

# NISP DEIS COMMENTS and Healthy Rivers Alternative

A Balanced Proposal for Water Supply Security that Protects the Poudre River

Save The Poudre Coalition  
[www.SaveThePoudre.org](http://www.SaveThePoudre.org)

## Conservation Partners

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by Marren Bookbinder

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FOUNDED 1892

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Rocky Mountain Chapter

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ENVIRONMENT COLORADO

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CLEAN WATER ACTION  
Our Way Our Health Our Future

# Save The Poudre DEIS Review Team

**Presenter:**

Gary Wockner, PhD, Ecologist, Save The Poudre Coalition

**Team:** Totaled 46 people, including 15 PhDs, 14 MAs and JDs, and others with decades of natural resource experience.

**Goal:** Stop NISP. Offer a better alternative. Provide a vision for the future.



## Presentation Summary

Summary of our comments to the ACOE

1. Current River Conditions
2. DEIS NISP Cost Critique/Revision
3. DEIS NISP Agricultural Impacts Critique/Revision
4. DEIS NISP Environmental Impacts Critique
5. Healthy Rivers Alternative to NISP and DEIS Revisions.
6. Restoration Vision for the lower Poudre River

**SUMMARY: The NISP DEIS does not meet NEPA legal requirements. The Army Corps of Engineers must completely Start Over.**

**Many pages in comments; quick summary here.**

## DEIS Preferred Alternative Cost Critique

### The DEIS did not include:

- Construction costs using latest inflation numbers for fuel, cement, steel, etc. (Our numbers below are “conservative.”)
- Treatment plant upgrade costs for Fort Collins and other utilities.
- **Finance Costs of \$408 million are not included below.**

NISP Cost Revision	
Draft EIS Estimate	\$ 426,000,000
Revised Construction Costs Estimate	\$ 502,800,000
TOTAL: Revised Construction Costs + Upgraded Treatment Plants (NISP will pay) Greeley?	\$628,000,000 - \$717,800,000  Over a billion dollars+

## DEIS Agricultural Impacts Critique

- **NISP WILL LIKELY CAUSE FARM DRY-UP:**
  - DEIS fails to account for the fact that the Grey Mountain Water Right is already diverted downstream and used by farmers on the eastern plains. Farmers on the eastern plains are likely to suffer water losses if NISP is built.
  - DEIS fails to account for the loss of agricultural productivity by using highly salinated water in the South Platte Water Conservation Project. The farmers who agree to this water trade are likely to suffer significantly reduced crop yields and acreage depletions.

	STP Estimate of Irrigated Acreage Lost	NISP DEIS Claims for Irrigated Acreage Lost
<i>NISP Alternatives 2-4 (Action Alternatives)</i>		
Grey Mountain Right Diversion	13,889	0
Saline Water Irrigation Impacts (SPWCP)	3,897	0
Reservoir Development	400	0
<b>ACTUAL TOTAL</b>	<b>18,186</b>	<b>0</b>

## DEIS Environmental Impacts Critique

- **Wetlands** – Ag wetlands inventory incomplete. Inadequate survey method resulting in estimates that are too high for the NAA.
- **Water Quality** – If NISP is built, Poudre will likely be placed on Colorado's list of "impaired waters," (303d list), and federal regulatory action is possible via the Clean Water Act.
- **Recreational** – Trout fishery through Fort Collins will die due to high temperature and silt. Glade economic benefits are way overstated.
- **Cultural Resources** – Archeology study very incomplete. No digging occurred; long-term human habitation likely.
- **Climate Change** – the DEIS did not even consider the massive Greenhouse Gas impacts of the NISP pumps to fill the reservoir.
- **Drought** – the DEIS completely omitted the recent drought years in its hydrological modeling.
- **Endangered Species** –
  - Preble's Meadow Jumping Mouse habitat mitigation plan inadequate. Fails to use industry standard.
  - Bell's Twinpod – one of the largest sites in Colorado is at the Glade site. The plant is "Globally Impaired."

## Healthy Rivers Alternative

A Balanced Proposal for Water Supply Security that Protects the Poudre River

- NISP communities can get the water they need without draining the Poudre River.
  - **Option #1:** Revised NISP "No Action Alternative" with accurate future projections.
  - **Option #2:** Option #1 Plus Rotational Fallowing Program to preserve agriculture.

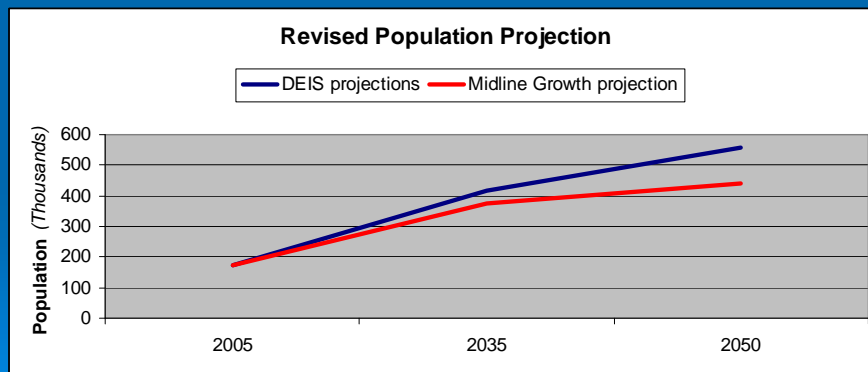
**Both options are cheaper than NISP, and Option #2 preserves agriculture better than NISP.**

## Healthy Rivers Alternative, Option #1:

- Revised Growth Projections as compared to NISP DEIS.
- Revised Water Conservation Savings as compared to NISP DEIS.
- Revised Water Use Projections as compared to NISP DEIS.
- Water Supply and Storage Options that do not drain the Poudre River or require Glade Reservoir.
- Cost Estimates that are Cheaper than NISP. Pay-as-you-go rather than debt-ridden one-size-fits-all.

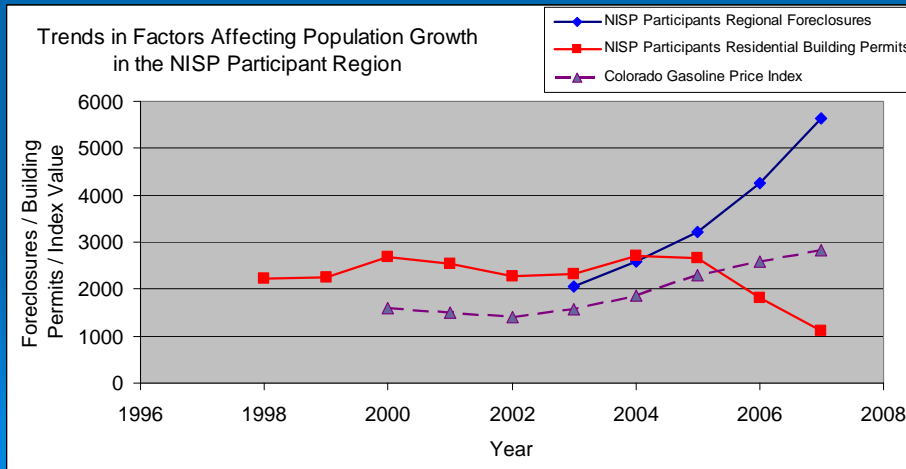
## Healthy Rivers Alternative, Option #1: Revised Growth Projections

Population growth in NISP cities could be considerably lower than DEIS projections. We used U.S. Census and State Demographers data to conclude that likely 2050 numbers are 117,000 fewer people. Home foreclosures are up. Building permits are down.



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## Healthy Rivers Alternative, Option #1: Revised Water Conservation Potential

NISP CITIES	Potable Deliveries	Total Potable Deliveries with Loss	2003 Pop.	System Wide GPCD
CWCWD	5,102	5,547	18,652	265
Eaton	577	698	3,702	168
Erie	1,474	1,706	9,039	168
Evans	1,572	2,465	11,754	187
FCLWD	5,732	6,368	30,189	188
Fort Lupton	866	1,158	7,071	146
Fort Morgan	2,619	2,867	10,994	233
Lafayette	3,478	3,754	24,996	134
LHWD	3,389	4,033	18,158	198
MCQWD	1,661	1,631	5,711	255
Severance	129	178	1,300	122
Windsor	1,609	2,040	13,984	130

Current average water use in NISP cities is 186 gpcd.

Most Front Range cities are lowering water use levels below those predicted by NISP.

NISP did not consider water conservation as a supply option.

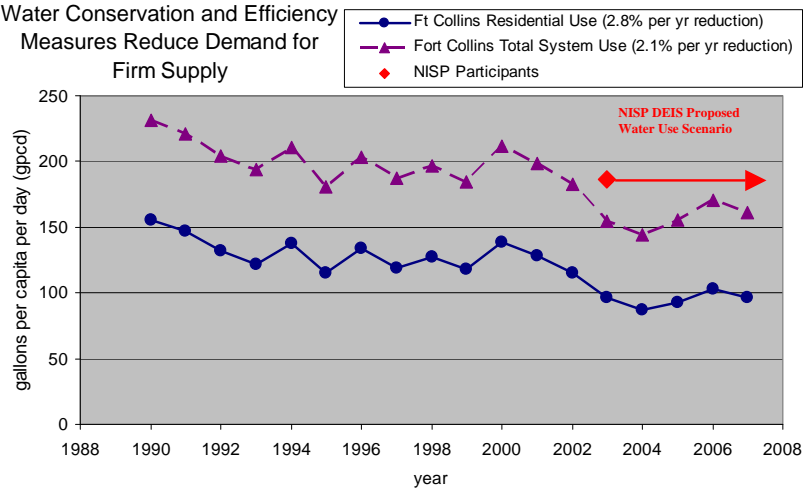
"Municipal and Industrial conservation may stretch the individual Participants' existing supplies, but it is not a viable source of new firm water supply for NISP as a regional project." -- NISP DEIS section 2.1.3, page 2-8.



## Healthy Rivers Alternative, Option #1: Revised Water Conservation Potential

NISP CITIES
CWCWD
Eaton
Erie
Evans
FCLWD
Fort Lupton
Fort Morgan
Lafayette
LHWD
MCQWD
Severance
Windsor

Water Conservation and Efficiency Measures Reduce Demand for Firm Supply

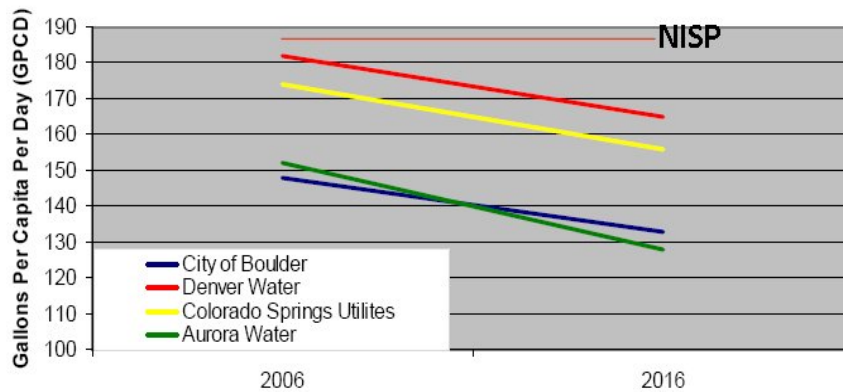


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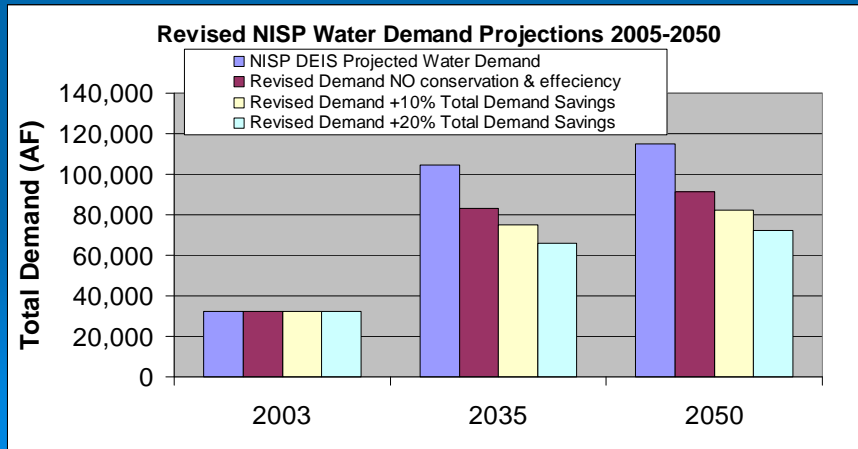
Ten Year Water Use Reduction Goals



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## Healthy Rivers Alternative, Option #1: Revised Water Demand Projections

Given revised population projections and water use programs that include conservation, NISP total projected water supply requirements for 2050 is reduced by ~43,000 acre feet. Their total demand at 2050 is ~72,000 acre feet, not 115,000. **Total NEW demand is ~35,000 acre feet.**



## Healthy Rivers Alternative, Option #1: Water Supply and Storage

### ➤ **Water Supply Options** (Supply 35,000 acre feet):

1. Conservation and Efficiency
2. Growth-Displaced Water Transfers (76,000 acres, 60,000 acre feet)
3. Additional Agricultural Transfers (C-BT, etc.)

### ➤ **Water Storage Options:**

1. Existing Reservoirs and Gravel Pits
2. Expansion/Dredging of Existing Reservoirs and Gravel Pits
3. New Gravel Pits
4. Potential Aquifer Storage



## Healthy Rivers Alternative, Option #1: Cost Estimate

- The Healthy Rivers Alternative, Option #1, would cost less than the NISP alternative.
  - Water and storage would be purchased over time, not all at once. It would be pay-as-you-go, giving communities options based on changing economies, rather than one-size-fits-all 30-year debt obligations.
  - Purchases could occur in four increments.
  - Total cost would be ~\$527 million based on current price of water and storage in northern Colorado.

	<u>Purchase Price of Water and Storage</u>
1 <sup>st</sup> Increment Purchase	\$131.9 million
2 <sup>nd</sup> Increment Purchase	\$131.9 million
3 <sup>rd</sup> Increment Purchase	\$131.9 million
4 <sup>th</sup> Increment Purchase	\$131.9 million
<b>TOTAL</b>	<b>\$527.6 million</b>

## Healthy Rivers Alternative, Option #2:

- Healthy Rivers Alternative, Option #2, would use the same revised growth projections, water conservation savings, revised water use projections, and water supply and storage opportunities as in Option #1.
- In addition, Option #2 would utilize additional water supply from “**Rotational Fallowing Programs**” that create water sharing agreements between cities and farmers to keep farmers in business for a win-win-win solution.
  - Farmers can control their own destinies rather than having to sell out to cities.
  - Keeps farming communities intact.
  - Very successful in California. Under close investigation in Colorado.
  - Cheaper form of water supply.
  - Survey. 63% farmers in South Platte would rather rent/lease than sell.

## Healthy Rivers Alternative, Option #2: Cost Estimate

- The Healthy Rivers Alternative, Option #2, would cost less than Option #1. Costs are from DEIS estimates.
- Rotational Fallowing Programs are a win-win-win solution – good for the Poudre, good for cities, and good for farmers.

	<u>Purchase Price of Water and Storage</u>
1 <sup>st</sup> Increment Purchase	\$112.3 million
2 <sup>nd</sup> Increment Purchase	\$112.3 million
3 <sup>rd</sup> Increment Purchase	\$112.3 million
4 <sup>th</sup> Increment Purchase	\$112.3 million
<b>TOTAL</b>	<b>\$449.2 million</b>

## Comparisons: HRA vs. NISP

The Healthy Rivers Alternative will:

1. Cost less than NISP
2. Can better protect agriculture in northern Colorado
3. Much better protects the Cache la Poudre River
4. LEDPA

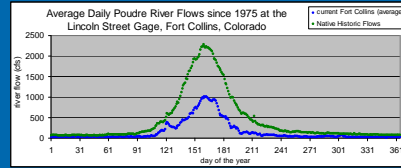
### Comparison Table: HRA vs. NISP

Comparison Item	NISP	Healthy Rivers Alternative
Total Cost	\$717.8 million plus finance charges of ~\$408 million	<b>\$449 million to \$527.6 million</b>
Total Cost per Acre Foot	\$17,950 plus finance charges of ~\$10,000/acre foot	<b>\$12,830 to \$15,074</b>
Total Acres of Agricultural Land Taken Out of Production	18,186 acres	<b>20,007 acres** farmers stay in business</b>
Total New Acre Feet of Water Removed from the Cache la Poudre River through Fort Collins	At least 33,000 to 40,000 acre feet	<b>0</b>
Environmental Impacts to Poudre River and its Fort Collins Corridor	Extensive	<b>Minimal to 0</b>

## A Vision For The Future

- The Poudre River is degraded:
  - Peak flows, and off-season flows are dramatically reduced.
- Variation in flow on an hour-by-hour basis is very ecologically damaging.
- Many dry-ups currently occur from the mouth of the canyon all the way to the South Platte.

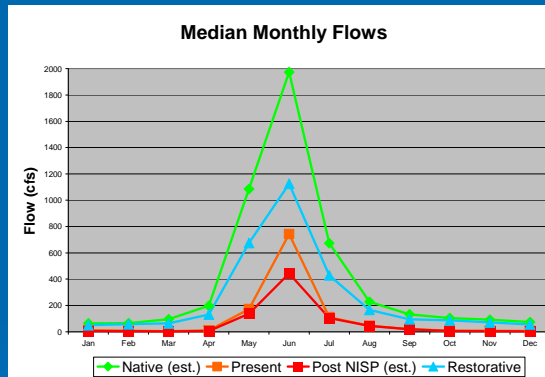
We offer a proposal for restoration. This may take a decade or longer, but it is necessary for the ecological health of the river, and the associated aesthetic and economic health of our region.



## A Vision for the Future Science-based Restoration Proposal

A “restoration proposal” has been created by scientists that defines “minimum ecological health” for the lower Poudre River.

The Save The Poudre Coalition will measure NISP alternatives and options, as well as future water supply projects, against this restoration proposal.



The Save The Poudre Proposal Achieves Ecological Health By:

- Increasing winter-time flows.
- Increasing peak flows.
- Minimizing daily fluctuations

## **A Vision for the Future**

### **Policy and Legislative Opportunities to Achieve Restoration Federal, State, Local**

- Develop a community-based river management paradigm based on cooperation and collaboration.
- Link conservation and efficiency to river restoration at the local, state, and federal level for the Poudre and for other Colorado rivers.
- Develop programs so that water donations, loans, and acquisitions can receive tax credits and be used to restore river flow.
- Improve Colorado's Instream Flow Program to better protect streams.
- Improve citizen participation in Colorado's Water Conservancy Districts.
- Adopt water policy changes to raise the legal standing of water quality issues.
- Work to establish a rotating fallow program for the Poudre River and South Platte Basins.
- Fully develop policies for alluvial aquifer storage.