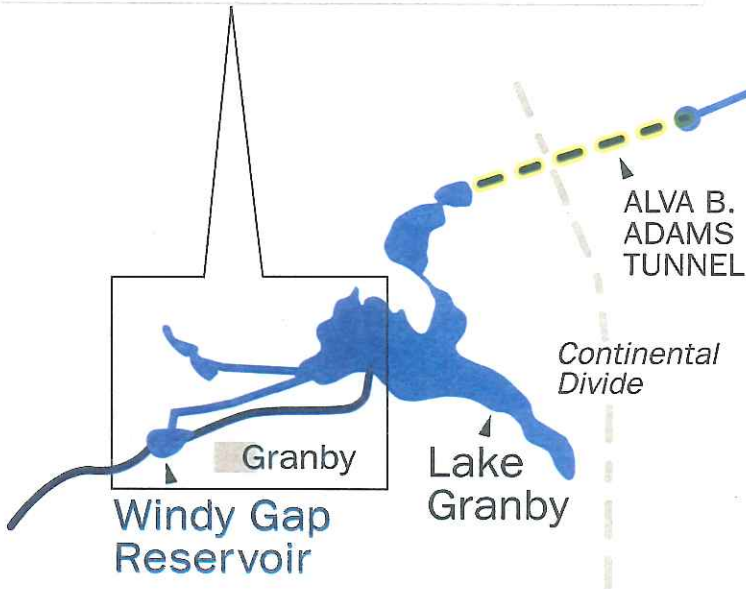


# Windy Gap Firming Project



# TIMELINE: WINDY GAP FIRING PROJECT

*As of September 2012*

## **Windy Gap Project**

**1969**

First water rights filed

**1970**

Northern Water's Municipal Subdistrict created

**1980**

Windy Gap Settlement Agreement signed; Subdistrict agreed to provide mitigation

**1981**

Reclamation granted project approval and construction began

**1985**

Supplement to 1980 agreement signed

Project construction completed and water deliveries began

## **Windy Gap Firing Project**

**2003**

Firing project's 13 participating water providers entered NEPA

Subdistrict published Alternatives Plan Formulation Report on process to narrow 170 alternatives to 7

**2004**

Joint land purchase for Chimney Hollow Reservoir (Subdistrict: 1,600 acres) and Open Space (Larimer County: 1,900 acres)

**2005**

Reclamation published the Purpose and Need Report and the Alternatives Report

**August 2008**

Reclamation published the DEIS to identify potential impacts and corresponding mitigation

**December 2008**

DEIS comment period closed

**April 2009**

Subdistrict and Denver Water offered voluntary benefits to West Slope and negotiations began

**Summer 2011**

Colorado Wildlife Commission and CWCB unanimously accepted the state fish and wildlife mitigation plan and the voluntary enhancement plan

**November 2011**

Reclamation published the Final EIS

**March 2012**

Fish and Wildlife Coordination Act Report issued by U.S. Fish and Wildlife Service

**August 1 and 2, 2012**

Grand County Board of Commissioners hold 1041 permit application hearings (review has a 120-day deadline)

**Anticipated**

**2012 approvals/agreements**

IGA between Subdistrict and West Slope entities

Grand County 1041 permit

Reclamation's Record of Decision

Reclamation and Subdistrict negotiations on carriage contract modifications for use of C-BT facilities

**2013 approvals**

U.S. Army Corps of Engineers' 404 permit to build

Colorado Department of Public Health and Environment's 401 water quality certification

**2013-2015**

Project design

**2015-2018**

Project construction

## **WINDY GAP FIRING PROJECT SUMMARY OF MITIGATION AND ENHANCEMENT MEASURES**

### **MITIGATION FOR DIRECT IMPACTS OF WGFP:**

#### **Colorado River Streamflow and Aquatic Habitat:**

- Stream temperatures – Reduced or curtailed river diversions when stream temperature standards are exceeded (with some limitations), with installation of real-time temperature monitoring devices
- Flushing flows – Required flushing flows increased from 450 cfs to 600 cfs. Subdistrict has agreed in 1041 permit process to provide 1,200 cfs every 6 years under certain conditions by curtailing pumping and/or making reservoir releases
- Subdistrict will curtail pumping during the annual Gore Race if flows are below 1,250 cfs at Kremmling

#### **Water Quality in Three Lakes:**

- Provide estimated \$4.3 million to reduce nutrient inflow to three lakes to “neutralize” effects of WGFP on Three Lakes water quality and Grand Lake clarity (includes improvements to wastewater treatment facilities and non-point source nutrient reduction)
  - USBR REQUIRES DEMONSTRATED 1:1 REDUCTIONS

#### **Other Required Mitigation:**

- Modified Prepositioning to maintain higher water levels in Granby Reservoir
- Colorado River Endangered Species - \$405,000 funding for Upper Colorado River Recovery Program
- \$105,000 for Wetland Mitigation Bank plus re-vegetation and enhancement of disturbed areas

### **VOLUNTARY ENHANCEMENTS TO ADDRESS CURRENT CONDITIONS:**

#### **WGFP IGA with West Slope:**

##### Water supply for West Slope:

- Firm annual water supply for Middle Park WCD – 2,300 AF/year
- Additional pumping for MPWCD providing an average annual supply of 700 AF
- 3,000 acre-feet of carry-over capability

##### Water for streamflow enhancement:

- Grand County ability to use unused Middle Park WCD supplies– up to 2,300 AF per year
- Grand County share of Windy Gap pumping– 500 AF per year on average
- Grand County ability to pump additional Windy Gap water when available – up to 3,000 AF per year
- 4,500 acre-feet of carry-over capability

##### Other IGA provisions:

- Participation in Learning by Doing Cooperative Effort with Denver Water and West Slope entities which provides a formal, long-term mechanism to monitor stream conditions and coordinate mitigation, streamflow enhancements and stream restoration work
- No acquisition of new or existing water rights or construction of new water supply facilities in Grand County without West Slope consent



- Provide \$500,000 to Grand County for irrigation pump maintenance fund and funding for water measurement devices on Colorado River diversions
- Windy Gap Project will participate in Shoshone Outage Protocol
- Provisions to protect open space
- Subdistrict and Northern Water combined will provide up to \$250,000 for the Wild and Scenic Endowment Fund Subdistrict will support a CWCB instream flow on the Colorado River between the Blue and Eagle Rivers
- Subdistrict will not oppose the Grand County RICD (Case No. 10CW298)

**Fish and Wildlife Enhancement Plan authorized by Colorado Wildlife Commission:**

Aquatic habitat enhancement:

- \$4 million to restore aquatic habitat in Colorado River from Windy Gap to Kemp-Breeze State Wildlife Area (with up to \$3 million more provided by Denver Water)
- Funding for study of bypass around Windy Gap Reservoir - \$250,000
- If the study shows that a bypass will provide benefits to aquatic life, Subdistrict has made commitments outside of the Fish and Wildlife Enhancement Plan to provide \$2 million to implement a bypass around or through Windy Gap Reservoir under conditions protective of project water rights, operations and yield, with the provision that this will be an end point for mitigation and enhancement measures.

**Voluntary Water Quality Enhancements:**

- Provide funding and active participation in U.S. Bureau of Reclamation's Appraisal Study for improvement in Three Lakes water quality
- Commitment of Northern Water to work with Reclamation and Grand County on Grand Lake clarity issues
- Northern Water's Water Quality Program, including over \$1 million in water quality monitoring and studies to better understand water quality issues in the C-BT and Windy Gap projects

**Other Cooperative Efforts:**

- Subdistrict has cooperated with Northern Water and other Colorado River Water Users to provide a permanent source of 5,412.5 AF/year from Granby Reservoir for the Colorado River Endangered Species Recovery Program. These releases will provide benefits to aquatic life and recreation in the Upper Colorado River as well as to endangered fish in the 15-Mile Reach near Grand Junction.

**CONCLUSION:**

***The combined effect of additional water in the Colorado River in Grand County and habitat improvements provided by the enhancement measures and other related actions will improve conditions in the Colorado River over current levels. Coupled with the mitigation measures provided to address the direct impacts of the WGFP, the conditions in the river with the WGFP in operation will be better than current conditions.***



6/9/2011  
Division of Wildlife

## Commission approves water plans

GRAND JUNCTION, Colo. - The Colorado Wildlife Commission Thursday endorsed Fish and Wildlife Mitigation Plans submitted by Denver Water and the Northern Colorado Water Conservancy District to mitigate impacts that would be caused by two proposed transmountain water development projects.

In a series of unanimous votes, Commissioners approved mitigation plans for Denver's Moffat Collection System project and Northern's Windy Gap Firming Project and also authorized the Division of Wildlife to enter into an intergovernmental agreement with Denver and Northern to help manage a significant restoration project for the upper Colorado River. Three members of the Colorado State Parks Board joined the Commission at the workshop, which was held at the Doubletree Inn on Horizon Drive.

The votes came after Denver and Northern described to Commissioners several new or modified plan elements, which include enhanced temperature and flow protections, creation of contingency funds for unanticipated impacts and enhanced funding for river restoration plans. The restoration plans were not required by the permitting process but were offered voluntarily by Denver and Northern to help address impacts from past water development. The agreements hinge on the water providers obtaining final federal approval for their projects.

Prior to the vote, Wildlife Commission chairman Tim Glenn summarized concerns expressed by several commissioners regarding the complex package of plans and the potential that development of the projects may have unintended consequences for the upper Colorado, Fraser and Williams Fork rivers.

"Is it perfect?" Glenn asked "No. But staff has evaluated it inside and out and I'm confident that it's better than where we are."

The Commission's recommendation will now be transmitted to the federal permitting agency for each project. Denver Water's Moffat Collection System project would firm up the yield from Denver's existing water rights on the West Slope, primarily by enlarging Boulder's Gross Reservoir and diverting additional water from the Fraser, Williams Fork and Blue rivers. Northern's Windy Gap Firming Project proposes to firm up the yield from its existing water rights in the Upper Colorado River by diverting additional water to the proposed new Chimney Hollow Reservoir west of Loveland.

Since last fall, Denver and Northern have been in discussions with Division of Wildlife staff to address concerns voiced by the public and by Wildlife Commissioners. The two utilities have simultaneously been negotiating a complimentary set of agreements with a diverse group of stakeholders, including affected local governments like Grand County.

To further address impacts from its Moffat Collection System project, Denver has agreed to new elements including increased safeguards for maintaining cool water temperatures and minimum flows in the Fraser during high summer and additional funds for aquatic habitat improvements in that river. Denver also agreed to reserve \$600,000 for a "mitigation insurance policy" to address any new impacts identified by the Final Environmental Impact Statement being developed by the Army Corps of Engineers.

This is in addition to Denver's previous proposal to fund a Colorado River cutthroat restoration project and other aquatic habitat restoration work on the Fraser. On the Colorado River, Denver would maintain two water temperature gauges and agree to release water in August if high temperatures threatened fish. East of the Divide, Denver would allow Boulder and Lafayette to store water in the enlarged Gross Reservoir for release during winter months, replace wetlands inundated by the larger reservoir and monitor stream channel stability.

(more)

In its final proposal, Northern agreed to increase minimum peak flows during drought conditions to maintain fish spawning habitat, to further restrict or curtail pumping during extreme conditions to protect cool water temperatures and to reserve \$600,000 for a "mitigation insurance policy" to address any new impacts identified by the Final Environmental Impact Statement for Windy Gap being developed by the Bureau of Reclamation.

Northern's proposal included mitigating impacts on the Upper Colorado River system by managing their pumping to maintain water levels in Lake Granby and keep water temperatures cool, looking for ways to improve flushing flows in the Upper Colorado River below Windy Gap Reservoir and contributing to water quality projects that reduce nutrient loading in Lake Granby, Grand Lake and Shadow Mountain Reservoir. East of the Divide, Northern proposed to replace lost wetlands and improve enhance wildlife habitat near the new Chimney Hollow reservoir.

Under state statute, the Wildlife Commission's authority was limited to mitigating impacts from proposed projects. Restoring the river to a past condition was beyond the scope of Commission authority. However, Denver and Northern voluntarily proposed to help enhance conditions for fish and wildlife resources on both sides of the Continental Divide.

The enhancement plans would support the Upper Colorado River Habitat Project, a collaborative plan designed to re-establish a functional channel system and improve habitat for trout and other important aquatic species on a roughly 14-mile stretch of river between Windy Gap Reservoir and the Kemp-Breeze State Wildlife Area.

In their final plans, Denver and Northern agreed to add \$1 million in funding to the Upper Colorado River Habitat Project to \$4.5 million and increase money set aside to address future contingencies or operating and maintenance costs on that project to \$1.5 million. Denver and Northern also pledged to enter into an intergovernmental agreement with the DOW to manage the habitat project, and urged that the DOW be given a more direct role in developing and managing stream restoration projects contemplated under the Learn By Doing adaptive management process created by Denver's global settlement with Grand County and other stakeholders.

That global settlement, announced recently by Denver Water, would address longstanding concerns about the health of the Colorado River. The settlement includes funding for aquatic habitat and for an adaptive management process designed to help maintain river health.

Northern is also working on similar agreement with communities on the Upper Colorado River.

Senior Northeast Region aquatic biologist Ken Kehmeier said Division staff believes that in total, the agreements, including those made with mountain communities, would not only address impacts from the new projects but also help repair impacts to the Colorado and Fraser rivers caused by previous projects.

Commissioner David Brougham credited the Division, Denver and Northern for negotiating agreements which went beyond the Commission's limited jurisdiction under the statute.

"I think in looking at this the Division has gone beyond and done more than that statute gives us the power to do," Brougham said. "Denver and Northern could have said no, but they didn't and I think that's telling."



# WINDY GAP FIRING PROJECT

August 2012 [www.chimneyhollow.org](http://www.chimneyhollow.org)

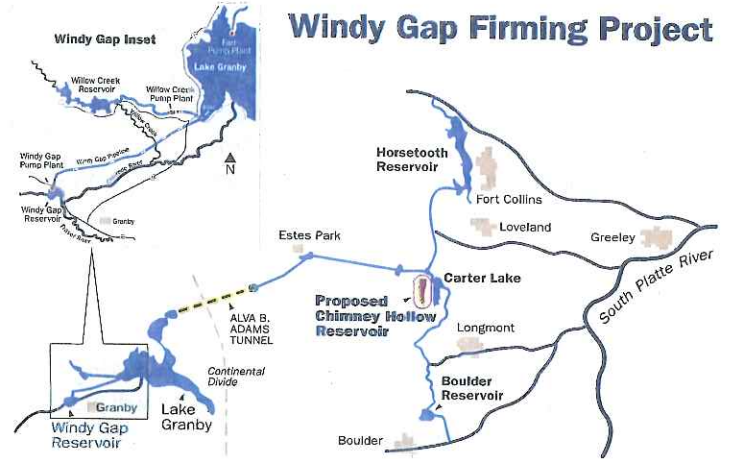
**THE WINDY GAP FIRING PROJECT** is a regional collaboration between 13 Northeastern Colorado water providers that would improve the reliability of, or firm up, the Windy Gap Project, which is operated and maintained by Northern Water's Municipal Subdistrict and started delivering water in 1985. The firming project's key feature, a new East Slope reservoir called Chimney Hollow, would provide storage to supply a reliable 30,000 acre feet of water a year for future generations.

## WHO ARE THE PARTICIPATING WATER PROVIDERS, AND WHY DO THEY NEED THE PROJECT?

There are 13 participants: 10 municipalities, two water districts and one power provider. Northern Water's Municipal Subdistrict is coordinating the permitting process for them.

By 2050, the participants' total population will have far more than doubled what it was in 2005. The estimated 2050 population is 825,000 people, which does not include the more than 145,000 customers served by the participating power provider, the Platte River Power Authority.

Water demand projections for the participants show a shortage in supply of 64,000 acre feet in 2030 and 110,000 acre feet by 2050.



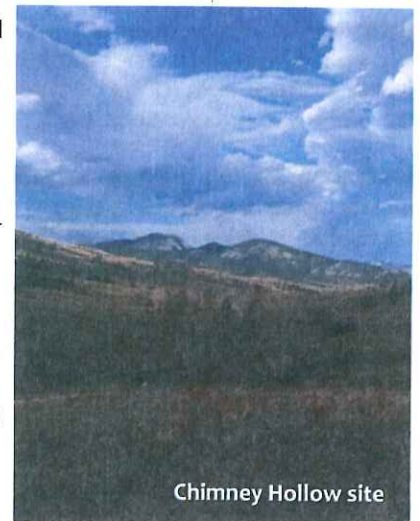
## WHY IS BUILDING CHIMNEY HOLLOW RESERVOIR THE PREFERRED ALTERNATIVE?

Through the federal review process, participants reviewed 170 alternatives to provide the supply they need. Constructing the 90,000-acre-foot Chimney Hollow Reservoir southwest of Loveland came out as both the participants' and the U.S. Bureau of Reclamation's top choice.

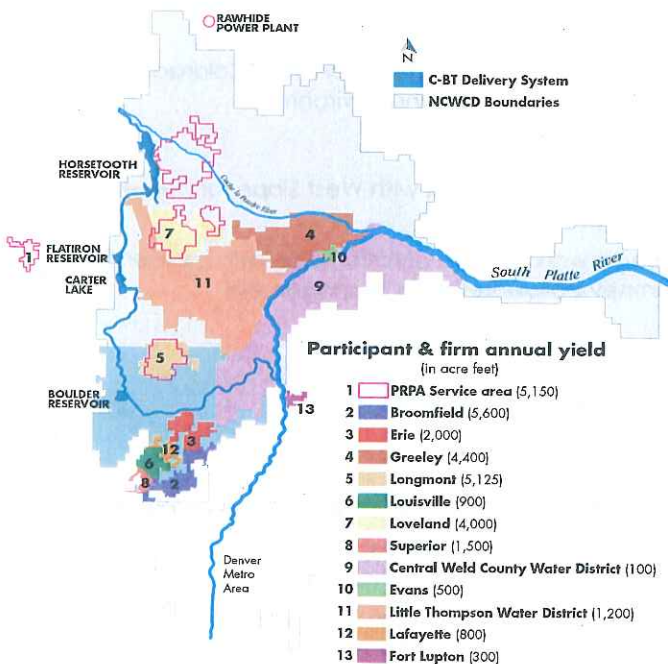
The project uses not only existing water rights, but also existing facilities. It hooks on to the Windy Gap and Colorado-Big Thompson projects and adds a storage reservoir – something the original project participants knew they would need in the future.

Chimney Hollow builds on regional cooperation, therefore saving money and reducing environmental impacts by building one reservoir instead of several and using more efficient diversions.

The firming project makes environmental sense in other ways, too. Windy Gap water is reusable – water providers can use it more than one time. And Chimney Hollow Reservoir is part of Larimer County's open space plan to provide benefits for habitat and recreationists.



**Firming Project**  
Participant Boundaries





## WHAT MITIGATION WILL BE PROVIDED?

The state has already approved the project's state fish and wildlife mitigation plan, which offers operational considerations to mitigate higher stream temperatures, increased flushing flows to clean sediment from the stream channel, and nutrient removal to offset impacts to water quality in Grand Lake and the Colorado River.

The state also approved a voluntary enhancement plan that offers benefits which include increased funding for future stream restoration work and habitat-related projects. Both the mitigation and enhancement plans were developed in coordination with Denver Water because of its proposed Moffat Collection System Project.

Federally, the NEPA process will incorporate the state mitigation plan into the Final Environmental Impact Statement.

In addition, the Subdistrict is refining a voluntary working agreement with West Slope entities for benefits it will provide. These include water supply for the Middle Park Water Conservancy District and additional water for environmental purposes such as stream habitat.

Nutrient removal will neutralize effects of the firming project on clarity issues in Grand Lake.

In addition, Northern Water and the Subdistrict are working with Reclamation and Grand County as part of a long-term commitment to address existing water quality concerns in Grand Lake.

Thanks to all of these cooperative efforts, the Windy Gap Firming Project will improve conditions on the Colorado River.



Colorado River below Windy Gap

## PROJECT TIMELINE: WHAT'S HAPPENED SO FAR

**1985:** Windy Gap Project construction completed and water deliveries began

**2003:** 13 participating water providers entered formal federal process for firming project; Subdistrict published alternatives report detailing evaluation of 170 methods to potentially accomplish the project's goals and how they were narrowed down to seven

**2005:** Reclamation published two key reports, one describing the purpose of and need for the project, and one identifying a reasonable range of alternatives that could meet the water providers' needs

**2006-2008:** Reclamation published more than 1,700 pages of technical reports detailing different resource impact analyses for the Draft Environmental Impact Statement

**2008:** Reclamation published the DEIS, which details the project's purpose and need and identifies potential project impacts with corresponding mitigation

**2009:** Subdistrict offered West Slope benefits to facilitate project implementation; negotiations began

**Summer 2011:** Colorado Wildlife Commission and Colorado Water Conservation Board unanimously accepted the project's state fish and wildlife mitigation plan as well as a voluntary enhancement plan to provide benefits

**November 2011:** Reclamation published the Final EIS

## WHAT'S LEFT – ANTICIPATED DATES

### 2012

#### Federal approvals

Reclamation: Complete modifications to existing Windy Gap carriage contract, which includes procedures and fees for Windy Gap water to move through C-BT facilities

Reclamation: Official Record of Decision on whether project should move forward

U.S. Army Corps of Engineers: 404 permit to build

#### State approvals

401 water quality certification from Colorado Department of Public Health and Environment

#### Local agreements

Finalize negotiations with West Slope for benefits Subdistrict will provide

Begin working on recreation plan with Larimer County for Chimney Hollow Reservoir management

**2012-2014:** Project design

**2014-2017:** Project construction

**FOR MORE INFORMATION:** [www.chimneyhollow.org](http://www.chimneyhollow.org)

**Project Manager Jeff Drager**

970-622-2333, [jdrager@ncwcd.org](mailto:jdrager@ncwcd.org)

**Communications Specialist Dana Strongin**

970-622-2239, [dstrongin@ncwcd.org](mailto:dstrongin@ncwcd.org)

# Windy Gap Firming Project

## Participant Boundaries

