



Innovative Regional Partnerships

Valle de Oro National Wildlife Refuge



About the Refuge

Valle de Oro National Wildlife Refuge is the Southwest's first urban wildlife refuge and the first U.S. Fish and Wildlife Service (FWS) unit developed in accordance with the Standards of Excellence for Urban Refuges, a guiding strategy for engaging urban communities in wildlife conservation. This location serves as an essential ecological, educational, and recreational resource for the greater Albuquerque metropolitan area.

Upon the refuge's inception in 2012, FWS stated its dedication to cultivating a 21st century conservation ethic by reconnecting urban citizens to the natural world. FWS collaborated with other federal and regional entities to accomplish this mission and, since the refuge's dedication, have continued these partnerships to resolve other challenges. Together, the partners have designed important flood mitigation infrastructure, developed and found funding for alternative transportation routes, and researched climate change to advise and draft sound plans for the region's future.

Establishing Essential Partnerships

Throughout the United States, the U.S. Fish and Wildlife Service (FWS) works with partners to conserve and enhance natural ecosystems that provide vital habitat for fish and wildlife and provide benefits for their surrounding communities. These community benefits include opportunities for residents to explore natural landscapes, increase tourism, and restore ecosystem services. Because FWS National Wildlife Refuges (NWR) often serve multiple purposes for FWS and local communities, there are many opportunities for FWS to partner with surrounding communities on projects of mutual benefit.

In Central New Mexico, FWS has worked successfully with regional partners to create the Valle de Oro NWR and develop initial plans for the refuge. In addition to the creation of the refuge, these partnerships have led to progress in three key areas: transportation, flood mitigation, and climate preparedness. FWS has found areas of mutual benefit that have helped them develop projects, obtain funding, and conduct research that supports the FWS mission and local goals.

A New Urban Model for Wildlife Refuges

The City of Albuquerque is among the fastest growing urban areas in the United States. Seven miles from the city's downtown and within a thirty minute drive of 50% of New Mexico's population, the Valle de Oro NWR is perfectly positioned as a new urban wildlife refuge to host awareness events and educational programming, particularly for younger residents. The refuge strengthens existing biodiversity; maintains a stop for migratory birds, fish, and mammals; and conserves a rare ecosystem in an area of the metropolitan region with increasing suburban development. By offering environmental education and recreation programs to urban residents, the refuge fosters environmental awareness, a sense of civic responsibility, and pride in the regional landscape.

Valle de Oro NWR is a 570-acre refuge located on a former dairy farm in the

historic floodplain of the Rio Grande at the northern edge of the Chihuahuan desert. FWS acquired the land for the refuge after it had been targeted for various development proposals. The refuge's placement adjacent to the Albuquerque Riverside Drain and the Williams Lateral, which irrigates the east side of the Rio Grande bosque, provides FWS with an opportunity to restore native habitats, buffer the effects of surrounding urban and suburban development, and even provide flood control.

Partnering to Create an Urban Refuge

FWS teamed with multiple local, regional, and national partners to establish the Valle de Oro NWR. FWS purchased the property with assistance from the Trust for Public Land, U.S. Bureau of Reclamation, the State of New Mexico, the Albuquerque Metropolitan Arroyo Flood Control Authority (AMAFCA), and Bernalillo County. FWS worked with these and other partners to develop plans and collaborated with community representatives to organize public meetings, design workshops, and school programs so that public feedback was incorporated into the new refuge. Partners included:

- AMAFCA
- Bernalillo County
- Bureau of Land Management
- Friends of Valle de Oro National Wildlife Refuge
- Middle Rio Grande Conservancy District (MRGCD)
- Mid-Region Council of Governments (MRCOG)
- National Park Service
- New Mexico State Parks
- The State of New Mexico
- Trust for Public Land
- U.S. Army Corps of Engineers (USACE)
- U.S. Bureau of Reclamation

A full list of partners can be found at: www.fws.gov/refuge/Valle_de_Oro/what_we_do/partnerships.html



These early relationships turned into sustained partnerships that paid dividends well beyond the initial acquisition and planning for the refuge in three key ways:

Transportation: FWS worked with Bernalillo County transportation planners to apply for Federal Lands Access Program (FLAP) funding to support alternative transportation access to the refuge. The project was selected for funding in 2014.

Flood Mitigation: FWS teamed with AMAFCA and MRCOG to use the refuge’s restoration as part of a regional flood protection strategy.

Climate Preparedness: FWS collaborated with MRCOG and other federal, state, and local partners as part of the Central New Mexico Climate Change Scenario Planning Project (CCSP), which studied potential temperature and precipitation changes, projected associated impacts on area wildlife, and helped local policy makers plan for the region’s future.

Partnerships in Transportation: Developing Alternative Transportation Options

One priority that FWS has advanced at Valle de Oro NWR through regional partnerships is to increase access to the

refuge by transit, walking, and bicycling. This work fulfills the FWS Urban Refuge Initiative goals by providing greater access to natural areas for people without cars and by reducing greenhouse gas emissions and other environmental impacts from driving. Currently, reaching the refuge by alternative transportation is a challenge at Valle de Oro NWR because despite its close proximity to downtown Albuquerque, the refuge is primarily accessible by private vehicle. It is located along a busy strip of 2nd Street SW which lacks pedestrian and bicycle facilities or transit. With the help of a Public Lands Transportation Scholar, FWS worked with Bernalillo County transportation planners to secure multimillion dollar FLAP funding to begin to resolve difficulties associated with accessing the site. The funding will finance the design and construction of a multi-use trail to the refuge and assess opportunities to connect the refuge to local transit services over the next two years.

Partnerships in Flood Mitigation: Creating Regional Flood Prevention Infrastructure

AMAFCA is a regional agency tasked with preventing injury and death, and mitigating property damage from flooding. Together, FWS and AMAFCA developed a plan that utilizes the refuge as natural flood mitigation infrastructure and helped MRCOG assess future flood risk. Before being used for agricultural purposes, the Valle de Oro NWR site contained natural

Collaborative Transportation Projects at Valle de Oro NWR

Multi-use trail on 2nd Street SW to the Refuge: This project will improve general accessibility throughout the area by helping connect the refuge, Mountain View community, and beyond. FWS is collaborating with the USACE, MRGCD, MRCOG, Friends of Valle de Oro, City of Albuquerque, and BikeABQ to determine if additional hiking and cycling networks can be linked to the trail.

Rail Runner Connection: With tracks running parallel to 2nd Street SW, New Mexico’s commuter train, the Rail Runner, currently stops three miles away from Valle de Oro NWR. Community members and local supporters are in favor of adding a new stop or running special event rides to improve access to the refuge.

ABQ Ride Connection: FWS is also working with partners and community members to determine the feasibility of lengthening a public bus route in Albuquerque’s ABQ Ride system two miles south to reach Valle de Oro NWR. While this strategy is still in discussion, site designs for the refuge include a bus turnaround to accommodate future transit.



drainage habitat features that slowed storm run-off from higher elevations and caught sediment deposit before it entered the Rio Grande. The new site design introduces a large meadow swale (*illustrated on the following page*) that will retain storm water, and thereby shield the surrounding Mountain View community from flooding, improve water quality before storm water is returned to the Rio Grande, and provide additional water to the site for the restoration of a diverse riparian habitat. The resulting improvements will directly support the refuge's mission as well as meet local flood mitigation goals.

Partnerships in Climate Preparedness: The Central New Mexico Climate Change Scenario Planning Project

FWS contributed to and participated in the CCSP, a project that will inform transportation and land use decision making in the Albuquerque region. Participants, including FWS staff, used scenario planning techniques to analyze strategies that reduce greenhouse gas emissions and prepare for the impacts of climate change. Impacts identified include increasingly severe heat waves, drought, wildfires, and flooding. The project's findings will be shared with local planning agencies and used in hazard mitigation plans.

MRCOG will use the results of the CCSP analysis in the development of its Metropolitan Transportation Plan, which guides investment of federal, state,

and local funding for transportation investments. FWS's experience contributed valuable insight to developing MRCOG's transportation goals while Valle de Oro NWR staff benefitted from an improved understanding of climate change's potential to contribute to:

- Wildfire threat
- Declining size of riparian zone
- Increased risks to endangered and threatened species

In addition to helping regional agencies increase the preparedness of their land use and transportation plans, the CCSP's research will aid FWS by informing refuge environmental management and providing information for FWS staff to communicate the risks to the natural environment from climate change.

Conclusion

By working with other agencies and strengthening existing partnerships, FWS has accomplished multiple goals. Today, the refuge hosts a range of recreational and educational activities that reconnect Albuquerque to its natural environment. By working with diverse regional partners to protect habitat, increase alternative transportation to the refuge, reduce local flood risk, and study potential impacts of climate change, FWS demonstrates how collaboration between agencies can lead to greater outcomes that benefit whole communities.

Research Findings from the CCSP

Wildfire threat: The CCSP found that the region will face an increased risk of extreme high temperatures, drought, and wildfires. New Mexico is already confronting these threats. Of the 20 largest wildfires recorded in New Mexico's history, 19 of them occurred in the last 15 years. Furthermore, the probability of human-caused wildfires is heightened by the overall proximity of a dense urban population to locations with ample amounts of dry brush.

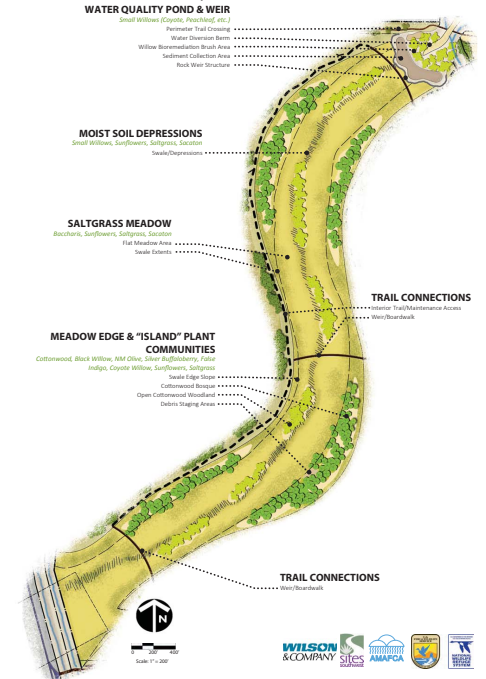
Decline of riparian zone: Changing precipitation patterns, warmer temperatures, and corresponding drought pose an additional hazard to Central New Mexico's riparian zone, which has been identified as the most critical habitat in the region. Because of riparian habitats' reliance on ample water resources, they are exceptionally vulnerable to climate change and human activity. In Central New Mexico, human development of the wetlands alone has resulted in 80% of them being drained.

Increasing rates of endangered and threatened species: The Upper Rio Grande and New Mexico's rising temperature have already negatively impacted endangered and threatened wildlife species. If climate trends continue along their current trajectory, these species are at greater risk of extinction. Decreases in stream flows, reductions in available water to support riparian habitats, longer periods of drought, and more frequent and severe wildfires contribute to species decline. Moreover, because each species individually plays an important role in their ecosystem, the loss or diminishment of any one population will have major repercussions for the ecosystem as a whole.

Valle de Oro Site Plan
Concept 1



AMAFCA Meadow Concept



Valle de Oro Site Plan
Concept 2



Learn More About the Project

- www.fws.gov/refuge/valle_de_oro
- www.facebook.com/ValleDeOroNationalWildlifeRefuge
- www.amafca.gov/projects/valledeoro.html
- www.volpe.dot.gov/NMScenarioPlanning

Images:

*View of Valle de Oro NWR: Kim Kurian Hiner
Railrunner; Guided Viewing: USFWS
Valle de Oro NWR site plans: Sites Southwest*