

Appendix 5B | Existing Ecological, Recreational, and Hydropower Programs

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The Environmental and Recreational Flows Workgroup (Workgroup) recognized that existing programs,¹ initiated either in the Colorado River Basin (Basin) or in other locations around the world, include components that directly or indirectly benefit ecological and recreational resources. To learn from these programs and to acknowledge how environmental and recreational flows have been addressed in other settings, the Workgroup compiled a list of programs.

The following compilation of programs is neither an exhaustive list, nor is it an endorsement of a particular program; rather, it is illustrative of the types of programs and mechanisms that have been implemented.

TABLE 5B-1			
Existing Programs with Ecological and Recreational Resource Components			
No.	Program	Program Summary	Upper/Lower/ Other Basin Program
1	Aspinall Unit Working Group	The Aspinall Unit Working Group provides an open forum for public and interested party input and for information exchange on the operation of the Aspinall Unit through meetings held three times a year. Participants include the Bureau of Reclamation (Reclamation), other government agencies, and public and special interest groups.	Upper
2	Colorado Healthy Rivers Grant Program	Established jointly by the Colorado Water Conservation Board and the Water Quality Control Commission, in cooperation with the Colorado Watershed Assembly, the Colorado Healthy Rivers Grant Program helps support local watershed organizations in their efforts to provide clean water, protect habitat, and improve recreation and accessibility. The program is financed by the Colorado Individual Income Tax Refund Check-off Program, which gives taxpayers the opportunity to contribute a portion of their taxes or to make a donation to assist locally based conservation groups in their efforts to protect our land and water resources.	Upper

¹ The term “programs” refers to a variety of programs, laws, and stakeholder groups related to ecological, recreational, and hydropower resources.

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No.	Program	Program Summary	Upper/Lower/ Other Basin Program
3	Colorado Instream Flow Program	Through the Instream Flow Program, the Colorado Water Conservation Board is responsible for the appropriation, acquisition, protection, and monitoring of instream flow and natural lake level water rights to preserve and improve the natural environment to a reasonable degree. These water rights are nonconsumptive, in-channel, or in-lake uses of water for minimum flows between specific points on a stream or levels in natural lakes. Since 1973, through the Colorado Instream Flow Program, the State of Colorado has appropriated more than 1,800 water rights covering more than 9,000 miles of stream and 477 natural lakes. The State of Colorado has entered into more than 25 transactions through its water acquisition program, under which it can purchase, lease, or accept donations of water rights for instream flow purposes, resulting in protection of more than 900 cubic feet per second on various streams.	Upper
4	Colorado Recovery and Conservation Plans	Colorado has a number of recovery and conservation plans that work to protect amphibians, birds, fish, and mammals.	Upper
5	Colorado Recreational In-Channel Diversions	The Colorado Water Conservation Board reviews all applications for recreational in-channel diversions, which limit water rights to the minimum stream flow necessary for a reasonable recreational experience in and on the water.	Upper
6	Colorado River Cooperative Agreement	The Colorado River Cooperative Agreement is a long-term partnership between Denver Water and the West Slope. The agreement is a framework for numerous actions by the parties to benefit water supply, water quality, recreation, and the environment on both sides of the Continental Divide. Several key components provide for bypasses of diversion structures and reservoir releases that are intended to benefit the environment and recreation in the headwaters of the Colorado River Basin.	Upper
7	Colorado Water Banking Working Group	The Colorado Water Banking Working Group is an informal group composed of representatives of the Colorado River Water Conservation District, Colorado Water Conservation Board, Front Range Water Council, Southwestern Water Conservation District, and The Nature Conservancy. The group is investigating the development of a "Water Bank" that may prevent, delay, or avoid a compact deficit, or allow continued water use in the event of a compact deficit.	Upper

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No.	Program	Program Summary	Upper/Lower/ Other Basin Program
8	Colorado Watershed Protection and Restoration Efforts	<p>The Colorado Water Conservation Board supports watershed planning as well as projects designed to restore and protect watersheds through the administration of:</p> <ul style="list-style-type: none"> • The Colorado Watershed Restoration Program, which provides grants for watershed/stream restoration and flood mitigation projects throughout the state • The Colorado Healthy Rivers Fund, which helps support local watershed organizations in their efforts to provide clean water, protect habitat, and improve recreation and accessibility • The Fish and Wildlife Resources Fund, which provides grant money to mitigate the impacts of existing water supply facilities and help preserve a balance between development of the state's resources and the protection of the state's fish and wildlife resources • The Invasive Phreatophyte Control Program 	Upper
9	Dolores River Dialogue and Implementation Team for the Dolores River below McPhee Dam	<p>The Dolores River Dialogue (DRD) is a coalition of diverse interests whose purpose is to explore management opportunities, build support for and take action to improve the ecological conditions downstream of McPhee Reservoir while honoring water rights, protecting agricultural and municipal water supplies, and the continued enjoyment of rafting and fishing. Two full Dolores River Dialogue meetings occur each year, generally in the spring and fall. A DRD Steering Committee meets monthly (or as necessary), and the DRD Science and Hydrology Committees meet when needed to review documents or complete projects. The Implementation Team was formed in July 2011 to study and potentially pursue nine opportunities to improve the status of native fish.</p>	Upper
10	Duchesne River Working Group	<p>The informal Duchesne River Working Group was formed in 2004 to address issues involved with the implementation of flow recommendations, including water availability, water management, and protection of instream flows. Workgroup members include representatives of federal, state, and local agencies, Native American tribes, and affected stakeholders.</p>	Upper
11	Escalante River Watershed Partnership	<p>The Escalante River Watershed Partnership (ERWP) was formed in 2009 to restore and maintain the natural ecological conditions of the Escalante River and its watershed and involve local communities in promoting and implementing sustainable land and water use practices. The ERWP consists of more than 30 participating partners, including local landowners, local business owners, city and county municipalities, non-profit organizations, conservation corps, and federal and state land agencies.</p>	Upper

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No.	Program	Program Summary	Upper/Lower/ Other Basin Program
12	Flaming Gorge Technical Working Group	The Flaming Gorge Technical Working Group (FGTWG) was established pursuant to the Operation of Flaming Gorge Dam Final Environmental Impact Statement as recommended in the Flow and Temperature Recommendations for Endangered Fishes in the Green River Downstream of Flaming Gorge Dam. FGTWG members include biologists and hydrologists from Reclamation, the U.S. Fish and Wildlife Service, and the Western Area Power Administration. The purpose of the FGTWG is limited to proposing specific flow and temperature targets for each year's operations based on current year hydrologic conditions and the conditions of the endangered fish. The FGTWG is also charged with integrating, to the extent possible, any flow requests from the Upper Colorado River Endangered Fish Recovery Program (Recovery Program) into the flow proposal so that Recovery Program research can also be facilitated.	Upper
13	Great Outdoors Colorado	Great Outdoors Colorado (GOCO) invests a portion of Colorado Lottery proceeds to help preserve and enhance the state's parks, trails, wildlife, rivers, and open spaces. An independent board awards competitive grants to local governments and land trusts and makes investments through Colorado Parks and Wildlife. Created by voters in 1992, GOCO has committed more than \$825 million in lottery proceeds to more than 3,500 projects without tax dollar support.	Upper
14	San Juan River Basin Recovery Implementation Program	The purpose of the San Juan River Basin Recovery Implementation Program is to protect and recover endangered fish in the San Juan River Basin while water development proceeds in compliance with all applicable federal and state laws. Endangered species include the pikeminnow (formerly known as the Colorado squawfish) and the razorback sucker.	Upper
15	Upper Colorado River Basin Fund	The Upper Colorado River Basin Fund was established under the Colorado River Storage Project (CRSP) Act. Revenues derived from operation of the CRSP and participating projects (mostly revenues from sales of hydroelectric power and transmission services) are deposited in the Basin Fund. In addition to repaying costs associated with the CRSP units and designated irrigation projects, the Fund supports the Colorado River Basin Salinity Control Program, the Glen Canyon Adaptive Management Program, the Upper Colorado Endangered Fish Recovery Implementation Program, and the San Juan River Recovery Implementation Program.	Upper

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No.	Program	Program Summary	Upper/Lower/ Other Basin Program
16	Upper Colorado River Coordinated Reservoir Operations	The Upper Colorado River Coordinated Reservoir Operations project involves voluntary operational coordination of selected reservoirs in the Colorado River Basin upstream from the confluence of the Colorado and Gunnison Rivers. The goal is to enhance spring peak flows to improve endangered fish species habitat in the 15-Mile Reach of the Colorado River without diminishing reservoir yields, affecting the timing of reservoir filling, or causing flows to exceed flood stage. Participating reservoirs in the past have included Willow Creek; Granby, Green Mountain, and Ruedi (Reclamation); Wolford Mountain (Colorado River Water Conservation District); Dillon and Williams Fork (Denver Water); and Windy Gap (Northern Colorado Water Conservancy District). Coordinated reservoir operations occur in years when runoff conditions allow participating reservoirs to contribute without affecting their yield. The intent of coordinated reservoir operations is to attempt to coordinate bypasses of inflow to enhance the natural peak flows on the Colorado River for 10 days to 2 weeks. This typically occurs during the last week of May and the first week of June.	Upper
17	Upper Colorado River Endangered Fish Recovery Program	The Upper Colorado River Endangered Fish Recovery Program provides Endangered Species Act compliance for continued operation of federal water and power projects in accordance with project purposes by working to recover four species of endangered fish in the Upper Colorado River Basin while water use and development continues to meet human needs in compliance with interstate compacts and applicable federal and state laws.	Upper
18	Upper Colorado River Managing Entities for the 15-Mile Reach in Grand Junction, Colorado	Coordination of releases in the Grand Valley provides for management of the Historic Users Pool for its beneficiaries and assists in maintaining target flows in the 15-Mile Reach of the Colorado River for the Upper Colorado River Endangered Fish Recovery Program. Flow coordination for the 15-Mile Reach is done weekly by phone during base flows. The call includes the operators of all major headwater reservoirs in the upper mainstem of the Colorado River: Green Mountain, Ruedi, Granby, Wolford, Williams Fork, and Dillon Reservoirs. Directly involved are the irrigation companies; federal, state, city, and county governments; National Weather Service; U.S. Geological Survey; utility companies; representatives for environmentalist, rafting, and fishing groups; and others.	Upper
19	Upper Colorado River Wild and Scenic Stakeholder Group	The Upper Colorado River Wild and Scenic Stakeholder Group is composed of more than 100 individuals representing state agencies, local governments, environmental and recreational interests, landowners, anglers, and water providers. They have formed an independent, collaborative partnership to develop and implement a local management alternative to Wild and Scenic designation on the Upper Colorado River. Since coming together in 2007, the Stakeholder Group has worked both as a large group and in smaller work groups to develop a management plan that recognizes the interests of each representative while also protecting and enhancing the Upper Colorado River's outstanding biological, social, and recreational value.	Upper

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No.	Program	Program Summary	Upper/Lower/ Other Basin Program
20	Utah Green River Water Acquisition Team	Functioning under the Utah Department of Natural Resources, with participation by the U.S. Fish and Wildlife Service, Reclamation, Western Resource Advocates, and The Nature Conservancy, the Utah Green River Water Acquisition Team addresses flow protection for endangered fish recovery on the Green River below Flaming Gorge Dam. A model of the Green River has been created, and future development scenarios are currently being analyzed to provide solutions for flow protection.	Upper
21	Utah Species Recovery Plans and Conservation Agreements	Utah has developed several species recovery plans and conservation agreements based on a three-tiered system to group species in order of greatest conservation need. The tiered ranking system defines and prioritizes Utah's animal species according to conservation need. Tier I includes federally threatened and endangered, federal candidate, and conservation agreement species. These species are listed on the Utah Sensitive Species List. Most Tier I species have recovery plans or conservation agreements and associated strategies. Most of the fish from the Colorado River Basin belong under Tier I.	Upper
22	Utah Watershed Restoration Initiative	<p>The Utah Watershed Restoration Initiative is a partnership-driven effort to conserve, restore, and manage ecosystems in priority areas across the state to enhance Utah's:</p> <ul style="list-style-type: none"> • Wildlife and biological diversity • Water quality and yield for all uses • Opportunities for sustainable uses <p>Utah's watershed restoration initiative is a Utah Partners for Conservation and Development-sponsored initiative that serves as a clearinghouse to coordinate and share participants' conservation concerns and priorities, discuss and implement solutions, and promote an atmosphere of collaboration among landowners, private organizations, and state and federal agencies.</p>	Upper

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No.	Program	Program Summary	Upper/Lower/ Other Basin Program
23	White River Work Group	<p>A White River Work Group composed of Water Users (Ute Indian Tribe, Upper Colorado River Endangered Fish Recovery Program [Recovery Program], water user representatives, Colorado Water Conservation Board, Utah Water Resources); environmental groups (The Nature Conservancy and Western Resource Advocates); U.S. Fish and Wildlife Service; and the Program Director's Office was formed to assist with the development of the White River Water Management Plan. The Recovery Program oversees the development of the Management Plan, which will:</p> <ul style="list-style-type: none"> • Model proposed future water development scenarios to understand effects on White River hydrology and the Recovery Program's draft endangered fish flow recommendations • Assist with scheduling, facilitating, and summarizing Work Group and public outreach meetings • Draft and revise (as needed) a Management Plan • Assist with Endangered Species Act compliance for the associated water depletion impacts and formulation of a Programmatic Biological Opinion 	Upper
24	Wyoming Water Development Commission River Basin Plans	Through the Wyoming Water Development Commission River Basin Plans, Basin Advisory Groups assist the Wyoming Water Development Office (WWDO) and the state planning team by identifying water- related issues, problems, and concerns in the individual river basins. Through public participation, the group advises the WWDO and planning team on local issue priorities, data needs, and regional concerns. The Basin Advisory Groups also assist decision makers through the review of basin planning products.	Upper
25	Wyoming Wildlife and Natural Resource Trust	The Wyoming Legislature created the Wildlife and Natural Resource Trust in 2005. Funded by interest earned on a permanent account, donations and legislative appropriation, the purpose of the program is to enhance and conserve wildlife habitat and natural resource values throughout the state. Any project designed to improve wildlife habitat or natural resource values is eligible for funding.	Upper
26	Yampa River Users Group	The Yampa River Users Group coordinates augmentation of Yampa River base flows from Elkhead Reservoir in accordance with the Yampa River flow recommendations. The Upper Colorado River Endangered Fish Recovery Program (Recovery Program) funded a 5,000 acre-foot (AF) pool of permanent storage out of the 12,000 AF Elkhead enlargement and may lease up to an additional 2,000 AF on an as-needed basis. In the summer, coordination occurs during a weekly call with Tri-State Power Co., the Colorado River District, the District Engineer's office, the Recovery Program, and other local water users.	Upper

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No.	Program	Program Summary	Upper/Lower/ Other Basin Program
27	Agricultural Act of 2014	The Agricultural Act of 2014 was signed into law in February 2014. The Congressional Budget Office projects that 6 percent of outlays under the Act will fund conservation programs. The Act provides assistance to producers and landowners to adopt conservation activities on agricultural and forest lands to protect and improve water quality and quantity, soil health, wildlife habitat, and air quality. Program practices range from conservation activities that address natural resource issues and benefit productivity of agricultural working lands, forestlands, and grasslands to wetlands restoration, and temporary or permanent land retirement.	Upper and Lower
28	American Whitewater Flow Studies	Flow studies conducted by the non-profit organization American Whitewater are conducted to assist in identifying a specific range of flows that optimize whitewater recreation. Whitewater flow studies endeavor to accurately and precisely identify the range of flows suitable for whitewater recreation and to document the range of whitewater flows between minimum, acceptable, and optimum, using scientific methodologies to obtain the supporting preference data. These flow studies have been used as a component in the hydropower relicensing process in areas outside the Colorado River Basin.	Upper and Lower
29	America's Great Outdoors Initiative	President Obama launched the America's Great Outdoors (AGO) Initiative to develop a 21st Century approach to conservation and outdoor recreation. AGO brings together many federal agencies to work with state and local partners nationwide. The Rivers portion of the AGO has two opportunities: the National Water Trails System and the All American River Demonstration Projects. The stretch of the Colorado River below Hoover Dam through Black and Eldorado Canyons was designated a National Water Trail in June 2014. The All-American Rivers Demonstration Projects designate one river project in each state and the District of Columbia to serve as models for conserving rivers across the nation, expanding outdoor recreational opportunities, and supporting jobs in local communities.	Upper and Lower
30	Colorado River Basin Chubs Recovery Plan	The Colorado River Basin Chubs Recovery Plan was developed under the authority of the New Mexico Wildlife Conservation Act (WCA) amendments of 1995, which direct the New Mexico Department of Game and Fish to develop recovery plans for species listed as threatened or endangered by the State. This Recovery Plan addresses the chubs in the Colorado River Basin in New Mexico, roundtail chub, Gila chub, and headwater chub, listed as endangered in New Mexico.	Upper and Lower
31	Colorado River Basin Salinity Control Forum	Created in 1973, the Colorado River Basin Salinity Control Forum (Forum) is an organization of the seven Colorado River Basin states. The purposes of the Forum are to coordinate salinity control efforts among the states, coordinate with federal agencies on the implementation of the Colorado River Basin Salinity Control Program (Program), work with Congress on the authorization and funding of the Program, act to disseminate information on salinity control, and otherwise promote efforts to reduce the salt loading to the Colorado River.	Upper and Lower

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No.	Program	Program Summary	Upper/Lower/ Other Basin Program
32	Glen Canyon Dam Adaptive Management Program	The Glen Canyon Dam Adaptive Management Program was developed to provide an organization and process for cooperative integration of dam operations, downstream resource protection and management, and monitoring and research information, as well as to improve the values for which the Glen Canyon National Recreation Area and Grand Canyon National Park were established. This program is implemented in a manner fully consistent with and subject to the Colorado River Compact and Law of the River. Adaptive management is a dynamic process where people of many talents and disciplines come together to make the right decision in the best interests of the resources.	Upper and Lower
33	International Boundary and Water Commission Minute 306	Minute 306 was signed in December 2000 and provides for cooperation between the United States and Mexico in the development of studies and recommendations regarding the ecology of the Colorado River limitrophe and delta.	Upper and Lower
34	International Boundary and Water Commission Minute 316	Minute 316 was signed in April 2010 and provides, among other items related to delivery and accounting, that the United States, Mexico, and nongovernmental organizations will provide water to the Cienega de Santa Clara during the Yuma Desalting Plant pilot run. Each group committed to providing 10,000 acre-feet over the course of the pilot run.	Upper and Lower
35	International Boundary and Water Commission Minute 319	Minute 319 was signed in November 2012 and provides interim approaches, lasting through 2017, to resolving shared Colorado River issues, in addition to providing multiple cooperative actions related to water conservation and system operations. Minute 319 also provides water for environmental flows for the Colorado River Delta. Through a one-time pulse flow event that was completed in the spring of 2014, and a longer-lasting base flow, Minute 319 is expected to help restore approximately 2,300 acres of habitat while gaining important scientific information on the effectiveness of flows to the Delta.	Upper and Lower
36	Landscape Conservation Cooperatives	With the signing of Secretarial Order No. 3289, the U.S. Department of the Interior launched the Landscape Conservation Cooperatives (LCCs) to better integrate science and management to address climate change and other landscape scale issues. By building a network that is holistic, collaborative, adaptive, and grounded in science, LCCs are working to ensure the sustainability of our economy, land, water, wildlife, and cultural resources. The LCCs are partnerships of governmental (federal, state, tribal, and local) and nongovernmental entities. The two LCCs in the Colorado River Basin are the Southern Rockies LCC and the Desert LCC.	Upper and Lower

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No.	Program	Program Summary	Upper/Lower/ Other Basin Program
37	National Fish and Wildlife Foundation	The National Fish and Wildlife Foundation (NFWF) was created by Congress in 1984 as a non-profit organization to build partnerships between the public and private sectors to support conservation across the nation. NFWF receives funding from federal and state agencies, corporations, foundations, and individual donors to create partnerships to help protect and restore imperiled species, promote healthy oceans and estuaries, improve working landscapes for wildlife, advance sustainable fisheries, and conserve water for wildlife and people. NFWF currently works with 14 federal partners and more than 50 corporate and foundation partners, and the Impact-Directed Environmental Account program manages more than \$100 million in mitigations and settlement funds.	Upper and Lower
38	Natural Resources Conservation Service Emergency Watershed Protection Plan	The Natural Resources Conservation Service (NRCS) Emergency Watershed Protection Plan (EWP) is designed to help people and conserve natural resources by relieving imminent hazards to life and property caused by floods, fires, windstorms, and other natural occurrences. EWP is an emergency recovery program. All projects undertaken, with the exception of the purchase of floodplain easements, must have a project sponsor. NRCS may bear up to 75 percent of the construction cost of emergency measures. The remaining 25 percent must come from local sources and can be in the form of cash or in-kind services. Funding is subject to Congressional approval.	Upper and Lower
39	Natural Resources Conservation Service Environmental Quality Incentives Program	The Natural Resources Conservation Service Environmental Quality Incentives Program (EQIP) is a voluntary program that provides financial and technical assistance to agricultural producers through contracts up to a maximum term of 10 years. These contracts provide financial assistance to help plan and implement conservation practices that address natural resource concerns and deliver environmental benefits such as improved water and air quality, conserved ground and surface water, reduced soil erosion and sedimentation, or improved and created wildlife habitat on agricultural land and non-industrial private forestland. In addition, a purpose of EQIP is to help producers meet federal, state, tribal, and local environmental regulations.	Upper and Lower
40	Rangewide Conservation Agreement and Strategy for Roundtail Chub, Bluehead Sucker, and Flannelmouth Sucker	In 2006, the Rangewide Conservation Agreement and Strategy for Roundtail Chub, Bluehead Sucker, and Flannelmouth Sucker was signed by Arizona, Colorado, Nevada, New Mexico, Wyoming, and Utah as well as federal, tribal, and nongovernment partners. These partners participate in a rangewide team that sets conservation action priorities and develops strategies for management of the three species.	Upper and Lower
41	Sustainable Rivers Project	The Sustainable Rivers Project is a U.S. Army Corps of Engineers (Corps) and The Nature Conservancy partnership. It represents an ongoing effort to re-operate Corps dams to achieve more ecologically sustainable flows, while maintaining or enhancing project benefits. The project is being carried out under a Memorandum of Understanding between the Corps and The Nature Conservancy.	Upper and Lower

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42	Tamarisk Coalition	The Tamarisk Coalition helps the management of invasive plant species and restoration of native riparian vegetation throughout the Upper and Lower Basins. The Coalition acts as an information clearinghouse, empowers practitioners with problem-solving assistance, and enhances frameworks for restoration by helping to establish programs that support riparian restoration.	Upper and Lower
43	Title XVI of Public Law 102-575 – Water Reclamation and Reuse Program	Title XVI of Public Law 102-575, as amended, provides authority for Reclamation’s water recycling and reuse program, titled “Title XVI.” Through the Title XVI program, Reclamation identifies and investigates opportunities to reclaim and reuse wastewater and naturally impaired ground and surface water in the 17 western states and Hawaii. Title XVI is budgeted by Reclamation’s regional offices and includes funding for planning studies and the construction of water recycling projects, on a project-specific basis, in partnership with local governmental entities.	Upper and Lower
44	U.S. Fish and Wildlife Service National Fish Passage Program	The National Fish Passage Program was initiated in 1999. The program works with partners on a voluntary basis to help communities restore their natural resources by reconnecting aquatic habitats. The purpose of the program is to focus on aquatic species and habitat restoration to ensure self-sustaining populations on a landscape level within the context of the U.S. Fish and Wildlife Service’s overall resource conservation mission.	Upper and Lower
45	U.S. Fish and Wildlife Service Partners for Fish and Wildlife Program	The Partners for Fish and Wildlife Program was established in 1987 and works through voluntary agreements to provide expert technical assistance and cost-share incentives directly to private landowners to restore fish and wildlife habitats. The program serves as a bridge to landowners to develop individual partnerships and habitat restoration projects for the benefit of fish and wildlife species.	Upper and Lower
46	WaterSense	WaterSense, a partnership program by the U.S. Environmental Protection Agency, seeks to protect the future of our nation’s water supply by offering people a simple way to use less water with water-efficient products, new homes, and services. The program partners with manufacturers, retailers, distributors, and utilities to bring WaterSense- labeled products to the marketplace and make it easy to purchase high-performing, water-efficient products. WaterSense also partners with irrigation professionals and irrigation certification programs to promote water-efficient landscape irrigation practices.	Upper and Lower
47	WaterSMART Water and Efficiency Grants	To implement the Omnibus Public Land Management Act of 2009, Subtitle F – SECURE Water, the U.S. Department of the Interior established the WaterSMART program in February 2010. Through the WaterSMART Water and Efficiency Grants (formerly Challenge Grants), Reclamation provides 50-50 cost-share funding to irrigation and water districts, tribes, states, and other entities with water or power delivery authority. Projects should seek to conserve and use water more efficiently, increase the use of renewable energy, protect endangered species, or facilitate water markets.	Upper and Lower

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48	Wild and Scenic Rivers	The National Wild and Scenic Rivers System was created by Congress in 1968 (Public Law 90-542; 16 United States Code 1271 et seq.) to preserve certain rivers with outstanding natural, cultural, and recreational values in a free-flowing condition for the enjoyment of current and future generations. Rivers may be designated by Congress or, if certain requirements are met, the Secretary of the Interior. Each river is administered by either a federal or state agency.	Upper and Lower
49	Arizona Water Protection Fund	In 1994, the Arizona Water Protection Fund (AWPF) was established, as was the Arizona Water Protection Fund Commission to administer the AWPF (Arizona Revised Statutes § 45-2101 et seq.). The AWPF is a competitive state grant program that provides an annual source of funding for the development and implementation of measures that maintain, enhance, and restore rivers, streams, and riparian habitats, including projects that benefit fish and wildlife.	Lower
50	Bill Williams River Corridor Steering Committee	The Bill Williams River Corridor Steering Committee (BWRCS) is a partnership effort with members possessing diverse management concerns and responsibilities that exist as a venue to address a wide range of matters. The purpose of the BWRCS is to facilitate and foster the open communication of concerns and to promote a commitment to good science.	Lower
51	Las Vegas Wash Coordination Committee	The Las Vegas Wash Coordination Committee was formed in October 1998 and consists of 29 members. Its goal is to bring together all interested parties to address the many issues related to the Las Vegas Wash, which provides habitat to about 300 fish and wildlife species and more than 200 species of upland, riparian, and wetland plants. It also serves as a source of return flow credits to the Colorado River at Lake Mead.	Lower
52	Lower Colorado Multi-Species Conservation Program	The Lower Colorado River Multi-Species Conservation Program was created to balance the use of the Colorado River water resources with the conservation of native species and their habitats. The program works toward the protection of species currently listed under the Endangered Species Act (ESA). It also reduces the likelihood of additional species listings. Implemented over a 50-year period, the program accommodates current water diversions and power production and will optimize opportunities for future water and power development by providing ESA compliance through the implementation of a Habitat Conservation Plan.	Lower
53	Metropolitan Water District Integrated Resources Plan	Metropolitan Water District's long-term water plan, the Integrated Resources Plan (IRP), offers an innovative strategy to protect the region from future supply shortages, with an emphasis on water-use efficiency through conservation and local supply development. The IRP is intended as a regional water resource planning document that identifies potential supplies to meet future demands.	Lower

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54	Upper San Pedro Partnership	The Upper San Pedro Partnership is a consortium of agencies and organizations working together to meet the long-term water needs of the Sierra Vista Subwatershed by achieving sustainable yield of the regional aquifer. The goals of the partnership are to preserve the San Pedro Riparian National Conservation Area, and ensure the long-term viability of Fort Huachuca. The purpose of the partnership is to coordinate and cooperate in the identification, prioritization, and implementation of comprehensive policies and projects to assist in meeting water needs in the Sierra Vista Subwatershed of the Upper San Pedro River Basin.	Lower
55	Verde River Basin Partnership	The Verde River Basin Partnership is a non-profit organization composed of both individual members and entity members (both public and private partners), whose goal is to support and preserve the long-term health of the Verde River and its watershed. The partnership is a scientific and educational resource raising awareness among residents and community leaders about the workings and limitations of the Verde River Basin's interconnected groundwater and surface water systems and the life they support.	Lower
56	Virgin River Resource Management and Recovery Program	The Virgin River Program is a collaborative effort between local, state, and federal partners to balance human interests along the Virgin River with the conservation of this unique ecosystem for future generations. The program goals are to implement actions to recover, conserve, enhance, and protect native species in the Virgin River Basin and to enhance the ability to provide adequate water supplies for sustaining human needs. The program scope is broad and includes species recovery, water management, floodplain protection, restoration, and community outreach.	Lower
57	Zuni Bluehead Sucker Recovery Plan	The Zuni Bluehead Sucker Recovery Plan was developed by the New Mexico Department of Game and Fish in 2004 under the authority of the New Mexico Wildlife Conservation Act (17-2-40.1 New Mexico Statutes Annotated 1978). This recovery plan addresses the Zuni bluehead sucker, listed as endangered in New Mexico and declared an endangered species on July 24, 2014, by the U.S. Fish and Wildlife Service.	Lower
58	Bay Delta Conservation Plan	The Bay Delta Conservation Plan (BDCP), being prepared by state and federal agencies, local water agencies, and environmental and conservation organizations, is a part of California's overall water management portfolio. It is being developed as a 50-year habitat conservation plan with the goals of restoring the Sacramento-San Joaquin Delta ecosystem and securing California water supplies. The BDCP would secure California's water supply by building new water delivery infrastructure and operating the system to improve the ecological health of the Delta. The BDCP would also restore or protect approximately 150,000 acres of habitat to address the Delta's environmental challenges.	Other – California

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59	California Water Plan – California Department of Fish and Wildlife	The California Water Plan is developed by the Department of Water Resources (DWR) and other agencies, including California Department of Fish and Wildlife (CDFW), through rigorous public involvement and a state and federal agency coordination process. As trustee for California’s fish and wildlife resources, CDFW has jurisdiction over the conservation, protection, and management of fish, wildlife, native plants, and habitat necessary for biologically sustainable populations of those species. CDFW provides input to DWR on environmental water needs, including water use, and water quality. CDFW’s role in the development of the Water Plan is to identify opportunities to increase fish, wildlife, and other environmental benefits associated with state programs.	Other – California
60	Central Valley Project Improvement Act	The Central Valley Project Improvement Act (CVPIA) was enacted in 1992. Its purposes are to: (1) protect, restore, and enhance fish, wildlife, and associated habitats in the Central Valley and Trinity River basins of California; (2) address impacts of the Central Valley Project (CVP) on fish, wildlife, and associated habitats, and improve operational flexibility; (3) increase water-related benefits provided by the CVP to the State of California through expanded use of voluntary water transfers and improved water conservation; (4) contribute to the State of California’s interim and long-term efforts to protect the San Francisco Bay/Sacramento-San Joaquin Delta Estuary; (5) achieve a reasonable balance among competing demands for use of CVP water, including the requirements of fish and wildlife, agricultural, municipal, industrial, and power contractors. The U.S. Fish and Wildlife Service works with Reclamation and other agencies to implement the CVPIA.	Other – California
61	San Joaquin River Restoration Program	The San Joaquin River Restoration Program is a comprehensive long-term effort to restore flows to the San Joaquin River from Friant Dam to the confluence of the Merced River and restore a self-sustaining Chinook salmon fishery in the river while reducing or avoiding adverse water supply impacts from restoration flows. Through a Memorandum of Understanding, the following agencies are working together to implement the restoration activities: U.S. Departments of the Interior and Commerce, the Natural Resources Defense Council, the Friant Water Users Authority, California Department of Fish and Wildlife, California Department of Water Resources, and the California Environmental Protection Agency.	Other – California
62	Arkansas River Voluntary Flow Management Program	The Arkansas River Voluntary Flow Management Program (VFMP) is a cooperative program created in the 1990s with help from Trout Unlimited and the Arkansas River Outfitters Association. Administered by Reclamation, in cooperation with the Colorado Department of Natural Resources and Southeastern Colorado Water Conservancy District, the VFMP offers water management guidelines that provide for whitewater flows in the Arkansas River for recreation users in the summer months, while also protecting and enhancing the fishery by establishing minimum flow guidelines throughout the rest of the year.	Other – Colorado

TABLE 5B-1			
Existing Programs with Ecological and Recreational Resource Components			
No.	Program	Program Summary	Upper/Lower/ Other Basin Program
63	Colorado Basin Roundtables	To facilitate discussions on water management issues and encourage locally driven collaborative solutions, nine basin roundtables were established by the Colorado Water for the 21st Century Act. These roundtables represent each of the state's eight major river basins and the Denver metropolitan area. Each basin roundtable is required to develop a basin-wide water needs assessment, consisting of four parts: (1) consumptive water needs (municipal, industrial, and agricultural); (2) nonconsumptive water needs (environmental and recreational); (3) available water supplies (surface and groundwater) and an analysis of any unappropriated waters; and (4) proposed projects or methods to meet identified water needs and achieve water supply sustainability over time.	Other – Colorado
64	Streamflow Management Plan for the Upper South Platte River, Colorado	The Streamflow Management Plan was cooperatively developed by local, state, and federal agencies and nongovernmental organizations to identify opportunities for operating water supply facilities in ways that protect, and in some instances, enhance the trout fisheries and whitewater recreation in the South Platte River while maintaining the current and future water supply functions of the river and facilities. The benefits for the fisheries include establishing minimum releases from Cheesman and Eleven Mile Reservoirs, moderating stream temperature when reservoirs spill, establishing guidelines for reservoir outflow fluctuations, managing streamflow during spawning periods, and allowing interested parties to participate in the establishment of annual operating plans for Spinney, Eleven Mile, and Cheesman Reservoirs. Consideration is also given to whitewater recreation for the North Fork.	Other – Colorado
65	Rio Chama Flow Optimization Project	The Rio Chama Flow Optimization Project is being developed by Rio Grande Restoration in partnership with the New Mexico Interstate Stream Commission, Reclamation, the U.S. Army Corps of Engineers, the Bureau of Land Management, the University of New Mexico, and others. The project is funded by a grant from the New Mexico River Ecosystem Restoration Initiative. The project team plans to assess institutional and socioeconomic needs, opportunities, and constraints; develop hypotheses for how modified operations can support ecosystem functions; and develop hydrographs for different hydrologic conditions that address ecological, social, and legal issues. The project will culminate in the creation of a decision support tool for Reclamation to optimize El Vado Dam water operations under a broad range of flow conditions.	Other – New Mexico

TABLE 5B-1 Existing Programs with Ecological and Recreational Resource Components			
No.	Program	Program Summary	Upper/Lower/ Other Basin Program
66	Nantahala Settlement Agreement	The Federal Energy Regulatory Commission has issued six hydroelectric licenses for the Nantahala area. These licenses kick start processes for a variety of public recreation and aquatic habitat enhancements for the region. The legally binding agreement, signed in 2003, is the work of stakeholder teams representing 30 organizations, including Duke Energy. Enhancements coming to the Nantahala River include: (1) adding kayak/canoe access areas with parking along the river and a handicapped-accessible fishing access area; (2) making land near Nantahala Powerhouse available to the U.S. Forest Service to improve public access for whitewater recreation; (3) releasing flows from Nantahala Dam into the old streambed to provide high-skill boating opportunities on 8 days during the recreations season; (4) increasing continuous minimum flows from the Nantahala Project to enhance stream habitat in the popular stretch of delayed harvest trout water in the Nantahala River Bypassed Reach; and (5) adding continuous minimum flows from Whiteoak Dam to enhance aquatic habitat in Whiteoak Creek and downstream into the Nantahala River Bypassed Reach.	Other – North Carolina
67	Deschutes Water Alliance	The Deschutes Water Alliance (DWA) was formed in 2004 to plan for long-term water resource management in the Deschutes Basin. The DWA believes it is possible to simultaneously meet new and existing demands for water in the Basin, whether they are from agriculture, cities, or rivers. This will happen through the cooperation and voluntary participation of key basin water suppliers and users.	Other – Oregon
68	Platte River Recovery Implementation Program and the South Platte Water Related Activities Program, Inc.	<p>The Platte River Recovery Implementation Program, developed in 1997 by Colorado, Wyoming, Nebraska and the U.S. Department of the Interior, is a partnership with the goal of developing a shared approach for managing the Platte River. The program provides a programmatic approach for addressing the threatened and endangered species that have habitat in Nebraska in a way that allows water development to occur in Colorado, Wyoming, and Nebraska. Water users from the three states and local and national conservation groups helped to develop this innovative approach for improving the management of the Platte for the health of the ecosystem and the people who depend on it.</p> <p>The South Platte Water Related Activities Program, Inc., is a Colorado nonprofit corporation established by Colorado water users for the purpose of representing water users' interests and partnering with the State of Colorado to implement the Platte River Recovery Implementation Program in central Nebraska.</p>	Other – South Platte

TABLE 5B-1			
Existing Programs with Ecological and Recreational Resource Components			
No.	Program	Program Summary	Upper/Lower/ Other Basin Program
69	South Platte Enhancement Board and South Platte Protection Plan	The South Platte Enhancement Board (SPEB) was established to support and implement the South Platte Protection Plan, an alternative to the U.S. Forest Service study of sections of the Upper South Platte River and its North Fork for possible designation under the Wild and Scenic Rivers Act. SPEB works to enhance and preserve outstandingly remarkable values (such as fisheries and recreation) within portions of the South Platte. The SPEB is a 17-member stakeholder group charged with managing a \$1 million endowment, advocating cooperative protection of the river corridor, distributing grant funds, building awareness of the South Platte's value as a major water source as well as a cherished resource legacy, and serving as a forum for public issues and concerns.	Other – South Platte
70	Ocoee Agreement	In the late 1970s, the Tennessee Valley Authority agreed to schedule 116 days of recreational whitewater releases per year on the Middle Ocoee River. The Ocoee has become one of the most popular whitewater rivers in the world, attracting more than 250,000 visitors annually.	Other – Tennessee
71	Yakima Basin Integrated Water Resource Management Plan	The Yakima Basin Integrated Water Resource Management Plan was developed by the Yakima River Basin Water Enhancement Project Working Group (Working Group) as a consensus-based solution to the basin's water problems. The Working Group is composed of representatives from the Department of Ecology; Reclamation; the Yakama Nation; irrigation districts; environmental organizations; and federal, state, county, and city governments. Plan elements include fish passage, fish habitat enhancement, modifying existing structures and operations, surface storage, market-based reallocation, groundwater storage, and enhanced water conservation.	Other – Washington
72	Aral Sea Basin – Interstate Commission for Water Coordination of Central Asia	After the collapse of the Soviet Union, to prevent conflicts and serious complications in water resources management and to put water allocation, limitation, and account in order, representatives of five Central Asian independent states (the Republic of Kazakhstan, the Kyrgyz Republic, the Republic of Tajikistan, Turkmenistan, and the Republic of Uzbekistan) met to recognize that only joint actions in coordination and management can help to effectively solve the region's water problems in a context of increasing ecological and social tension. In February 1992, an agreement on cooperation in joint management, use, and protection of interstate sources of water resources was signed.	Other – International

TABLE 5B-1 Existing Programs with Ecological and Recreational Resource Components			
No.	Program	Program Summary	Upper/Lower/ Other Basin Program
73	Ebro River Basin Management Plan – Spain	<p>The water planning process for the Ebro River Basin in Spain, described in the Ebro River Basin Management Plan, has contributed to the selection of a combination of projects aimed at restoring the aquatic environment. The projects include an ambitious program for water quality improvement through a mix of effluents treatment and water reuse projects combined with a zero tolerance program to monitor and control pollution discharges.</p> <p>Water-saving measures have also been identified, combining intake, transport, treatment, distribution, and efficiency projects throughout the entire river basin. These programs are accompanied by projects focused on the restoration of rivers and river banks, the recovery of wetlands, the restoration of sediment balances and hydrological regimes, the removal of polluted sediments, the control of invasive species, and other measures aimed at improving the ecological status of the river basin ecosystem.</p>	Other – International
74	Murray-Darling Basin Plan – Australia	<p>The Murray-Darling Basin Plan, developed under the Water Act 2007, provides a coordinated approach to water use across the basin’s four states and the Australian Capital Territory. It limits water use at environmentally sustainable levels by determining long-term average Sustainable Diversion Limits for both surface water and groundwater resources. The plan is an adaptive framework and will be rolled out over 7 years. The plan aims to achieve a balance between environmental, economic, and social considerations and allows for further improvements in outcomes through a sustainable diversion limits adjustment mechanism and a constraints management strategy. The plan is supported by Commonwealth investment in modernizing irrigation infrastructure and voluntary water purchasing through the environmental water recovery strategy.</p>	Other – International
75	Nile River Basin Cooperative Framework	<p>The Nile River Basin Cooperative Framework applies to the use, development, protection, conservation, and management of the Nile River system and its resources and establishes an institutional mechanism for cooperation among the states of the Nile Basin (Egypt, Sudan, Ethiopia, Uganda, Kenya, Tanzania, Burundi, Rwanda, and the Democratic Republic of Congo).</p>	Other – International
76	Danube River Protection Convention – Europe	<p>The Danube River Protection Convention forms the overall legal instrument for cooperation on transboundary water management in the Danube River Basin. It was signed in 1994 by 11 of the Danube Riparian States (Austria, Bulgaria, Croatia, the Czech Republic, Germany, Hungary, Moldova, Romania, Slovakia, Slovenia, and Ukraine) and the European Community. The Convention aims to ensure that surface waters and groundwater within the Danube River Basin are managed and used sustainably and equitably.</p>	Other – International

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Existing Programs with Ecological and Recreational Resource Components			
No.	Program	Program Summary	Upper/Lower/ Other Basin Program
77	International Commission for the Protection of the Rhine – Europe	For the benefit of the Rhine and of all of its tributaries, the members of the International Commission for the Protection of the Rhine (Switzerland, France, Germany, Luxemburg, Netherlands, and the European Commission) successfully cooperate with Austria, Liechtenstein, the Belgian region of Wallonia, and Italy. Focal points of work are sustainable development of the Rhine, its alluvial areas, and the good state of all waters in the watershed.	Other – International
78	Treaty between Uruguay and Argentina concerning the Rio Plata	The 1973 Rio Plata Treaty between Uruguay and Argentina developed a framework for cooperation between the two countries that describes agreed-upon uses of the river including navigation, fishing, and pollution control.	Other – International