Photo courtesy of Mike Blakeman- Rio Oxbow Ranch, easement held by Rio Grande Headwaters Land Trust

LAND & WATER

A QUANTITATIVE ANALYSIS OF LAND CONSERVATION'S IMPACT ON WATER IN COLORADO

Introduction

Water has been a prominent concern for agricultural, municipal, and industrial sectors in Colorado for quite some time, and its significance will only continue to increase. Over the last couple of years, conservation proponents have been placing a higher priority on water projects and organizations working with water. After several discussions with various conservation advocates, the Colorado Coalition of Land Trusts (CCLT) realized that, although land trusts and open space programs are associated with land preservation and recreation, we, as a community, are not as strongly linked with water and watershed protection as we can be. The fact is when conservation organizations conserve land, they also protect water. Conserving land around rivers and streams protects valuable habitat and riparian zones that are crucial to a river's health and water quality. Until now, the impact of Colorado land conservation efforts on water and watersheds was not quantified. Though undocumented, Colorado land conservation programs have been protecting water all along. This report quantifies how much water has already been protected by land conservation in Colorado. As funders increasingly focus on water, this knowledge will provide a platform for further protecting Colorado's water through land conservation.

This report quantifies the miles of river corridor protected by conservation easements in the state. The research was performed by CCLT, in collaboration with the Colorado Water Trust, (CWT), and in cooperation with Great Outdoors Colorado, (GOCO). Even though water rights encumbered by easements and in-stream flows held by the state are not included in this report, protecting the land surrounding streams and rivers is a major step in protecting water in Colorado. Land and water are intrinsically linked habitats and environmental systems. Similarly, the land and water communities are intrinsically linked, and connecting their work can only strengthen the efforts of each. Land conservation already has a broad impact on water protection: this report recognizes what has already been done and provides knowledge to allow that impact to continue to grow. Highlighting land conservation's affect on water is another way for land trusts to be strategic about obtaining funds and also to determine how those funds are used. The Rio Grande Headwaters Land Trust has shown the potential of tying land conservation to water with the success of their "Rio Grand Initiative"to protect the Rio Grande River corridor. From local land trusts to GOCO, up to the national level, with the Land Trust Alliance and the Department of the Interior, the information in this report is a valuable tool for prioritizing land conservation on all levels.

Summary

To date, land conservation efforts in Colorado protect:

- **1,286 miles of river corridor 2nd order and larger**
    - **3.5%** of all rivers of this size in the state
- **778 miles of river corridor 3rd order and larger**
    - **4.2%** of all rivers of this size in the state

Stream order refers to the size of the stream. For purposes of this study, 1st order streams are considered "intermittent" because they are only flowing for part of the year, and have been omitted. Second order streams can be considered "quasi-intermittent" because some only flow for one to two months out of the year, while others are small year-round streams. Streams 3rd order and larger are considered year-round, or "perennial" streams because they have consistent flows throughout the year. See the stream order section below for a more in-depth explanation of stream order.

Methods

The bulk of the research for this project was performed using the Colorado Ownership, Management, and Protection project (COMap). COMap is a detailed map of all the protected areas in the state of Colorado assembled by the Natural Resource Ecology Lab and the Human Dimensions of Natural Resources Department at Colorado State University. The premise of COMap is that the landscape context of conservation (ownership and management) is important to natural resource management issues. Knowing the location and pattern of various protected areas is a key piece of information to inform management of many natural resources in Colorado. Recognizing its importance, GOCO provided technical assistance and funding for COMap.[0] The COMap database is a valuable tool because it utilizes Geographic Information Systems (GIS) software, allowing detailed datasets to be easily visualized and manipulated. The vast majority of the data is a result of GIS analysis using COMap, though some of the data for stream miles came directly from individual land trusts and open space program records.

Research for this project was performed using ArcMap GIS software on a computer at GOCO's office in Denver, with the guidance of Chris Yuan-Farrel. The GIS Software enables the user to layer different maps and data together to see how they interact with one another. The first map layer, referred to as a "dataset," was of all the streams and rivers in Colorado – the National Hydrography Dataset from the United States Geologic Survey (Figure 1). The project participants would like to thank John Sanderson and Jan Koenig at The Nature Conservancy for providing a modified version of this dataset, with all ditches and canals removed.

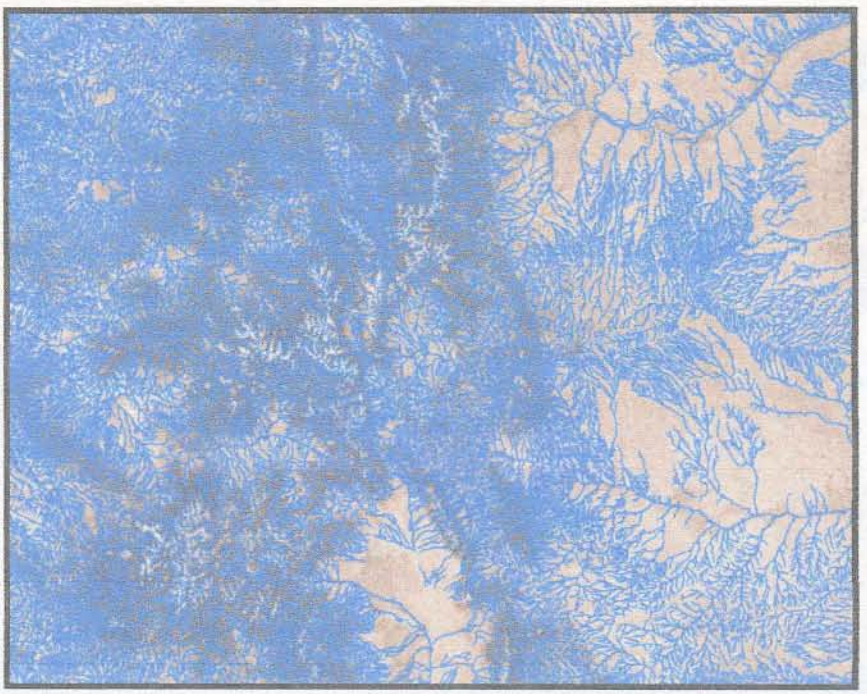


Figure 1: The National Hydrography Dataset for Colorado

Figure 2: COMap Conservation Easement Dataset

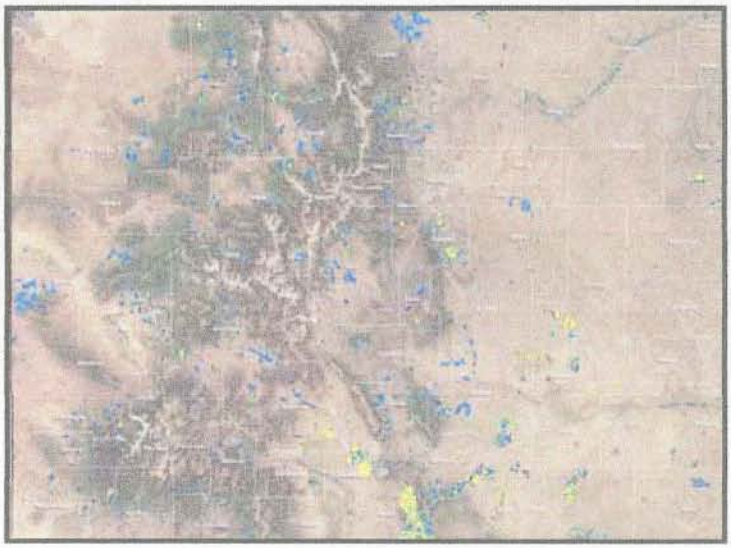


Figure 3: National Hydrography Dataset Rivers "Clipped" to the Boundaries of Conservation Easements

Next, the National Hydrography Dataset was sorted according to stream order for the purpose of excluding intermittent streams. This process is discussed at length below, in the "Stream Order" section. The National Hydrography Dataset was then layered with COMap's dataset for conservation easements in Colorado (Figure 2). In the map at right, the conservation easements are in yellow.

GIS is powerful because the software tracks hundreds of data points for every line on the map. This allows the user to manipulate and pull out very detailed information from these datasets. The program also produces maps, making the information easily understandable.

Once the two datasets were layered together, the streams were "clipped" at the boundaries of the conservation easements. The software used the easement boundaries as a cookie cutter to determine the mileage of river corridor running through conservation easements (Figure 3). After the rivers were clipped, GIS software calculated the mileage of river corridor protected by conservation easements. It is important to note that the mileage is simply the mileage of the river, or the river corridor, flowing through an easement, as opposed to double-counting the mileage of each stream bank. In order to provide perspective on how much land surrounding rivers is protected, several close-up views of conservation easements surrounding streams and rivers follow.

Figure 4: Trinchera Creek and Trinchera Ranch in Southern Colorado

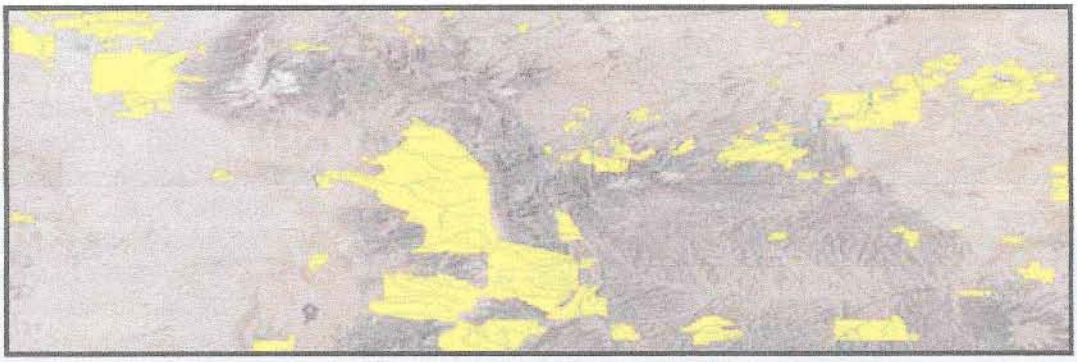


Figure 5: Fountain Creek North of Pueblo

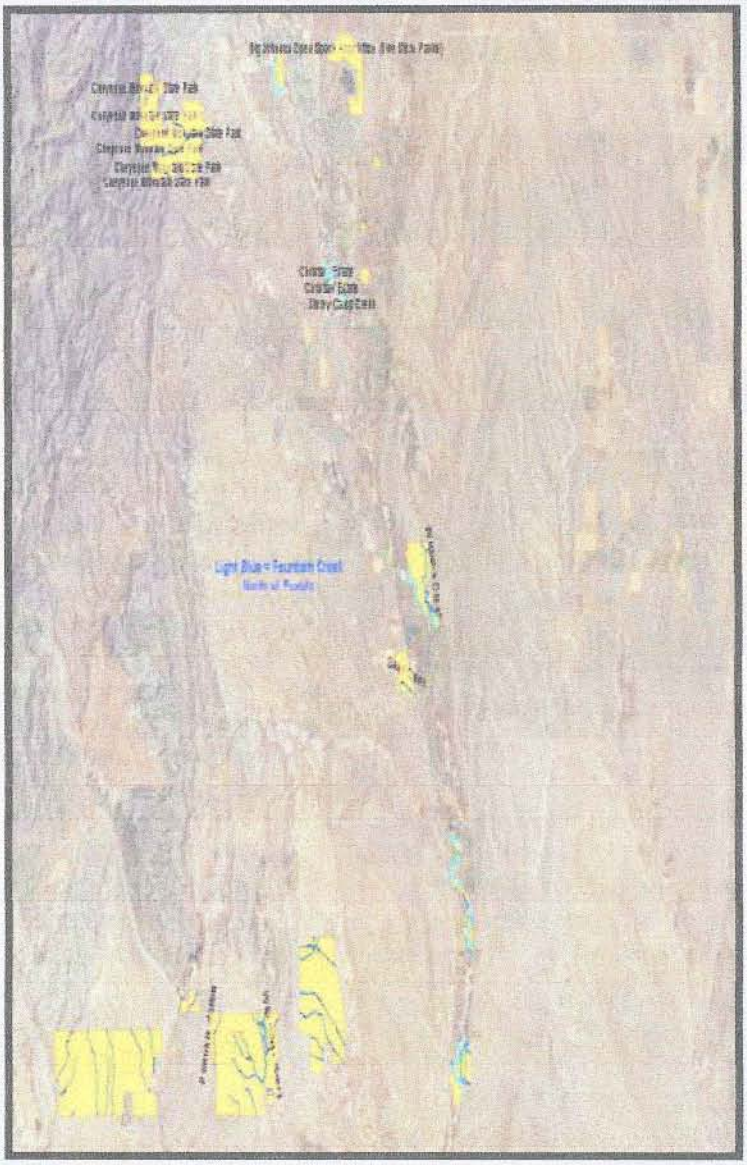


Figure 6: Rio Grande River

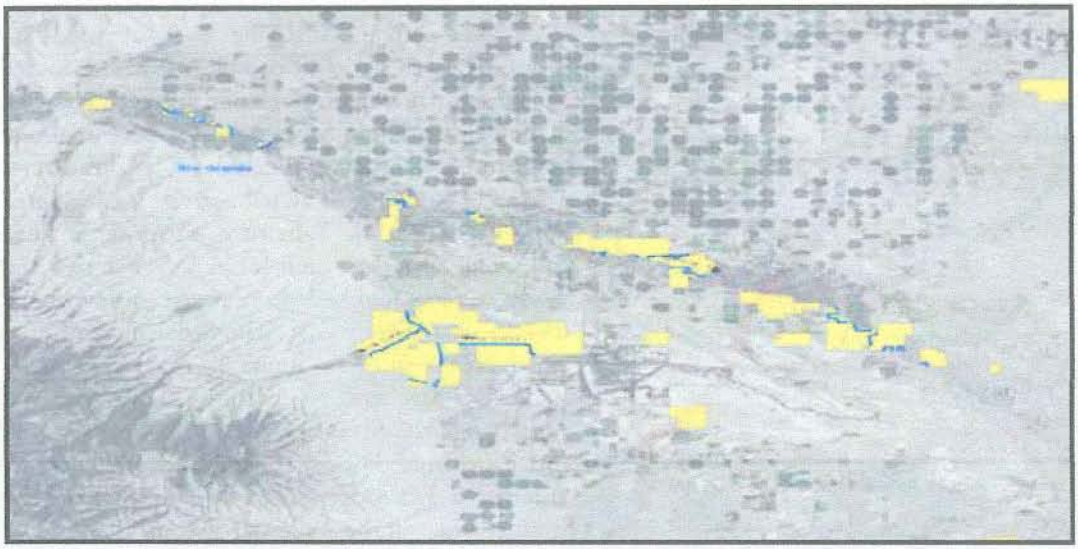
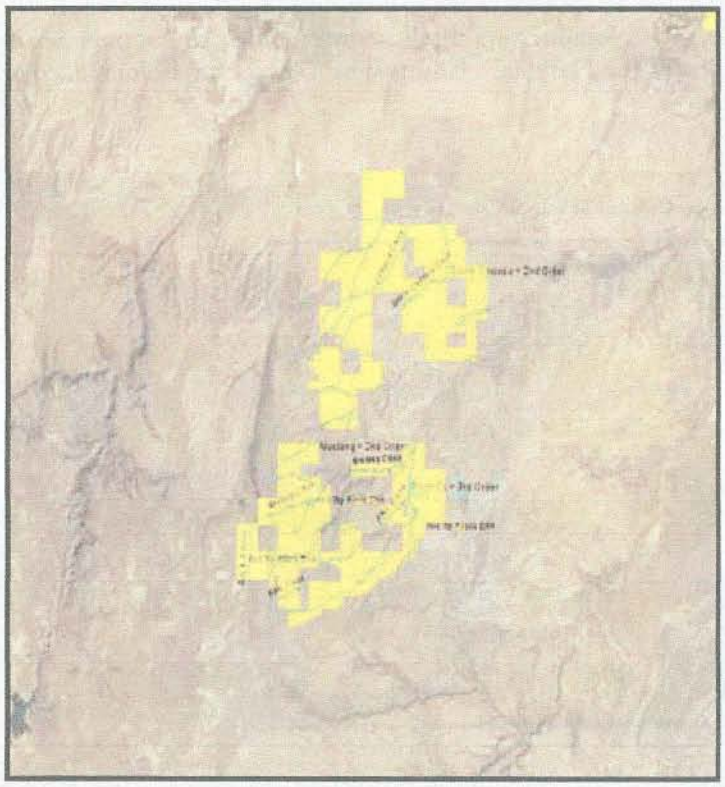


Figure 7: Red Top Ranch Near Pueblo



The analysis above was relatively straightforward; the ongoing challenge is where to draw the line between intermittent and perennial streams.

Stream Order

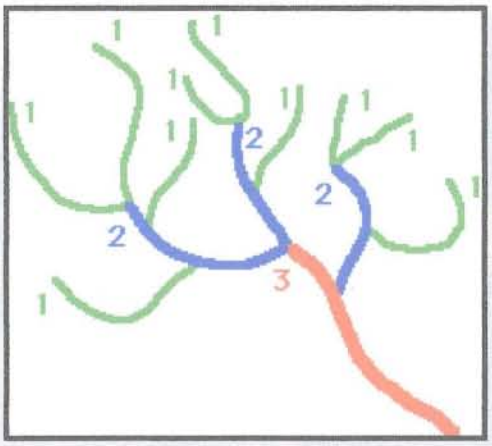
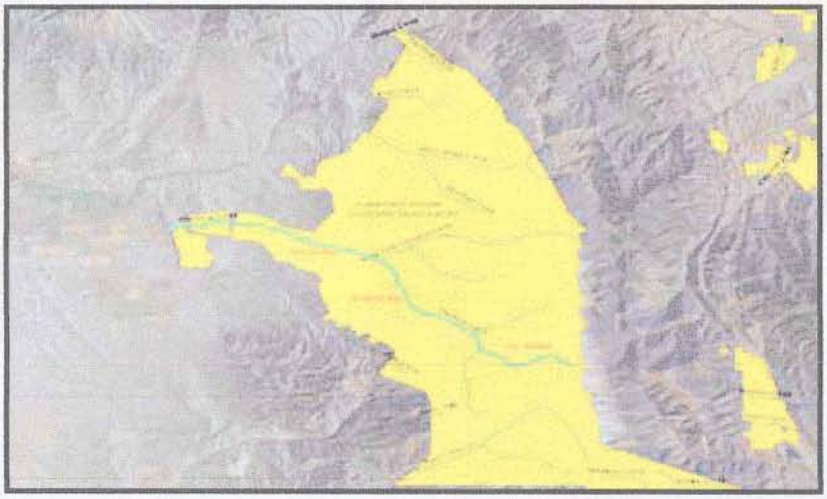


Figure 8: Strahler Stream Order Diagram

Strahler stream ordering is a method for assessing river size and complexity based on the number and hierarchical relationship of tributaries. When determining Strahler order, perennial and intermittent streams are included. The headwater stream (a stream with no tributaries) is considered a 1st order stream. When two 1st order streams join, a 2nd order stream is formed. When two 2nd order streams join, a 3rd order stream is formed, and so on. (Figure 8). The ordering continues downstream within a drainage network. Smaller or lower order streams entering the network will not change the Strahler order of larger or higher order streams. For example, a 2nd order stream entering a 3rd order stream will not change the Strahler order of the 3rd order stream.

The Amazon River is a 12th order river – the largest Strahler order designation in the world. The Mississippi River is a 10th order river when it flows into the Gulf of Mexico. In comparison, the Arkansas, Platte, and Colorado rivers are all 7th order at their largest point when they flow out of Colorado. Below is the National Hydrography Dataset for Colorado, color coded according to Stream Order.

Figure 9: National Hydrography Dataset Color Coded by Stream Order

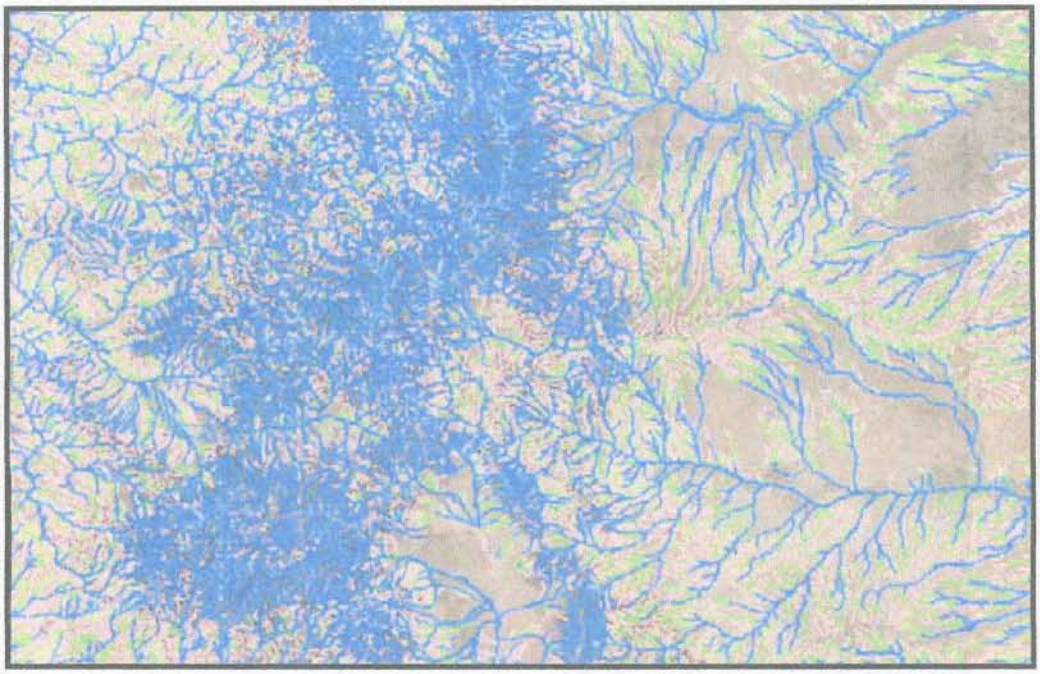


Pink = 1st order streams

Green = 2nd order streams

Blue = 3rd order and larger streams

Figure 10: Close-Up of Trinchera Creek with Stream Order Labeled



The Colorado Division of Wildlife defines an intermittent stream as, "a stream that has flowing water during certain times of the year when groundwater provides water for stream flow. During dry periods, intermittent streams may not have flowing water. Runoff is a supplemental source of water for intermittent streams." The United States Geological Survey also defines intermittent streams as only having flows for part of the year from springs, or from snowmelt runoff.[0] First order streams only run for part of the year, so they are considered intermittent for purposes of this study, and have been omitted from the results. The figure above is Trinchera Creek, with 1st, 2nd, and 3rd order segments labeled.

Second order streams can be intermittent or perennial because of the spectrum of stream sizes within 2nd order. Small 2nd order streams resemble intermittent streams, while larger 2nd order streams have significant flows year-round. Therefore, it is difficult to find the exact point at which to differentiate between intermittent and perennial streams based upon stream order alone.

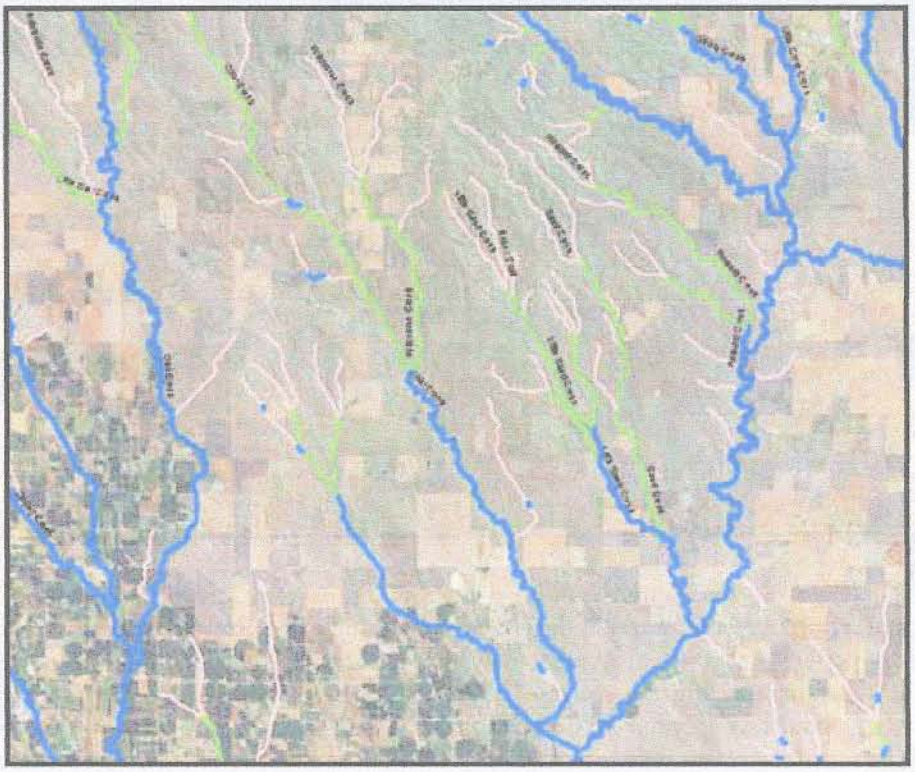
Figure 11 shows pink 1st order streams joining to form green second order streams. And green second order streams joining to form blue third order streams.

Results

The results of this study are presented in 2 ways: protected river corridor miles 2nd order and larger, and 3rd order and larger.

- **1,286 miles of river corridor 2nd order and larger** are protected by conservation easements in Colorado.
    - **3.5%** of all rivers in the state of this size
- **778 miles of river corridor 3rd order and larger** are protected by conservation easements in Colorado.
    - **4.2%** of all rivers in the state of this size

Figure 11: Colorado Stream Order



This represents a significant portion of valuable habitat and riparian zones that directly affect river health and water quality in Colorado. Land trusts have always protected water; this report quantifies it for the first time, highlighting how much has already been done. These results provide Colorado land trusts and open space programs with another valuable tool with which to obtain funding, increase awareness and prioritize their work. Showing land conservation's impact on water can help land conservation efforts remain relevant for many years to come.

Future Research

The next logical step of this research would be to include the water rights encumbered by easements to see how many acre-feet of water is protected by conservation easements held by Colorado land trusts and open space programs. Gathering this information can be very time consuming, but the results would be incredibly valuable. While river corridor miles are important, it is equally important to protect wetlands and open water. Expanding this research to include ponds, springs, and wetlands would also be very valuable. This would be an extension of the GIS analysis because the National Hydrography Dataset includes data for these water features as well.

Report by Matt Ashley, for the Colorado Coalition of Land Trusts

Acknowledgments

This project would not have been possible without the help of the following people: Jeannie McGinnis, Director of Operations, John Swartout, Executive Director, and Amanda Barker, Center of Excellence Program Manager at CCLT; John Sanderson, Water Program Director, and Jan Koenig, GIS Analyst at The Nature Conservancy; Zach Smith, Staff Attorney, and Amy Beatie, Executive Director at the Colorado Water Trust; Chris Yuan-Farrel, State Agency Program Coordinator at GOCO; Lorin Crandall, Clean Water Coordinator at Missouri Coalition for the Environment; Nancy Butler, Executive Director, and Aaron Derwinson, Stewardship Director at Rio Grande Headwaters Land Trust; Kerri Rollins, Open Lands Program Manager, and Ryan Grabowski, Open Lands Intern at Larimer County Open Lands Program; Tawnya Ernst, Acquisitions Specialist, and John Wallace, GIS Analyst at Jefferson County Open Space; Janis Whisman, Conservation Easement Program Manager, and Brad Milley, Resource Specialist at Boulder County Parks and Open Space; Carolyn Fritz, GIS Coordinator at the Colorado Water Conservation Board; Harry Vermillion, Aquatics Database Manager, and Grant Wilcox, GIS Specialist at the Colorado Division of Wildlife, Aquatic Resources Section; Barb D'Autrechy, Acquisitions Manager at Pitkin County Open Space and Trails; Rick Bachand, Environmental Program Manager, and Doug Cain, GIS Analyst at City of Fort Collins Natural Areas Program.

Special thanks to the Rio Grande Headwaters Land Trust for providing the background images displayed in this report. Photos of the Rio Oxbow Ranch in Mineral County are by Rio de la Vista and Mike Blakeman.

References

1. Buechler, Dennis. *Five Case Studies on the Effects of the SWANCC and Rapanos Supreme Court Rulings on Colorado Wetlands and Streams*, Feb. 2010

2. COMap website: http://www.nrel.colostate.edu/projects/COMap/index.html

3. Chow, V.T., Maidmen, D.R., and Mays, L.W. (1988). *Applied Hydrology* McGraw-Hill, New York

4. DeWald, Thomas G., McKay, Lucinda D., Pierson, Suzanne M., and Rosenbaum, Barbara J. *Strahler Stream Order and Strahler Calculator Values in NHDPlus*, 2008. Accessed at: ftp://ftp.horizon-systems.com/NHDPlusExtensions/SOSC/SOSC_technical_paper.pdf

5. *Guidelines for Senate Bill 40 Wildlife Certification*, Developed and Agreed Upon by The Colorado Division of Wildlife and the Colorado Department of Transportation, January 2003

6. USGS Website: http://water.usgs.gov/wsc/glossary.html#Stream

WESTERN RESOURCE
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on behalf of Western Resource Advocates

DATE: July 28, 2011

RE: Public Comment on Proposed Waters of the U.S. Guidance, EPA–HQ–OW–2011–0409

Western Resource Advocates is pleased to submit these comments regarding the proposed EPA and Army Corps of Engineers Guidance Regarding Identifications of Waters Protected by the Clean Water Act ("Guidance"). 76 Fed. Reg. 24479 (May 2, 2011). The agencies extended the deadline for submitting to July 31, 2011.

Western Resource Advocates ("WRA") is a non-profit regional research and advocacy organization whose mission is to protect the air, land and water of the American West, including, specifically, by promoting river restoration, protecting aquatic ecosystems and reducing water pollution, while achieving environmentally sustainable management of the West's water resources. WRA has 31 employees working from offices in six states of the Interior West.

I. Introduction:

Throughout the nation, water is critically important to the well-being of tens of millions of people, communities, businesses, and natural ecosystems. In the Interior West, where water is scarce, the need for clean water is certainly no less essential. The Interior West is home to the headwaters of great American rivers: the Missouri, the Colorado, the

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Arkansas, the Snake and the Rio Grande. Just one of these, the Colorado, supplies drinking water, irrigation, recreation and industrial use to 30 million people in seven states.

The role that the Clean Water Act[1] ("CWA" or "Act") plays in protecting the lakes, rivers and wetlands of the Interior West is crucial to enable and sustain these uses.[2] In light of the United States Supreme Court's two CWA opinions from the last decade, *Solid Waste Agency of Northern Cook County v. U.S. Army Corps of Engineers* (*SWANCC*)[3] and *Rapanos v. United States*[4], however, there is considerable confusion regarding the reach of the CWA, especially in the country's drier regions.

The key jurisdictional term used in the CWA is "navigable waters," which the Act defines as "waters of the United States."[5] Agency regulations on the books since 1975 have further defined what constitutes "waters of the United States."[6] While the Environmental Protection Agency (EPA) and the U.S. Army Corps of Engineers (Corps) issued guidance on this matter on December 2, 2008, neither that guidance nor the raft of lower court opinions parsing and applying the Supreme Court's opinions has significantly clarified the scope of CWA jurisdiction.

The vast majority of river miles in the Interior West are smaller headwaters and plains streams that do not flow year-round. EPA Region 8 estimates that only 17% of the waters within its five states flow year-round.[7] In Colorado and Utah, respectively, only 25 and 21 percent of stream miles are perennial.[8] In Arizona, while two watersheds have fewer than 64% intermittent streams, 51 watersheds have more than 96%.[9] Moreover, in Arizona, in the early 2000s, the State estimated that 97% of its permitted point source discharges were to headwaters, intermittent and ephemeral streams.[10] The region is also home to spectacular flowing waters, including the rivers that empty into Idaho's Eastern

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[1] 33 U.S.C. §§1251-1287.

[2] The Corps treats the Arid West as its own region for purposes of delineating wetlands. A map defining the region is available on line at, CorpsJD Online Wetland Delineation, GIS Mapping & Reporting, Arid West, https://www.corpsjd.com/StaticPage.aspx?Id=15.

[3] 531 U.S. 159 (2001).

[4] 547 U.S. 715 (2006).

[5] 33 U.S.C. § 1252(7).

[6] 40 C.F.R. 122.2 & 230.3; 33 C.F.R. 328.3.

[7] *See* Congressionally Requested Report on Comments Related to Effects of Jurisdictional Uncertainty on Clean Water Act Implementation, Report No. 09-N-0149 at 8 (2009), *available at* http://www.epa.gov/oig/reports/2009/20090430-09-N-0149.pdf.

[8] *See* Streams Lakes and Trout Streams of Colorado, http://www.cotrout.org/Portals/0/pdf/legislative/State%20of%20Colorado%20Ephmeral%20Comparison.pdf; EPA, Percentage of Surface Drinking Water from Intermittent, Ephemeral, or Headwater Streams in Utah, *available at* http://www.epa.gov/owow/wetlands/science/surface_drinking_water/pdfs/surface_drinking_water_ut.pdf (last visited 06/28/11).

[9] Nadeau & Rains, Hydrological Connectivity Between Headwater Streams and Downstream Waters: How Science can Inform Policy, 43 J. Am. Water Resources Ass'n 118, Fig. 3b (2007), *available at* http://www.albergstein.com/cao/Best%20Available%20Science/Headwater%20Streams/JAWRA%20Headwaters%20Issue/Headwaters%20ecological%20connectivity%20-%20science%20and%20policy.pdf.

[10] *Id.* at 127.

Snake Plain Aquifer, but do not connect on the surface to a river that flows to the sea. There are, as well, waters that have no outlets to the traditional navigable waters of the Corps' history. Examples include Great Salt Lake, as well as the playas and prairie potholes of the eastern plains of Colorado and New Mexico. Yet, the importance of these waters to communities and aquatic life is undeniable. They deserve protection pursuant to the CWA and such protection is fully consistent with the goals and purposes of the Act.

While the record for the last five years shows that EPA and the Corps have found the vast majority of waters affected by proposed regulatory activities to be jurisdictional, it is also clear that the uncertainty regarding what constitute "waters of the United States" for purposes of the CWA has constrained enforcement activities under the Act in the aftermath of the Supreme Court's opinions.[11] Effectively, this has concentrated regulatory actions to enforce the CWA downstream from headwaters regions such as the Interior West. This unfortunate situation puts more of the very water resources that are the most valuable to this arid region at greater risk of adverse effects from activities that do not comply with the law.

For this reason, WRA supports the agencies' issuance of this new, improved Guidance. At the same time, however, because Congress has repeatedly failed to clarify the scope of the CWA since *Rapanos* (and in fact since *SWANCC*), and because guidance, by its nature, is non-binding and therefore does not constitute a formal, legal clarification of the Act's scope, WRA urges the agencies' to proceed expeditiously to adopt formal rules on this matter.

WRA also supports the technical and legal comments on the Guidance by the National Wildlife Federation. WRA has the following detailed comments relating to our region. Mostly, these comments track the sections of the proposed Guidance. For the most part, we find that the proposed Guidance improves on current agency interpretations of the law and Supreme Court decisions.

II. The Significance of Headwaters

The CWA cannot protect and restore our nation's waters unless the waters flowing through headwaters states are protected. These waters and wetlands provide essential ecosystem services including: landscape hydrologic connections; surface and subsurface water storage; ground-water recharge and discharge; sediment transport, storage and deposition; flood plain development; nutrient cycling; habitat for fish, wildlife and other aquatic life; wildlife migration corridors; support for vegetation communities that help stabilize streambanks and provide food and habitat for wildlife services; water supply and water quality filtering or cleansing; dissipation of high water flows, thereby reducing erosion and improving water quality; and, pollutant and sediment removal from surface

[11] 2009 Congressionally Requested Report, *supra*.

runoff.[12] Beyond these ecological functions, small, non-navigable headwaters support recreational uses in and on the water within their own boundaries, and also deliver water downstream to navigable waters that support additional recreational use.

The health of navigable waters depends on a number of contributions from their headwaters. And, while headwaters obviously deliver certain things – water, sediment and energy – downstream, it is also important to note that species may travel up or downstream.[13] Headwaters can be important sources of dissolved constituents, nutrients and organisms, again, including from intermittent and ephemeral streams that can connect perennial channels to floodplains during high water from runoff or storm events.[14] Headwaters, including streams that are intermittent or ephemeral, provide habitat for some species during certain critical life stages.[15] Perhaps even more relevant in terms of an analysis of significant nexus (see section IV below), certain species exist in what the scientists call "meta-populations," with broad spatial dispersion across multiple headwaters tributaries (and maybe, but not always, some main stems that qualify as navigable waters).[16] In the Rockies, many species of native, endangered and threatened trout, both listed pursuant to the Endangered Species Act (ESA) and not, live in meta-populations and will require this structure to persist.[17]

III. <u>One Definition</u>

WRA supports the agencies' intent to apply a single definition of Waters of the United States to all CWA programs. Guidance at 3. CWA programs of particular importance in the Interior West include both the §404 and §402 permitting programs, but also §401 certifications and approval of water quality standards. The latter include salinity standards adopted for the Colorado River Basin Salinity Control Forum. Administration and approval of Total Maximum Daily Load for waters listed as impaired under §303 is also key. Finally, the non-regulatory §319 grant program often used to manage, and/or restore aquatic systems damaged by pollutants from non-point sources is also a critical program for protecting waters of the Interior West.

Rapanos considered whether an "adjacent wetland" was jurisdictional, while *SWANCC* found an artificial pond to be "isolated waters." Both cases arose from disputes about

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[12] Levick, L., J. Fonseca, D. Goodrich, M. Hernandez, D. Semmens, J. Stromberg, R. Leidy, M. Scianni, D. P. Guertin, M. Tluczek, and W. Kepner. 2008. "The Ecological and Hydrological Significance of Ephemeral and Intermittent Streams in the Arid and Semi-arid American Southwest," U.S. Environmental Protection Agency and USDA/ARS Southwest Watershed Research Center, EPA/600/R-08/134, ARS/233046. p. 76.
[13] Nadeau & Rains, *supra* at 122
[14] *Id.* at 122, 125.
[15] *Id.* at 125.
[16] *Id.*
[17] *See, e.g.*, Rieman & Allendorf, "Effective Population Size and Genetic Conservation Criteria of Bull Trout," 21 N. Am. J of Fisheries Mngt 756 (2001); Kruse et al, "An Assessment of Headwaters Isolation as a Conservation Strategy for [Yellowstone] Cutthroat Trout in the Absaroka Mountains of Wyoming," 75 Northwest Science 1 (2001); Young & Harig, "A Critique of the Recovery of Greenback Cutthroat Trout," 15 Conservation Biology 1575 (2001).

whether an activity needed a permit to discharge dredged and fill material under CWA §404. Thus, both cases focused on the §404 program for which the Corps issues permits. Because of their facts, neither case presented the Court an opportunity to consider the extent of the scope of the CWA with regard to tributaries of navigable waters. Nor did they present the Court facts related either to state water quality standards programs or the §402 point source discharge program that EPA and states implement.

Neither case voided the regulations defining "waters of the United States." In fact, the *SWANCC* case directly implicates only a Corps' interpretation of the regulations regarding migratory birds, rather than the regulation itself. None-the-less, in their aftermath, lower courts have struggled to apply these opinions to all of the CWA programs and to all kinds of waters. However, in both circuits with jurisdiction over states in the Intermountain West, the courts have adopted relatively expansive views on the scope of the CWA.

The Tenth Circuit issued its only post-*SWANCC* opinion on CWA jurisdiction, *United States v Hubenka*,[18] before the Supreme Court published its *Rapanos* decision. *Hubenka* involved a discharge of dredged and fill material into a tributary of the Wind River in Wyoming.[19] The Tenth Circuit upheld the validity of the Corps' regulation including tributaries to navigable waters as waters of the United States. Moreover, the court found that a broad reading of the scope of the Clean Water Act, and its Commerce Clause roots, was appropriate.[20] The Ninth Circuit has had occasion to consider at least one CWA jurisdiction case since *Rapanos*. In *Northern California River Watch v. City of Healdsburg*,[21] the Court ruled that a §402 discharge to a mining pit hydrologically connected to the Russian River, a navigable water, was properly governed by §402.

Finally, WRA supports the agencies' express recognition of the many existing exemptions from Clean Water Act jurisdiction that already exist in the statute itself, in regulations and in other legally cognizable forms such as Regulatory Guidance Letters.[22]

IV. <u>The proposed Guidance properly applies the "Significant Nexus" Test (Section 3).</u>

In *Rapanos*, the Justices of the Supreme Court issued five different opinions. Of these, the plurality opinion authored by Justice Scalia, garnered four votes and Justice Kennedy wrote for himself alone in the pivotal concurring opinion that overturned the lower court and sent the matter back for further review. Since 2006, the agencies and lower courts have struggled to decide which opinion sets out the appropriate test for jurisdiction. For reasons well supported by law, and consistent with the previous Guidance issued in 2007, the proposed Guidance would allow the agencies to establish jurisdiction under either the

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[18] *United States v. Hubenka*, 438 F.3d 1026 (10th Cir. 2006).
[19] *Id.*
[20] *Id.*
[21] 496 F.3d 993(9th Cir. 2007).
[22] *See, e.g.*, RGL 07-02 (ditch maintenance).

plurality test, or Justice Kennedy's "significant nexus" test. WRA agrees that this is the proper approach. As Justice Stevens, author of the dissenting opinion explained, since the four dissenters would all find jurisdiction under either the plurality or significant nexus test, the agencies should find jurisdiction if either test is met.[23]

WRA agrees with the proposed Guidance that determining whether non-navigable waters have a significant nexus to traditionally navigable waters should be a matter of the physical, chemical and biological functions they play in the watershed, rather than whether is a simple hydrologic connection between the two. Even with a modern look at navigability (as set out in more detail in the next section of these comments), relatively few of the flowing and standing waters in the Interior West are traditionally navigable. Moreover, because there are relatively few traditionally navigable waters in the region, few of the region's wetlands are adjacent to traditionally navigable waters; rather they are adjacent to interstate waters, tributaries and other jurisdictional waters.

WRA also agrees strongly with the agencies' proposed formulation of "similarly situated" waters in the Guidance. In fact, Justice Kennedy wrote in *Rapanos*, regarding which wetlands would have the requisite significant nexus, that it is those "wetlands, either alone or *in combination with similarly situated lands in the region*, [that] significantly affect the chemical, physical, and biological integrity of other covered waters more readily understood as 'navigable.'"[24] He encouraged the Corps to "identify categories of tributaries that, due to their volume of flow (either annually or on average), their proximity to navigable waters, or other relevant considerations," whose adjacent wetlands as a group could then to considered generally to have a significant nexus.[25] And finally, he stated that "[w]here an adequate nexus is established for a particular wetland, it may be permissible, as a matter of administrative convenience or necessity to presume covered status for other comparable wetlands in the region."

The proposed Guidance is superior to the previous version in its scope and consistency with Justice Kennedy's express language. For this reason, the proposed Guidance is superior. Moreover, as set forth in greater detail below under Documentation (page 18 below), to the extent that a broader consideration of "similarly situated" waters allows the agencies to apply analyses done for earlier Jurisdictional Determinations, this approach should result in a more efficient use of time and resources. Again, this is consistent with Justice Kennedy's statement that, "Where an adequate nexus is established for a particular wetland, it may be permissible, as a matter of administrative convenience or necessity, to *presume covered status for other comparable wetlands in the region*."[26]

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[23] *Rapanos*, 547 U.S. at 810.
[24] *Rapanos*, 547 U.S. at 780 (emphasis added).
[25] *Id.*
[26] *Id.* at 782 (emphasis added)

V. The proposed Guidance's definition of Traditionally Navigable Waters will help protect the West's economies and aquatic ecosystems (Section 1)

WRA strongly supports the many bases the agencies have provided in the Guidance for determining whether a water body is a Traditionally Navigable Water (TNW) for purposes of the CWA. In particular, WRA commends the agencies for going beyond the relatively narrow reach of the Rivers and Harbors Act, and beyond previous articulations from the Corps as to what constitute TNWs. Historically, the Corps had determined that, of Colorado's approximately 100,000 miles of stream, only 15 miles (on the main stem Colorado River from Grand Junction to the state line) were TNW.[27] Such conclusion ignores the commercial importance of many Colorado rivers and streams, from the times of the fur trappers – who congregated at Bent's Fort on the Arkansas River near La Junta, Colorado, to commercial rafting today.

With the acknowledgement in the Guidance (consistent with court based law) that TNW also include "waters currently being used for commercial navigation, including commercial waterborne recreation (for example, boat rentals [and] guided fishing trips),"[28] the agencies will be able to recognize many more headwaters rivers and streams as navigable. In some rural, mountain communities, river recreation and related activities generate the largest share of the local economy. Indeed, throughout the headwaters states, river recreation, including boating, fishing and wildlife watching, represents billions of dollars in commerce.

For example, in the Colorado River Basin alone, $55M/yr. is spent directly on commercial rafting, with an additional $141M of indirect and induced economic activity. While rafting on the main stem Colorado through the Grand Canyon is a major source of this activity, there are dozens of other rivers in the Basin where commercial rafting occurs.[29] The website "Rafting Colorado" lists the number of guides who take commercial trips down the following rivers in the Colorado River Basin: the Animas, Blue, Piedra, Roaring Fork, Dolores, Eagle, Gunnison, San Miguel, Uncompahgre and Yampa, in addition to the Colorado main stem (including several sites far upstream from Grand Junction).[30]

The most recent federal nation-wide survey available on freshwater fishing expenditures puts the total for Arizona, Colorado, New Mexico, Nevada, Utah and Wyoming at $2.85B for 2006.[31] While this figure includes both guided and non-guided trips, even if

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[27] Hill, John, "The Right to Float in Colorado: Differing Perspectives," 26 Colorado Water 18 (Colorado Water Institute 2009).

[28] Guidance at 6.

[29] Kaval, Colorado River Basin Ecosystem Service Valuation Literature Review at 3 (2011), *available at* http://www.conservationgateway.org/file/ecosystem-service-valuation-colorado-river-basin-literature-review-and-assessment-total-economi.

[30] Colorado Whitewater River Rafting Companies in Colorado, http://www.rafting-colorado.net/colorado-rafting-companies (last visited 6/22/11).

[31] Kaval, *supra* at 71 (citing US Department of Interior, Fish and Wildlife Service, US Department of Commerce & US Census Bureau (2006)); Natural Survey of Fishing, Hunting and Wildlife Associated Recreation.

only a small fraction of these revenues derive from guided trips, they still represent a significant contribution to these states' economies and to interstate commerce. And, even more so than commercial boating, guided fishing trips occur on smaller headwaters rivers and streams. On just one Wyoming fishing website, guides are selling their services to take anglers out on the New Fork River, the Encampment River, "mountain streams and lakes."[32] Guides take clients "float fishing" on any number of mountain streams that do not appear on Wyoming lists of TNW. Another way of looking at the contribution to commerce that fishing makes in headwaters states is to consider that, in 2006, in the State of Utah alone, 23% of anglers were from out-of-state in 2006, and that there were an estimated 7,000 jobs created at business establishments including guide shops, gas stations, motels and restaurants to support these anglers.[33]

WRA recommends that the Corps work with the Departments of Interior and Labor to update its lists of TNW so that each District office maintains a more complete list (if not a GIS map) of TNWs, based on current commercial navigation, and continue to update these lists on a periodic basis. The lists should clearly state that they are non-exclusive and do not preclude a finding by the Corps that other non-listed water bodies are TNWs. The lists should be on-line in a searchable data-base useful for permittees, agency staff and others.

VI. Even minor impacts to tributaries may significantly affect the West's Interstate Waters (Section 2)

In the headwaters states of the Rockies, every major river system is the subject of either an interstate compact that allocates its waters or a Supreme Court of the United States decree for an equitable apportionment thereof. The State of Colorado alone is party to nine interstate compacts (two on the Colorado River), one interstate agreement and two equitable apportionment decrees for rivers. Yet, the Corps has formally designated only one of these waterways as a traditionally navigable water prior to this proposed Guidance. Most of Colorado's nearly 100,000 miles of streams are tributary to one of the rivers that is subject to a compact, agreement or decree. Moreover, given the interstate nature of these rivers, the existence of interstate commerce – tied to agriculture and other industry – is assumed. The CWA language expressly defines these systems as waters of the United States.

VII. Many – if not most – western water users rely, at least in part, upon intermittent, ephemeral, or headwaters tributaries (Section 4)

WRA agrees with the Guidance' recognition that many tributaries of traditional navigable and interstate waters are waters of the United States. In the arid and semi-arid West where more than three quarters of the river miles in many states are made up of

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[32] Wyoming Fishing Guides Page, http://www.1fghp.com/wy.html (last visited 6/22/11).
[33] Kaval, *supra* at 82 (citing Southwick Associates (2007)); The 2006 Economic Benefits of Hunting, Fishing and Wildlife-Watching in Utah.

Ephemeral streams differ from intermittent streams in that they flow in response to precipitation events (rainstorms). Yet, like intermittent streams, they play an important role in watersheds in the Rockies.[39] For example, studies document the movement of fish through ephemeral waters.[40] Unlike gullies, ephemeral streams must remain important components of the waters of the United States for the purposes of the Clean Water Act.

Some western rivers and streams that are ephemeral today used to flow with greater frequency: the Salt River through and below Phoenix is a notable example. These rivers and streams now run dry -- or flow only as a result of effluent discharges -- because the nation's extensive system of dams and other water supply infrastructure has diverted the natural flows of these rivers and streams elsewhere. While the South Platte River in Colorado once flowed year round (albeit at a much lower volume from late summer through winter), today there are reaches of the South Platte where the flow in the river can be composed entirely of effluent from point source permitted discharges.[41]

Ephemeral streams are important to the nation's waters in many ways, as noted above. In the semi-arid and arid West, a higher percentage of native fish species are imperiled than is the case in other areas of the country.[42] Because the watersheds in the West have a high concentration of ephemeral streams, the contribution of these streams to the larger tributaries is critical to maintain tributary function, including the function of providing habitat to native species. Thus, for example, the White River in Eastern Utah is designated critical habitat for two Colorado River endangered fishes, the pike minnow and razorback sucker. Many White River tributaries flow only in response to precipitation events. The flushing flows that these tributaries contribute to the White River are necessary for that River to retain healthy habitat for the listed fish.

Natural and artificial ephemeral streams, even if they carry only storm water (or effluent from point source discharges), eventually flow into intermittent or perennial tributaries or traditionally navigable or interstate waters. Moreover, even ephemeral streams play a role in the nation's economy, for example, with their use to support nearby industry. Because of the connection between ephemeral streams and larger water bodies, the pollutants in the storm water or effluent also find their way downstream. For example, when a mining pit breached in the middle of Atchee Draw, an ephemeral tributary to the White River in Utah, the mine operator constructed a dam across the draw further downstream to prevent the mud from entering the river.[43]

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[39] Levick, et al., *supra*.

[40] Stefferud, *supra*.

[41] USGS, Water Quality in the South Platte River: Colorado, Nebraska & Wyoming 1992-1995, Circular 1167 at 18 (1998).

[42] Walker & Burr, "Status of Freshwater Fishes of the United States: Overview of an Imperiled Fauna," 19 Fisheries 6 (1994).

[43] One can see the earth disturbances on Google Earth at approximately 39°55'48.42"N and 109°19'16.05"W. The confluence of the draw with the River is approximately 39°55'36.89"N and 109°19'40.04"W.

intermittent and ephemeral tributaries, it is imperative to implementation of the Clean Water Act that these tributaries be covered by the Act. In Colorado alone, as EPA has acknowledged, 3.7 million people receive all or part of their drinking water from intermittent, ephemeral, or headwaters streams.[34]

Intermittent streams are, in the parlance of the *Rapanos* plurality, "seasonal" streams. In the inter-mountain West, flows of many rivers and streams are based on a yearly hydrology of mountain snowmelt, with a peak flow during the late spring and early summer as snow melts, and low flows during the rest of the year. [35] Even some of the region's largest rivers, like the South Platte, used to be seasonal (although irrigation return flows have made some of these rivers perennial). These intermittent streams have ordinary high water marks and relatively defined courses with beds and banks[36] (although they may also move within the flood plain during periods of high water, as do many perennial tributaries, interstate and traditionally navigable waters). Some intermittent streams in the West may even be navigable waters, as discussed above, based on our modern recreation economy.

Regardless of seasonality, most intermittent streams in the region should meet the plurality standard because they flow downstream, ultimately, into perennial streams and, other than in significant drought situations, flow annually. Intermittent headwaters streams throughout the Rocky Mountain West contribute cold, clean water to larger perennial tributaries that flow into traditionally navigable or interstate waters. Fish move through intermittent streams far more often than once thought,[37] and, as also noted above in the discussion of "significant nexus," fish and other aquatic species use these systems for certain life stages.[38]

WRA agrees with the Guidance that field staff should presume that all intermittent streams within a single entry watershed are waters of the United States. Many of the West's intermittent streams have a significant nexus to traditionally navigable and interstate waters on their own, while virtually all intermittent streams, as well as the majority of ephemeral streams, will have a significant nexus if their effects on traditionally navigable and interests waters are aggregated within a single entry watershed.

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[34] U.S. Envtl. Protection Agency, Geographic Information Systems Analysis of Surface Drinking Water Provided By Intermittent, Ephemeral, and Headwater Streams in the U.S (State-by-State) and (County-by-County), http://water.epa.gov/lawsregs/guidance/wetlands/surface_drinking_water_index.cfm (last visited 7/19/11).

[35] Poff, Leroy, et al., "The Natural Flow Regime," 47 *BioScience* 769 (1997), *available at* http://rydberg.biology.colostate.edu/~poff/Public/poffpubs/Poff1997(BioScience_NFR).pdf.

[36] The presence/absence of either an ordinary high water mark or beds and banks is not required under existing regulations or case law for a waterway to be waters of the U.S. In fact, the legal appendix to the proposed Guidance, at p. 29, acknowledges this insofar as it suggests that the agencies could decide in a rulemaking proceeding to make the presence of an ordinary high water mark sufficient to establish that a tributary has a significant nexus to a downstream traditionally navigable or interstate waters.

[37] Stefferud & Steffrud, "Fish Movement through Intermittent Stream Channels: A Case History Study" (2007), *available at* http://www.usbr.gov/lc/phoenix/biology/azfish/pdf/intermittentStreams.pdf.

[38] Wigington, et al. "Coho Salmon Dependence on Intermittent Streams," (2006), *available at* http://www.roguebasinwatersheds.org/files/intermittent%20streams%20and%20coho.pdf.

If there are numerous, similarly situated ephemeral streams in a single entry watershed, then their combined impact in terms of pollutant load on the tributary, navigable water or interstate water will be significant. From an efficiency standpoint, it will almost always be more efficient to control these pollutants at their source rather than wait to control them downstream, especially because the pollutants are likely to have adverse effects on the aquatic life or recreational opportunities along the way. As the Guidance notes, many public water supplies divert water from ephemeral streams, so pollutant discharges to such waters must be controlled at their sources to protect public health.

Ditches in the West are key infrastructure for agriculture, an important piece of the region's economy. As acknowledged in the Guidance, ditches with relatively permanent flowing or standing water can be waters of the United States. In the semi-arid West, with its vast system of irrigation infrastructure, some of these ditches provide important aquatic habitat. For example, the Greenfield Irrigation District in Montana diverts water from the Sun River into a large canal system. The artic grayling, the resident native fish of the Sun River, lives in the ditch rather than the river.[44] This is an understandable given that the ditch has more water in it than the river does; ditch flows peak at 1600 c.f.s. The irrigation district helps protect these fish by releasing a trickle of water during the non-irrigation season, as well.[45] Protecting the habitat of this species requires protecting the water quality in the ditch.

VIII. Adjacent wetlands play a critical role in the West's aquatic ecosystems (Section 5).

"Many types of wetlands and shallow aquatic habitats are unique to the Arid West Region."[46] Moreover, as the Bureau of Land Management states on its Rock Springs, Wyoming field office website:

> Wetlands, floodplains and riparian areas are key areas in maintaining and improving water quality. Here in the arid west, ten percent or less of our landscape could be considered riparian or wetland. Yet it is this small portion of the land that is the most productive. It provides the majority of the wildlife habitat and a good portion of the grazing for domestic livestock. Wetlands and riparian areas act like sponges that absorb then slowly release water over the course of the year. The plants that grow in these areas are especially adapted for the high water levels, and high water flow energies. These plants have strong roots that helps [*sic*] to hold the soil in place, their leaves and stems help to protect the soil surface during high flow events, such as intense storms and spring runoff. Maintaining

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[44] The artic grayling has been petitioned for listing under the ESA; however, the USFWS has decided not to include the ditch population in that listing.

[45] *See* Montana Fish, Wildlife & Parks: Arctic Grayling, http://fwp.mt.gov/education/angler/adoptAFish/sunRiver/grayling.html (last visited 6/24/11).

[46] *See* CorpsJD Online Wetland Delineation, GIS Mapping & Reporting, *supra*.

> healthy wetlands, floodplains, and riparian areas will help to assure both water quality and quantity for ourselves and our children's children.[47]

The Private Landowner Network, an organization of private property owners working to protect important Wyoming ecosystems, has observed,

> An important landscape feature of Wyoming is the 2 million acres of wetlands scattered across the State. In arid climates such as Wyoming, these critical areas are home for many resident and migratory wildlife species. In fact, over 75 percent of all wildlife species rely on these wetlands for a part, or all, of their life cycle.[48]

It is also well-established that aquatic species move between wetlands and rivers during different life-stages. Species with this pattern include federally endangered fish like the razorback sucker of the Colorado River Basin.

> To complete its life cycle, the razorback sucker moves between adult, spawning, and nursery habitats. Spawning occurs during high spring flows when razorback sucker migrate to cobble bars to lay their eggs. Larvae drift from the spawning areas and enter backwaters or floodplain wetlands that provide a nursery environment with quiet, warm, and shallow water.
>
> Research shows that young razorback sucker can remain in floodplain wetlands where they grow to adult size. As they mature, razorback sucker leave the wetlands in search of deep eddies and backwaters where they remain relatively sedentary, staying mostly in quiet water near the shore.[49]

Because of the importance of wetlands in the arid West, WRA supports the agencies' proposal to find jurisdiction broadly, including adjacent wetlands, based either on the plurality or significant nexus standard.

WRA concurs with the Guidance interpretation of the Rapanos plurality's test, that, while a physical connection is necessary, there need not be an actual, observable, year round surface connection from the wetland to the relatively permanent tributary. As Justice Kennedy noted, the plurality's "continuous surface connection" requirement is "without support in the language and purposes of the Act or in our cases interpreting it."[50] In fact, especially in the arid and semi-arid West, adjacent wetlands in fact often have an

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[47] U.S. Bureau of Land Mgmt., Rock Springs Field Office, Watersheds & Soils, http://www.blm.gov/wy/st/en/field_offices/Rock_Springs/watersoils.html (last visited 7/19/11).

[48] The Private Landowner Network partners with the US Fish & Wildlife Service in its Partners for Fish & Wildlife program. A description of this partnership is available on line at: http://www.privatelandownernetwork.org-/yellowpages/resource.aspx?id=10423.

[49] Upper Colorado River Endangered Fish Recovery Program, "Razorback Sucker," *available at* http://www.coloradoriverrecovery.org/general-information/the-fish/razorback-sucker.html. "Juvenile razorback suckers have been collected in recent years from Old Charley Wash, a wetland adjacent to the Green River." US Fish & Wildlife Service, "Final Programmatic Biological Opinion on the Management Plan for the Endangered Fishes in the Yampa River Basin" 30 (2005) ("Yampa PBO").

[50] 547 U.S. at 768-69, 772-73.

important physical connection to relatively permanent tributaries without a year round surface connection.[51]

With regard to the significance nexus test, as is true with tributaries, the aggregation approach, based on a single entry watershed, makes sense for adjacent wetlands. Recognition of wetlands mosaics, and treating them as a single system for purposes of evaluation, as the Guidance proposes, is also important. As one Corps guidebook in the region states, "It cannot be overemphasized ... that the wetlands and the ecological functions they provide are inextricably embedded within the context of the floodplain mosaic."[52] In the Rockies, for example, the Upper Yellowstone River drainage has many wetland mosaic complexes in the floodplain.[53]

WRA supports the Guidance's reliance on the existing regulation that defines adjacency as well as on the additional criteria the agencies have proposed.[54] For example, given the extensive physical alteration of watersheds in the Rocky Mountain region, it would create a perverse incentive to fill wetlands, were the mere existence of a constructed dike sufficient to block jurisdiction over a previously adjacent wetland.[55]

Where wetlands are not obviously adjacent to a navigable water, WRA recognizes that it may be preferable for the agencies to perform a case-specific adjacency analysis prior to determining significant nexus through an aggregation of similarly situated wetlands. In doing the case-specific analysis, the agencies should err on the side of over-inclusiveness with respect to CWA jurisdiction over wetlands. As Justice Kennedy noted in *Rapanos*, "*Riverside Bayview* [recognizes] that an over-inclusive definition is permissible even when it reaches wetlands holding moisture disconnected from adjacent water bodies."[56] Again, recalling the razorback sucker of the Colorado River, even adult fish migrate

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[51] Rocchio, Joe, "North American Arid West Freshwater Marsh Ecological System: Ecological Integrity Assessment," Colorado Natural Heritage Program 3-4 (2005), *available at* http://www.natureserve.org/getData-/pdf/rocky_mtns/North_American_Arid_Freshwater_Marsh_assessment.pdf.

[52] Hauer et al, A Regional Guidebook for Applying the Hydrogeomorphic Approach to Assessing Wetlands Functions of Riverine Floodplains in the Northern Rocky Mountains, ERDC/EL TR-02-21 at 11 (2002), *available at* http://el.erdc.usace.army.mil/wetlands/pdfs/trel02-21.pdf.

[53] U.S. Army Corps of Engineers, Wetlands Regulatory Assistance Program, "Upper Yellowstone River Hydrogeomorphic Functional Assessment for Temporal and Synoptic Cumulative Impact Analyses," ERDC TN-WRAP-01-03 (2001).

[54] Guidance at 16-17. We encourage the agencies to define "floodplain" in the final Guidance. Although different regions on the country typically use different metrics regarding floodplains, in the arid west many regulators and others consider the 100 year flood plain important. For example, the City of Boulder, CO warns residents to determine if they live in the 100 year flood plain. *See* City of Boulder, Flood Preparedness, http://www.bouldercolorado.gov/index2.php?option=com_content&do_pdf=1&id=4921 (last visited 6/30/11).

[55] In addition, consider situations where created wetlands, created to compensate for the loss of natural wetlands, provide important water quality and wildlife habitat benefits that require protection. Yet, these wetlands are separated from navigable waters by constructed berms or dikes. For example, such wetlands exist along the shores of Great Salt Lake for the purposes of protecting and enhancing habitat for millions of migratory and resident birds. Plainly, the purposes of the CWA would be thwarted should these wetlands be exempted from the protections of the Act solely because of these dikes.

[56] 547 U.S. at 773.

between the Yampa River and neighboring wetlands flooded only by high spring peaks.[57] To the extent that CWA protection plays a critical role in recovering and thereafter sustaining these native fish, it is imperative to maintain jurisdiction over these wetlands.

IX. The proposed Guidance properly applies Justice Kennedy's Significant Nexus Test to "Other Waters" (Section 6)

WRA urges the agencies to maintain jurisdiction over the many "other waters" in the country, often called "isolated waters," that are significant parts of the nation's aquatic system and host activities that are important to the nation's commerce. Some isolated waters are not connected to traditionally navigable waters because they constitute closed systems; yet, their import to commerce and the nation's aquatic systems is not in doubt. Some isolated waters are not connected to traditionally navigable or interstate waters on the surface, but are connected via ground water. Finally, some "other waters" perform similar functions across large landscapes that demand aggregation and, considered together, demonstrate a significant nexus to traditionally navigable or interstate waters because of the important ecological functions they play at the watershed level.[58]

The arid and semi-arid West has numerous closed basins in its "basin and range" landscapes. By definition, the waters in some of these closed basins do not connect to traditionally navigable waters, in the sense that such waters do not cross state lines or flow to the sea. Great Salt Lake is the largest natural lake in the Rockies, and yet it sits within a closed basin. While Great Salt Lake is navigable in fact[59], CWA jurisdiction over other waters in the Great Basin is by no means clear. This is despite the fact that there are many species listed, or petitioned for listing, under the ESA and/or state sensitive species that are unique to the Great Basin and rely on its "isolated" waters to persist. For example, in Fish Springs National Wildlife Refuge in Dugway, Utah, approximately 100 miles southwest of Salt Lake City, an 18,000-acre refuge with a 10,000-acre marsh, a number of springs support wetlands and open water, hunting is allowed because of the outstanding migratory bird population. The Refuge provides habitat for the native Utah chub, for which the Refuge was set aside and there is an on-going effort to reintroduce least chub, an ESA candidate species into the Refuge.[60] It is also open to the public for hunting, camping and wildlife observation and other economic activities. Still, the Refuge lacks a direct connection to a navigable water.

There are also other special waters in Utah that support native species that are either petitioned for listing under the ESA or are state sensitive species. For example, Gandy Warm Springs in Utah's west desert is the only known habitat for the spring snail, *pyrgulopsis saxatilis*, a species that has been petitioned for listing.[61] Meanwhile, the

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[57] *See* Yampa PBO, *supra* at 33.

[58] WRA agrees that, once agency field staff establish a significant nexus, they may assume that the waters contribute enough to the nation's commerce that they are subject to commerce clause jurisdiction, as the Guidance sets forth on p. 32.

[59] *Utah v. United States*, 403 U.S. 9, 10 (1971).

[60] The Refuge's homepage is online at, http://www.fws.gov/fishsprings/.

[61] *See* http://desertislands.org/warm_springs.htm (last visited 6/30/11).

Gandy Salt Marsh into which the warm springs flow supports the northern leopard frog and Columbia spotted frog, both state sensitive species. Gandy Salt Marsh is also a BLM Area of Critical Environmental Concern.[62] In each of these situations, there is certainly commerce based on recreation, as well as commerce due to the diversion of water to agriculture. However, the significant nexus of these systems to larger water bodies is to waters within a closed basin, not to either TNW or interstate waters. To sustain the species that live there, the commerce these areas provide, and the other important functions these waters bring to the desert, the agencies must ensure that the final Guidance provides for their protection under the CWA.

Another common type of "other waters" in the arid and semi-arid West are those waters that connect to navigable and interstate waters through a ground water rather than a surface water connection. Some of these systems are large enough that the Corps has previously recognized rivers within them as TNW. The "Lost" river drainages in eastern Idaho include 73 streams within a 5500 square mile area.[63] The rivers empty into the Eastern Snake Plain Aquifer, an underground water body twice the size of Lake Erie.[64] Eventually, the Aquifer discharges to the Snake River, itself a navigable water, but also a major tributary to the Columbia River. The Corps has designated some of the Lost Rivers, including the Big Lost, but not the Little Lost, as TNW; others, including the Little Lost, should qualify as navigable because of kayaking and guided recreation. The ESA-listed bull trout inhabits a number of these drainages as well.[65]

At least one ACE District has improperly disclaimed Clean Water Act jurisdiction solely because there is no surface connection to TNWs. As of 2005, the Albuquerque District of the ACE was standing by its determination, made after the *SWANCC* decision, that all of the basin and range waters in its district boundaries were isolated because they did not connect to navigable waters and thus were not covered by Clean Water Act jurisdiction.[66] In New Mexico alone, such basins encompass 20% of the State and include 3900 miles of intermittent waters and 84 miles of perennial streams.[67] The Corps District was interpreting what constituted waters of the United States narrowly, notwithstanding that the Tenth Circuit, which includes New Mexico, found in a pre-*SWANCC* case, that arroyos connected to navigable-in-fact waters via ground water, are jurisdictional.[68] Post-*Rapanos*, at least the Ninth Circuit has found that a ground water connection between a non-adjacent pond and a TNW is sufficient to establish a significant nexus such that the isolated water is jurisdictional.[69]

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[62] 75 Fed. Reg. 35398-01, 35411 (June 22, 2010).
[63] EarthJustice, NWF, NRDC and Sierra Club, "Reckless Abandon" 12 (2004).
[64] State of Idaho, "Oversight Monitor: The Eastern Snake Plain Aquifer" (2005), *available at* http://www.deq.idaho.gov/inl_oversight/library/newsletter_0505.pdf.
[65] *See, e.g.*, USFS, Bull Trout Final Critical Habitat Justification, Chapter 28 (2010), *available at* http://www.fws.gov/pacific/bulltrout/pdf/Justification%20Docs/BTChapter28.pdf.
[66] Parenteau, Pat, "Bad Calls: How Corps' Districts are Making up their own Rules of Jurisdiction under the Clean Water Act" 6 Vermont J. Envtl. Law 3 (2005).
[67] *Id.*
[68] *Quivira Mining v. USEPA*, 765 F.2d 126 (10th Cir. 1985).
[69] *Northern Cal. River Watch v. City of Healdsburg*, 496 F.3d 993, 997-1001 (9th Cir. 2007) (constant ground water flow between river and pond makes pond jurisdictional under 33 C.F.R. § 328.3(b)).

Finally, there are the many types of isolated wetlands that are spread across the eastern plains of the Rocky Mountain States. These wetlands perform all usual wetlands functions, but are even more critical to the region's aquatic ecosystems for reasons that EPA Region 8 has explained.

> In the semi arid climate of Region 8, where water can be scarce, terrestrial ecosystems tend to have limited productivity and support communities adapted to low-water conditions. In contrast, wetlands provide plant and animal communities with water-rich environments and, as such, wetlands are some of the most highly productive systems in the region. The many types of wetlands in Region 8 are all unique in their hydrology, plant communities and soils and are very important components to the functioning of ecosystems throughout the region.[70]

EPA has consistently recognized the importance of isolated waters. To take just the example of playa lakes, which are round, ephemeral lakes hollowed into the ground of the southern High Plains, along the eastern edge of the Rockies states of New Mexico and Colorado but also plentiful in Oklahoma, Kansas and Texas, EPA noted that "early European explorers described the region as 'a land of millions of small lakes.'"[71] Consistent with this historical observation, a recent modeling effort in Colorado estimates that 14,000-23,000 playas lie on its eastern plains.[72]

EPA described the importance of playas for water storage given that they lie "in a part of the country that receives as little as twenty inches of rain a year and where there are no permanent rivers or streams."[73] Moreover, they support "an astounding array of wildlife" including millions of waterfowl during the winter, as well as Bald Eagle, endangered whooping crane.[74] Without playas, EPA contends the region would be devoid of amphibians.[75]

As important as they are to the biodiversity and native species of the High Plains, playas also are vital to the agriculture of the region (and therefore to interstate commerce), both because they store water seasonally (in some cases providing as much as 25% of a county's annual irrigation water) and because they recharge the underlying aquifer.[76] Given the national commercial importance of the Ogallala, or High Plains, Aquifer, the

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[70] EPA, Wetlands in Region 8, http://www.epa.gov/region8/water/wetlands/wetr8.html#1 (last visited 6/30/11).
[71] EPA, Playa Lakes & Wetlands, http://water.epa.gov/type/wetlands/playa.cfm (last visited 6/30/11).
[72] Cariveau &Pavlacky, "Assessment and Conservation of Playas in Eastern Colorado," prepared for the CO Div. of Wildlife, EPA and USFWS (2008), *available at* http://www.rmbo.org/dataentry/postingArticle-/dataBox/RMBOColoradoPlayaFinalReport2008.pdf.
[73] EPA, Playa Lakes & Wetlands, *supra*.
[74] *Id.*
[75] *Id.*
[76] *Id.*

recharge function of playas is critical.[77] Such a multitude of small, biologically and commercially important and connected waters, are obviously appropriate for aggregation under the significant nexus test.

Despite EPA's case for the importance of playas, the Corps has routinely found playas non-jurisdictional in recent years. For example, the Corps found an eight acre playa in Colorado's Washington County non-jurisdictional because it was "isolated, . . . surrounded by uplands, . . . 4000-5800 feet from any potentially jurisdictional tributary, and [prior to *SWANCC*, likely] regulated solely based upon the presence of migratory birds."[78] The Corps made no effort, even though its determination was made in 2007, after *Rapanos*, to determine whether the playa, alone or aggregated with similarly situated wetlands, had a significant nexus to other waters of the United States.

X. Generally non-jurisdictional waters (Section 7)

WRA supports the agencies proposal to explicitly list those waters that are not jurisdictional, as a result of existing law, regulation, or agency interpretation. Given the confusion that has reigned in the last decade regarding the scope of the Clean Water Act – and many of the bizarre scenarios that some have suggested not only in their own papers but before Congress – it is useful for the agencies to make clear which waters are not jurisdictional.

WRA notes, however, that while the CWA generally, and properly, exempts certain waters from regulation, e.g., irrigation ditches, the law does not exempt activities undertaken in such places that result in the discharge of pollutants to waters of the United States. In fact, such activities need the appropriate permits because of the discharge of pollutants, including dredged and fill materials, which are placed in or reach waters of the United States. This is a critical distinction. Artificial waterways such as ditches that are not waters of the United States are often adjacent to natural rivers. Improvements or repairs to such waterways may result in discharges, typically of dredged and fill materials, into proximate waters of the United States. To protect the waters of the United States, therefore, the agencies need to be able to regulate these activities.

For example, in 2005, the New Salida Ditch Company made repairs to an irrigation ditch adjacent to the Arkansas River in Colorado. These repairs resulted in a discharge of dirt along more than 1,500 linear feet of the Arkansas below the high water line.[79] The affected reach of the Arkansas is both a gold medal fishery and a premier commercial

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[77] Gurdak & Roe, "Recharge Rates and Chemistry Beneath Playas of the High Plains Aquifer – A Literature Review and Synthesis" USGS Circular 1333 (2009), *available at* http://pubs.usgs.gov/circ/1333/.

[78] Buechler, Dennis, "Five Case Studies on the Effects of the *SWANCC* and *Rapanos* Supreme Court Rulings on Colorado Wetlands and Streams" 15 (2010) (a report for Ducks Unlimited, National Wildlife Federation and Trout Unlimited).

[79] Notice of Violation / Cease & Desist / Clean-Up Order, *In re New Salida Ditch Co.*, No. SO-060306-1 (Colo. Water Quality Control Div., Mar. 6, 2006), *available at* http://www.cdphe.state.co.us/wq/enforcement/2006/2006Stormwater/New_Salida_Ditch_Company-3-6-2006-NOVCDO.pdf.

rafting destination. After the Corps discovered the discharge, it refused to issue the company an after-the-fact 404 permit (in part because the State of Colorado denied a 401 certification). The State of Colorado issued the company a notice of violation for discharging without a storm water permit as required by state law (and the CWA).[80] Ultimately, the company was forced to remedy the situation so that the materials did not wash into the River and adversely affect its beneficial uses.

In addition, WRA notes that the agencies intend not to consider gullies as waters of the U.S. However, as noted above, Tenth Circuit case law provides that a gully (or "arroyo") which is connected via ground water to a tributary of a TNW, and which flows in response to storm events, does indeed qualify as waters of the United States.[81] For this reason, it is important that the final Guidance note that words matter, but facts matter more. An ephemeral stream is likely jurisdictional and many "gullies" or "arroyos" may in fact be either ephemeral streams, channels that are connected to other waters of the United States via ground water or both in which case they would themselves be waters of the United States.

XI. Documentation (Section 8)

One of the more important aspects of the Guidance is that the agencies plan to allow field staff members making jurisdictional determinations to re-use data, even when they are making case-by-case decisions. If for no other reason that the federal government's resources are severely limited now, and likely to remain so in the future, agency efficiency is of paramount concern. Thus, where agencies can use previously-developed data and analyses, for example, for a different stream in a single entry watershed for which the agencies determined jurisdiction elsewhere, it makes sense. Not only will the science and analysis regarding similarly situated waters presumptively apply to all such waters in a single entry watershed, but re-using data will save agency resources.

In addition to data and analysis done specifically for another stream or wetland within a single entry watershed, agencies should use and re-use relevant scientific literature, including information about ecosystem services provided by types of waterbodies, waterbody function, regional aquatic species and habitat, etc. For example, there is significant literature available as a result of the Colorado River Endangered Fishes Recovery Program, which has been around for years. As a result, it is well established that the razorback sucker, one of the listed species, uses adjacent wetlands for some life stages. It should not be necessary to establish on a case-by-case basis that the fish use each similarly situated wetland in their habitat for these same life stages; rather, the agencies should be able simply to reference the relevant literature. Finally, WRA supports the suggestion of the National NGO commenters that the agencies would be well-served by establishing a transparent, centralized and permanently-available database of JDs and NJDs, from 2007 on that they would update on an on-going basis as they

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[80] *Id.*

[81] *Quivira Mining, supra.*

completed additional analyses. This would enable both agencies and permit applicants to make the most efficient use of previous determinations.

In the Tenth Circuit, which the Court has not ruled yet on whether it will allow the agencies to establish jurisdiction using the plurality test, the significant nexus test or both, the agencies should do at least a cursory significant nexus analysis for every jurisdictional determination that requires consideration of whether the water body at issue is a tributary, adjacent wetland or other jurisdictional water. Exclusive reliance on the plurality test is unsupported by the views of the majority of the Justices in *Rapanos* and is too risky a strategy at this time in Tenth Circuit states.

XII. The agencies should define "waters of the U.S." in a formal rulemaking.

As mentioned above, WRA strongly supports prompt agency adoption of rules that define "waters of the US" in light of *Rapanos* and *SWANCC*. WRA recommends that the agencies use the comments received on this Guidance, as well as comments received on previous guidance (and even potentially comments received in response to the 2003 Advanced Notice of Public Rulemaking (ANPRM)) in lieu of a new ANPRM to speed the process of developing a revised rule. Rule-making was, after all, what the Chief Justice of the Supreme Court of the United States requested in his concurring opinion in *Rapanos*.[82]

It would not only be good policy for the agencies to promulgate a revised regulation defining waters of the US, but it would be an important help for courts struggling to apply the *Rapanos* opinions. Courts generally give little deference to agency guidance or pronouncements that are not formal rules. For example, in another major contemporary controversy about the CWA (whether one needs a §402 permit to discharge polluted water from one stream into a different, cleaner stream), the circuit courts all but ignored EPA's opinions on a matter until the agency issued a relevant rule.[83]

Finally, it is important for the federal agencies to make clear what the CWA covers so that states and local jurisdictions can step in to cover those waters that are non-jurisdictional but nevertheless important at that state or local level. Just as the global economic downturn has shrunk federal agency budgets, so too has it constrained state and local governments. While it has always been the case that states or smaller units of government have had the ability to regulate what the federal agencies have not, their resources are today quite limited. While local governments do have wetlands ordinances,[84] the reach of these ordinances, and their ability to achieve a level of protection commensurate with that Congress envisioned under the Clean Water Act, is unknown. And, after all, inadequate state and local regulation of water quality was the

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[82] 547 U.S. at 757-58.

[83] *Friends of the Everglades v. South Fla. Water Mgmt. Dist.*, 570 F.3d 1210, 1218 (11th Cir. 2010).

[84] City of Boulder (CO) Planning & Development Services, "Wetlands and Stream Buffers: A Review of the Science and Regulatory Approaches to Protection" 4 (2007), *available at* http://www.bouldercolorado.gov/-files/PDS/wetlands/bjwetlandbuffers_report.pdf.

very reason Congress adopted the Clean Water Act in the first place. Moreover, given their economic straits, few state or local governments are likely to step up to protect important waters that the CWA does not reach, unless and until it is clear their action is necessary because, as a result of the limits of federal jurisdiction, they are the sole authority available to provide protection.

XIII. Conclusion

WRA appreciates the opportunity to comment on the proposed Guidance. WRA urges the agencies to finalize this Guidance with all due speed. WRA then looks forward to working with the agencies towards issuance of formal rules defining the jurisdiction of the Clean Water Act, so that this most effective of environmental laws protecting critical national resources and public health and safety can continue to make progress towards achieving the goals that Congress set out in 1972.

Gunnison County
COLORADO

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December 7, 2010

Honorable Nancy Sutley
Chair, Council on Environmental Quality
730 Jackson Place, N.W.
Washington, DC 20503

Dear Chair Sutley:

As county officials, we are on the front lines in protecting the health, safety, and welfare of our citizens. We see first-hand the importance of protecting clean water and healthy watersheds to ensure clean and safe drinking water supplies and outdoor recreation, and to protect bridges, roads, hospitals, treatment plants, and other critical infrastructure.

We understand the central role the 1972 Clean Water Act has played in maintaining and restoring clean water and healthy watersheds. We also understand that essential to the Act's success is the fact that, for nearly 30 years, virtually all natural surface waters were recognized as "waters of the United States" and protected from pollution and destruction.

We now understand that the effectiveness of the Act is threatened by Supreme Court decisions in 2001 (*SWANCC v. Army Corps of Engineers*) and 2006 (*Rapanos v. United States*) and subsequent agency guidance that have removed or jeopardized Clean Water Act protections for over 20 million wetland acres and an estimated 59% of the stream miles on which our communities depend. In addition, these decisions and agency actions have added uncertainty, cost, and delay to the Clean Water Act permitting process, and otherwise undermined the ability of the federal government and the states to protect intermittent streams and so-called isolated wetlands, placing many wetlands and streams at risk of pollution and destruction. For these reasons, we support restoring the protections of the pollution and destruction. For these reasons, we support restoring the protections of the Clean Water Act to their status prior to the SWANCC decision. Given the failure of Congress to do so, we urge the Administration to initiate a rulemaking process to address this issue.

Counties across the nation are facing increased flooding, surface water pollution, toxic blue-green algae outbreaks, and other problems caused by the lack of Clean Water Act enforcement. Clean and safe drinking water supplies are a particular concern for us.

Given the critical need to restore protections for our nation's waters, we urge President Obama to restore and clarify Clean Water Act protections, including for so-called "isolated wetlands," by proposing for public comment and then finalizing a revised definition of "waters of the United States" that restores and clarifies these protections in a manner that is consistent with both the law and the science.

Sincerely,

Jim Starr, Chairperson | Hap Channell, Commissioner | Paula Swenson, Commissioner