Colorado State Wetland Program Summary



Click Here to Skip to Colorado Information about Wetland:

Regulation

Monitoring and Assessment

Water Quality Standards

Voluntary Restoration

Education and Outreach

Integration with Other Programs

SECTION A. QUICK OVERVIEW

Description of Colorado's Wetlands

Wetlands in Colorado include marshes, wet meadows, fens, riparian areas, playas, alkaline flats, and seep and springs.

State Definition(s) of Wetlands

The State of Colorado recognizes wetlands under the definition of "State waters" and therefore they are subject to basic standards for water quality. Under Colorado state law, wetlands are defined as "those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions." This is the same definition used by both the U.S. Environmental Protection Agency (EPA) and U.S. Army Corps of Engineers (ACOE) under the federal Clean Water Act (CWA).

Historic Wetland Loss /Gain in Colorado

Original Wetland Acreage	Remaining Wetland Acreage	Acreage Lost	% Lost
2,000,000	1,306,272	~700,000	-35%

The U.S. Fish and Wildlife Service estimates that Colorado originally contained 2 million acres of wetlands (Dahl 1990). There has been no attempt by the State of Colorado to validate that estimate, but it is likely reasonable. Currently available National Wetland Inventory maps place the remaining acreage at 1.3 million, representing a 35% loss from the historic acreage. However, roughly 40% of the currently

available mapping was originally delineated in the 1970s and has been shown to overestimate acreage. The true extent of wetland acres is likely closer to 1 million or just under. This would represent closer to 50% loss from the historic acreage.

Primary State Wetlands Web Page

There are two main wetland webpages for Colorado.

Colorado Natural Heritage Program (CNHP)'s Colorado Wetland Information Center Webpage: http://www.cnhp.colostate.edu/cwic/

Colorado Parks and Wildlife (CPW)'s Wetland Wildlife Conservation Program Webpage: http://cpw.state.co.us/aboutus/Pages/Wetlands.aspx

State Wetland Program Plan

Colorado Natural Heritage Program (CNHP) has a Wetland Program Plan for 2011-2015, which can be found at: http://water.epa.gov/type/wetlands/upload/cnhp-wpp2011-2015.pdf

The plan was not specifically written by a state agency, but does reflect partnerships between CNHP and state agencies. In the future, the State hopes to develop a multi-agency wetland program plan.

No Net Loss/Net Gain Goal

The State does not have a formal 'no net loss' goal because the State does not have a regulatory program outside of the federal program administered by the ACOE and EPA under the federal CWA. However, the federal program does adhere to the federal 'no net loss' policy. One-to-one replacement ratios are standard in Colorado for wetland permits, but ratios greater than one-to-one are infrequent because of the complexity and expense of water rights in Colorado.

The state does have an informal goal of net gain of wetland acres, which is largely implicit in existing non-regulatory programs. For example, Colorado Parks and Wildlife (CPW)'s non-regulatory Wetland Wildlife Conservation Program has protected, restored or created almost 220,000 acres of wetlands and adjacent habitat and more than 200 miles of streams since its inception in 1997.

In addition, the Colorado Department of Transportation (CDOT) requires one-to-one replacement ratios of both jurisdictional and non-jurisdictional wetland impacts occurring within rights-of-way. Also included in this replacement ratio are non-CDOT projects that are funded by Federal Highway Administration, such as local agency pedestrian trails. These policies are guided by Executive Order 11990 and Technical Advisor 6640.8A.

State Budget for Wetland Work

State Wetland	Regulatory	Monitoring and	Wetland Water	Voluntary
Management		Assessment	Quality	Restoration
Program Area			Standards	
Source A	State funds	U.S. EPA Wetland	None	State funds
	through Colorado	Program		through Colorado
	Dept. of Public	Development		Parks and Wildlife
	Health and	Grants		(CPW)
	Environment			
	(CDPHE)			
Source A Budget	\$100,000/year for	~\$200,000-	N/A	\$700,000 for on-
	401 Certification	\$300,000/year		the-ground
				restoration work
Source B	U.S. EPA Wetland	CPW		USFW
	Program			
	Development			
	Grants			
Source B Budget	\$50,000 – 100,000	Matching funds		Contribute match
	in some years	(~\$10,000-		to CPW
		25,000/year)		
Source C		CDOT		NRCS
Source C Budget		Grant funds for		Contribute match
		assessment		to CPW
		method		
		development		
		(~\$50,000/year)		

State Permitting Fees	YES	X_ NO
Amount:	N/A	
Agency:	N/A	

State Wetland-related Staffing

Program Area	Regulatory	Monitoring and Assessment	Wetland Water Quality Standards	Voluntary Restoration
Agency/Program Location	CDPHE WQ Division	CNHP / CSU	None	CPW
Number of Full-time Equivalent (FTE) Staff Positions	0.5 FTE for 401 Certification Program	5-6 FTE (grant funding provided to the university)	N/A	1 FTE
Agency/Program Location	CDOT			
Number of Full-time Equivalent (FTE) Staff Positions	4 FTEs for regulatory compliance			

Innovative Features

- Colorado Parks and Wildlife (CPW)'s Wetland Wildlife Conservation Program is an innovative, voluntary, incentive-based program that funds wetland restoration and enhancement on public and private land. The program is funded by state lottery dollars and hunting and fishing licenses, with matching funds from federal, state, and local partners. The program has awarded over \$25 million in state funds since 1997 to protect, restore or create almost 220,000 acres of wetlands and adjacent habitat and more than 200 miles of streams.
- Colorado has a robust wetland inventory and ambient assessment program, led by the Colorado Natural Heritage Program (CNHP) in partnership with CPW. Through this program, the ecological condition and habitat quality of Colorado's wetlands are being assessed one river basin at a time. The assessment method used for ambient monitoring is called the Ecological Integrity Assessment (EIA), which is a Colorado-specific version of the method used by Natural Heritage Programs across the country.
- All three ACOE districts in Colorado generally require a wetland functional assessment as part of
 an "Individual Permit" application for projects impacting 0.5 or more acres of wetland. The
 functional assessment method variously adopted by Colorado's ACOE districts is the Functional
 Assessment of Colorado Wetlands (FACWet), which was developed with funding from Colorado
 Department of Transportation (CDOT). Use of a different functional assessment method may be
 permissible with approval of ACOE district engineer.
- The same team that developed FACWet is currently developing a functional assessment method for streams, called the Functional Assessment of Colorado Streams (FACStream).

- Colorado has developed a Watershed Approach to wetland mitigation crediting which is being used evaluated in an in-program trial. Stream mitigation crediting protocols, which include Watershed Approach mitigation factors, are nearing completion.
- A template for In-Lieu Fee programs in the state is being developed through an effort jointly funded by the Colorado Water Conservation Board and the State Land Board.
- The Colorado Water Conservation Board is authorized to acquire water rights to protect wildlife by maintaining minimum stream flows.
- State law requires adequate protection of streams from the impact of activities by "agencies of the State," i.e., state departments and counties. In response to this statute, CPW and CDOT created a memorandum of agreement (MOA) that specifies a variety of best management practices to be followed during CDOT stream-crossing activities. The MOA also specifies impact thresholds above which more formal consultations and protections are required.
- A number of communities, such as Boulder and Fort Collins, have adopted wetland protection programs as part of broader greenway or stream corridor efforts.

SECTION B. REGULATION

How are Colorado's Wetlands Regulated?

In Colorado, day-to-day administration of the Section 404 CWA regulatory program, including permitting of stream and wetland mitigation, falls to the U.S. Army Corps of Engineers (ACOE). To oversee permit actions in the state, the ACOE works in coordination with the EPA and the state water quality agency – the Colorado Department of Public Health and the Environment (CDPHE) – and other agencies as circumstances dictate. The state's program is limited.

The State does recognize wetlands under the definition of "State waters" and therefore wetlands are subject to regulations by the Water Quality Control Division within the CDPHE (5 CCR 1002-31). The WQCD provides input on Section 404 permits through the Section 401 Certification Program. A few county and municipal governments have ordinances that apply to wetlands, but there is no comprehensive wetlands regulation program within the state.

Wetland Delineation

Delineation Method	Yes	Detail	No
Use State's Own			Χ
Delineation Method			
Use Corps '87 Manual in	Х	Wetland delineation is	
conjunction with current		conducted by	
regional supplements.		consultants	

Evaluation Methodology

All three ACOE districts in Colorado generally require functional assessment during Section 404 CWA Individual Permit applications involving impacts greater than 0.5 ac. The assessment method used for permits is the Functional Assessment of Colorado Wetlands (FACWet:

http://rydberg.biology.colostate.edu/FACWet), which was developed with funding from Colorado Department of Transportation (CDOT). The same team that developed FACWet is currently developing an assessment method for streams, called the Functional Assessment of Colorado Streams (FACStream). Colorado has developed a Watershed Approach to wetland mitigation that is being evaluated in an inprogram trial.

Exempted Activities

None specific in state law. However, ACOE does take into consideration some additional regional conditions provided by the state. Exemptions are the same as the Federal exemptions.

Special Provisions for Agriculture and Forestry

None specific in state law.

Penalties and Enforcement

Generally, Colorado lets the federal agencies take the lead on enforcement cases.

Permit Tracking

The ACOE is responsible for tracking Section 404 CWA permits. Mitigation banks and In-Lieu Fee programs are tracked on the ACOE Regulatory In-Lieu Fee and Banking Information Tracking System (RIBITS) web-accessible database.

State General Permit (PGP or SPGP) for 404

Permit Coverage	Yes	No	
Regional General Permit	X (RGP 12 for instream habitat improvement in Colorado)		
Statewide General Permit		х	

Assumption of Section 404 Powers

Colorado	Yes	No	Detail
Assumed		Х	
Applied for Assumption		Х	
Explored Assumption	Х		Assumption was investigated in 2003, but the decision was made not to pursue assumption.

Joint Permitting

N/A

Special Area Management Plans and Advanced Identification Plans

There are some Special Area Management Plans in the state. Contact the state for more information about contacts and locations.

Buffer Protections

Colorado	Yes	No
Buffer Protections		Χ

Detail: The State has no blanket buffer protections for wetlands; however several county or local government areas have buffer requirements.

Mitigation Policy

Mitigation plans developed as part of a Section 404 CWA permit application are reviewed by ACOE, who may require modification. The public comment period is typically how the State provides formal input on mitigation plans. When projects involve impacts to certain habitats, particularly streams, CPW may require mitigation under the State's Fish and Wildlife Impact Mitigation Policy (§ 37-60-122.2 Colorado Revised Statute).

The three ACOE districts in the state do not have uniform Standard Operating Procedures (SOPs) for mitigation. Because the Albuquerque District is the state's lead district, and it is part of the ACOE South Pacific Division, that Division's policies and SOPs are commonly deferred to in mitigation planning. Wetland mitigation crediting protocols based on South Pacific Division SOPs are being evaluated in an inprogram trial. Draft stream mitigation crediting protocols are nearing completion. Wetland and stream impact debiting protocols will be developed in 2016. Mitigation protocols will determine ratios based on functional lift or "fall" (i.e., impact) and mitigation ratios will be determined on a case-by-case basis. In practice, the complexity and expense of water rights in Colorado makes achievement of mitigation at ratios greater that one-to-one difficult.

Mitigation Tracking/Database

Basic data is collected for Section 401 certification by CDPHE and by CDOT related to wetland impacts and accompanying mitigation. The ACOE is responsible for tracking Section 404 CWA permits and mitigation. Mitigation banks and In-Lieu Fee programs are tracked on the ACOE Regulatory In-Lieu Fee and Banking Information Tracking System (RIBITS) web-accessible database.

SECTION C: MONITORING AND ASSESSMENT

Agency Responsible for Wetland Monitoring and Assessment

Inventory, monitoring and assessment of Colorado's wetlands has largely been led by the Colorado Natural Heritage Program (CNHP), a research unit of Colorado State University (CSU). Through partnerships with other agencies and organization, data generated through monitoring and assessment informs voluntary restoration priorities and, to a lesser degree, mitigation planning. EPA and CPW are the primary funding partners for the state's wetland monitoring and assessment work.

Mapping /Inventory

CNHP and CPW have partnered with the U.S. Fish and Wildlife Service (USFWS)'s National Wetland Inventory (NWI) Program to digitize all available NWI maps for the state. Though the entire state of Colorado was mapped by the NWI program in the 1970s and 1980s, most of the mapping was only available on paper maps. Between 2008 and 2014, CNHP and CPW digitized all existing mapper maps and digital NWI mapping is now available for the entire state. In addition to digitizing existing NWI maps, CNHP is also creating updated NWI maps for several priority areas of the state.

For more than 20 years, CNHP has also conducted a series of county-based inventory projects to identify high quality wetlands worthy of conservation. This information is available in project reports on the CNHP website and in spatial data depicting prioritized Potential Conservation Areas (PCAs).

Public Access to Wetland Maps

Digital wetland mapping is available to the public through two online mapping tools. USFWS supports the NWI Wetlands Mapper (www.fws.gov/wetlands/Data/Mapper.html), where users can view and download all official NWI data. In addition, CNHP and CPW have developed the Colorado Wetlands Inventory (www.cnhp.colostate.edu/cwic/location.asp), an online mapping tool that displays Colorado NWI data plus data from several non-NWI wetland mapping projects, such as playa wetlands mapped on the eastern plains or fen wetlands mapped in the mountains.

Wetland Classification and Assessment

CNHP has led work on wetland classification and assessment in Colorado for more than 20 years. Much of CNHP's work in classification and assessment has been funded by EPA Region 8 Wetland Program Development Grants, with matching funds from state and local partners, particularly CPW.

In Colorado, wetlands are classified at two levels of specificity: 1) Ecological Systems are broad classes of wetlands based on biologic and physical characteristics and 2) plant associations are finer classes based on individual species combinations. There are 15 wetland and riparian Ecological Systems and over 200 wetland and riparian plant associations. More information on wetland classification in Colorado can be

found on the classification section of CNHP's Colorado Wetland Information Center webpage (www.cnhp.colostate.edu/cwic/ident.asp).

CNHP has developed multiple tools and resources for wetland classification and identification, including:

- Field Guide to Colorado Wetland Plants (www.cnhp.colostate.edu/cwic/ident/fieldGuide.aspx)
- Field Guide to Common Wetland Plants of Colorado's Eastern Plains (www.cnhp.colostate.edu/cwic/ident/fieldGuideEP.aspx)
- Field Guide to the Wetland and Riparian Plant Associations of Colorado (www.cnhp.colostate.edu/download/documents/2003/wetland_field_quide_2003.pdf)
- A digital App for wetland plants and wetland mapping is currently being developed

In 2008, CNHP and CPW initiated a statewide effort to systematically assess the ecological condition and habitat quality of Colorado's wetlands. Through an ongoing series of EPA grants, CNHP and CPW are assessing Colorado's wetlands one river basin at a time using a probabilistic, ambient monitoring approach. As of 2015, three out of ten major river basins have been assessed and a fourth is underway.

The primary assessment method used for ambient monitoring is the Ecological Integrity Assessment (EIA) framework, which is used by Natural Heritage Program across the country. The assessments rely on Floristic Quality Assessment (FQA) indices, based on coefficient of conservatism values (C-values) that were developed by a panel of Colorado botanical experts. CNHP and CPW are also developing species specific Habitat Quality Indices (HQI), which evaluate how well a given wetland can support priority wetland-dependent wildlife species. More information on wetland assessment in Colorado can be found on the assessment section of CNHP's Colorado Wetland Information Center webpage (www.cnhp.colostate.edu/cwic/assessment.asp).

In addition to the EIA method, the Functional Assessment of Colorado Wetlands (FACWet: http://rydberg.biology.colostate.edu/FACWet) is generally used when functional assessment is required by ACOE under Section 404 of the CWA.

Statewide Monitoring Plan

Colorado does not have an official state-sponsored inter-agency monitoring plan at this time, other than the goals outlined in the CNHP Wetland Program Plan

(http://water.epa.gov/type/wetlands/upload/cnhp-wpp2011-2015.pdf) and CPW Wetland Wildlife Conservation Program Strategic Plan

Overall Wetland Gain and Loss Tracking System

Because wetland-related activities are spread across several state and local government agencies, a comprehensive wetland-gain-and-loss tracking system does not exist.

Monitoring and Assessment Types

Level	None	Level 1	Level 2	Level 3
Colorado		Х	Х	Х
Туре	None	IBI	Conditional	Functional

			(Condition)
Colorado	Х	Х	X

Frequency	None	Project-Specific	Ongoing
Colorado		X	X
			(Series of grants)

Detail: Colorado has an ongoing basinwide monitoring effort, as mentioned above.

Participation in the National Wetland Condition Assessment (NWCA)

NWCA Study Type	Yes	No
National Study	Х	
State Intensification Study		Χ

Wetlands and Climate Change Adaptation

While Colorado has climate issues on the radar, including consideration of wetlands, there are no active projects that have worked on these issues in tangible ways. Colorado first developed a Colorado Climate Action Plan in 2007 and issued a revised Colorado Climate Plan in 2015. Although most of the plan is organized around the reduction of greenhouse gas emissions (mitigation), there is explicit mention of wetlands, water resources, and the adaptation of these to the impacts of climate change. These impacts are not measured, but have been discussed. The ski industry and water access are the primary focus of climate change efforts in Colorado. The 2015 Colorado Climate Plan is available at: http://cwcb.state.co.us/environment/climate-change/Pages/main.aspx.

The Colorado Climate Plan calls for scientific inquiry into the specifics of Colorado's climate future. Consistent with this, Colorado Parks and Wildlife is working to refine its understanding of the possible impacts from climate change on crucial habitats and movement corridors. The State's 2015 Wildlife Action Plan includes an analysis of climate change impacts to habitat, including wetlands.

SECTION D: WATER QUALITY STANDARDS

Wetlands Water Quality Standards

The Water Quality Control Division implements water quality standards for wetlands and other waters. It also operates a Section 401 program. In Colorado, stream segments are classified according to use and those classifications identify the uses that are to be protected on a given stream segment. Numerical standards for specific pollutants are then adopted which are designed to protect the designated uses. Water quality standards for wetlands were developed for Colorado by the Water Quality Control Commission in 1993. Not much work has been done on this front since then.

Туре	None	Use Existing WQ Standards	In Process	Adopted	Future Direction
Wetland-					
specific		X			
Designated					
Uses					
Narrative					
criteria in the					
standards to				X	
protect				(Specific to	
designated				wetlands)	
wetland uses					
Numeric					
criteria in the					
standards					
based on	X				
wetland type					
and location to					
protect the					
designated uses					
Anti-					
degradation		X			
policy includes					
wetlands					

Designated Uses for Wetlands

Designated uses are the same as those applied to all waters in the state. No specification of designated uses specifically for wetlands has occurred.

Narrative/Numeric Criteria for Wetlands

Colorado Regulations, provide, in part: Standards for Surface Waters in Wetlands:

"(A) Tributary wetlands to which the interim classifications referenced in section 31.13(1)(e)(iv) apply, shall be subject to the following interim standard: (1) Until such time as the Commission adopts site-specific standards for the tributary wetland, water quality in the wetland shall be maintained for each parameter at whichever of the following levels is less restrictive: (a) ambient quality, or (b) that quality which meets the numeric standards (except for numeric standards for pH, dissolved oxygen, and any standard established for the protection of a domestic water supply use) of the tributaries of the surface water segment to which the wetland is most directly hydrologically connected. Where the applicable numeric standard is based on section 31.16, table III, of this regulation, the numeric standard applicable to the wetland may be implemented taking into account the water effect ratio of the pollutant. (2) Ambient quality shall be determined in accordance with section 31.7(1)(b)(ii) and shall take into account the location, sampling date, and quality of all available data.

Colorado water quality numeric standards apply to wetlands with exceptions for some parameters and has narrative standards at 31.11(1)(b) protecting water quality specific to wetlands.

Anti-degradation Policy

Colorado applies the state's existing anti-degradation policy to wetlands, making the treatment of wetlands the same as all other waters in the state.

SECTION E: VOLUNTARY WETLAND RESTORATION

Program Description

Colorado Parks and Wildlife (CPW) has a formal, voluntary, incentive-based program whose mission is to protect wetlands and wetland-dependent wildlife on public and private land. The program is called the Wetland Wildlife Conservation Program and is funded by lottery money, license fees and duck stamps. (http://cpw.state.co.us/aboutus/Pages/Wetlands.aspx). Funds for this work have been upwards of \$1.5 million per year in the past and are currently funded at around \$700,000. This work focuses on wildlife habitat restoration and enhancement, but the Wetlands Program is also involved with wildlife and aquatic resource inventories, education and outreach, and project monitoring and evaluation. In addition to the CPW Wetlands Program, numerous federal agencies and non-profits work to encourage restoration and conservation of valuable wetland habitat.

The CPW Program does not define wetlands explicitly for its non-regulatory programs. Rather, projects are evaluated based on their contribution to protection and enhancements of habitats important to wetland-dependent wildlife. In addition to classic wetlands, projects eligible for assistance in the CPW Program include riparian areas, ephemeral wetland habitats (e.g. playas), and adjacent non-wetland buffer zones.

One of the major implementing structures of CPW's Wetlands Program is the nine wetlands focus area committees (FACs). These committees are located in each of the state' major drainages and provide recommendations on restoration projects.

Types of Wetland Restoration Work Funded by the State	Included in Program
Wetland restoration	X
Private Land Restoration	X
Public Land restoration	Х
Technical Assistance	Х
Tax Incentives	
Other	

Effort	Nothing in the Works	Planning	In Progress	Complete
Program has a set of restoration				X
goals				
Coordinate with relevant				X
agencies that outline				
restoration/protection goals				
and strategies and timeframes				
Develop multi-agency body to		X		
coordinate restoration/				
protection efforts				

Set restoration goals based on		Х	
agency objectives and available			
information			

Goals for Voluntary Restoration Projects:

The primary goal for Colorado's voluntary restoration program is to protect wetlands and wetland-dependent wildlife on public and private land.

Goal	Yes	No
NPS		
TMDLs		
Habitat	Х	
Coastal Protection		
Floodwater Storage		
Groundwater		

Incentives and Opportunities Detail:

- Tax Incentives: A credit is allowed against incomes taxes owed for those who donate all or part of the value of a perpetual conservation easement in gross to a governmental entity or a charitable organization. The donation must meet the criteria of a "qualified conservation contribution" pursuant to section 170 (h) of the Internal Revenue Code (see 38-30.5-101, et seq., C.R.S.).
- **Funding:** CPW offers funding, currently through competitive grants, for wetland restoration, enhancement, and creation projects throughout Colorado.
- **Technical Assistance:** A wide variety of technical assistance is available through the CPW wetlands program, including pre-project site evaluation and natural resource inventories, legal and real estate-related activities, hydraulics and hydrology, and habitat management and restoration planning.
- Other Non-regulatory Incentives for Private Landowners: CPW wetlands program funds are used to
 fund lease payments to farmers and ranchers involved in the programs of USFWS Partners for Fish
 and Wildlife, NRCS, etc.

Colorado Landowner Guides/Handbooks to Assist with Voluntary Restoration Efforts Under development

Eligibility Criteria

The state does not use a specific evaluation methodology. Projects are evaluated based on their contribution to protection and enhancement of habitats important to wetland-dependent wildlife. The CPW program hopes to use the Habitat Quality Indices currently being developed with CNHP for future project evaluation and post-restoration monitoring.

Restoration Database

Very basic data is collected by at CPW regarding wetland acreage gains (protection, enhancement, creation) and miles of riparian systems restored.

Staffing (Wetland Restoration Program Staff)

One full-time Wetlands Program Coordinator.

Brian Sullivan
Wetlands Program Coordinator
Colorado Parks and Wildlife
317 W. Prospect Rd.
Fort Collins, CO 80526
970-472-4306
brian.sullivan@state.co.us

SECTION F. INNOVATIVE OR HIGHLY EFFECTIVE EDUCATION AND OUTREACH

Recent outreach efforts have primarily been focused on the developed of multiple tools and resources for wetland classification and identification. CNHP has developed a series of publications, including:

- Field Guide to Colorado Wetland Plants (<u>www.cnhp.colostate.edu/cwic/ident/fieldGuide.aspx</u>)
- Field Guide to Common Wetland Plants of Colorado's Eastern Plains (www.cnhp.colostate.edu/cwic/ident/fieldGuideEP.aspx)
- Field Guide to the Wetland and Riparian Plant Associations of Colorado (www.cnhp.colostate.edu/download/documents/2003/wetland field guide 2003.pdf)
- A digital App for wetland plants and wetland mapping is currently being developed

In addition to the publications, CNHP offers classes on wetland plant identification and wetland assessment methods to the general public.

SECTION G. INTEGRATION WITH OTHER STATE PROGRAMS

Program Area	Yes/No	Description of the Connection	Contact for Follow-up
NPDES/Stormwater	Minimal	The state has some connections with Urban	WQCD
iti DES/Storiliwater	iviiiiiiiai	Drainage Areas for basins within the Denver	Permits
		Metro Area. Additionally, there are	Section
		connections with 401 certifications and	Section
		stormwater managers, especially related to	John
		issues of flooding at the local level.	Hranac/
		issues of moderning at the local level.	Scott
			Garncarz
			for 401
			certification
			issues
301	NO		
303(d)	NO		
TMDL	NO		
Climate Change/	NO	Only informally (See climate change section)	
Climate Resiliency			
Water Supply	YES	Colorado Water Conservation Board (CWCB) is	Chris Sturm
Planning		developing the Colorado Water Plan which	
		includes consideration of wetland and stream	
		habitats in water supply planning. The CWCB	
		includes a number of consumptive and non-	
		consumptive use programs which work in	
		coordination with water supply planning and	
		source water protection. The CWCB also	
		administers minimum stream flow	
		requirements which can strongly influence	
		water supply planning. Individual water	
		providers, such as municipalities and water	
		conservancy districts, work in conjunction	
		with Federal and State agencies during water	
		supply planning.	
Land Use Planning	YES	CNHP has worked with land use planners at	Joanna
		the county and city level for many years	Lemly
		identifying wetlands conservation priorities.	
Watershed	YES	Connection through development and	Brad
Planning		implementation of the Colorado Watershed	Johnson for
			mitigation

		Approach. One of the major implementing structures of CPW's wetlands program is the nine "wetlands focus area committees." These committees are located in each of the state' major drainages.	planning / Brian Sullivan for restoration planning
		Long-term plans include linking these	
		committees with CDPHE's activities related to	
		watershed water quality monitoring.	
Flood/Hazard	NO		
Mitigation			
Coastal Work	N/A		
Transportation (DOT)	YES	Efforts have recently begun to coordinate the wetland impact and mitigation activities of CDOT with CPW's wetlands program.	Becky Pierce

State Wetland Program Continuum

State of Colorado	Core Element 1: Regulation (401 Certification	Core Element 2: Monitoring and Assessment	Core Element 3: Wetland Water Quality Standards	Core Element 4: Voluntary Restoration
	Program)			
Mature Program	X (CDPHE)	X (CNHP)		X (CPW)
Working on Implementation				
Working on Developing				
Early Stages			X (CDPHE)	

Special Considerations

- The prior appropriations doctrine in Western water law can constrain wetland mitigation and
 creation efforts. Much like row crops, wetlands are considered a "consumptive use" of water in
 Colorado, thus the amount of water they use via evapotranspiration must be accounted for. Moving
 wetland mitigation sites away from the original impact site may also be problematic from the
 standpoint of impacting unrelated water rights.
- The transfer of water from natural drainages for agricultural, industrial, and municipal use have altered the natural flow regime of most streams and rivers in Colorado. Those changes also complicate restoration efforts along those watercourses. By virtue of their position in the landscape, riparian systems have experienced a disproportionate amount of impact from human development (e.g., road corridors, housing, etc.). Those same pressure shave increased the value of riparian land, making wetland protection and creation in those areas expensive.

Contact Person(s)

Joanna Lemly
Wetland Ecologist
Colorado Natural Heritage Program
Colorado State University
Fort Collins, CO 80523-1475
970-491-2127
Joanna.lemly@colostate.edu

Brad Johnson, Ph.D., P.W.S.

Department of Biology

Colorado State University

Fort Collins, CO 80523-1878

bjohnson@lamar.colostate.edu

Brian Sullivan
Wetlands Program Coordinator
Colorado Parks and Wildlife
317 W. Prospect Rd.
Fort Collins, CO 80526
970-472-4306
brian.sullivan@state.co.us

Becky Pierce
Wetland Program Manager
4201 E. Arkansas Ave., Shumate Bldg
Denver, CO 80222
303-512-4051
rebecca.pierce@state.co.us

John Hranac
Surface Water Specialist
Colorado Department of Public Health and Environment
Water Quality Control Division, WQCD-EDU-B2
4300 Cherry Creek Drive South
Denver, CO 80246
303-692-3586
john.hranac@state.co.us

Useful Websites

State Government Programs

- Colorado Parks & Wildlife
 Wetland Wildlife Conservation Program
 http://cpw.state.co.us/aboutus/Pages/Wetlands.aspx
- Colorado Department of Transportation
 Wetlands Program
 http://www.coloradodot.info/programs/environmental/wetlands
- Colorado Department of Public Health & the Environment Water Quality Control Division https://www.colorado.gov/cdphe
- Colorado Water Conservation Board http://cwcb.state.co.us/Pages/CWCBHome.aspx

Federal Government Programs

USDA Natural Resources Conservation Service
 Wetlands Reserve Program
 http://www.co.nrcs.usda.gov/programs/wrp/wrp.htm

DOI US Fish & Wildlife Service
 Colorado Partners for Fish and Wildlife Program
 http://www.fws.gov/mountain-prairie/pfw/colorado/co2.htm

Other Organization Wetland Links

- Colorado State University
 Colorado Natural Heritage Program (CNHP)
 http://www.cnhp.colostate.edu/
- 2. CNHP's Colorado Wetland Information Center http://www.cnhp.colostate.edu/cwic/
- 3. Colorado Riparian Association http://coloradoriparian.org/