

NEPA and the Northern Integrated Supply Project: Wielding the ‘Paper Tiger’ in the Tenth Circuit

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I. INTRODUCTION

This Note offers an analysis of how courts in the Tenth Circuit should interpret water development project Environmental Impact Statements (“EIS”) in an increasingly dry and environmentally sensitive West. The analysis is carried out through a case study of the Supplemental Draft EIS (“SDEIS”) for the Northern Integrated Supply Project (“NISP”), a water development project on the northern Front Range. The case study and analysis will show why Tenth Circuit courts should demand that all No Action Alternatives (“NAA”) within an EIS consider the impact of water conservation measures that would result in the absence of a major water development project. The National Environmental Policy Act’s (“NEPA”) statutory goal is to preserve the nation’s environmental integrity,¹ and Tenth Circuit courts should attempt to reach this lofty objective through every procedural mechanism available, including the NAA.² If Tenth Circuit courts interpret NEPA as it has been applied in the Ninth Circuit, the statute’s procedural tools could be used as an effective mechanism for delaying and ending environmentally destructive water development projects in Colorado. Enforcing these procedural requirements would achieve NEPA’s substantive environmental mandate within the limiting bounds of Supreme Court case law, resulting in positive environmental outcomes.

The Note begins by describing NISP and the water supply crisis facing northern Colorado. It then briefly traces the legislative history of NEPA and requirements for an EIS. The fourth section surveys the major Supreme Court NEPA cases and analyzes the differing judicial treatment of NEPA in the Ninth and Tenth Circuits, arguing that the Ninth Circuit’s more stringent interpretation of NEPA’s procedural requirements can be used to achieve the positive environmental outcomes originally contemplated by NEPA. The fifth section explores the potential for water conservation savings on the northern Front Range and in the SDEIS NAA for the NISP project, arguing that the NAA is deficient due to a lack of consideration of water conservation savings. The sixth section illustrates how the Tenth Circuit can adopt the Ninth Circuit’s stringent interpretation of NEPA procedure in the context of NISP. Finally, the conclusion offers a summary of the legal and policy analysis.

1. 42 U.S.C. § 4331(b) (2012).

2. NEPA’s clear statutory purpose is to preserve the nation’s environmental integrity, and there is a “well-established canon of interpretation that requires a court, wherever possible, to give force to each word in every statutory (or constitutional) provision.” *Silveira v. Lockyer*, 312 F.3d 1052 (2002). If the Tenth Circuit is to correctly apply NEPA, it must take the preamble’s goals into consideration.

II. MUNICIPAL WATER SHORTAGE IN THE SOUTH PLATTE RIVER BASIN AND NISP

The northern Front Range of Colorado is facing a period of unprecedented population growth. By 2040, the combined populations of Weld and Larimer counties could peak at over a million people—a doubling of their current population in little more than two decades.³ The coming influx of people presents a serious challenge for the region’s municipal water suppliers. The Colorado Water Conservation Board (“CWCB”) estimates that by 2050, Weld, Larimer, and Boulder counties will need an additional 150,000 AF per year to support their expanding populations.⁴ That’s the equivalent of forty-nine billion gallons of water every year, enough water to fill a football-field-sized container going up 15,000 stories.

The issue is compounded by Colorado’s geographic, demographic, and economic realities. Eighty percent of Colorado’s water is on the Western Slope, while eighty percent of Colorado’s population lives east of the Continental Divide on the Front Range.⁵ The historical solution to this problem has been to import water through transmountain diversions, which bring an additional 500,000 AF per year to the Front Range through a network of twenty-four major tunnels that run beneath the Continental Divide.⁶ For a host of political, legal, and environmental reasons, further diversion of Western Slope water is not as feasible as it once was, forcing Front Range municipalities to look to other sources of water to slake their growing thirst. For example, in 1990, the Environmental Protection Agency (“EPA”) vetoed Denver Water’s Two Forks transmountain diversion project based on the potential impact to

3. Erin O’Toole, *Ready Or Not, Growth is Coming to Northern Colorado*, KUNC (Jan. 17, 2014), <http://www.kunc.org/post/ready-or-not-growth-coming-northern-colorado>.

4. Memorandum from Susan Morea et al., CDM, to Eric Hecox, CWCB, on Basin M&I Gap Analysis (June 22, 2011), <http://cwcb.state.co.us/public-information/publications/Documents/ReportsStudies/GapAnalysisMemo062111FinalWFi gures.pdf>. The three counties together comprise the northern part of Colorado’s Front Range. In 2010, Boulder, Larimer, and Weld Counties had a population of 295,605, 300,532, and 254,230 respectively. The fifteen NISP participants, with a combined population of 200,366, make up 22.8 percent of the counties’ population totals. U.S. ARMY CORPS OF ENGINEERS, SUPPLEMENTAL DRAFT ENVIRONMENTAL IMPACT STATEMENT: NORTHERN INTEGRATED SUPPLY PROJECT 1-8 (2015).

5. Jim Mimiaga, *Southwest Basin Water Roundtable holds meetings to discuss plans*, CORTEZ JOURNAL (Dec. 8, 2014, 5:30 PM), <http://www.cortezjournal.com/article/20141208/NEWS01/141209815/Southwest-Basin-Water-Roundtable-holds-meetings-to-discuss-plan->.

6. *Id.*; *Transmountain Diversions*, ROARING FORK CONSERVANCY, <http://www.roaringfork.org/your-watershed/> (last visited Oct. 1, 2015).

fisheries, wildlife, and recreation values. This was after nearly fifty years of planning and \$40 million spent on feasibility studies.⁷ Purchasing water from agriculture, which accounts for nearly ninety percent of the state's water consumption, is another potential solution to the looming municipal supply gap.⁸ But there are prohibitively high transaction costs associated with changing a water right, making it highly unlikely that agriculture to urban water transfers will provide a complete answer to growing municipal demand.⁹

The Northern Colorado Water Conservation District ("NCWCD") is a quasi-public water supplier for northeastern Colorado's cities and farmers. NCWCD has proposed NISP to help resolve the looming water supply gap in the region. It is designed to accommodate the future water supply needs of fifteen growing Front Range municipalities in the South Platte River Basin (or simply the "Basin") (see Appendix 1).¹⁰ Instead of taking water from Western Slope rivers, NISP calls for increased diversion and storage of the Poudre and South Platte Rivers (the Poudre is a tributary of the South Platte River, which drains eastward from the Continental Divide to the Mississippi) (see Appendix 2).¹¹ At a price tag of nearly \$508 million (excluding annual operating costs), NISP would build two massive reservoirs to capture and store a combined 215,624 AF of water that currently flows downstream into Nebraska.¹² The captured water would provide an annual 40,000 AF of new reliable municipal supply to the fifteen participating municipalities and water districts, which would allow them to adequately meet their projected 2030 demands for additional water.¹³ The municipalities would fund the project through loans and the issuance of municipal bonds.¹⁴

7. G. DRISCOLL, ROARING FORK WATERSHED PLAN PHASE II GUIDANCE DOCUMENT app. I (2010), <http://docs.tosv.com/WebLink/0/doc/9607/Page36.aspx>.

8. JOAN F. KENNY ET AL., U.S. GEOLOGICAL SURVEY, ESTIMATED USE OF WATER IN THE UNITED STATES IN 2005 CIRCULAR 1344, 7 (2009), <http://pubs.usgs.gov/circ/1344/pdf/c1344.pdf>.

9. See generally Mark Squillace, *The Water Marketing Solution*, 42 ENVTL. L. REP. NEWS & ANALYSIS 10800 (2012).

10. NORTHERN WATER, NISP PARTICIPANT BOUNDARIES, http://www.northernwater.org/docs/NISP/MapsDocuments/MapsPDFs/4_nisp_participants.pdf.

11. REAGAN M. WASKOM, COLO. STATE UNIV., REPORT TO THE COLORADO LEGISLATURE: HB12-1278 STUDY OF THE SOUTH PLATTE RIVER ALLUVIAL AQUIFER 2 (2013), <http://www.cwi.colostate.edu/southplatte/files/report/HB1278%20Executive%20Summary.pdf>.

12. U.S. ARMY CORPS OF ENGINEERS, *supra* note 4, at 2-28, 2-61.

13. *Id.* at 1-15.

14. *Some Facts about the Proposed NISP and its Glade Reservoir*, SAVE THE POUDBRE, <http://www.savethepoudre.org/the-nisp-glade-project.html> (last visited Oct. 27, 2015).

From an engineering point of view, NISP makes good sense. It calls for the creation of the 170,000 AF Glade Reservoir in a mountain valley just north of the Poudre canyon's mouth, where gravity will aid in the distribution of water across the low-lying plains (see Appendix 3).¹⁵ The valley is relatively deep, so Glade Reservoir would have less surface-area and thus a lower evaporation rate.¹⁶ The other 45,624 AF would be stored in a separate reservoir northeast of Greeley.¹⁷ But from an ecological perspective, the effects of NISP could be devastating. The Cache la Poudre already loses sixty percent of its natural stream flow to diversion.¹⁸ NISP would reduce the remaining stream flow by up to seventy-one percent during the peak spring runoff, leaving the Poudre much reduced from its wild state.¹⁹ The ecological effects of significantly reducing a river's stream flow are well-documented. By taking out water during the critical snowmelt months of May-June (which is when most of the diversions would occur), NISP would drain water from valuable riparian areas, dewater wetlands around the river's channel, and significantly affect the river's ability to flush sediment from the bed.²⁰ Reduced flows would also raise summer water temperatures, putting additional stress on vulnerable cold-water fisheries, while further lowering water quality.²¹

Thus, perhaps it is no surprise that NISP has generated a strong opposition in the Fort Collins area, which borders the twenty-three mile stretch of river that will be most affected by the project.²² Save the Poudre, a dedicated concerned citizen's group, sprang up to challenge NISP. They argue that further water development is not the answer to northern Colorado's water supply problems.²³ Save the Poudre's no-further-water-development stance is understandable, given the remarkable amount of buildup that already exists in the South Platte River Basin. As Professor Lawrence MacDonnell has noted:

Intensive use of this modest river during the past 120 years has radically altered its [the South Platte's] flow patterns. Native water supplies, largely from high mountain snowmelt, are about 1.4 million

15. U.S. ARMY CORPS OF ENGINEERS, *supra* note 4, at 4-45.

16. *Id.*

17. *Id.* at 2-29.

18. *Project Impacts*, SAVE THE POUFRE, <http://www.savethepoudre.org/project-impacts.html> (last visited Oct. 1, 2015).

19. *The Endangered Cache la Poudre River*, SAVE THE POUFRE, <http://www.savethepoudre.org/the-nisp-glade-project.html> (last visited Oct. 27, 2015) [hereinafter SAVE THE POUFRE].

20. *Id.*

21. *Id.*

22. U.S. ARMY CORPS OF ENGINEERS, *supra* note 4, at S-24.

23. SAVE THE POUFRE, *supra* note 19.

acre-feet in an average year. Historically, surface water flows reaching into the plains area peaked with the snowmelt, declining thereafter so that by late summer the riverbed often was completely dry--especially at greater distances from the mountains.²⁴

Today, hundreds of diversions withdraw over three MAF of water from the Basin each year, and the river flows year round due to late summer reservoir releases.²⁵ In Colorado alone, the Basin possesses a total reservoir capacity of 2.34 MAF, nearly two times its annual historic flow.²⁶

The United States Geological Survey reports that intensive use of the river has adversely affected both the quantity and quality of water in the Basin.²⁷ The cumulative effect of the development has resulted in increasingly high concentrations of salinity, nitrates, and pesticides in the Basin's rivers and streams, which can be detrimental to irrigation and drinking-water supplies, not to mention fish and wildlife populations.²⁸ NISP would only further contribute to reductions in stream flow on both the Poudre and its drainage, the South Platte (which will exacerbate the problems listed above). It is thus fair to ask whether there is a method of solving the NISP participants' growing supply needs before beginning any new large water development project with harmful environmental consequences.

Before NISP can break ground, the NCWCD must obtain a Section 404 Dredge and Fill permit ("Section 404 permit") from the U.S. Army Corps of Engineers ("Corps"), which possesses regulatory authority under the Clean Water Act over the nation's navigable waterways.²⁹ In issuing the permit, the Corps must comply with NEPA, which requires a detailed EIS for all "major Federal actions significantly affecting the

24. Lawrence J. MacDonnell, *Colorado's Law of "Underground Water": A Look at the South Platte Basin and Beyond*, 59 U. Colo. L. Rev. 579, 582 (1988).

25. *Water Quality in the South Platte River Basin, Colorado, Nebraska, and Wyoming, 1992-95*, U.S. GEOLOGICAL SURV., <http://pubs.usgs.gov/circ/circ1167/nawqa91.2.html> (last updated Oct. 15, 1998) [hereinafter U.S. GEOLOGICAL SURV.].

26. WASKOM, *supra* note 11, at tbl. 8-3.

27. U.S. GEOLOGICAL SURV., *supra* note 25.

28. *Id.*

29. A Corps Section 404 permit is necessary for "any work, including construction and dredging, in the Nation's navigable waters." *Obtain a Permit*, U.S. ARMY CORPS OF ENGINEERS, <http://www.usace.army.mil/Missions/CivilWorks/RegulatoryProgramandPermits/ObtainPermit.aspx> (last visited Oct. 27, 2015); See 40 C.F.R. § 230.2; NISP will involve the discharge of dredge and fill materials into waters of the U.S. - the Poudre and South Platte are navigable waterways for purposes of the Clean Water Act, which defines broadly "navigable waters" as the "waters of the United States." 33 U.S.C. § 1362(7) (2012).

quality of the human environment.”³⁰ Although NISP is a private project, the issuance of a required permit constitutes a “major federal action” for NEPA purposes, generating the NEPA procedural requirements.³¹ In June of 2015, the Corps issued a SDEIS that suggests it will issue a permit for NISP to go ahead along proposed lines.³²

Assuming the Corps approves a Section 404 Dredge and Fill permit for NISP, the most viable response for citizens who do not want to see NISP break ground is to challenge the Corps’ SDEIS as deficient under NEPA in federal district court.³³ Given proper judicial interpretation, such a challenge might prove successful, and similar challenges could be mounted against future environmentally destructive water development projects across the Front Range.³⁴

30. 42 U.S.C. § 4332(C) (2012).

31. Conservation Council of N.C. v. Costanzo 528 F.2d 250 (4th Cir. 1975), *aff’d*, 398 F. Supp. 653 (E.D.N.C. 1975).

32. The Corps titled the alternative that involves building Glade and Galeton Reservoirs as the ‘District’s Preferred Alternative’ rather than just the ‘Preferred Alternative.’ This presumably means that the Corps has not yet adopted Northern Water’s proposed action as its own. It is thus not entirely certain at this point whether the Corps will go through with NCWCD’s proposed plan to build the two massive reservoirs. They have not definitively committed themselves to the project. U.S. ARMY CORPS OF ENGINEERS, *supra* note 4, at 2–28.

33. Of course, there are other permitting agencies with authority over NISP that could stop the project in its tracks. The EPA can veto any Corps-issued Section 404 permit that, in its opinion, has “an unacceptable adverse effect on municipal water supplies, shellfish beds and fisher areas... wildlife, or recreational areas.” 33 U.S.C. § 1344(c) (2012). However, the EPA rarely exercises this authority, having vetoed only a dozen Corps-approved § 404 permits in its history. One such veto happened on a large water development project in Colorado—Denver Water’s Two Forks Reservoir, which received a Corps-approved Section 404 permit that the EPA vetoed. TROUT, RALEY, MONTANO, WITWER, & FREEMAN, P.C., ACQUIRING, USING, AND PROTECTING WATER IN COLORADO 179 (2011). In addition, counties in Colorado have Section 1041 powers which give them the ability to require a permit for “any activity designated as a matter of state interest.” *Id.* at 194; COLO. REV. STAT. § 24-65.1-501. NISP must obtain a Section 1014 permit from Larimer County before construction can begin, though chances are it will receive the permit without a hitch as many municipalities in the county are highly invested in NISP.

34. There are several such projects in the works. NCWCD itself is simultaneously working on a new transmountain diversion, the Windy Gap Firing Project, which stands a good chance of coming to fruition. *Windy Gap Reaches a Milestone*, NORTHERN WATER, <http://www.northernwater.org/WaterProjects/WGFProjectOverview.aspx>. Denver Water is working on doubling the size of Gross Reservoir, which would result in further depletion of the Fraser River, the Williams Fork River, and South Boulder Creek. U.S. ARMY CORPS OF ENGINEERS, MOFFAT COLLECTION SYSTEM PROJECT, FINAL ENVIRONMENTAL IMPACT STATEMENT ABSTRACT, <http://cdm16021.contentdm.oclc.org/cdm/ref/collection/p16021coll7/id/730>.

III. NEPA AND THE EIS

Passed in 1969 at the height of the environmental movement, NEPA is one of the most essential and far-reaching pieces of environmental legislation ever passed by Congress. It begins with soaring language not often found in our statutes today. Its purpose was,

to declare a national policy which will encourage productive and enjoyable harmony between man and his environment; to promote efforts which will prevent or eliminate damage to the environment and biosphere and stimulate the health and welfare of man; to enrich the understanding of the ecological systems and natural resources important to the Nation....³⁵

More explicitly, NEPA makes it “the continuing responsibility of the Federal Government to use all practicable means, consistent with other essential considerations of national policy, to improve and coordinate Federal plans, functions, programs, and resources . . . [so as to] attain the widest range of beneficial uses of the environment without degradation”³⁶ Despite the seemingly substantive intent to protect the environment, NEPA has been repeatedly interpreted by the Supreme Court to be a purely procedural statute.³⁷ Consequently, while a federal agency must consider the environmental impacts of a “major federal action” through an EIS, the agency is not mandated to make its decision based on the least environmentally harmful alternative.³⁸ In other words, NEPA does not require environmentally sound decision-making. It merely requires that the agency document the environmental effects of a project.

The federal agency that leads the operation or permitting of a project which affects the “quality of the human environment” must prepare the EIS.³⁹ The complexity and cost of each EIS varies, but each one must achieve the same goal, as contemplated in the following five components. An EIS is a detailed statement on the

1) impact of proposed action on the environment, 2) adverse environmental impacts if the proposal is undertaken, 3) alternatives to the proposed action, 4) extent to which the proposed action involves tradeoffs between short-term and long-term environmental gains or vice-versa, [and] 5) any irreversible and irretrievable

35. 42 U.S.C. § 4321 (2012).

36. 42 U.S.C. § 4331(b) (2012).

37. Philip Weinberg, *It's Time to Put NEPA Back on Course*, 3 N.Y.U. Envtl. L.J. 99 (1994).

38. *Id.*

39. 42 U.S.C. § 4332(C) (2012).

commitments or loss of resources which would be involved by the proposed action if implemented...⁴⁰

Thus, for every EIS, the agency must identify a proposed action and the environmental impacts of that action, as well as identifying trade-offs and the commitment of resources required to implement it.

The real work, however, is done during the alternatives analysis (number three in the list provided above). As the statute accurately states, the alternatives analysis “is the heart of the environmental impact statement.”⁴¹ Here, the agency must:

- a. Rigorously explore and objectively evaluate all reasonable alternatives, and for alternatives which were eliminated from detailed study, briefly discuss the reasons for their having been eliminated.
- b. Devote substantial treatment to each alternative considered in detail including the proposed action so that reviewers may evaluate their comparative merits.
- c. Include reasonable alternatives not within the jurisdiction of the lead agency.
- d. Include the alternative of no action.
- e. Identify the agency's preferred alternative or alternatives, if one or more exists, in the draft statement and identify such alternative in the final statement unless another law prohibits the expression of such a preference.⁴²

In practice, an agency identifies two to seven possible alternatives to its proposed action. The agency then explains why the proposed action is preferable to each alternative. This process lies “at the heart” of the EIS because it forces the agency to justify the proposed action in the context of a closed universe of alternative possibilities. If an alternative is discovered to be more attractive than the proposed action the agency could, hypothetically, select the alternative. The idea is that agencies should evaluate the alternatives early in the decision-making process, rather than after the fact, to confirm that the proposed course of action is the best use of resources.⁴³

40. THOMAS SANDER, ENVIRONMENTAL IMPACT STATEMENTS AND THEIR LESSONS FOR SOCIAL CAPITAL ANALYSIS 1, <http://www.hks.harvard.edu/saguaro/measurement/pdfs/sandereisandsklessons.pdf>.

41. 40 C.F.R. § 1502.14 (2015).

42. *Id.*

43. *See generally* Metcalf v. Daley, 214 F.3d 1135 (9th Cir. 2000) (EA violated NEPA because the agency had made an “irreversible and irretrievable” commitment of resources to a project before beginning its EA). In practice it rarely works out this way. Many commentators have argued that agencies view the alternatives analysis as another hurdle they surmount before their preferred policy can become final. Agencies often come into the process with a preferred alternative, a pre-made policy decided upon long

Among the alternatives that must be discussed in every EIS is the NAA.⁴⁴ The NAA is an essential aspect of the alternatives analysis because it provides a baseline against which action alternatives are evaluated.⁴⁵ The NAA should be “bound by some notion of feasibility”⁴⁶—a court can hold an EIS to be inadequate if its baseline is unrealistic.⁴⁷ Accordingly, courts emphasize that the NAA is *not* a do-nothing alternative. It must include an analysis of reasonably foreseeable developments that would result from its adoption.⁴⁸ Additionally, even though a NAA may not address the needs to be served by the proposed action, this in itself should not be a basis for rejecting it as an alternative. Some courts have upheld the rejection of a NAA because it did not meet project needs.⁴⁹ However, as Daniel Mandelker has persuasively argued, these cases distort the statutory purpose behind the NAA requirement.⁵⁰ By their very nature, most NAAs do not address the needs of a proposed action. Thus, if courts are to give meaning to the NAA requirement, the NAA should not be dismissed for failing to address the needs of a proposed action.

The Center for Environmental Quality (“CEQ”) gives functional (and binding) guidance on how to adequately prepare a NAA. Established by the passage of NEPA, the CEQ is a separate division of the Executive Office charged with the task of coordinating and overseeing NEPA’s implementation.⁵¹ Its regulations color in the specifics of NEPA’s broad strokes. As such, they offer the most practical and important guidance in EIS implementation. Since the CEQ regulations bind all federal agencies conducting an EIS,⁵² an EIS must comply with the CEQ regulations if it is to fulfill NEPA’s statutory mandate. The guidelines state that when a NAA would result in predictable actions by other parties, the expected consequence should be

before an actual environmental impact study is conducted. Thus they may be biased against an alternative and give it little attention, even if it appears on its face to be more ‘rational’ than the preferred action. Sander, *supra* note 40, at 2.

44. 40 C.F.R. §1502.14(d) (2015).

45. *Ctr. for Biological Diversity v. U.S. Dep’t. of Interior*, 623 F.3d 633 (9th Cir. 2010).

46. *Navajo Nation v. U.S. Forest Serv.*, 408 F. Supp. 2d 866 (D. Ariz. 2006).

47. *Ctr. for Biological Diversity v. U.S. Bureau of Land Mgmt.* 746 F. Supp. 2d 1055 (N.D. Cal. 2009).

48. *Young v. Gen. Serv. Admin.*, 99 F. Supp. 2d 59 (D.D.C. 2000).

49. *Conservation Law Found. of New England, Inc. v. Andrus*, 623 F.2d 712 (1st Cir. 1979).

50. DANIEL R. MANDELKER ET AL., *NEPA LAW AND LITIGATION* § 10:29 (2014 ed.).

51. *The Council on Environmental Quality – About*, COUNCIL ON ENVIRONMENTAL QUALITY, <http://www.whitehouse.gov/administration/eop/ceq/about/>.

52. *National Environmental Policy Act*, ENVIRONMENTAL PROTECTION AGENCY, <http://www2.epa.gov/nepa> (last visited Oct. 6, 2015).

included in the analysis: “[f]or example, if denial of permission to build a railroad to a facility would lead to construction of a road and increased truck traffic, the EIS should analyze the consequence of the ‘no action’ alternative.”⁵³ In essence, the CEQ demands that an agency look forward into the future and predict the reasonably foreseeable consequences of selecting the NAA. It must analyze the consequences of choosing not to act.

This statutory framework and the case law governing EISs will prove important later when this Note delves into the Corps’ SDEIS for NISP. But before analyzing the specifics of the NISP SDEIS, there must be a discussion of judicial treatment of NEPA at the Supreme Court and the Ninth Circuit.

IV. NEPA – A ‘PAPER TIGER?’

The Supreme Court’s narrow interpretation of NEPA has cut back the statute’s substantive teeth. Yet if the Tenth Circuit were to adopt the Ninth Circuit’s precedent in this area, NISP would face a much harder battle to get its proposed action approved. The Tenth Circuit should follow the Ninth’s stringent interpretation of NEPA’s procedural requirements because it can be used to achieve NEPA’s substantive goals while still staying within the limiting bounds of Supreme Court precedent. If it is to correctly apply NEPA, the Tenth Circuit should not lose sight of the statute’s substantive mandate.⁵⁴ This section summarizes the relevant Supreme Court NEPA cases, discusses the legislative history of the statute, and then analyzes the Ninth Circuit’s interpretations of the Supreme Court case law.

Under the Administrative Procedure Act, federal courts exercise ultimate review of federal agency decision-making.⁵⁵ Accordingly, courts are to “hold unlawful and set aside” agency actions that are “arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law...”⁵⁶ Litigants challenging agency action use this as their primary jurisdictional hook. Despite this hook, the Supreme Court interprets the

53. Forty Most Asked Questions Concerning CEQ’s National Environmental Policy Act Regulations, 46 Fed. Reg. 18,026, 4-5 (Mar. 23, 1981) (to be codified at 40 C.F.R. pt. 1500-1508).

54. This is because of the ample evidence of congressional intent to provide substantive protection for the environment (to be discussed later in this section) as well as the, “well-established canon of interpretation that requires a court, wherever possible, to give force to each word in every statutory (or constitutional) provision.” *Silveira v. Lockyer*, 312 F.3d 1052, 1069 n.24 (9th Cir. 2002).

55. 5 U.S.C. § 706 (2012).

56. *Id.*

“arbitrary and capricious” language very narrowly in order to grant agencies considerable discretion. Under *Motor Vehicle Manufacturers v. State Farm*, the agency “must examine the relevant data and articulate a satisfactory explanation for its action” including a “rational connection between facts and judgment . . . to pass muster under the ‘arbitrary and capricious’ standard.”⁵⁷ Known as the rational basis test, this standard requires reviewing courts to defer to an agency’s expertise so long as some rational relationship can be drawn between the agency’s action and the facts at hand. It is a highly deferential standard of judicial review, intended to allow agencies to act in their area of expertise without fear of a court second-guessing its policy preferences. This standard governs judicial review of whether an EIS complies with NEPA’s statutory mandate.

Initially, it appeared that the federal judiciary was willing to grant NEPA some substantive weight. In *Natural Resources Defense Council v. Morton*, the District of Columbia Court of Appeals articulated the “rule of reason”—agencies must discuss all reasonable alternatives to a proposed action, even if the alternatives are not authorized by statute or administrative regulation and even when the alternative is outside the agency’s jurisdiction.⁵⁸ The court qualified this ruling by acknowledging that agencies do not need to discuss alternatives that are remote or speculative.⁵⁹ Despite this limitation, *Morton* stood for an expansive reading of the alternatives analysis requirement. It required agencies to look beyond the scope of their authority when considering reasonable alternatives to a proposed project.

Subsequent Supreme Court and appellate decisions narrowed the scope of *Morton* (though without doing away with the “rule of reason”), interpreting *Morton* to stand for the proposition that what constitutes a “reasonable” alternative is defined by reference to a project’s objectives (contained within the Purpose and Need statement).⁶⁰ In *Vermont Yankee Nuclear Power Corp. v. Natural Resources Defense Council, Inc.*, for example, the Supreme Court held that,

Common sense also teaches us that the “detailed statement of alternatives” cannot be found wanting simply because the agency failed to include every alternative device and thought conceivable by the mind of man. Time and resources are simply too limited to hold that an impact statement fails because the agency failed to ferret out

57. *Motor Vehicle Mfrs. Ass’n. of United States, Inc. v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 30-31 (1983).

58. *Nat. Res. Def. Council, Inc. v. Morton*, 458 F.2d 827, 834 (D.C. Cir. 1972).

59. *Id.* at 837.

60. MANDELKER ET AL., *supra* note 50, at § 9:18.

every possible alternative, regardless of how uncommon or unknown that alternative may have been at the time the project was approved.⁶¹

This holding restricted the universe of possible alternatives to a project that an agency must consider when preparing an EIS.

The facts in *Vermont Yankee* may have contributed to the Court's restrictive interpretation of the rule of reason. The NRDC claimed that the EIS regarding the licensing of a nuclear power plant should have contained energy conservation measures as a primary alternative. The NRDC proposed this alternative after the EIS had been completed and the licensing proceeding closed.⁶² They were, therefore, latecomers to the EIS process. In addition, the NRDC offered no evidence to support the feasibility and reasonableness of an energy conservation alternative.⁶³ The lack of evidence was probably due to the fact that energy conservation was "a novel and evolving concept" at the time.⁶⁴ For these two reasons, the Court dismissed the NRDC's untimely and unsupported protest.

Vermont Yankee stands for three rules relevant to the argument in this Note. First, it qualifies *Morton's* rule of reason by eliminating the need to include alternatives that have not yet been fully studied. As one commentator has noted, this holding "undercuts NEPA's environmental decision-making responsibilities."⁶⁵ Second, it requires proponents of an alternative to make a timely showing that their alternative merits review.⁶⁶ Finally, *Vermont Yankee* affirms the substantive decline of NEPA, holding that while "NEPA does set forth significant substantive goals for the Nation... [i]ts mandate to the agencies is essentially procedural."⁶⁷

Two other relevant cases further limit the scope of judicial review in NEPA cases. In *Strycker's Bay Neighborhood Council, Inc. v. Karlen*, the Supreme Court explicitly held that agency administrators are not bound to choose the least environmentally harmful alternative. The only role for a court "is to insure that the agency had considered the environmental consequences; it cannot 'interject itself within the area of

61. *Vt. Yankee Nuclear Power Corp. v. Nat. Res. Def. Council, Inc.*, 435 U.S. 519, 551 (1978).

62. *Id.* at 533.

63. *See id.* at 534-35.

64. *Id.*

65. MANDELKER ET AL., *supra* note 50, at § 9:20.

66. While an agency is required to explore reasonable alternatives, intervenors in agency proceedings must "structure their participation so that it is meaningful" and alert the agency to their contentions. *Vt. Yankee Nuclear Power Corp.*, 435 U.S. at 553.

67. *Id.* at 558.

discretion of the executive as to the choice of the action to be taken.”⁶⁸ The other case is *Robertson v. Methow Valley Citizen Council*, in which the Supreme Court held that “NEPA merely prohibits uniformed – rather than unwise – agency action.”⁶⁹

While the *Morton*, *Vermont Yankee*, *Strycker’s Bay*, and *Methow Valley* line of cases diminish NEPA’s power, there is ample evidence in the legislative history indicating that the statute’s authors thought they were passing a textually clear assertion of environmental policy supported by substantive mandates. The Senate Committee on Interior and Insular Affairs, for example, issued a report cataloging NEPA’s hoped-for effect on the government’s environmental decision-making: “[I]f goals and principles are to be effective, they must be capable of being applied in action. [NEPA] thus incorporates certain ‘action-forcing’ provisions and procedures which are designed to assure that all [f]ederal agencies plan and work toward meeting the challenge of a better environment.”⁷⁰ While the Supreme Court might disagree, the legislators who passed NEPA thought that the statute possessed a substantive mandate requiring federal actions to benefit the environment.

Congress’ endorsement of NEPA’s substantive mandate is supported by the structure and language of the statute itself. Section 101(a) announced a new environmental policy for the nation, the goal of which was to ensure that man and nature exist in productive harmony.⁷¹ Having laid out this policy, Congress inserted Section 102(1), which states that “to the fullest extent possible[,] the policies, regulations, and public laws of the United States shall be interpreted and administered in accordance with the policies set forth in this chapter.”⁷² As at least one commentator has noted, this requires that government actions be in accordance with the environmental policy set out in Section 101(a).⁷³ Specifically, NEPA seems to require that the government act in a manner consistent with promoting a healthy and sustainable environment. Many early NEPA cases read the statute to contain just such a substantive mandate. Judge Skelly Wright of the D.C. Circuit Court of Appeals held that the statute represented a “substantive mandate” to agencies, insisting that Congress had not intended to create a “paper tiger.”⁷⁴ Given the

68. *Strycker’s Bay Neighborhood Council, Inc. v. Karlen*, 444 U.S. 223, 227-228 (1980).

69. *Robertson v. Methow Valley Citizen Council*, 490 U.S. 332, 351 (1989).

70. S. REP. NO. 91-296, at 9 (1969).

71. Nat’l Envtl. Policy Act §101(a), 42 U.S.C. § 4331(a) (2012).

72. Nat’l Envtl. Policy Act §102(1), 42 U.S.C. §4332(1) (2012).

73. Harvey Bartlett, *Is NEPA Substantive Review Extinct, Or Merely Hibernating? Resurrecting NEPA Section 102(1)*, 13 TUL. ENVTL. L.J. 411, 417 (2000).

74. *Calvert Cliffs’ Coordinating Comm., Inc. v. U.S. Atomic Energy Comm’n*, 449

current cast of Supreme Court case law however, many commentators argue that is exactly what NEPA has become—a statute of purely procedural requirements.⁷⁵ While this is possibly true, precedent out of the Ninth Circuit illustrates the powerful potential of utilizing this procedural ‘paper tiger’ to realize positive environmental outcomes in line with NEPA’s substantive mandate.

Given the statute’s legislative history and statutory language, the Tenth Circuit should follow the Ninth Circuit’s precedent and attempt to meet NEPA’s environmental mandate within the limiting parameters set by the Supreme Court. In the Ninth Circuit, courts have not lost sight of NEPA’s fundamental environmental purpose.⁷⁶ The Ninth Circuit uses a variety of procedural NEPA mechanisms to achieve positive environmental outcomes. The NAA is one such promising procedural mechanism by which NEPA’s substantive mandate can be met. Specifically, a number of Ninth Circuit cases have held EISs inadequate when the NAA was inadequately discussed or not considered.

The Ninth Circuit has given proper weight and meaning to the NAA in several cases where it has held EISs to be inadequate when the NAA was not considered or inadequately discussed. For example, in *Western Watersheds Project v. Abbey*, the Ninth Circuit found that an Environmental Assessment (“EA”) conducted by the Bureau of Land Management (“BLM”) violated NEPA because it “considered but did not analyze in detail a no-grazing alternative, a reduced-stocking-level alternative (‘reduced-grazing alternative’), and an alternative that would manage the area for potential natural community.”⁷⁷ Similarly, in *Southeast Alaska Conservation Council v. Federal Highway Administration*, a three-paragraph NAA did not fulfill the “substantial treatment” requirement of 40 C.F.R. Section 1502.14(b).⁷⁸ And, finally, in *Friends of Yosemite Valley v. Kempthorne*, a Supplemental EIS was deficient in part because the baseline assumption (the NAA) was logically untenable. The EIS in *Kempthorne* assumed the existence of the very plan being proposed.⁷⁹ This line of cases illustrates that reviewing

F.2d 1109, 1114 (D.C. Cir. 1971).

75. Weinberg, *supra* note 37, at 104.

76. Michael C. Blumm & Keith Mosman, *The Overlooked Role of the National Environmental Policy Act in Protecting the Western Environment: NEPA in the Ninth Circuit*, 2 WASH. J. ENVTL. L. & POL’Y 193, 197 (2012) (identifying four lines of cases where Ninth Circuit courts have used various procedural mechanisms to achieve environmentally sound outcomes).

77. *W. Watersheds Project v. Abbey*, 719 F.3d 1035, 1050 (Ninth Cir. 2013).

78. *Se. Alaska Conservation Council v. Fed. Highway Admin.*, 649 F.3d 1050, 1058 (Ninth Cir. 2011).

79. *Friends of Yosemite Valley v. Kempthorne*, 520 F.3d 1024, 1037-38 (9th Cir. 2008).

courts have the ability to strike down a NAA as deficient if it is logically untenable or if it is inadequately analyzed.

By demanding a robust NAA process, the Ninth Circuit opens up the possibility that an agency decision can be struck down as not rationally related to the facts. Thus, in cases like *Kemphorne*, the Court can hold that the agency's NAA is logically untenable—a procedural holding that effectively leads to a positive environmental outcome in harmony with NEPA's substantive goals. It might seem that the NAA procedural requirement does nothing but delay a project by forcing the agency to revise its NAA and then choose the proposed action alternative anyway.⁸⁰ But consider a hypothetical NAA that finds that the harmful environmental consequences of no action will be considerably less than building a project. An agency does not have to choose this NAA as its preferred alternative simply because it produces the best environmental outcome.⁸¹ Yet the agency's decision to go ahead and build the project despite the environmental consequences must still be rationally based in order for a reviewing court to uphold its decision.⁸² By forcing the agency to rationalize its decision to build a project at the expense of the environment, NEPA throws up a procedural barrier that exposes the agency's normative policy preferences. As Michael Blumm and Keith Mosman have noted, this is powerful because:

NEPA authorizes the public and other agencies to participate in decision making, often uncovers other statutory violations, and opens up courthouse doors for challenges to government actions. The latter result, some NEPA defenders have pointed out, has created a kind of common law of the environment, since the factual context for NEPA cases continuously changes, enabling courts to either engage in 'soft glance' or 'hard look' review of whether agency proposals complied with NEPA procedures.⁸³

For evidence of this "common law of the environment," one need look no further than the Ninth Circuit, where judicial enforcement of NEPA procedure has created a unique body of precedent leaning in favor of positive environmental outcomes.⁸⁴ More specifically, enforcing procedural requirements like the NAA gives the court a broader factual

80. After all, NEPA does not force an agency to choose the least environmentally harmful alternative. Indeed, this is the most common critique of NEPA's detractors. Professor Oliver Houck received this comment on one of his Environmental Law exams in reference to the *Methow Valley* decision: "NEPA: you can kill all the deer, so long as you write it down." Blumm & Mosman, *supra* note 76, at 196.

81. *Strycker's Bay*, 444 U.S. at 227-228.

82. *State Farm*, 103 S. Ct. at 2860-61.

83. Blumm & Mosman, *supra* note 76, at 196-97.

84. *Id.*

record that can reveal violations of NEPA, other federal environmental laws, or the *State Farm* rational basis test.

As Ninth Circuit case law demonstrates, it is up to a court's discretion as to how much procedure and analysis to demand from an NAA.⁸⁵ By demanding a robust NAA process, a court can achieve an outcome in line with both the spirit and the letter of NEPA. The Tenth Circuit should adopt the Ninth Circuit's demanding application of NEPA's procedural requirements because this application comes closest to fulfilling NEPA's substantive environmental mandate, as envisioned by Congress.

The following sections show that NISP would likely violate NEPA if the Tenth Circuit were to adopt the Ninth Circuit's demanding procedural stance.

V. WATER CONSERVATION IN NORTHERN COLORADO AND THE NISP NAA

As it currently stands, the NISP No Action Alternative ("NISP NAA") fails to account for water conservation in its analysis of the NISP participants' water demand and supply gap.⁸⁶ This omission is

85. In spite of this line of case law (and in spite of the importance that CEQ regulations place on the NAA), it must be noted that courts often uphold the adequacy of an agency's discussion of the NAA with little review, even if that discussion was limited or brief. There are a plethora of cases which defer to the agency's description of the NAA, its decision over the scope of the discussion and its detail, and its decision to reject a no-action alternative. *See generally* *Ctr. for Biological Diversity v. Salazar*, 695 F.3d 893 (9th Cir. 2012); *Transmission Access Pol'y Study Grp. v. F.E.R.C.*, 225 F.3d 667 (D.C. Cir. 2000), *aff'd*, 535 U.S. 1 (2002); *Ass'n of Pub. Agency Customers, Inc. v. Bonneville Power Admin.*, 126 F.3d 1158 (9th Cir. 1997). These cases do not discredit instances where a court has demanded more analysis in a NAA. Rather, they show that it is up to a court's discretion as to how much procedure and analysis it will demand from a NAA. A court has latitude to choose just how strictly it will enforce the NAA requirements, and as the next sections will show, this choice can and should be informed by the factual circumstances surrounding a case.

86. The NAA in the Corps' Draft EIS (DEIS) for NISP from 2006 received numerous comments criticizing its feasibility (and thus its adequacy) on the basis of inaccurate population projections and future water demand data. WESTERN RESOURCE ADVOCATES, A BETTER FUTURE FOR THE POUDE RIVER: ALTERNATIVE TO THE NORTHERN INTEGRATED SUPPLY PROJECT 11 (2012), <http://westernresourceadvocates.org/publications/a-better-future-for-the-poudre-river/> [hereinafter WRA]. The DEIS projections were based in part upon a report of NISP participants' current water supplies and projected future demands prepared by Harvey Economics. HARVEY ECONOMICS, WATER SUPPLIES AND DEMANDS FOR PARTICIPANTS IN THE NORTHERN INTEGRATED SUPPLY PROJECT (2006), <http://www.northernwater.org/docs/NISP/MapsDocuments/WaterSupplsDemandPartic.pdf>; As a result of the criticism, the Corps prepared and released a SDEIS in June of 2015. U.S. ARMY CORPS OF ENGINEERS, *supra* note 4, at 2-16 – 2-28. This Note will analyze the

problematic because (as this section will show) water conservation *will* occur in the absence of NISP. The NISP NAA thus offers an unrealistic baseline from which to analyze the NISP action alternatives and should be struck down as procedurally deficient under NEPA. This section is divided into two parts. Part A outlines the role that active and passive water conservation will play in meeting northern Colorado's growing residential water demand. Part B analyzes the Corps' failure to account for water conservation in the NISP NAA and argues that this omission leads to an unrealistic and procedurally deficient baseline under NEPA.

A. Passive and Active Water Conservation in Northern Colorado

NISP participants are actively utilizing water conservation as a partial solution to meeting their growing water demand.⁸⁷ This part will explore the potential of such savings in the context of northern Colorado, arguing that NISP participants are significantly decreasing future water demand through a combination of active and passive water conservation measures.

Passive water savings occur when individual homeowners replace aging, inefficient fixtures and appliances with newer, more water-efficient models, often with the encouragement of legislation such as conservation-oriented plumbing and building codes.⁸⁸ By definition, passive savings accrue without any sort of active, purposeful conservation effort on the part of towns, water providers, residents, or industry.⁸⁹ They result not only from technological improvements but also from state and federal policies that set limits on the amount of water appliances may consume. For example, the Federal Energy Policy Act of 1992 "ensure(s) that toilets, showers, and faucets meet established water use efficiency criteria."⁹⁰ Department of Energy standards have resulted in clothes washers that use considerably less water than machines produced just a few years ago.⁹¹ These and other new fixture and appliance flow-rate regulations ensure that water efficiency in homes will increase without any conscious effort on the part of consumers.

Like the rest of Colorado, the northern Front Range will see benefits from passive water savings. A study prepared for the Statewide Water

SDEIS, as it represents the most recent development in the NISP permitting process.

87. WRA, *supra* note 86, at 68.

88. AQUACRAFT, INC., SAMPLE OF A MUNICIPAL WATER EFFICIENCY PLAN 11 (2012), <http://coloradowaterwise.org/Resources/Documents/Sample%20Water%20Efficiency%20Plan%20Draft%2020-%206-15-12.pdf>.

89. WRA, *supra* note 86, at 20.

90. AQUACRAFT, INC., *supra* note 88, at 11.

91. *Id.*

Supply Initiative (“SWSI”) (an arm of the non-partisan CWCB) projects that the South Platte Basin will experience passive savings ranging from six percent to 10.2 percent in municipal and industrial uses by 2050.⁹² From 2004 to 2009, the average amount of water consumption per household per day in the South Platte Basin was 185 gallons per capita per day (“gpcd”).⁹³ Applying a 10.2 percent passive conservation savings rate results in a 2050–2060 per capita use rate of 166 gpcd in the region.⁹⁴ These numbers are not the result of an over-optimistic belief in technological progress. They are concrete projections of where state and federal policy should take the region over the next few decades. NISP municipal participants are expecting a population increase of 150 percent from 2009 to 2060.⁹⁵ Much of the incoming population will have to locate themselves in newly constructed homes and businesses—structures guaranteed to use less water as a result of passive conservation.

Another way to offset the increased demand of future growth is through active water conservation measures. As the label might imply, active conservation is achieved through intentional efforts on the part of individual residents and municipalities. This term includes a variety of conservation methods such as: public information and education, conservation-oriented water rates and tap fees, smart metering with leak detection, projects that capture and reuse municipal wastewater effluent, and landscape conservation.⁹⁶ These methods are being implemented in northern Colorado. Almost all of the NISP participants use a block-rate pricing mechanism in which users who consume the most water pay proportionally more for their share.⁹⁷ In addition, thirteen NISP participants (with the exception of Central Weld County Water District and Morgan County Quality Water District) have detailed active conservation plans with quantifiable goals to implement in the coming years.⁹⁸ For example, the Fort Collins-Loveland Water District plans to reduce consumption by thirteen percent by 2017 through active conservation measures. The City of Frederick wants a reduction of 18.4

92. AQUACRAFT, INC. & HEADWATERS CORP., SWSI 2010 MUNICIPAL AND INDUSTRIAL WATER CONSERVATION STRATEGIES 43 (2011), http://cwcb.state.co.us/water-management/water-supply-planning/Documents/SWSI2010/Appendix%20L_SWSI%202010%20Municipal%20and%20Industrial%20Water%20Conservation%20Strategies.pdf.

93. WRA, *supra* note 86, at 63.

94. *Id.*

95. *Id.*

96. *Id.* at 68.

97. U.S. ARMY CORPS OF ENGINEERS, *supra* note 4, at 1-13.

98. WRA, *supra* note 86, at 28.

percent by 2021.⁹⁹

These plans for active conservation will produce water savings in addition to passive conservation savings. For example, the SWSI hopes to reduce South Platte River Basin per capita use by 38.3 percent by 2050.¹⁰⁰ This translates to a decrease in average water use from 185 gpcd to 116 gpcd by 2050.¹⁰¹ Of this reduction, 28.1 percent results from active conservation (the other 10.2 percent comes from the passive conservation savings discussed above), a reduction of nearly one percent per year, even when factoring in population growth.¹⁰² The SWSI's goal might sound speculative, but thirteen NISP municipalities have matched SWSI's goal with concrete plans, many of which have measurable goals comparable to (or exceeding) the SWSI proposed reductions of one percent per year.¹⁰³ Indeed, as Western Resource Advocates points out, "most water conservation plans have planning periods of 7 to 10 years... [a]s a result, additional savings beyond current goals are very likely by 2060."¹⁰⁴ Additionally, conservation measures, such as a tiered water rate system, do not require major behavioral changes from customers, just a change in the pricing that charges more as consumption increases.

Nearly every single NISP participant is utilizing active and passive water conservation measures in an effort to reduce future water demand.¹⁰⁵ These conservation efforts will reduce future water demand in NISP municipalities, irrespective of whether the NISP project is built. An adequate NAA to NISP must take this fact into account if it is to provide a realistic baseline from which to analyze the need for new, massive reservoirs.

B. NISP NAA and Water Conservation

Yet, despite the NISP participants' considerable water conservation efforts, the NISP NAA, promulgated by the Corps in its 2015 SDEIS fails to account for water conservation in any meaningful manner.¹⁰⁶ Failing to do so creates an unrealistic baseline from which to analyze the NISP action alternatives.¹⁰⁷

99. *Id.*

100. *See* AQUACRAFT, INC. & HEADWATERS CORP., *supra* note 92, at 61.

101. *Id.*

102. WRA, *supra* note 86, at 30.

103. *Id.*

104. *Id.*

105. *Id.* at 28.

106. U.S. ARMY CORPS OF ENGINEERS, *supra* note 4, at 2-16 – 2-28.

107. A court can hold an EIS to be inadequate for failing to develop a realistic baseline. *See* Ctr. for Biological Diversity v. U.S. Bureau of Land Mgmt., 746 F. Supp.

Indeed, the NISP NAA does not consider water conservation at all.¹⁰⁸ Instead, water conservation is accounted for in the Purpose and Need chapter of the SDEIS, where the Corps develops three possible water “demand scenarios” going through 2060. Two scenarios, nearly identical, assume that the NISP participants have already achieved as much savings as possible from water conservation.¹⁰⁹ They project that, by 2060, NISP participants will demand anywhere from 137,900 AF to 143,400 AF of Firm Yield per year—an increase of 80,000 AF over the 2011 Firm Yield supply of 59,490 AF.¹¹⁰ A third water “conservation scenario” projects that NISP participants will demand 103,400 AF of Firm Yield per year by 2060, which represents a twenty five percent decline in the average annual water requirements per capita.¹¹¹ After making these projections the Corps simply concludes that even if expected savings from water conservation occur, the NISP participants are going to need at least an additional 40,000 AF of water supply per year by 2060.¹¹² This conclusion ends the Corps’ analysis of water conservation in the SDEIS—no consideration of water conservation is given in the NAA.

There are two glaring faults with the Corps’ consideration of water conservation in the SDEIS. The first is that the Corps categorizes water conservation as a reduction in demand for the NISP participants rather than an increase in supply.¹¹³ This classification is not a problem in and of itself, rather the issue is that by categorizing water conservation as a reduction in demand, the Corps assumes that there is no need to consider it in the NAA. Presumably, this is because the purpose of NISP is to “provide project participants with approximately 40,000 AF of new reliable municipal water supply.”¹¹⁴ Yet this goal can be achieved with a reduction in demand just as it can with an increase in supply. In other words, a reduction in demand and an increase in supply represent two sides of the same coin – they can both be used to achieve the same basic objective of providing a 40,000 AF margin for NISP municipality

2d 1055, 1055 (N.D. Cal. 2009).

108. U.S. ARMY CORPS OF ENGINEERS, *supra* note 4, at 2-22.

109. *Id.* at 1-11.

110. *Id.* at 1-17, 1-14; The United States Bureau of Reclamation defines “Firm Yield” as “...a quantity of water from a project or program that is projected to be available on a reliable basis, given a specified level of risk, during a critically dry period.” U.S. BUREAU OF RECLAMATION, WATER SUPPLY AND YIELD STUDY iii (2008), <https://www.usbr.gov/mp/cvp/docs/Water%20Supply%20and%20Yield%20Study.pdf>

111. U.S. ARMY CORPS OF ENGINEERS, *supra* note 4, at 1-16.

112. *Id.* at 1-15. Remember, 40,000 AF is the Firm Yield supply that would be provided by NISP if the preferred alternative were selected.

113. *Id.* at 1-14.

114. *Id.* at S-15.

growth. There is no rational basis for excluding water conservation from consideration in the NAA just because it represents a reduction in demand as opposed to an increase in supply.

The second fault is that the Corps erroneously presumes that water conservation will not fulfill the NISP project need of 40,000 AF and that it is therefore unnecessary to consider it in the NAA.¹¹⁵ However, as commentator Daniel Mandelker has pointed out, this misinterprets the NAA requirement.¹¹⁶ He argues it is obvious that, “a no-action alternative will not meet the needs to be served by a proposed project.”¹¹⁷ By their very nature, most NAAs do not address the needs of a proposed action. If the Corps is to give meaning to the NAA requirement, it must include water conservation as a reasonably foreseeable development of no-action, even if conservation does not lead to a 40,000 AF reduction in demand amongst NISP participants. Yet, as the Corps inadvertently acknowledges in their SDEIS, water conservation could very well lead to a 40,000 AF reduction in demand amongst the growing NISP participants.¹¹⁸ Under the Corps’ “conservation scenario,” NISP participants would need only 103,400 AF of water per year.¹¹⁹ Under one of the scenarios in which no conservation is achieved, NISP municipal demand would be 143,400 AF—exactly 40,000 AF more than the demand under the conservation scenario.¹²⁰ By their own analysis, the Corps acknowledges that water conservation could fulfill NISP’s project needs. But even if conservation does not translate into a 40,000 AF reduction, it should be included in the NISP NAA as a reasonably foreseeable outcome of no-action.

In sum, the NISP NAA fails to provide for water conservation in its analysis of northern Colorado’s water demand and supply gap. It offers an unrealistic baseline from which to analyze the NISP action alternatives. As the Ninth Circuit has acknowledged, an unrealistic baseline can skew the entire alternatives analysis because the action alternatives are evaluated against the NAA.¹²¹ The Tenth Circuit should follow Ninth Circuit precedent, requiring realistic baselines and demand that savings from water conservation be considered in any major water development project EIS NAA (including NISP). Savings from water conservation make up part of the underlying reality of future water

115. *Id.* at 1-15.

116. MANDELKER ET. AL., *supra* note 50, at 10:29.

117. *Id.*

118. U.S. Army CORPS OF ENGINEERS, *supra* note 4, at 1-15.

119. *Id.* at 1-14.

120. *Id.*

121. *See* *Ctr. for Biological Diversity v. U.S. Dep’t. of Interior*, 623 F.3d 633 (Ninth Cir. 2010).

demand; any analysis that fails to take this into account is unrealistic and procedurally deficient under NEPA.

VI. BRINGING THE 'PAPER TIGER' TO THE TENTH CIRCUIT

Congress intended for NEPA to protect the nation's environmental integrity,¹²² and the Tenth Circuit should insure federal actions realize this lofty goal through every procedural mechanism available, including the NAA. This section will show how the Tenth Circuit can adopt the Ninth Circuit's stringent interpretation of NEPA's NAA requirements in the context of NISP and, by extension, other environmentally destructive water projects in Colorado. The Tenth Circuit should adopt this demanding procedural stance based on a variety of legal authority including case law, CEQ regulations, and NEPA itself.¹²³

The Corps cannot exclude the implementation of water conservation methods as a reasonable alternative just because these are outside of NCWCD's typical function of running massive region-wide water supply projects in northern Colorado. *Morton* held that an agency must consider *all* reasonable alternatives to an action, even if the alternative is outside the agency's purview.¹²⁴ Although agencies do not need to discuss remote or speculative alternatives,¹²⁵ water conservation in the South Platte River Basin will play an increasingly crucial role in bridging the gap between water supply and demand. It is, therefore, not a remote or speculative proposition.

Water conservation methods are not novel, and they should be included in any adequate NAA to NISP. In *Vermont Yankee*, the Court eliminated the need to include alternatives that have not yet been fully studied. Unlike energy conservation in the 1970's, water conservation is a well-developed method of meeting municipal water demands. There is little dispute as to its efficacy, and it has been an encouraged policy at the national, state, and local level.¹²⁶ Indeed, water conservation has been

122. S. Rep. No. 91-296, at 1 (1969).

123. This is a purely descriptive assertion. It does not answer the normative question of *why* the Tenth Circuit should adopt this stance. The normative rationale can be summed up in a single statement: preserving the nation's environmental integrity is still NEPA's statutory purpose, and the Tenth Circuit should attempt to fulfill this purpose through the NAA and other procedural mechanisms.

124. Nat. Res. Def. Council, Inc. v. Morton, 458 F.2d 827, 834 (D.C. Cir. 1972).

125. *Id.* at 837.

126. U.S. ENVIRONMENTAL PROTECTION AGENCY, WATER CONSERVATION PLAN GUIDELINES xi (1998), http://www.epa.gov/watersense/docs/title_508.pdf (for an example

well studied even at the South Platte Basin level, and most NISP participants have active conservation plans in place.¹²⁷ Furthermore, the Corps explicitly acknowledges the potential impact of water conservation in the SDEIS (though without considering it in the NAA). The Corps therefore cannot ignore future water conservation in the NAA.¹²⁸

As discussed in Section I, the NISP NAA also draws parallels to Ninth Circuit cases where an EIS was inadequate because the NAA was not considered or adequately discussed. In *Western Watersheds Project v. Abbey*, the Ninth Circuit found that an EA conducted by the BLM violated NEPA because it “considered but did not analyze in detail a no-grazing alternative, a reduced-stocking-level alternative (‘reduced-grazing alternative’), and an alternative that would manage the area for potential natural community.”¹²⁹ In its current form, the NISP NAA is like the insufficient NAA in *Abbey* because it fails to analyze, in detail, the effects of water conservation on participating NISP municipalities. Similar support can be found in *Southeast Alaska v. FHA*, where a three paragraph NAA did not fulfill the “substantial treatment” requirement of 40 C.F.R. Section 1502.14(b).¹³⁰ Finally, in *Friends of Yosemite Valley v. Kempthorne*, a SEIS was deficient in part because the baseline assumption (the NAA) was logically untenable. It assumed the existence of the very plan being proposed.¹³¹ Like the SEIS in *Kempthorne*, the NISP NAA is logically untenable because it assumes (in the face of much evidence to the contrary) that water conservation could not be used to help meet the NISP participants’ 40,000 AF water supply-demand gap in the event of no-action on the NISP project.¹³²

The Tenth Circuit should apply this line of precedent to the NISP NAA in part because the failure to consider water conservation as a baseline skews the entire EIS analysis in favor of the action alternatives. Without considering water conservation, the Corps projects that the cost

of U.S. federal policy guiding water conservation); AQUACRAFT, INC. & HEADWATERS CORP., *supra* note 92 (Colorado’s Statewide Water Supply Initiative, which promotes water conservation at both the local and statewide level).

127. WRA, *supra* note 86, at 28.

128. Remember that while an agency is required to explore reasonable alternatives, intervenors in agency proceedings must “structure their participation so that it is meaningful” and alert the agency to their contentions. *Vt. Yankee Nuclear Power Corp. v. Nat Res. Def. Council, Inc.*, 435 U.S. 519, 553 (1978).

129. *W. Watershed Project v. Abbey*, 719 F.3d 1035, 1050 (9th Cir. 2013).

130. *Se. Alaska Conservation Council v. Fed. Highway Admin.*, 649 F.3d 1050, 1058 (9th Cir. 2008).

131. *Friends of Yosemite Valley v. Kempthorne*, 520 F.3d 1024, 1037-38 (9th Cir. 2008).

132. U.S. ARMY CORPS OF ENGINEERS, *supra* note 4, at 2-16 – 2-28.

of no-action on NISP will cost the participants \$722 million.¹³³ Most of this cost comes from transferring agricultural ditch rights to municipal use, as well as the cost of building a 140,000 AF reservoir.¹³⁴ NCWCD's preferred action, on the other hand, will cost the participants \$507 million, more than \$200 million less than the cost of no-action.¹³⁵ If water conservation were factored into the NAA, it is almost certain that the costs of no-action would go down, as municipalities would spend less on acquiring agricultural ditch rights or possibly even obviate the need for a reservoir. In other words, keeping water conservation out of the NISP NAA makes NCWCD's preferred alternative a much more financially attractive choice because it overinflates the amount of new water supply that NISP participants must obtain in the event of no-action. The practical implications of withholding water conservation in the baseline is obvious: it skews the entire analysis in favor of NCWCD's preferred action alternative.

The NISP NAA should also be struck down for failure to comply with CEQ guidelines. These binding guidelines state that a NAA must include the predictable actions of third parties that would occur in absence of the federal action. So, for example, if denial of permission to build a railroad would lead to increased truck traffic that denigrates highway conditions, the NAA should take this into account in its analysis.¹³⁶ The NISP NAA fails to follow this example.¹³⁷ If the two reservoirs are not built, it is reasonable to predict that active water conservation efforts at a municipal level would continue to increase in response, even if they prove costly. Instead of accounting for this likely scenario in the NISP NAA, the Corps categorizes water conservation as a reduction in demand, then presumes that such a reduction cannot achieve the same objective as an increase in supply.¹³⁸ This is faulty reasoning because reducing demand and increasing supply are two sides of the same coin—they can both be utilized to address the NISP participants' water supply and demand gap. In short, water conservation is a predictable response to federal denial of approval for the NISP project. NISP participants possess active water conservation plans, and passive savings will continue to improve from a combination of legislative mandate and technological progress.¹³⁹

133. *Id.* at 2-61.

134. *Id.*

135. *Id.*

136. Memorandum to Agencies: Answers to 40 Most Asked Questions on NEPA Regulations, Council on Env'tl. Quality, 46 Fed. Reg. 18026, 18027 (Mar. 1, 1981).

137. U.S. ARMY CORPS OF ENGINEERS, *supra* note 4, at 2-16 – 2-28.

138. *Id.* at 1-15.

139. WRA, *supra* note 86, at 63.

In its current form, then, the NISP NAA is highly vulnerable to attack on statutory grounds because it does not “rigorously explore and objectively evaluate all reasonable alternatives.”¹⁴⁰ In addition, it fails to fulfill NEPA’s “substantial treatment” standard.¹⁴¹ In order to fulfill the statutory requirement to explore *all* reasonable alternatives, a NAA must include analysis of the reasonably foreseeable developments that would result from its adaptation.¹⁴² If a NAA fails to explore all the reasonable alternatives, the entire EIS should be deemed inadequate.¹⁴³ And rightly so—the NAA is crucial to evaluating the rest of the action alternatives because it provides a baseline against which action alternatives are evaluated.¹⁴⁴ If the baseline is unrealistic, a court should hold the entire EIS to be inadequate.¹⁴⁵

In sum, the Tenth Circuit has considerable legal authority (including Supreme Court and Ninth Circuit case law, CEQ regulations, and NEPA statutory language at its disposal that should lead it to strike down the NISP NAA as procedurally deficient for failing to consider water conservation as part of its baseline.

VII. CONCLUSION

If the goal of NEPA is to preserve the nation’s environmental integrity, a good place to start achieving this goal is in the context of our nation’s struggling rivers. Western rivers are overworked and overdeveloped to a startling degree.¹⁴⁶ The South Platte River Basin is no exception to this phenomenon. If we continue down the tired route of ever-increasing development and diversion, both the Basin’s residents and its environment will suffer harm. The South Platte River Basin already has poor water quality due to high concentrations of salinity, nitrates, and pesticides.¹⁴⁷ Further reductions in streamflow will only increase the concentration of toxins and subsequent costs associated with treating water so that it is safe for human consumption and use.¹⁴⁸ It is

140. CEQ Environmental Impact Statement, 40 C.F.R. § 1502.14(a) (2013).

141. 40 C.F.R. § 1502.14(b).

142. *Young v. Gen. Serv. Admin.*, 99 F. Supp. 2d 59, 62 (D.D.C. 2000).

143. *Ctr. for Biological Diversity v. U.S. Bureau of Land Mgmt.*, 746 F. Supp. 2d 1055, 1060 (N.D. Cal. 2009).

144. *Ctr. for Biological Diversity v. U.S. Dept. of Interior*, 623 F.3d 633, 642 (9th Cir. 2010).

145. *Ctr. for Biological Diversity*, 746 F. Supp. 2d at 1055.

146. *See generally* MARC REISNER, *CADILLAC DESERT: THE AMERICAN WEST AND ITS DISAPPEARING WATER* (1986).

147. U.S. GEOLOGICAL SURV., *supra* note 25.

148. *Id.*

true that the Basin will have to increase its water supply to match growing municipal demand in the coming decades. The entire basin-wide population in Colorado is expected to double to anywhere between 1.9 and 2.6 million people by 2050, with a corresponding water demand increase of 324,000 to 467,000 AF.¹⁴⁹ But this does not automatically imply that additional water must be drawn from the river. For example, the City of Aurora, one of Colorado's largest and fastest growing cities, added 10,000 AF to its water supply and potentially satisfied its future demand through 2050 through a project that recaptures and treats the City's wastewater effluent.¹⁵⁰ It is possible to bridge the coming water supply and demand gap through water conservation and reuse projects; we just have to give these projects a chance.

The Tenth Circuit can achieve a positive environmental outcome in this context by striking down the Final EIS as inadequate if the Corps fails to consider water conservation in the NAA. While the Supreme Court has circumscribed the reach of NEPA's substantive environmental mandate, the Tenth Circuit should attempt to fulfill this goal with every procedural tool at its disposal, including the NAA. It should do so because NEPA's legislative history and statutory language both clearly assert an environmental policy supported by substantive mandates. As case law from the Ninth Circuit shows, positive environmental outcomes in line with this statutory mandate can be achieved within the limiting bounds of Supreme Court precedent.

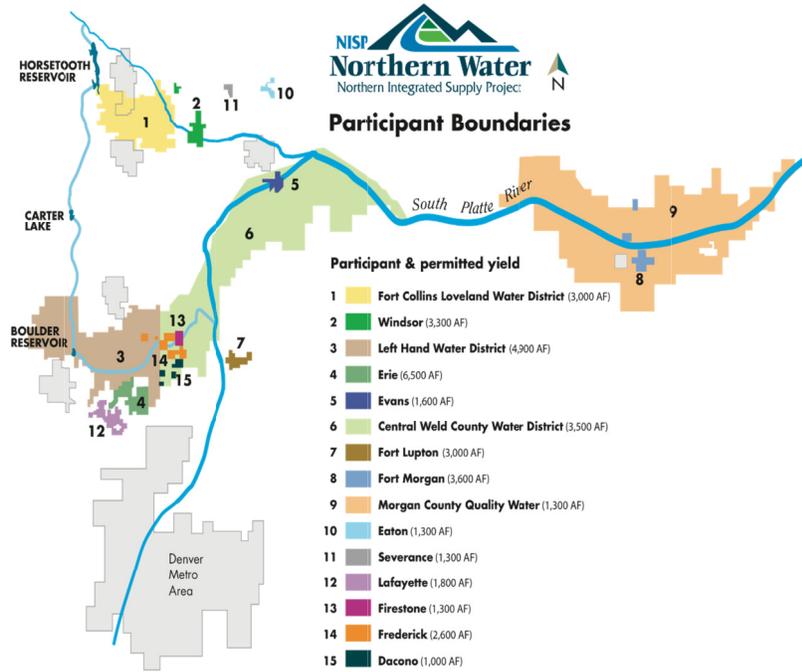
If the Corps fails to take water conservation into account in issuing a Section 404 permit for NISP, the Tenth Circuit should follow the Ninth Circuit's lead and hold the Corps' nose to the NEPA procedural grindstone. Furthermore, it should do so with any other water development project that appears before it. Diverting more water from our overworked rivers will not permanently solve the Front Range's water supply shortage. Perhaps more importantly, it will only lead to further environmental and water quality degradation on rivers that are already stressed beyond the point of wisdom. While water conservation measures may not solve the entire issue of future water supply, they are an important first step that should be taken into account before any further diversions occur. Indeed, as this Note has attempted to show, both passive and active water conservation measures are already having a

149. *SOUTH PLATTE RIVER BASIN*, COLORADO'S WATER PLAN (2015), <https://www.colorado.gov/pacific/cowaterplan/south-platte-river-basin>.

150. Megan Mitchell, *Aurora Water Begins First Expansion of Prairie Waters Project*, DENVER POST (May 6, 2014, 12:50 PM), http://www.denverpost.com/aurora/ci_25707647/aurora-water-begins-first-expansion-prairie-waters-project.

major effect on bridging the gap between future supply and demand. Any NAA that fails to take this into account clearly possesses an unrealistic baseline, which fails to explore all reasonable alternatives. NEPA, and basic common sense, compel an agency to account for water conservation when considering a NAA to a major water development project.

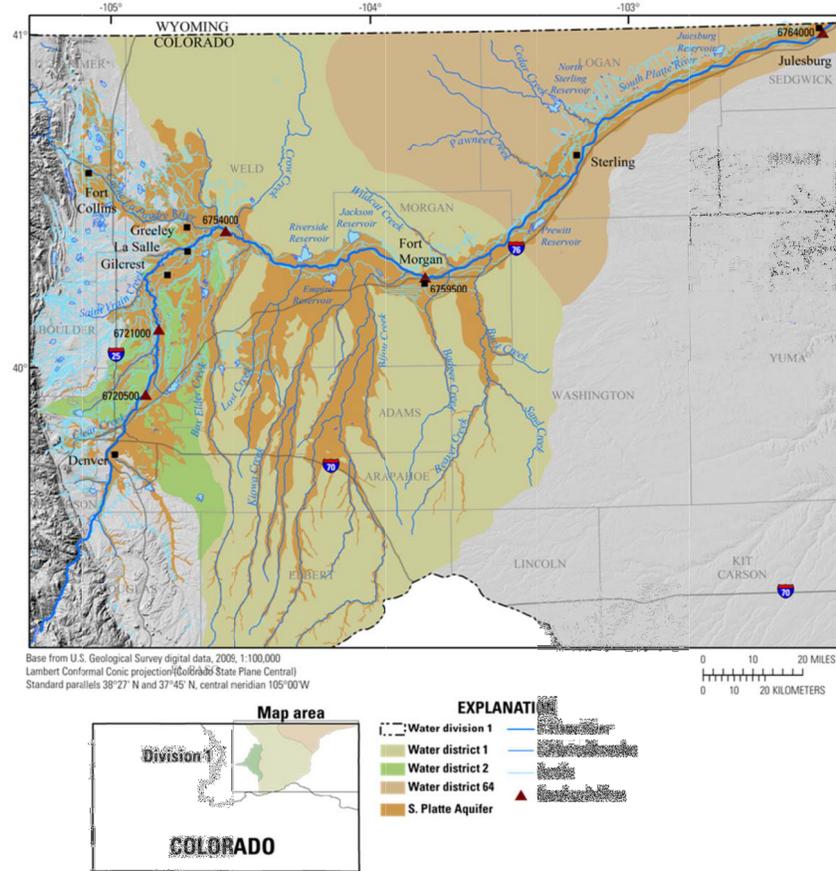
Appendix 1¹⁵¹



151. NORTHERN WATER, NISP PARTICIPANT BOUNDARIES, http://www.northernwater.org/docs/NISP/MapsDocuments/MapsPDFs/4_nisp_participant_boundaries.pdf.

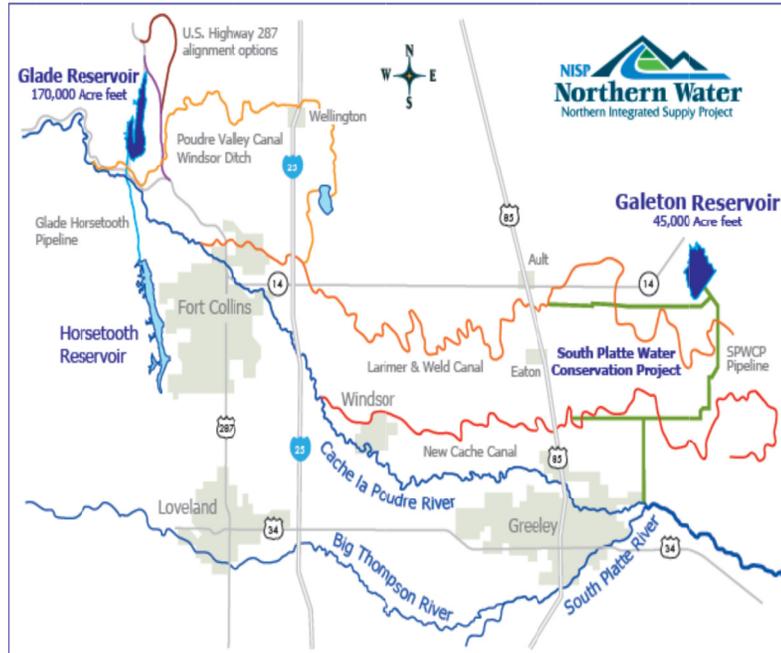
Appendix 2¹⁵²

The Lower South Platte River Basin in Colorado



152. REAGAN M. WASKOM, COLO. WATER INST., REPORT TO THE COLORADO LEGISLATURE: HB12-1278 STUDY OF THE SOUTH PLATTE RIVER ALLUVIAL AQUIFER 2 (2013), <http://www.cwi.colostate.edu/southplatte/files/report/HB1278%20Executive%20Summary.pdf>.

Appendix 3¹⁵³



153. NORTHERN WATER, NORTHERN INTEGRATED SUPPLY PROJECT, <http://www.northernwater.org/docs/NISP/MapsDocuments/MapsPDFs/1gladeLocation.pdf>.