditions.

The DEIS does not adequately discuss mitigation measures.

Because of the infirmities of the DEIS described above, the ACE cannot make any decisions at this stage on the NISP project. Should the ACE ultimately decide – after preparing an SEIS and conducting the requisite review – to permit the NISP project, it is imperative that the ACE include conditions in the permit to mitigate for the project's impacts. These mitigation conditions would need to be requirements on NCWCD, not measures that NCWCD takes voluntarily.

The DEIS includes a chapter on measures that might be taken to mitigate the effects of the alternatives. Like much of the DEIS, the mitigation discussion is unspecific and does not provide an adequate basis on which the ACE could make decisions regarding mitigation. The DEIS fails to examine with any detail the various mitigation measures listed. As such, it is impossible for the public to understand what is proposed, to evaluate the feasibility of the proposals or to form an opinion as to whether the proposals would be sufficient to mitigate for the project.

A number of the listed mitigation measures are contingent on the development of physical facilities, legal agreement or other arrangements. For example, the DEIS suggests that one form of mitigation may be to improve winter stream flows in the upper Poudre River by releasing water stored in reservoirs in the upper basin for recapture in Glade Reservoir. DEIS, p.

5-4. The DEIS acknowledges, however, that NCWCD does not own reservoirs in the upper Poudre basin and that arrangements would have to be made with reservoir owners in order for this proposal to be implemented. Similarly, several mitigation measures involve NCWCD bypassing water that it would otherwise divert. DEIS, p. 5-5, 5-6, 5-7. These measures are contingent on NCWCD receiving assurance that the water will serve its intended purpose of improving stream flows and that other water users will not divert it.

While both of these examples represent forms of mitigation that TU could support in concept, because of their contingencies at this point they are not concepts that can be relied upon. The concern is that the ACE could decide to permit the project based on the expectation that a certain mitigation measure would be implemented, which mitigation measure ultimately is not implemented because the contingency is not met. To avoid this possibility, the SEIS should provide a deeper analysis of the feasibility of meeting contingencies upon which mitigation measures depend, and the ACE and NCWCD should begin **now** the process of resolving the contingencies. It is important that the ACE not issue a permit for the NISP project until the contingencies on which the mitigation measures depend are resolved; if the contingencies are not satisfied, it would be necessary for the ACE to reevaluate whether or not to issue the permit. Further, if and when a permit is issued, its terms must clearly provide that it will terminate should NCWCD fail or cease to implement the mitigation conditions.

While the mitigation discussion in the DEIS cannot serve as a basis for the public or the ACE to form an opinion on mitigation measures, several mitigation ideas presented in the DEIS are worthy of careful consideration and detailed discussion in the SEIS. In particular, TU supports the concepts of enhancing stream flows above the mouth of the Poudre Canyon (though TU believes that the need for flow augmentation extends beyond February) and through Fort Collins, curtailing diversions from the Poudre River during the winter and for some period of time during high flows, developing a stream habitat enhancement plan, and reintroducing native fish species. Indeed, should the ACE permit the NISP project, TU submits that the ACE should require NCWCD to implement several, if not all, of these measures and should require NCWCD to bear the costs of installation and operation of any additional flow measurement stations needed to implement these measures. TU also supports the subordination or subjection of the Grey Mountain water right to stream flows for the Watson Lake Fish Hatchery and the Fort Collins boat chute and nature center, but believes these flows are far too small to represent adequate mitigation for the project.

Conclusion

In brief, the NISP DEIS is inadequate to meet the ACE's requirements under NEPA and §404(b) of the Clean Water Act. It fails to establish the need for the NISP project, does not present a reasonable range of alternatives, lacks a true "no action" alternative and inadequately describes environmental impacts. Further, the DEIS does not include a sufficient discussion of measures that would be required to mitigate for NISP's impacts. The ACE should develop an SEIS to address these shortcomings and allow the public – and the ACE itself – to have sufficient information on which to make informed comments and decisions regarding NISP.

Thank you for considering TU's comments on the NISP DEIS. If there are questions or concerns regarding this letter, please contact Drew Peternell or David Nickum at (303) 440-2937. TU looks forward to providing additional comments on a supplemental environmental impact statement in the future.

Sincerely,



Drew Peternell
Trout Unlimited



David Nickum
Colorado Trout Unlimited



Kenneth Eis
Rocky Mountain Flycasters

cc: Mike Collins
Colorado Water Conservation Board Members