

WETLANDS PROGRAM PLAN FOR NEW MEXICO

(EPA Approved 4.9.2019)

Since 2003, the New Mexico Environment Department Surface Water Quality Bureau (SWQB) Wetlands Program and its partners have made substantial progress in the development of a robust program that focuses on measures that will restore and protect New Mexico wetlands. This updated Wetlands Program Plan describes the achievements made since this Plan was approved in 2010 by EPA and previously updated in 2012, 2015, and 2017. It also lays out a pathway to continue program development for the next five years. Through this updated 5-year Wetlands Program Plan we hope to continue progress towards a comprehensive and sustainable Wetlands Program for New Mexico.

WETLANDS PROGRAM GOALS

The Mission of the SWQB Wetlands Program is to protect, restore and increase self-sustaining and naturally functioning wetlands and riparian areas. The Wetlands Program emphasizes the role of wetlands in preventing and reducing water quality impairments and providing habitat and life requirements for wildlife. To this end the Wetlands Program has formulated the following long-term objectives:

1. Promote wetland protection and restoration as a goal of established watershed groups and other partnerships.
2. Increase wetland area (no net loss) as well as restore wetland functions and ecological services and develop a system for tracking gains and losses by wetland type.
3. Assist communities, agencies, tribes, stakeholders, local governments and others with wetlands technical information, project design and planning, training and other guidance.
4. Develop protection, adaptation and mitigation strategies for wetland resources threatened by the effects of a drying climate in the west, including drying of wetlands in the landscape, loss of mountain snowpack, increased large-scale catastrophic fires and subsequent flooding, scour and sediment delivery.

5. Develop and refine narrative water quality standards for wetlands and for specific wetland types, and use these standards to promote more effective CWA §401 Certification.
6. Develop a toolbox of successful restoration techniques that are specific to wetland types and ecoregions.

PARTNERSHIP GOALS

The principal goal which informs the work of the SWQB Wetlands Program and its many public and private partners is a desire to restore and maintain wetlands, allowing them to fully function as natural systems. This goal can be accomplished through collaborative partnerships that contribute to completing large-scale major restoration projects, and to restoring numerous wetlands within a watershed an acre at a time.

A second overarching goal is to create a sustainable wetlands plan of action by developing sustainable funding sources. SWQB Wetlands Program and its partners are considering ways to achieve sustainability through potential funding, programs, and management activities such as wetlands banks, in lieu fee programs, state-sponsored programs such as the River Stewardship Program, participation in NGO-sponsored programs such as the Rio Grande Water Fund, through partnerships associated with the New Mexico Mapping Consortium, Geospatial Advisory Committee, and our Northern and Southern Wetlands Roundtables, by continuing to obtain matching grants through foundations, by organizing and assisting voluntary programs, and by obtaining in-kind resources and assistance through the efforts of watershed groups, NGOs and their volunteers.

The priority technical goals within the next five years are to identify and maintain simple, effective and efficient methods for monitoring wetlands, and to work with our partners towards a complete inventory and baseline assessment of New Mexico's wetland resources.

SWQB WETLANDS PROGRAM EFFORTS

Currently SWQB Wetlands Program development is primarily supported by EPA Wetlands Program Development Grants competitively awarded by EPA Region 6 under the CWA §104(b)(3). The State of New Mexico provides a portion of funding for Wetlands Program staff through the Corrective Action Fund Program. The SWQB Wetlands Program and its core elements are

included in the comprehensive update to the Water Quality Management Plan (WQMP) and Continuing Planning Process (CPP) which was approved by the New Mexico Water Quality Control Commission and EPA Region 6 in 2011.

In 2003, the SWQB Wetlands Program began the development of a wetland restoration program (Wetlands Action Plan Program), which is part of a larger mission to improve and protect the state's watersheds and water quality. Through the CWA §319(h) Nonpoint Source Management Program (NPS), SWQB provides funding for watershed groups to develop Watershed Based Plans to reduce pollutants in their watersheds. The Wetlands Action Plan Program provides an opportunity and support for these established watershed groups to broaden their planning and resource improvement efforts to include wetlands, riparian and buffer areas within their watersheds. To this end, the SWQB Wetlands Program is incorporated into the NPS Management Plan for New Mexico. The State has incorporated wetlands assessment and monitoring into SWQB's Water Quality Monitoring and Assessment Program and wetlands assessment into the 10-year Monitoring Strategy. The SWQB Wetlands Program has focused its efforts on establishing wetlands assessment and monitoring that can be implemented with the assistance of its many partners. The assessment and monitoring goals of the SWQB Wetlands Program include:

- Continue to expand an inventory and classification of wetlands resources statewide;
- Develop and utilize assessment protocols to verify wetland condition, degradation, impacts and the causes of stress, and recovery;
- Document wetland gains and losses;
- Identify vulnerable wetland types, develop strategies to anticipate potential sources of stress and to create/maintain resilience of these wetland/riparian systems confronted by the effects of a drying climate;
- Document results of wetland restoration projects and innovative techniques for restoration;
- Assess wetland resources to determine potential strategies for recovery of wildlife habitat and wildlife corridors;
- Use information generated by wetlands assessment to prioritize wetlands projects and protection within specific watersheds or regions;
- Use information generated by wetlands assessment to assist the United States Department of the Army Corps of Engineers (USACE) in developing meaningful Before-After Mitigation Impact (BAMI) documentation of wetland compensatory mitigation and to use these data to establish mitigation credits and ratios;

- Monitor Outstanding National Resource Waters (ONRW) wetlands to identify pollution and degradation, and to use these data to ensure that degradation is prevented, and sources of pollution are abated;
- Identify ecologically important and high-quality wetlands through wetlands mapping and assessment for future ONRW nomination and protection.

The State's regulatory program applies to all surface waters of the State including wetlands. These regulations provide for certification of CWA §402 NPDES permits, and CWA §404 dredge and fill permits under CWA §401, establishing water quality standards under CWA §303 (c) and reporting under CWA §§303(d) and 305(b). The Wetlands Program is currently working with the USACE, Albuquerque District to develop a regulatory module of the New Mexico Rapid Assessment Method (NMRAM) to assist and improve evaluation of compensatory mitigation through the BAMl procedures. Overall, New Mexico is making progress towards establishing a baseline for wetlands in the state to provide a picture of wetland types and condition. A rapid assessment protocol for the State's wetland resources is under development and use, which focuses on vulnerable and threatened wetland types. The protocol will be used consistently by the SWQB Wetlands Program and participating partners. Mapping and classifying wetlands in the state is progressing through partnerships and projects by SWQB Wetlands Program and others, and numerous demonstration restoration efforts using innovative techniques are in progress or in place.

New Mexico's wetlands including isolated wetlands are incorporated within the water quality standards definitions and are considered "surface waters of the State" (20.6.4.7 NMAC). Isolated and ephemeral wetlands (such as playas) are included in the definition. The interests of the state are critically linked both economically, ecologically and culturally to good water quality in all of the state's waters including isolated wetlands. Non-perennial waters make up over 80% of the state's waters and are expressly protected by the State's standards. Currently, the SWQB Wetlands Program is working to protect and restore vulnerable isolated wetlands and plans to develop water quality standards specific to wetland types including isolated and ephemeral wetlands.

The SWQB nominated and the Water Quality Control Commission (WQCC) adopted all naturally occurring wetlands within US Forest Service Wilderness Areas in New Mexico as Outstanding National Resource Waters (ONRW). Although wetlands have been included in previous ONRW nominations in the Valle Vidal and the Rio Santa Barbara areas, the more recent action is New Mexico's first success in applying Best Management Practices and improved anti-degradation policy to ONRW wetlands. The SWQB Wetlands Program will continue to identify ecologically important wetlands in other parts of the State. Updating and expanding a directory of

Reference Standard Wetlands (best condition) to which ONRW status or other protective measures should apply will help aid in these efforts.

WETLANDS PROGRAM PROGRESS

Since the Wetlands Program Plan was developed in 2010 and updated in 2012, 2015 and 2017, progress has been made on activities that expand the capacity of the Wetlands Program. Below is a list that highlights some of these accomplishments.

- Since 2015, the Wetlands Program has expanded its Wetlands Roundtable to include a Southern Wetlands Roundtable that is exclusively geared towards southern New Mexico issues and needs. Both the Northern and Southern Wetlands Roundtables meet semiannually. The Southern Wetlands Roundtable is conducted in the southern part of New Mexico in Las Cruces to include those partners more proactively and to address wetlands issues unique to the more arid conditions of southern New Mexico. Both the Southern and Northern Wetland Roundtables include agency and NGO participants, as well as students, watershed group members, and others interested in New Mexico wetlands.
- Mapping and classification of wetlands within nearly 20 million acres in the Canadian River basin and Dry Cimarron watersheds, Jemez Mountains and the Upper Rio Grande and adjacent areas, in the Sacramento Mountains and adjacent areas, and all wetlands on USFS Wilderness Areas is complete and included in the National Wetlands Inventory (NWI) database and on-line mapper. Mapping of wetlands in the Middle Rio Grande and surrounding areas in the mid-eastern portion of the state, in the Gila Region, in the Lower Rio Grande, in northwestern New Mexico surrounding the San Juan-Animas watersheds and the Estancia Basin are currently in progress. The eastern plains and bootheel region in southwestern New Mexico are the remaining areas that require updated mapping. In addition to polygonal and linear wetland feature mapping, the landscape position, landform, water body type, water flow path classification and descriptors (LLWW) are being applied to all wetlands mapped, and wetland functions are being identified and ranked. The wetlands are also being classified according to the Hydrogeomorphic (HGM) classification in order to prepare for NMRAM data collection and to identify classified segments for wetlands narrative water quality standards. Participation in the New Mexico Geospatial Advisory Committee and the New Mexico Wetlands Roundtables assists in coordination of wetlands mapping throughout the State. Sixteen Map Book PDFs and instructions for making additional map books were created for use by watershed groups and others. These map books succinctly show all of the map overlays developed by our mapping projects in a given area and are usable by

those without GIS capability. In addition, the first SWQB Wetlands Program on-line Story Map (ESRI) for the Sacramento Mountains area is nearly complete and a Story Map for the entire state is in progress.

- The Wetlands Program has completed current versions of New Mexico Rapid Assessment Method (NMRAM) for Montane Riverine and Lowland Riverine Wetlands, and for Playa Wetlands. The Field Guides and data collection worksheets are available at <https://www.env.nm.gov/surface-water-quality/wetlands-rapid-assessment-methods/>. The Montane Riverine NMRAM was initially developed for montane riverine wetlands in the Upper Rio Grande watershed. SWQB Wetlands Program and its partners updated and validated the method for montane riverine wetlands in the Gila, and Mimbres watersheds, and validating the method for the Canadian and Dry Cimarron watersheds in ongoing. The development of NMRAM Lowland Riverine Version 1.0 was completed on the Gila and Mimbres watersheds – watersheds that are considered relatively intact. The Wetlands Program and its partners are now preparing updated versions from data analyses in the Rio Grande and Lower Pecos for Lowland Riverine Version 2.0, and in the Canadian and Dry Cimarron watersheds for Montane Riverine Version 2.3, and those versions are nearly complete. In addition, development of NMRAM for springs in southwestern New Mexico is nearly complete. NMRAM development for confined riverine wetlands, and for headwater slope wetlands are in progress. The Wetlands Program engages partners with expertise and local knowledge in development and refinement of these NMRAM versions through the assistance of an advisory committee for each subclass of NMRAM. Future versions of NMRAM will include episodic riverine wetlands, more subclasses of springs and other high-altitude and slope wetland types, as well as depressional and mineral flat wetlands.
- A Statewide database for NMRAM data is currently being integrated with other water quality databases (SQUID) at NMED and is nearly ready for data input and on-line access for montane riverine, lowland, and playas NMRAM data. Electronic data collection worksheets have been developed for NMRAM, and development of Sampling Area reports is underway.
- A Wetlands Vegetation Index of Biotic Integrity (VIBI) for mid-montane riverine wetlands is complete. The results of this project demonstrate the use of detailed vegetation data to assess the ecological condition of Montane Riverine wetlands. Wetlands restoration and management can then be improved to prevent disturbance and provide protection to suites of plants known to correlate with the lowest levels of human disturbance (reference sites). In turn, the VIBI can also be used to improve management of wetlands based on vegetation attributes and habitat characteristics. VIBI is another important tool that improves the State's ability to protect, manage, and restore its wetlands resources.

- Our 10-year Strategy for Wetlands Assessment and Monitoring was completed in 2012, incorporated into the Monitoring and Assessment Strategy for New Mexico and is available at SWQB. The SWQB Wetlands Program anticipates updating and refining this Strategy as part of the current five-year program commitment.
- Seventeen Wetlands Action Plans have been completed since the program started in 2003. They are currently available on the SWQB Wetlands Program website at <https://www.env.nm.gov/surface-water-quality/wap/>. They can also be accessed along with other watershed-based plans at <https://www.env.nm.gov/surface-water-quality/wbp/>. The most current Wetlands Action Plan, “Arid-Land Spring Cienegas of New Mexico” describes a strategy for locating, restoring and protecting arid-land spring cienegas, important unique groundwater-supported wetlands that provide habitats for rare and unique plants and aquatic animals and are essential sources of water and pasture in arid regions throughout New Mexico.
- Progress toward implementing WAPs in priority watersheds is reported in the NPS Annual Report to EPA.
- One more Wetlands Demonstration Restoration Project was completed by SWQB Wetlands Program since 2017. “Innovative Restoration of Historic Wetlands along Sulphur Creek, Valles Caldera National Preserve” developed and demonstrated the effectiveness of plug and pond state-of-the-art restoration techniques for headwater slope wetlands that were de-watered due to historic land uses. Other projects around the state are reported by our partners at the New Mexico Wetlands Roundtables and special projects by our partners are featured as the “NGO Spotlight”. Thus far, New Mexico Wetlands Program has completed 9 Wetlands Demonstration Restoration Projects improving and expanding the State’s wetlands restoration techniques toolbox that is shared and used statewide and nationally. Details of these projects can be found at <https://www.env.nm.gov/surface-water-quality/wetlands-projects/>.
- Four Technical Reports are completed. The newest Technical Guide, “The Plug and Pond Treatment: Restoring Sheetflow to High Elevation Slope Wetlands in New Mexico (2017),” is available at <https://www.env.nm.gov/surface-water-quality/wetlands-technical-guides/>. Other Technical Reports include 1) “Exploring Springs and Wetlands and their Relationship with Surface Flows, Geology, and Groundwater in the La Cienega Area, Santa Fe County, New Mexico” 2) “New Mexico Wetlands Technical Guide: Wetland Functions”; 3) “Characterization and Restoration of Slope Wetlands in New Mexico”. These Technical Reports are also available in hard copy from SWQB. In addition, a landowner’s guide, “Healthy

Streamside Wetlands, A Guide to Good Stewardship for Southwestern Bosque and Riparian Wetlands,” is available at <https://www.env.nm.gov/surface-water-quality/wetlands-technical-guides/> and in hard copy from SWQB.

- In addition to our Wetlands Roundtables, several workshops and training sessions were completed since 2017. These workshops and trainings engage and inform partners, enhance partners capacity to proactively monitor and restore wetlands, influence stakeholders to be more involved in wetland issues, and increase the role and capacity of the Wetlands Program. These include annual NMRAM trainings available to watershed groups, agencies, contractors, tribes and others. As a supplement to the NMRAM trainings, Botany Booster trainings were held to improve the technical expertise of participants to collect biotic data. The Wetlands Program staff also participated in an EPA-sponsored tribal conference with presentations and field trips aimed at information sharing with tribal wetlands managers. Four weekend restoration workshops were conducted at Sulphur Creek for the Sulphur Creek project, and two weekend restoration workshops were conducted at Comanche Creek for the Keyline Design Wetlands Restoration project. Participants at the workshops learned about and implemented innovative wetlands restoration techniques. These techniques included building innovative restoration structures of natural and on-site materials that re-direct flow, spread water, arrest erosion, and raise the water table in wetlands, as well as constructing fencing in strategic locations to protect sensitive wetlands from livestock and wildlife grazing.

Two new two-and-a-half day workshops targeting tribal, NMDOT, other agency and county roads staff in the playa region of the Southern High Plains and the San Juan region in northwestern New Mexico were conducted in 2017 and 2018 to provide the principals of geomorphology and natural channel design to roads construction and maintenance. The workshops updated the participants on new techniques, best management practices and construction specifications for successful playa, stream and riparian restoration integrated with road design and maintenance techniques. The workshops demonstrated that highway construction projects have the potential to not only “do no harm” but even to improve the health of the waterbody or watercourse, introducing a new paradigm of road design and maintenance.

The First “All Hands” monitoring effort is being planned as well as “Restoration Crew Leader” training. These efforts will increase participation by agencies and volunteers in restoration and data collection for wetlands.

- The SWQB Wetlands Program conducted a three-day “Wetlands Across Borders, Playas of the Southern High Plains” workshop in Clovis, New Mexico in late 2017. The meeting consisted of one and one-half days of presentations and panel discussions about playa ecology, conservation, restoration and other important topics about playas. The meeting was followed by three track options – New Mexico Rapid Assessment Method Training for Playa Wetlands, a Playas and Roads workshop, or a half-day field trip to look at local playas. The meeting was advertised to over 1600 potential participants through the local SWCDs and through contacts in Texas, Colorado and Oklahoma since those states have Southern High Plains playas and their communities are facing similar critical water issues.
- Review of our current Water Quality Standards to identify ways to improve and update regulations to be more applicable to wetlands and wetland subclasses is underway. Completing a review of other State’s wetland regulations and participating with the Association of State Wetland Managers (ASWM) in a wetlands water quality standards project has augmented this effort. In 2016, the Wetlands Program participated in the Association of Clean Water Administrators (ACWA) development of templates for wetlands narrative water quality standards and provided a webinar on how New Mexico is using those templates and the steps taken to develop meaningful and defensible narrative wetlands water quality standards.

The Wetlands Program has developed a nine-step process for the development of wetlands water quality standards for New Mexico.

1. Mapping and classification update
2. Identifying wetland functions by wetland type (designated uses)
3. Hydrogeomorphic classification applied to mapped wetlands
4. Measuring the condition of wetlands by wetland type
5. Identifying stressors that affect wetland condition (impairments)
6. Database development
7. Unique identifiers for each wetland (Assessment Units)
8. Using these data to develop a defensible narrative standard by wetlands type
9. Plan for outreach to the public regarding the development and uses of wetland standards

The Wetlands Program will use data generated through assessment and monitoring to evaluate stressor load reductions that will improve wetland condition (Total maximum levels of stress (TMLS). The goal is to develop and refine narrative water quality standards for wetlands to be more applicable to and protective of subclasses of wetlands in New Mexico.

OVERVIEW OF FIVE-YEAR GOALS AND OBJECTIVES

To effectively develop basic program functions that form the foundation of wetlands management and protection, the following outlines core elements, actions and activities to protect and restore New Mexico’s wetlands over the next five-year period. The completion of these activities is dependent on financial, staffing and other resources available to the Wetlands Program and its partners.

Program Development Activities for BUILDING AND MAINTAINING PARTNERSHIPS

Overall Objective: The SWQB Wetlands Program relies on a substantial number of partners to implement the work on the ground. A core function of the five-year plan is to continue building and maintaining partnerships to implement the Wetlands Program Plan, and to train and inform partners at all levels.

Action: Continue to build and maintain partnerships							
Activity	2019	2020	2021	2022	2023	Partners	Activity Lead
Maintain and expand participation in State Wetlands Roundtables (presently in its 13th year) composed of governmental, NGO and tribal partners to address challenges to New Mexico’s wetlands resources.	x	x	x	x	x	State, federal, NGO and tribal government partners on Roundtable	SWQB Wetlands Program
Maintain the Northern Wetlands Roundtable meetings to discuss resources for developing and maintaining initiatives, and addressing challenges to monitoring, restoring and protecting New Mexico’s wetlands.	x	x	x	x	X	Governmental, tribal, NGO partners on Northern Roundtable	SWQB Wetlands Program, NGO co-sponsorship

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Maintain the Southern Wetlands Roundtable to discuss regulations, restoration, monitoring, challenges and partnerships unique to the southern part of the state.	x	x	x	x	x	Governmental, tribal and NGO partners on Southern Roundtable	SWQB Wetlands Program, NGO co-sponsorship
Work with Roundtables to ensure cooperation to achieve Wetlands Program Plan goals. Develop annual actions and dialogue to further the goals of this Plan.	x	x	x	x	x	Wetlands Roundtables	SWQB Wetlands Program
Continue to identify and participate in public/private partnerships such as the Rio Grande Water Fund with the goal of generating sustainable funding for restoration, protection, education, research and policy.	x	x	x	x	x	Foundations, private businesses, water utilities, tribal, federal, state and private partners	The Nature Conservancy, NMED signatory
Action: Identify and maintain simple, effective and efficient methods for monitoring wetlands through partnerships							
Activity	2019	2020	2021	2022	2023	Partners	Activity Lead
Identify a long-term sustainable wetlands monitoring strategy for watershed wetlands that can be maintained by local government, citizen science or watershed groups.			x	x	x	Local governments and Watershed Groups, Roundtables	Roundtables, WAP participating Watershed Groups
Work collectively with all partners towards a long-term solution to wetlands monitoring, particularly the funding of long-term monitoring.	x	x	x	x	x	Roundtables	Northern and Southern Roundtables
Create a toolbox of wetlands monitoring metrics and protocols for partners to determine restoration success and adaptive management that can be scalable to support both large scale and small scale projects.	x	x	x			Roundtables, Project Contractors, Watershed Groups	SWQB Wetlands Program, Watershed Groups

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Engage group participation through a demonstration “All Hands” monitoring effort to collect NMRAM data. Continue effort each year at select sites.	x	x	x	x		Agencies, NGOs, trained technicians	SWQB Wetlands Program
Develop tools (i.e. story maps, map books, field guides, mobile apps) to teach and disseminate wetlands assessment and mapping products to partners, watershed groups and local governments.	x	x	x	x	x	Local governments and Watershed Groups, Roundtables	SWQB Wetlands Program
Action: Identify opportunities to create sustainable ways to fund and accomplish wetlands restoration and protection work.							
Activity	2019	2020	2021	2022	2023	Partners	Activity Lead
Investigate the feasibility of creating a “short term funding source” that will support funding of small scale restoration projects. This source could make funds available up front to land owners who receive grants as reimbursement for expense incurred.	x	x	x	x	x	Roundtables, Foundations, Banks, State Revolving Fund (SRF), River Stewardship Program	SWQB Wetlands Program, Roundtables
Create Strategy to coordinate and leverage multiple funding sources. Encourage partners to work towards a large scale project with a large impact supported by numerous funding sources, such as accomplished in the Bitter Lakes area. eg. Middle Rio Grande - Inter-Mountain West Joint Venture, Rio Grande Water Fund	x	x	x	x	x	Northern and Southern Roundtable participants	Agencies and NGOs at Roundtables

Program Development Activities for MONITORING AND ASSESSMENT Core Element

Overall Objective: Develop a full and complete wetlands assessment and monitoring strategy consistent with *Elements of a State Water Quality Monitoring and Assessment Program for Wetlands* (EPA, 2006) that the State can use to inform management decisions and achieve goals that protect and restore wetlands resources.

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Action: Continue to develop Elements of a State Water Quality Assessment and Monitoring Strategy for Wetlands							
Activity	2019	2020	2021	2022	2023	Partners	Activity Lead
Continue to develop monitoring design and sample sites that best serve the State’s assessment and wetland management objectives.	x	x	x	x	x	Roundtables, UNM Natural Heritage, and federal land management agencies, State Agencies, EPA.	SWQB MASS and Wetlands Program
Participate in National Wetlands Monitoring and Assessment Work Group (NWMAWG) to stay abreast of new developments in wetland monitoring and assessment, and data analysis. Participate in 2021 NWCA.	x	x	x	x	x	NWMAWG, EPA	SWQB Wetlands Program
Update the State of New Mexico Wetlands Assessment and Monitoring Strategy.	x	x	x	x		SWQB Staff, Agencies and Roundtables	SWQB Wetlands Program
Action: Assess and monitor wetland resources by the development and use of Landscape, Rapid Assessment and Intensive Monitoring tools							
Activities	2019	2020	2021	2022	2023	Partners	Activity Lead
Participate in the State Mapping Consortium, Geospatial Advisory Committee, and National Wetlands Mapping Consortium, and on the NHD update representing wetlands until New Mexico has, at a minimum, National Wetlands Inventory coverage, classification and functional descriptors of all wetlands resources.	x	x	x	x	x	USFWS NWI, Geospatial Advisory Committee, USFS, Roundtables, Tribes, ASWM	SWQB Wetlands Program, Geospatial Advisory Committee
Complete mapping and classification of the Rio Puerco Watershed and tributaries, and quadrangles in the central New Mexico “checkerboard area” adjacent to Navajo Tribal lands, along the Rio Grande, and in southern and eastern New Mexico, including the bootheel area, and the Pecos mainstem until statewide	x	x	x	x	x	USFWS, SLO, NMBGMR, Department Homeland Security, ACOE, ASWM, USFS, BLM, USFWS,	SWQB Wetlands Program, mapping contractors

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coverage is complete. Ensure edge matching between project areas and checkerboard areas.						private stakeholders and counties	
Assist in comprehensive vegetation mapping for wetlands and riparian areas statewide, collaborate with tribes and include new areas not mapped.	x	x	x	x	x	USFS, USFWS NWI, UNM Natural Heritage, BLM, BOR, NMDGF, Mapping Advisory Committees	SWQB Wetlands Program, NMDGF, UNM Natural Heritage
Continue to develop and promote the use of the New Mexico Rapid Assessment Method (NMRAM) for other wetlands subclasses through training and other venues. (Conduct one training per year) Organize one “all hands” data collection by trained partners each year. Conduct Botany Booster trainings as needed.	x	x	x	x	x	UNM Natural Heritage, ACOE, NMDOT, EPA, NMDGF, Consultants, Watershed Groups, Tribes, Others.	SWQB Wetlands Program
Revise and apply NMRAM to other wetland types and to other parts of the State. Continue to collect NMRAM data following the SWQB Water Quality Assessment Rotational Schedule at least every other year. Continue to revise NMRAM subclass modules as new data validates current NMRAM metrics and NMRAM analyses suggest the need for metric and scoring revisions. (See NMRAM development schedule below.)	x	x	x	x	x	SWQB Wetlands Program, UNM Natural Heritage, NMRAM Advisory Committees, consultants, others.	SWQB Wetlands Program
Verify and validate NMRAM methods through the use of Indicators of Ecological Integrity.				x	x	UNM Natural Heritage	SWQB Wetlands Program
Update and expand database of reference standard wetlands using newly mapped wetland areas and classification as a basis for preliminary selection.	x	x	x	x	x	UNM Natural Heritage and mapping contractors	SWQB Wetlands Program

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Update the State's Quality Assurance Project Plan to include common wetland monitoring methods and protocols.	x	x	x	x		SWQB and EPA quality assurance officers	SWQB Wetlands Program
Action: Track Monitoring data in a system that is accessible, updated on a timely basis, and integrated with other water quality data							
Activity	2019	2020	2021	2022	2023	Partners	Activity Lead
Continue development of web-based database for wetlands coordinated with other SWQB databases (Surface Water Quality Information Database (SQUID)) and data. Share data with agencies and through statewide information portal.	x	x	x	x	x	NMED OIT, UNM Natural Heritage	SWQB Wetlands Program and NMED OIT
Develop a system for geo-referencing data and displaying data collection sites for reporting and analysis.	x	x	x	x	x	NMED OIT and geospatial staff	SWQB Wetlands Program and NMED OIT

Program Development Activities for WETLANDS REGULATORY PROGRAM Core Element

Overall Objective: Promote the use of new and proven methods to protect and restore wetlands by regulated project proponents.

Action: Adopt procedures and strengthen processes that protect wetlands through regulatory measures							
Activity	2019	2020	2021	2022	2023	Partners	Activity Lead
Maintain and improve the State's wetlands resources through development of sufficient mitigation ratios when mitigation is the only option. Include "no net loss" of function.	x	x	x	x	x	USACE, BUR, NMDOT, regulated community	USACE
Improve regulatory programs like the certification of Dredge and Fill under CWA § 401 that provide	x	x	x	x	x	USACE	SWQB 401 Cert Program

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mechanisms for regulation of wetlands activities. Work more closely with USACE to provide input from §§404/401 public interest reviews.							and SWQB Wetlands Program
Explore the feasibility, find sites and sponsors of In-Lieu Fee Programs, and Mitigation Banks	x	x	x	x	x	USACE, NMDOT, Roundtables	USACE
Expand the activities and content reported for wetlands in the combined CWA §§303(d) and 305(b) report, and in the NPS Management Plan.	x	x	x			Agencies	SWQB and SWQB Wetlands Program
Develop and improve ordinances and jurisdiction that protect wetlands/riparian areas/ buffer at the local level, and that ensure that vulnerable and isolated wetlands are protected from impacts. Use WAPs to help accomplish this.	x	x	x	x	x	Santa Fe County, County governments, local governments, watershed groups with WAPs	SWQB Wetlands Program, Roundtables
Develop a tracking process to track wetlands gains and losses from a variety of activities that either impact or restore wetlands.				x	x	USACE, NRCS	SWQB Wetlands Program
Continue development, training and use of USACE NMRAM in BAMl procedures.	x	x	x	x	x	USACE, Wetlands Program, UNM Natural Heritage	USACE, SWQB Wetlands Program

Program Development Activities for VOLUNTARY RESTORATION AND PROTECTION Core Element

Overall Objective: Meet the wetlands goals in the watershed restoration activities established in the State’s Non-Point Source Management Plan.

Action: Expand and improve Wetlands Action Plan (WAP) Program							
Activity	2019	2020	2021	2022	2023	Partners	Activity Lead

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Work with other agencies and organizations to coordinate wetlands restoration, activities and funding through development of WAPs. Integrate WAPs and watershed-based plans intended to implement NPS TMDLs and incorporate wetlands objectives in NPS pollution abatement. Incorporate potential mitigation sites into WAPs and include information on updating ordinances or other protection at the local level.	x	x	x	x	x	Watershed groups, NGO Roundtable, Agency Roundtable, SWQB Watershed Protection Section	SWQB Wetlands Program and Watershed Groups
Develop and demonstrate innovative designs and techniques for restoring wetlands. Seek out, develop and demonstrate improved methods for protecting wetlands i.e. headwaters, slope, alluvial fans, high elevation wetlands, springs, cienegas, playas and depressional wetlands as high priority areas.	x	x	x	x	x	NGOs, NMEMNRD Consultants, BLM, USFS, SLO, NMDGF, USFWS, NRCS, private landowners, watershed groups, local government, others.	SWQB Wetlands Program, Roundtables
Research, develop and demonstrate re-establishment techniques and innovative designs for lentic wetlands around lakeshores, ponds and man-made tanks.			x	x	x	NGOs, Consultants, BLM, USFS, SLO, NRCS, NMDGF, USFWS, Universities, Plant Materials Center	SWQB Wetlands Program, BOR, NRCS, NMDGF
Develop and demonstrate innovative designs and protocols for restoration of at-risk wetlands and aquatic resources with wetland dependent priority species. Improve resilience and protection of at-risk wetland resources from flooding, fire and drought.	x	x	x	x	x	Federal, state and local Agencies, tribes, NMDGF, USFWS	SWQB Wetlands Program

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Encourage WAP partners to locate and protect slope wetlands (seeps and springs) and depressional wetlands in their watersheds and include information in WAPs.	x	x	x	x	x	NGOs, Watershed groups.	SWQB Wetlands Program
Update and improve SWQB Wetlands Website to augment communication with WAP partners, provide technical transfer of restoration techniques and guidance, display new WAPs, create links, and update with relevant activities of Wetlands Program	x	x	x	x	x	Watershed groups, agencies, stakeholders, project contractors.	SWQB Wetlands Program
Integrate mapping and classification products into existing and future WAPs. Encourage watershed groups to include NMRAM data in WAPs. Provide Mapping, classification and NMRAM training at least once per year to partners creating WAPs.	x	x	x	x	x	Watershed groups, consultants, NGO and Agency Roundtables, Tribes	SWQB Wetlands Program and mapping contractors
Action: Create strategies that build capacity on public lands in New Mexico							
Activity	2019	2020	2021	2022	2023	Partners	Activity Lead
Develop strategies that shape policy for land and water use on public lands to promote restoration of wetlands.	x	x	x	x	x	Agencies. USFS, BLM, BOR, SLO.	SWQB Wetlands Program
Promote the preservation of wildlife habitat, wildlife corridors, and keystone species habitat related to wetlands and consistent with the State Wildlife Action Plan.	x	x	x	x	x	Agencies, NM DGF, Local Governments	SWQB Wetlands Program
Develop demonstration projects that emphasize proactive climate change resilience activities including restoration and protection of wetlands and riparian corridors on federal lands.			x	x	x	SWQB Wetlands Program, USFS, USFWS, BLM	SWQB Wetlands Program,
Encourage federal agencies to monitor and protect ONRW wetlands.	x	x	x	x	x	Government Agencies, Agency Roundtables	SWQB Wetlands Program

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Action: Create strategies that build capacity at the local level							
Activity	2019	2020	2021	2022	2023	Partners	Activity Lead
Develop strategies for working with private land owners and develop incentives for private land owners through watershed groups to restore, protect wetlands. Target isolated wetlands (e.g. cienegas, playas, springs) on private lands.	x	x	x	x	x	NRCS, NGOs, Agencies, Consultants	Southern and Northern Roundtables, Watershed Groups
Create technical materials and disseminate information to private land owners, tribes and others on incentives, methods and trainings to restore and protect wetlands.	x	x	x	x	x	NRCS, NGOs, Agencies, Consultants, Tribes, Roundtables.	SWQB Wetlands Program
Continue to refine information that provides economic justification and other value, including cultural/traditional and aesthetic for restoring wetlands.	x	x	x			ASWM, Tribes, watershed groups and others	SWQB Wetlands Program
Develop avenues for outreach to different groups who could be involved in wetlands as part of Wetlands Roundtable, Quivira Coalition Conference workshops, or other venue. Conduct statewide and interstate wetlands workshops. Reach out to new partners, new opportunities, at new venues.		x	x	x		SWQB Watershed Protection Section, Quivira Coalition, Roundtables, irrigation districts, Prairie Partnerships, other states' groups, others.	SWQB Wetlands Program
Assist partners by building their volunteer labor base and creating match opportunities. Train volunteer crew leaders in restoration techniques so that more volunteers are accommodated and are more productive on-site.	x	x	x	x	x	NGOs, Agencies, watershed groups.	SWQB Wetlands Program

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Assist partners in finding match opportunities by participating in development and organization of large-scale wetland restoration/protection projects.	x	x	x	x	x	Local Governments, IWJV, PLJV, TNC, NM Wildlife Federation, USFWS Partners for Wildlife, others.	SWQB Wetlands Program
Develop and use incentives for landowners, road agencies and others within and adjacent to depressional wetlands (eg. playas) watersheds to improve watershed conditions that benefit landowners and wetland resources.	x	x	x	x		USFWS Partners for Fish and Wildlife, NGOs, County Roads, NMDOT, private landowners, municipalities.	SWQB Wetlands Program

Program Development Activities for WATER QUALITY STANDARDS FOR WETLANDS Core Element

Overall Objective: Prepare for the future adoption of water quality standards for specific wetlands and ensure that ONRW wetlands are appropriately protected.

Action: Develop water quality standards for wetlands							
Activity	2019	2020	2021	2022	2023	Partners	Activity Lead
Review wetlands data to identify criteria that define physical, chemical and biological condition that is expected in wetlands.	x	x	x	x	x	ASWM, ACWA, SWQB Standards Team, Wetlands Program, EPA	SWQB Wetlands Program
Assess results of NMRAM data and other current state resources, data and information to develop and substantiate draft wetlands narrative standards by	x	x	x	x	x	ASWM, SWQB Staff, NMDGF, EPA, UNM Natural Heritage, others.	SWQB Wetlands Program

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subclass (montane riverine, lowland riverine, confined riverine and playas).							
Assign functions to all mapped wetland subclasses; and develop appropriate wetland specific designated uses for two wetland subclasses (riverine and playa).	x	x	x	x	x	Wetlands Program, NMDGF, Playa Lakes Joint Venture, EPA	SWQB Standards Team, EPA, Wetlands Program
Assign Water Quality Classified Segments to wetlands using wetland mapping and classification information as a basis.	x	x	x	x	x	SWQB Standards Team, Wetlands Program, EPA	SWQB Standards Team, EPA, Wetlands Program
Draft narrative criteria that qualitatively describe the condition that must be achieved to support the designated uses. Use data from reference standard sites (best obtainable) for the montane riverine, lowland riverine, confined riverine and playas subclasses.	x	x	x	x	x	EPA, SWQB Staff, others	SWQB Standards Team, EPA, Wetlands Program
Draft narrative water quality standards for wetlands for subclasses – montane riverine, lowland riverine, confined riverine and playas.	x	x	x	x	x	SWQB Staff, Wetlands Program, EPA.	SWQB Standards Team, EPA, Wetlands Program
Develop technical documents to support the narrative criteria that will be used in determining attainment of the standard			x	x	x	SWQB Standards Team, EPA, Wetlands Program.	SWQB Standards Team, EPA, Wetlands Program
Scope venues and communities for Wetlands WQS outreach.			x	x	x	SWQB Standards Team, EPA, Wetlands Program.	Wetlands Program, Standards Team, EPA

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Action: Apply anti-degradation policies for ONRW wetlands							
Activity	2019	2020	2021	2022	2023	Partners	Activity Lead
Work with USFS liaison to NMED to continue to appropriately protect and maintain condition and functions of ONRW wetlands	x	x	x	x	x	SWQB Staff, USFS liaison to NMED	SWQB Wetlands Program
Review Anti-Degradation Implementation Policy to determine if additional language related to wetlands functions, condition and hydrologic regime is appropriate.			x	x	x	SWQB Staff	SWQB Standards and Wetlands Program

ACRONYMS

ACOE	Department of the Army Corps of Engineers
ACWA	Association of Clean Water Administrators
ASWM	Association of State Wetland Managers
BAMI	Before-After Mitigation Impact
BLM	Bureau of Land Management
BOR	Bureau of Reclamation
CPP	Continuing Planning Process
CWA	Clean Water Act
EPA	Environmental Protection Agency
HGM	Hydrogeomorphic
IWJV	Intermountain West Joint Venture
LLWW	Landscape position, landform, water body type, water source
MASS	Monitoring, Assessment and Standards Section
NGO	Non-Governmental Organization
NHD	National Hydrologic Dataset
NMAC	New Mexico Administrative Code
NMBGMR	New Mexico Bureau of Geology and Mineral Resources
NMDGF	New Mexico Department of Game and Fish
NMDOT	New Mexico Department of Transportation
NMED	New Mexico Environment Department

NMRAM	New Mexico Rapid Assessment Method
NMEMNRD	New Mexico Energy, Minerals and Natural Resources Department
NMWRAD	New Mexico Wetlands Rapid Assessment Database
NPDES	National Pollutant Discharge Elimination System
NPS	Nonpoint Source
NRCS	Natural Resources Conservation Service
NWI	National Wetlands Inventory
NWMAWG	National Wetlands Monitoring and Assessment Work Group
OIT	Office of Information Technology
ONRW	Outstanding National Resource Waters
PLJV	Playa Lakes Joint Venture
SLO	New Mexico State Land Office
SQUID	Surface Water Quality Information Database
SRF	State Revolving Fund
SWQB	Surface Water Quality Bureau
TMDL	Total Maximum Daily Load
UNM	University of New Mexico
US	United States
USACE	United State Department of the Army Corps of Engineers
USFS	US Forest Service
USFWS	US Fish and Wildlife Service
USGS	US Geological survey
VIBI	Vegetation Index of Biotic Integrity
WAP	Wetlands Action Plan
WPP	Wetlands Program Plan
WQCC	Water Quality Control Commission
WQMP	Water Quality Management Plan
WQS	Water Quality Standards

