

Wyoming State Wetland Program Summary



Photo Caption: Alkai Lake Wetland in Wyoming
Photo credit: Wyoming Partners for Fish and Wildlife

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Section A. Quick View

Description of Wyoming's Wetlands

Palustrine wetlands occur throughout Wyoming and include emergent wetlands such as seasonally flooded basins or flats, fresh marshes, fresh meadows, saline marshes, and playas; forested wetlands such as swamps; scrub-shrub wetlands such as shrub swamps and bogs; unconsolidated bottom wetlands such as small stock ponds. Lacustrine wetlands are limited to the shallows of reservoirs and naturally occurring lakes. Riverine wetlands associated with high-gradient streams are concentrated in the mountainous areas, whereas wetlands associated with low-gradient streams and intermittent streams are more prevalent in basins and plains.

State Definition of Wetlands

Wyoming does not specifically define wetlands. Wyoming defines "waters of the state" as "all surface and groundwater, including waters associated with wetlands, within Wyoming. Wyoming Water Quality Rules and Regulations define wetlands as "those areas in Wyoming having all of the following characteristics: (A) hydrophytic vegetation; (B) hydric soils; and (C) wetland hydrology." Wetlands fall under a general water classification scheme that assigns waters to one of four categories of varying quality. Wetlands adjacent to classified waters are classified in the same category as the adjacent water.

Historic Wetland Loss/Gain in Wyoming

Original Wetland Acreage	Remaining Wetland Acreage	Acreage Lost	% Lost
2,003,192	1,251,835	751,835	38%

Source: US Fish and Wildlife Service (Dahl, 1989)

Wetland Program Plan

Wyoming does not have a formal EPA-approved state wetland program plan at this time. However, the state does have a *Wyoming Wetland Conservation Strategy* which was submitted to EPA. The strategy document can be found at:

https://wgfd.wyo.gov/web2011/Departments/Wildlife/pdfs/HABITAT_WYWETLANDSCONSERVATION000332.pdf. As some elements were missing, it was not formally approved by EPA as a state wetland program plan, but it does continue to guide work on wetlands in the state.

Primary State Wetland Web Pages

Several state agencies, federal agencies, and non-governmental organizations are partners in the Wyoming Bird Habitat Conservation Partnership. Their website directs the public to different activities by partners working on wetland efforts:

<http://iwjv.org/partner-state/wyoming-bird-habitat-conservation-partnership>

State Resources for Wetland Work

	Core Element 1: Regulation	Core Element 2: Monitoring & Assessment	Core Element 3: Wetland Water Quality Standards	Core Element 4: Voluntary Restoration
State Agency	DEQ	DEQ	None	Game and Fish
Sources	Information unavailable	Information unavailable	Information unavailable	Information unavailable
Amount	Information unavailable	Information unavailable	Information unavailable	Information unavailable
Staffing	< 0.5 FTE for 401 Certification	~0.10 FTE for special projects	Information unavailable	No dedicated positions; ~1 FTE cumulative across staff related to habitat access and wildlife
State Agency		The Nature Conservancy (Subcontractor of the state)		
Sources		Grant funds		
Amount		Information unavailable		
Staffing		1 FTE for NWCA wetland assessments		

Description: There is almost no money designated for wetland work at the state level and any funding is ad hoc. Funding sources for wetlands conservation are federal programs. Wyoming Wildlife and Natural Resources Trust (WWNRT) supports work related to wetlands and riparian enhancement. For more information on funded projects, go to: <https://sites.google.com/a/wyo.gov/wwnrt/projects-funded>

Wetland Permit Fees

Yes/No	YES
Amount	\$100
State Agency	WDEQ

Innovative Features and New Programs/Initiatives

- *Priority Wetland Complexes with Baseline Profiles:* EPA Wetland Program Development Grants have been used to determine nine priority wetland complexes within the state and to perform baseline profiles for those complexes. Baseline wetland inventories and condition assessments are in various stages of completion for the following wetland complexes: Upper Green River basin, Laramie Plains, the Goshen Holes, and the Little Snake/Muddy Creek and Red Desert/Great Divide Areas.

Models and Templates

The Nature Conservancy has adapted other wetland assessment methods (USA RAM, Colorado Ecological Integrity Assessment, Avian Richness Evaluation Method) for use in Wyoming.

No Net Loss/Net Gain Goal

There is not a no net loss goal in statute, but is the basic premise for the state's wetland bank.

REGULATION

Wetland protection in Wyoming is primarily provided by under the state's water quality rules and regulations and the Wyoming Wetlands Act (WWA). The Wyoming Department of Environmental Quality (WDEQ) administers both of these programs, with Section 401 certification being the primary form of state-level wetland regulation.

Water Quality Rules and Regulations (Chapter 1, Section 12) also protect wetlands from point and nonpoint sources of pollution, unless mitigation is approved. WQRR (Chapter 2, Section 7) describes the mitigation requirements for disturbing more than one (1) acre of wetlands. These regulations inform conditions for 401 certifications. The Corps does not enforce 401 Certifications.

Wyoming Wetlands Act. The Wyoming Wetlands Act is a notification program for draining wetlands over five acres. It applies to any "naturally occurring or man-made wetland, or any series thereof, which has an area comprising five acres or more." The act requires that a party wishing to drain a wetland submit the appropriate paperwork to WDEQ. There is no application or approval process. The act also

established a mitigation banking program. If a party fails to comply with the notification requirement, he or she may not take advantage of the banking program (WS 35-11-301 to WS 35-11-313. State notification program for draining wetlands over 5 acres).

In WY Statute # 89-849 to 89-862, Wyoming identifies areas of critical concern; local governments must adopt regulations consistent with state guidelines for these areas or the state may adopt a land use plan for the area.

Wyoming Game and Fish Department (WGFD) and the Wyoming Division of State Parks and Historic Sites have developed a Statewide Comprehensive Outdoor Recreation Plan that includes a chapter on state wetlands acquisition priorities.

Wetland Delineation

Delineation Guidance	YES	NO	Detail
State has own delineation guidance		X	
Use Corps' 1987 Manual and Regional Supplements	X		The Corps conducts delineations for the state; occasionally the DOT does a delineation and uses this manual when it does.
Other		X	

Evaluation Methodology

Wyoming Department of Transportation (WYDOT) delineates wetlands for road projects and performs functional assessments as well, using the *Montana DOT Assessment Method*. Condition assessment monitoring performed by The Nature Conservancy (TNC) has utilized and adapted the *USA RAM* and the *Colorado Ecological Integrity Assessment*.

Exempted Activities

Exemptions are comparable to federal. There is an exemption for disturbances of isolated wetlands resulting from mining operations conducted pursuant to mining permits issued by WDEQ. However, these exemptions are not more restrictive than the Surface Mining Control and Reclamation Act of 1977 (SMCRA).

Wyoming Water Quality Rules and Regulations (Chapter 1, Section 12) exempts protection of wetlands for those created by point or non-point sources.

Special Provisions for Agriculture and Forestry

Same as federal.

Penalties and Enforcement

Violations of water quality regulations can be assessed up to \$10,000/day. The penalty has not been enforced for wetlands to date. Enforcement is conducted by the DEQ Water Quality Division Enforcement Section.

Permit Tracking

The state doesn't issue permits. All enforcement to date is by the U.S. Environmental Protection Agency and U.S. Army Corps of Engineers (404 program).

State General Permit for 404 (statewide vs. regional coverage)

Permit Coverage	YES	NO	Detail (Type of Permit)
Regional General Permit		X	
Statewide General Permit	X		A state general permit has been established to cover isolated wetlands, and a mitigation requirement is included in this general permit (WQRR Chapter 2, Section 7 - http://spswy.state.wy.us/Rules/RULES/5680.pdf)

Assumption of Section 404 Powers

Status	YES	NO	Detail
Received Assumption		X	
Applied for Assumption		X	
Explored Assumption	X		Rejected in 1981 and 1991 by state legislature

Joint Permitting

Joint 401/401 application and public notice procedures are implemented in the state. Public notice only applies to individual permits. The State of Wyoming has a separate public notice for impacts on Class 1 waters.

Special Area Management Plans and Advanced Identification Plans

Regional Step-down plans have been completed for seven of the nine priority wetland complexes identified in the Wyoming Wetlands Conservation Strategy and one additional complex. The regional plans describe wetland resources and identify threats and conservation needs on a more focused, regional scale; The plans will be posted on the WY Game and Fish and Intermountain Quest Joint

Venture websites in the new future. Final plans have been completed for the following wetland complexes: Goshen, Laramie Basin, Little Snake, Red Desert, Upper Green Basin, Bear River, Snake River, and Salt River. Plans are under construction for the Wind River Basin and Little Missouri/Belle Fourche complex.

Buffer Protection

The state does not have any regulations associated with the protection or mitigation of buffer zones.

Mitigation Policy

All 404 Program enforcement to date is by the U.S. Environmental Protection Agency and U.S. Army Corps of Engineers. Wyoming Water Quality Rules and Regulations (Chapter 2, Section 7) requires mitigation for losses greater than one acre of isolated wetlands. General standards for the program are included in the water quality rules and regulations and in guidelines published by WDEQ. WDEQ considers functions and values of impacted wetlands when determining adequate mitigation and allows for the option of wetland banking.

The Wyoming Wetlands Act also established Wyoming’s mitigation banking program. As described in WDEQ’s banking guidelines, Wyoming uses the “open banking concept,” i.e., anyone who voluntarily undertakes a wetland creation, restoration, or enhancement project can receive state credit. Credits are tied to the property. Currently there are only federal mitigation banks in the state.

Mitigation Database

The state does not have a wetland mitigation database. The Corps uses the federal RIBITS database.

WATER QUALITY STANDARDS

Wetland Water Quality Standards (This information may not be complete; please contact the state for the most current status on wetland water quality standards)

Type	None*	Use Existing WQ Standards	In Process	Adopted	Future Direction
Wetland-specific Designated Uses	X				
Narrative criteria in the standards to protect designated wetland uses		X			

Numeric criteria in the standards based on wetland type and location to protect the designated uses	<p style="text-align: center;">X</p>				
Anti-degradation policy includes wetlands		<p style="text-align: center;">X</p>			

Description:

- Although the state relies on existing water quality standards, these standards were written anticipating the application of the standards to wetlands.
- The only water quality regulations that officially relate to wetlands in Wyoming include: 1) WS 35-11-301 to WS 35-11-313. State notification program for draining wetlands over 5 acres and 2) WY Stat. ## 89-849 to 89-862, in which the State identifies areas of critical concern; local governments must adopt regulations consistent with state guidelines for these areas or the state may adopt a land use plan for the area.
- Wyoming’s narrative standard, combined with the isolated water rule in the Wyoming Water Quality Rules and Regulations, give WDEQ the authority to regulate activities on wetlands that fall outside the jurisdiction of the Corps. The isolated water rule requires parties who intend to fill a naturally occurring isolated wetland over one acre in size to apply for a permit. A state general permit has been established to cover isolated wetlands, and a mitigation requirement is included in this general permit.

Monitoring and Assessment

Agency Responsible for Wetland Monitoring and Assessment

The state does not have a formal wetland monitoring and assessment program. Although the state would like to develop one, there are not currently the resources available to make this possible. The Wyoming Department of Environmental Quality does grant-funded, project-based wetland monitoring and other water resource monitoring and assessment. WDEQ has a stream monitoring program in place and also manages the state’s 319 program.

Wyoming's wetland monitoring and assessment program has the following characteristics:

Level	None	Level 1	Level 2	Level 3
<i>Wyoming</i>	X	One-time Only	One-time Only	One-time Only

Detail: There have been one-time projects conducted by The Nature Conservancy and sponsored by WGFD that have worked on Level 1, Level 2 and some Level 3 monitoring. Currently, working on project(s) to go back and conduct Level 2 monitoring with a representative sample.

Type	None	IBI	Conditional	Functional
<i>Wyoming</i>		X	X (Buffer analysis and vulnerability assessment for impairment)	X (Wildlife functional integrity assessment)

Detail: There have been one-time projects conducted by The Nature Conservancy and sponsored by WGFD that have used *USRAM* and *Colorado Ecological Integrity* assessment tools.

Frequency	None	Project Specific	Ongoing
<i>Wyoming</i>		X	

Detail: The state has completed projects to provide a one-time snapshot of three of nine priority wetland complexes.

National Wetland Condition Assessment (NWCA) Participation

NWCA Study Type	Yes	No
National Study	X	
State Intensification Study		X

Detail: The EPA contracted the Colorado Natural Heritage Program to conduct sampling in the state for the NWCA. The Wyoming Natural Diversity Database (WYNDD) plans to participate in the 2015 NWCA.

Mapping /Inventory

The National Wetland Inventory (NWI) is complete for the state. Additionally, the University of Wyoming has done some GIS mapping of wetlands.

Public Access Portal for Wetland Maps

The Wyoming Geographic Information Science Center (WYGISC) through the University of Wyoming is a clearinghouse for geospatial data in Wyoming, including NWI coverage, wetland complex coverages produced by The Nature Conservancy, and other wetland information. To access the site, go to:

<http://www.uwyo.edu/wygisc/>

Also available is the Wyoming Interagency Spatial Database and Online Management Tool (WISDOM), which can be accessed by going to: <http://wisdom.wygisc.org>

Wetland Classification and Assessment

- Baseline wetland inventories and condition assessments are in various stages of completion for the following wetland complexes: Upper Green River basin, Laramie Plains, the Goshen Holes, and the Little Snake/Muddy Creek and Red Desert/Great Divide areas.
- The Cowardin classification system was used for stratification in analysis of the Upper Green River basin wetlands. The HGM classification system was used to stratify the Laramie Plains wetlands and Goshen Holes Wetlands.
- The USA RAM was used for condition assessment in the Upper Green River basin. The Colorado Ecological Integrity Assessment was used for condition assessment on the Laramie Plains and Goshen Holes wetlands.

Overall Wetland Gain and Loss Tracking System

The state does not have a tracking system in place, but does conduct small, basic assessments of riparian habitat during stream monitoring. The following reference is used for the basic statewide statistic: *Dahl, T.E. (1990). Wetland losses in the United States 1780s to 1980s. US Department of the Interior, Fish and Wildlife Service, Washington, DC.*

Voluntary Wetland Restoration

Type of Work	Yes	No	Description
Fund Wetland Restoration (may include easement arrangements)	~X		Through WGFD, 319 funding for projects that include wetland restoration; WWNRT is an independent fund that the state legislature set up that operates off corpus interest and contributions
Private land restoration	X		
Public land restoration		X	NGO and Private Only
Technical assistance	X		WWNRT; on an ad hoc basis from WGFD
Tax incentives		X	
Other			

Program Description

The WGFD funds wetland construction projects through its Habitat Grant Program. Project proposals are assessed on a case-by-case basis. The department can also fund construction projects by applying for moneys from the Wyoming Wildlife and Natural Resource Trust Account, which reserves a portion of the state’s mineral royalties for wildlife habitat improvement. This is a general funding program to which state agencies, conservation organizations, and private landowners may apply, and it could be used for wetland projects. The primary purpose of both these programs is to maintain wildlife habitat.

Effort (Wildlife and Natural Resource Trust)	Nothing in the Works	Planning	In Progress	Complete
Program has a set of restoration goals	X			
Coordinate with relevant agencies that outline restoration/protection goals and strategies and timeframes	X			
Develop multi-agency body to coordinate restoration/protection efforts				X
Set restoration goals based on agency objectives and available information	X			

Detail: The Wyoming Wildlife and Natural Resource Trust (WWNRT) has a very broad mission, but no specific goals. Projects are ranked on their own merit through a competitive process and include a wide variety of projects approved for their contributions to public benefit. Application process identifies types of projects that are qualified. The board of WWNRT is not made up of representatives of state agencies, but rather appointed representatives by geography.

Goals for Restoration Projects For more information about The Wildlife and Natural Resource Trust (WNRT), please contact Bob Budd, Director of WNRT.

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

Detail: Much of the voluntary wetland restoration work being done in Wyoming involves groups that are not state agencies, such as Wyoming Partners for Fish and Wildlife – U.S. Fish and Wildlife Service, Natural Resources Conservation Service, Ducks Unlimited, and other local interest groups interested in habitat improvement.

Wyoming landowner guides/handbooks to assist with voluntary restoration efforts:

None.

Innovative Public Outreach/Education Activities

The Wyoming Game and Fish Department has produced a book entitled, *Wetland and Riparian Areas of the Intermountain West: Ecology and Management*. The book offers a state-of-the-art survey of the ecology and management practices of wetland and riparian areas in the Intermountain West. For more information:

https://books.google.com/books?id=EkfgIdeVzvEC&dq=Wyoming+Fish+and+Game+Department+wetland+and+riparian+book&source=gbs_navlinks_s

The Wyoming Bird Habitat Conservation Partnership has prepared several outreach documents, mostly published on the State Partner link on the Intermountain West Joint Venture website:

<http://iwjv.org/partner-state/wyoming-bird-habitat-conservation-partnership>

Wyoming Wetlands: Conversation Priorities and Strategies:

<http://www.nature.org/ourinitiatives/regions/northamerica/unitedstates/wyoming/tnc-wetlandbrochure-v8.pdf>

The Wyoming Game and Fish Department also funded and contributed to: *McKinstry, M., Hubert W. and S. Anderson (Eds). (2004),. Wetland and riparian areas of the intermountain west: Ecology and management. Austin: University of Texas Press.*

Integration

Entity/Program Area	Yes/No	Description of the Connection	Contact for Follow-up
NPDES/Stormwater	NO		
301	NO		
303(d)	NO		
TMDL	YES	Example: Establishing wetland complexes to pull pollutants out	
Climate Change/Climate Resiliency	YES	Habitat and species vulnerability study by WGFD, WYNDD and TNC	
Land Use Planning/watershed planning	YES	Wyoming State Water Basin Plans address some expectations re: wetland resources; most planning of this type is at the local level.	http://waterplan.state.wy.us/

Flood/Hazard Mitigation	NO		
Coastal Work	NO		
Wildlife Action Plan	YES	The State's Wildlife Action Plan is based on a wetland strategy	Written by Wyoming Department of Game and Fish
Statewide Comprehensive Outdoor Recreation Plan (SCORP)	YES	Working with the Wyoming Department of Game and Fish to develop a SCORP	
Other (Specify)	NO		

Climate Change and Wetlands Work in Wyoming

Wyoming does not typically work on climate change issues at the state level. However, the Regional Step Down Plan in the Goshen Region includes subjective assessment of climate vulnerability.

The Nature Conservancy, in partnership with the WGFD and the WYNDD published a document studying the effects of climate change on terrestrial wildlife habitats (including wetlands) and priority areas, as well as its effect on sensitive species within Wyoming. The report can be downloaded from: <http://www.nature.org/ourinitiatives/regions/northamerica/unitedstates/wyoming/science/wyoming-wildlife-vulnerability-assessment-summary.pdf>

Adaptation Planning (Not Part of Climate Change Work)

Southeast Wyoming has areas with significant wetlands that are vulnerable to long-term drought. The state is looking at supplemental water sources to provide these wetlands with water. Wyoming Game and Fish Department is looking at some drought-related issues.

State Wetland Program Development Continuum

Continuum Stage		Core Element 1: Regulation	Core Element 2: Monitoring & Assessment	Core Element 3: Wetland Water Quality Standards	Core Element 4: Voluntary Restoration
Mature Stage	High	401 Certification Program + state permit program for non-CWA wetlands greater than 1 acre in size			
Implementation Stage	↑				
Development Stage					
Early Stage	Low		X (small scale, basin-by-basin efforts)	X (One narrative standard)	X (State does not have a program; relies on WWRNT and Others)

Special Considerations:

Excessive selenium and mercury concentrations occur in some areas. Water development, changes in irrigation efficiency, regulated stream flows that alter floodplain access, degraded riparian areas, and coal mining impact wetlands. There is pressure to develop in Teton County.

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Additional Useful Websites**State Government Programs**

1. Game & Fish Department
 - a) Wyoming Wetlands Conservation Strategy
http://wgfd.wyo.gov/web2011/Departments/Wildlife/pdfs/HABITAT_WYWETLANDSCONSERVATION0000332.pdf
 - a) Riparian Information
<http://wgfd.wyo.gov/web2011/wildlife-1000395.aspx>
2. Department of Transportation
 - a) Wetlands Protection
http://www.dot.state.wy.us/home/engineering_technical_programs/environmental_services/wetlands.html
3. Department of Environmental Quality: Water Quality Division
<http://deq.state.wy.us/wqd/>
 - a) Groundwater Pollution Control
<http://deq.state.wy.us/wqd/groundwater/index.asp>
 - b) Watershed Protection Program
<http://deq.state.wy.us/wqd/watershed/index.asp>
 - i. Water Quality Surface Standards

- <http://deq.state.wy.us/wqd/watershed/surfacestandards/index.asp>
 - ii. Nonpoint Source Program
<http://deq.state.wy.us/wqd/watershed/nps/NPS.htm>
 - iii. Water Quality Assessment & TMDL Information
http://deq.state.wy.us/wqd/watershed/WyomingMethods_13_0352.pdf
 - iv. Water Quality Certification: Clean Water Act Section 401
<http://deq.state.wy.us/wqd/watershed/Downloads/401/401%20brochure%20final%202013.pdf>
 - v. Statewide Wetland Mitigation Bank
http://deq.state.wy.us/wqd/watershed/Downloads/Wetlands/wet_guidelines.pdf
 - vi. Monitoring Program
http://deq.state.wy.us/wqd/watershed/Downloads/Monitoring/WY_strategy2010_final.pdf
- 4. State Engineers Office
The Wyoming Constitution defines that all natural waters within the boundaries of the state are declared to be the property of the state. The Wyoming State Engineer's Office is charged with the regulation and administration of the water resources in Wyoming.
 - a) Groundwater Division
<https://sites.google.com/a/wyo.gov/seo/ground-water>
 - b) Surface Water Division
<https://sites.google.com/a/wyo.gov/seo/surface-water>
 - c) Interstate Streams Division
<https://sites.google.com/a/wyo.gov/seo/interstate-streams>
- 5. Wyoming Landscape Conservation Initiative
 - a) Aquatic Enhancement Projects
<http://www.wlci.gov/habitat-projects/aquatic>
 - b) Riparian Enhancement Projects
<http://www.wlci.gov/habitat-projects/riparian>
- 6. Wyoming Natural Diversity Database – University of Wyoming
<http://www.uwyo.edu/wyndd/>

Federal Government Programs

1. USDA Natural Resources Conservation Service
Wetlands Reserve Program
Authorizations for the Wetlands Reserve Program (WRP) expired Sept. 30, 2012. No new applications for these programs can be accepted. We will continue to service prior-year contracts.
<http://www.nrcs.usda.gov/wps/portal/nrcs/main/wy/programs/easements/wetlands/>
2. Wyoming Partners for Fish and Wildlife – US Fish and Wildlife Service
<http://www.fws.gov/mountain-prairie/pfw/wy/>

Other Organization Wetland Programs

1. Wyoming Association of Conservation Districts
<http://www.conservewy.com/>
 - a) Natural Resources & Policy Division
 - i. Water Resources
<http://www.conservewy.com/WATER.html>
2. Wyoming Wetlands Society
<http://wyomingwetlandssociety.org/>
3. University of Wyoming
Water Resources Data System
<http://www.wrds.uwyo.edu/>