United States Department of the Interior
U.S. Fish and Wildlife Service

Ash Meadow National Wildlife Refuge

SNPLMA Round 16
Capital Improvement Program

Improved Access to Connect with Nature and Recreational Opportunities

Project location
N 36° 25′ 29.21″
W 116° 19′ 44.22″

Amount Requested $5,779,014

Project Manager: Annjanette Bagozzi
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Nomination reviewed and approved by: /s/ April 29, 2016

Christy Smith
Project Leader

Date

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Executive Summary:

The U.S. Fish & Wildlife Service requests approval of funds to provide safe and reliable access for visitors at Ash Meadows National Wildlife Refuge in Nye County, Nevada (a part of Desert National Wildlife Refuge Complex). The goals of the project are to provide safe and reliable access for visitors, enrich the visitor experience at Ash Meadows National Wildlife Refuge and improve the public's connection with natural, cultural and recreational resources on public lands. This would be accomplished by improving public access roads and parking areas throughout the Refuge. The project emphasizes improvements to roads and/or parking areas required for visitors to access the new Visitor Center, other visitor use facilities such as boardwalks and trails, other public use areas, and to Devils Hole. The proposed deliverables for this nomination would consist of improving approximately 23.3 miles of gravel roads and 11 gravel parking areas (57,160 SF), paving approximately 2.3 miles of West Spring Meadows Road, and installing signs. Improvements to roadways and parking areas will be designed and constructed according to requirements in the FHWA manual.

Purpose Statement:
The U.S. Fish & Wildlife Service requests approval of funds to improve roads and provide safe and reliable access for visitors at Ash Meadows National Wildlife Refuge. The project would improve approximately 23.3 miles of gravel roads and 11 gravel parking areas (57,160 SF), pave West Spring Meadows Road from the Refuge boundary to the new Visitor Center (2.3 miles), install signs to improve safety, and enhance wildlife dependent recreation opportunities for the local community and other visitors. The project would enrich the visitor experience at Ash Meadows National Wildlife Refuge and improve the public's connection with natural, cultural and recreational resources on public lands. This project is also important to improving access to the new Visitor Center that opened in 2015, which was funded by the Southern Nevada Public Lands Management Act (Project 8-2).

Background Information and Need for Project:
Ash Meadows National Wildlife Refuge (NWR; Refuge) was established in 1984 to protect the endemic, endangered, and rare organisms (plants and animals) found in Ash Meadows. The Refuge has a greater concentration of endemic life than any other local area in the United States and the second greatest concentration in all of North America. The Refuge's mission is to provide for the protection and recovery of threatened and endangered fish and plants, while enhancing safety, providing access for the public, improving the visitor experience, and addressing community needs.

Currently, the Refuge faces several transportation challenges, which was outlined in the *Ash Meadows Transportation Study Existing Condition Report* completed in 2009. Serious traffic accidents have occurred on Refuge roadways, many of which are caused by excessive travel speed, particularly on curvy roadway segments. Most of the network of unpaved access roads are in poor condition and experience wet, muddy and impassable conditions at different times throughout the year. Major recurring damage to roadways result from the high water table, spring outflow over roadways, and rain events. Refuge staff must completely close several roads at various times throughout the year. Maintaining the roads requires a substantial commitment of time and resources due to poor road conditions, frequent washouts, and moderate vehicle traffic, and the Refuge only has one engineering equipment operator.

The Refuge contains numerous points of interest, including springs, the Visitor Center, trails, boardwalks, natural and cultural resources, and historic structures. This nomination is designed to provide safe and reliable access for visitors, and enrich the visitor experience at the Refuge by increasing wildlife dependent recreation opportunities for the local community and other visitors. The project focuses on completing improvements to roads and/or parking areas required for visitors to access the new Visitor Center, other visitor use and recreation facilities such as boardwalks and trails, other public use areas, and to Devils Hole.

The proposed work addresses the three values of sustainability, connectivity, and community by enhancing visitor experience, protecting resource values, and improving environmental quality and public safety. The project promotes sustainability by improving existing roads and parking areas, which will significantly reduce O&M costs. The project would improve visitor safety and access, and provide opportunities for visitors to observe and connect with the varied environments and ecosystems within the Refuge. Improved roads would enable buses to access

the Refuge and youth from local schools would have new and enhanced opportunities for recreation and education experiences on public lands close to their local community. The project would provide new opportunities for the families in the rural communities of Amargosa Valley and Pahrump to support conservation and understand natural resources at the Refuge and surrounding public lands.

Project Timeframe:

5 Years – General Timeline

Planning and Design	Years 1-2
Construction and Installation	Years 3-4
Final Documentation and Closeout	Year 5 (3 months only)

Project Phasing

There are no future phases anticipated at this time. The current nomination is a stand-alone, viable project; however it can be completed in phases if funding is restricted. It is understood that there is no guarantee or expectation of funding for future phases that might be associated with the proposed project.

Project Location:

Ash Meadows National Wildlife Refuge, in Amargosa Valley near the town of Pahrump in Nye County, Nevada (see Attachment 2: Project Map). The proposed project is located in Congressional District 4.

Project Deliverables:

Primary Deliverables

(1) Improve approximately 23.3 miles of gravel roads per recommendations in the Transportation Study Summary Report and as determined by engineering designs and specifications.
(2) Pave approximately 2.3 miles of West Spring Meadows Road from the Refuge boundary to the Visitor Center as determined by engineering designs and specifications.
(3) Improve approximately 11 gravel parking areas (57,160 SF) per recommendations in the Transportation Study Summary Report and as determined by engineering designs and specifications.
(4) Install transportation safety signs.
(5)

Anticipated Deliverables

Increased visitor safety and access to recreation opportunities, as well as increased visitor appreciation of the public lands and the role of the National Wildlife Refuge System in conserving our natural resources for future generations. Protection of threatened and endangered fish and plants. Reduction in invasions of invasive nonnative crayfish into restored habitats for native fish and other aquatic species.

Standard Deliverables

(1) Contract management by agency personnel, including but not limited to developing scopes of work, writing bid requests, reviewing proposals/bids, and providing technical representation for Contracting Officer throughout project duration.

(2) Environmental permitting by agency personnel when applicable, such as National Environmental Policy Act, Section 106 of the 106 of the National Historic Preservation Act, section 7 of the Endangered Species Act, etc.

(3) Project management and coordination by agency personnel to be involved in planning, oversee project activities and deliverables, conduct appropriate reviews throughout different stages of deliverables, coordinate with other agency personnel or contractors, and ensure sufficient progress throughout the duration of the project.

Relevant SNPLMA Performance Measures:

Outcomes

Improve safety and access to recreational opportunities for the local community and other visitors by improving roads and parking areas. Enriching the visitor experience at Ash Meadows National Wildlife Refuge and improve the public's connection with natural, cultural and recreational resources on public lands.

- Output of Primary Deliverables 1, 2 and 3: 23.3 miles of recreational roads improved and 11 recreational parking areas improved.
  - Performance Measure R4 – Miles of New Recreational Roads / Trails Construction or Routes Improved
  - Performance Measure O6 – Number of New Interpretive or Education Publications, Signs, Kiosks, Displays, etc. Produced

Project Implementation Process:

Key milestones in planning, design, fabrication and installation/construction will be monitored by agency personnel to ensure completion of deliverables. A deliverable will be completed when 100% of a road or parking area is improved and/or 100% of signs are fabricated and installed.

Deliverables and Implementation Schedule

Deliverable	Year 1	Year 2	Year 3	Year 4	Year 5
(1) Improve approximately 23.3 miles of gravel roads.	Planning and Design	Planning and Design	Construction and Installation	Construction and Installation	Construction and Installation; Final Documentation and Closeout
(2) Pave approximately 2.3 miles of West Spring Meadows Road from the Refuge boundary to the Visitor Center.	Planning and Design	Planning and Design	Construction and Installation	Construction and Installation	Construction and Installation; Final Documentation and Closeout
(3) Improve approximately 11 gravel parking areas (57,160 SF).	Planning and Design	Construction and Installation			Final Documentation and Closeout
(4) Install transportation safety signs.	Planning and Design			Fabrication and Installation	Final Documentation and Closeout
(5) Contract management	Throughout project duration				
(6) Environmental permitting	NEPA, Section 106, ESA, etc.				
(7) Project management	Throughout project duration				

Level of Project Readiness:
The U.S. Fish & Wildlife Service is ready to initiate implementation of the nominated project within one year of notification of funds availability. The general planning, permitting and project management will be performed by agency personnel within the first year. A Geomorphic and Biological Assessment of the Refuge was completed in 2006. The Transportation Study Existing Conditions and Summary Reports were completed in 2009. Roadway and parking area improvements will be designed according to requirements in the FHWA manual.

Relationship to Other SNPLMA Projects:

This project would directly augment the legacy of the other SNPLMA projects completed at Ash Meadows NWR, including: Ash Meadows Visitor Services Improvements (project # FW18, priority 5-5); Increasing Public Accessibility, Interpretive, and Educational Opportunities at Ash Meadows NWR (project # FW19, priority 5-9); and Administrative Headquarters Facilities (project # FW31, priority 8-2). In addition, this project will enable more visitors to safely explore the Refuge and enjoy the wonderful new Visitor Center, boardwalks, trails, and the natural, cultural and historical resources.

How Will it be Determined When the Project is Complete.
This project will be complete when all the roads have been reconstructed, final invoices paid and the FWS has received a lien release form the contractor.

Proposed Project Budget:
$5,764,014. See attached spreadsheet for Estimated Necessary Expenses and detailed costs.

<u>Non-SNPLMA sources of funding or in-kind contributions</u>
An estimated $475,000 in contributed funds is projected at this time. The design for improving (including preparation for paving) the West Spring Meadows Road from the boundary to the Visitor Center and replacement of culverts is being funded by the Service at a cost of $395,000. In addition, Fish & Wildlife Service personnel (Complex Deputy Project Leader, Refuge Manager and Equipment Operator) charging to base agency funding would contribute time and therefore salary each year to the project. The Deputy Project Leader and Refuge Manager would mostly be involved in the final planning and design phase, as well as review of final documentation and the closeout package. The Equipment Operator would be involved during construction and implementation, primarily with contractors onsite. In addition, water will be provided, as needed, for dust control and road surface preparation. Refuge equipment may be provided, if needed, but is not anticipated or included in the contributed funds estimate at this time.

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Capital Improvement Project Proposal
Estimated Necessary Expenses

Project Name:	Improved Access to Connect with Nature and Recreation Opportunities	Date:	27-Apr-16
Agency:	U.S. Fish and Wildlife Service, Ash Meadows NWR		
Project #:		Priority #	
Prepared by:	Annjanette Bagozzi		
Phone #	775-372-5435		%

1	**Planning, Environmental Compliance & Preconstruction Engineering and Design** ***(Not to exceed 27% of total project costs)****	$405,250	7.0%
	(pre-design sketches and conceptual drawings; environmental assessment and permitting, specialist surveys/reports for archaeology, wildlife, biology, etc.; architectural and engineering analysis, design survey & field investigations; construction drawing, specifications, cost estimates, and engineering technical reports.)		
2	**Construction Contract Costs**	$5,106,495	88.4%
	(including labor, supplies & materials, construction management, etc.; sampling/testing; site restoration; and government furnished supplies and materials.		
3	**Project Equipment**	$0	
	(pg. 89 of the Implementation Agreement) SNPLMA funds can only be used for "project related necessary expenses" and SNPLMA can reimburse only for those equipment costs directly associated with completion of the approved project. Does not include office furnishings or equipment necessary for operations or maintenance of the project).		
4	**Travel**	$24,578	0.4%
	(including per diem where official travel status is required to carry out the project, such as to serve as COR, experts to review reports, etc.)		
5	**Official Vehicle Use**	$6,300	0.1%
	(pro rata cost for use of Official Vehicles when required to carry out the project)		
6	**Other Direct and Contracted Labor**	$158,391	2.7%
	Agency payroll for the Contracting Officer to do project procurements, COR Project Inspector, Section 106 Consultation, NEPA Lead, Project Manager, Project Supervisor, and subject experts to review contracted surveys, design/drawings, plans, reports, etc.; Also covered is the cost to contract for a Project Manager and/or Project Supervisor if contracted separately from other project costs.		
7	**FWS Consultation - Endangered Species Act**	$8,000	0.1%
8	**Federal Direct Labor** *(direct angency labor for construction, PI, CO, and COR work)*	$70,000	1.2%
9	**Other Necessary Expenses** (See IA Appendix B-3)	$0	
	Total Requested/Estimated Budget	**$5,779,014**	**100.00%**
10	**Total Estimated contributed funds**	$475,000	
	Total Estimated Project Value (*Requested funding plus contributed funds)*	**$6,254,014**	

1	Estimated project start date:	6/1/2017
2	Planning, NEPA, and design phase complete	6/1/2018
3	Construction and build-out complete	12/31/2020
4	Project close-out (allow 120 days to process)	6/1/2021

General Comments:

Planning and design, years 1-2; construction, years 2-4; and final documentation and closeout, years 4-5.

1 Estimated costs for Planning, Conceptual Design, Environmental Compliance and Field Work/Surveys, NEPA & Pre-construction Architectural and Engineering Design Services

	Description	Units	Unit of measure	Unit Cost	Est. Cost
Professional Contracts and Services	Preliminary Engineering, NEPA, Permits, etc.	1	Job	$405,250	**$405,250**
		1	Job		**$0**
		1	Job		**$0**
					$0
					$0
				Estimated total	**$405,250**

2 Estimated Costs for Construction Contracts (Agency costs)

	Description	Units	Unit of measure	Unit Cost	Est. Cost
Construction Management Contract Services	Contract for: • Construction Engineering, • administration, • QA inspections, • lab testing	1	JOB	$462,863	**$462,863**
	Contract for construction • gravel roads and parking areas • Asphalt (2.3 miles only) • low water crossing, • culvert installation, including supplies and materials • low water crossing, including supplies and materials	1	JOB	$4,643,632	**$4,643,632**
				Estimated total	**$5,106,495.00**

4. Estimated travel (not associated with construction contract administration)

Identify by title/position and purpose of travel

	Description	Units	Unit of measure	Unit Cost	Est. Cost
Government Travel	Entity Planning/Design/Coordination meetings	1	ea	$24,578	**$24,578**
					$0
					$0
					$0
				Estimated total	**$24,578**

5 Estimated costs for use of Government vehicles and equipment (FOR or hourly rate)

	Description	Units	Unit of measure	Unit Cost	Est. Cost
Heavy Equipment and government vehicles	GSA Vehicles	21	Month	$300	$6,300
					$0
					$0
					$0
					$0
				Estimated total	$6,300

6 Labor costs for developing, managing and implementing contracts to complete the project.

This is an estimate of the total hours. Identify by Specialist title and role. Recommend use of Reimbursable Project Log to monitor and track agency labor charged to the project

	Description	Units	Units of measure	Unit Cost	Est. Cost
Federal and contract personnel involved with developing and executing contracts	Project Management & Budget Tracking	1	JOB	$158,391	$158,391
			Hrs		$0
			Hrs		$0
			Hrs		$0
					$0
					$0
					$0
				Estimated total	$158,391

7 Estimated costs for consultation with the FWS for endangered species review

Identify by title/position

	Description	Units	Units of measure	Unit Cost	Est. Cost
Agency personnel involved	FWS Biologist(s)	100	Hrs.	$80	$8,000
					$0
					$0
					$0
				Estimated total	$8,000

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8	Federal Direct Labor for project construction				
	Note: Identify by title/position and role. Recommend use of Reimbursible Project Log to track actual labor hours charged to the project.				
	Description	Units	Units of measure	Unit Cost	Est. Cost
Federal personnel performing construction of the project	Heavy Equipment Operator	1000	Hrs	$40	**$40,000**
	Refuge Manager	600	Hrs	$50	**$30,000**
			Hrs		**$0**
			Hrs		**$0**
			Hrs		**$0**
			Hrs		**$0**
			Hrs		**$0**
				Estimated total	**$70,000**

10	Contributed funding to complete construction				
	Does not include any agency or partner costs incurred prior to authorization to expend SNPLMA project funds or funding from other SNPLMA funded projects. Contributed funds, in-kind services and/or materials for the construction of the project.				
	Description	Units	Unit of measure	Unit Cost	Est. Cost
Description of in-kind services, labor, or materials to complete construction	Partner in-kind labor for planning and design		hrs.	$21.36	**$0**
	Partner contributed funds to the entity for construction		$$		**$0**
	Partner contributed materials/equipment for construction		ea		**$0**
	Volunteer labor for construction		hrs	$21.36	**$0**
	Agency cost of labor for planning and desing				**$0**
	Agency contributed funds for construction		ea		**$0**
	Agency contributed materials/equipment for construction		ea		**$0**
					$0
				Estimated total	**$0**

Best value option for a viable project

The project represents the best value option for a viable project because it proposes improving visitor safety and access to the Refuge in a cost effective manner. Roadway improvements have been identified in the Transportation Study Summary Report (SNPLMA funded).

Operations and maintenance requirements

Improving roadways and parking areas will drastically improve the structural and functional integrity; reduce maintenance requirements and repairs associated with flood events.

Ranking Criteria:

1. **SUSTAINABILITY: The project promotes sustainability by conserving resources to ensure availability to future generations, or restores or maintains natural processes. The project will remain relevant and continue to provide a benefit in the face of changing demographics and/or environmental conditions. The project minimizes the human impact on the environment.**

   The project would promote sustainability by enhancing visitor experience, protecting resource values, and improving environmental quality and public safety. Currently the Refuge's networks of unpaved access roads are in poor condition and experience wet, muddy and impassable conditions at different times throughout the year. Major recurring damage to roadways result from the high water table, spring outflow over roadways, and rain events. Refuge staff must completely close several roads at various times throughout the year.

   The project would improve visitor safety and access, and provide opportunities for visitors to observe and connect with the varied environments and ecosystems within the Refuge. Improved roads would enable buses to access the Refuge and youth from local schools would have new and enhanced opportunities for recreation and educational experiences on public lands close to their local community. The project would provide new opportunities for the families in the rural communities of Amargosa Valley and Pahrump to support conservation and understand natural resources at the Refuge and surrounding public lands.

2. **CONNECTIVITY: The project provides recreational opportunities that link population centers, recreation facilities and natural landscapes. It encourages people to meaningfully connect with their natural environment, thus helping them appreciate and care for the environment.**

   The proposed project promotes connectivity by improving visitor safety and access, which will enhance recreation opportunities and enrich the visitor's experience on public lands.

   The project would improve access and provide opportunities for visitors to observe and connect with the varied environments and ecosystems within the Refuge. The project would facilitate exploration of the Refuge by enabling visitors to extend their experience throughout the Refuge. The project would establish or increase the public's connection with natural, cultural and recreational resources on public lands, resulting in respect and conservation of the resources on the Refuge and surrounding public lands.

3. **COMMUNITY: This project provides outdoor recreation opportunities to improve the quality of life, especially for underserved communities. It conserves or restores the functionality, resiliency and integrity of biological communities. The project encourages partnerships, which in turn also builds community.**

The proposed project would improve the community by providing safe and reliable access to outdoor recreation opportunities for visitors at Ash Meadows National Wildlife Refuge. Improved roads would enable buses to access the Refuge and youth from local schools would have new and enhanced opportunities for recreation and educational experiences on public lands close to their local community. The project would provide new opportunities for the families in the rural communities of Amargosa Valley and Pahrump to support conservation and understand natural resources at the Refuge and surrounding public lands.

The project would enrich the visitor experience at Ash Meadows National Wildlife Refuge and improve the public's connection with natural, cultural and recreational resources on public lands.

An estimated $475,000 in contributed funds is projected at this time. Funding is being provided for design work and the installation of culverts on West Spring Meadows Road and Fish & Wildlife Service personnel charging to base agency funding would contribute time and therefore salary each year to the project.

4. Addresses maintenance and operation costs.

The project promotes sustainability by improving existing roads and parking areas, which will significantly reduce O&M costs. Improving roadways and parking areas will drastically improve the structural and functional integrity; reduce maintenance requirements and repairs associated with flood events.

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Attachment 1: Ash Meadows NWR Roadways and Parking Areas

RTE #	Route Name	RTE MI	Route Description
011	Devils Hole Road	1.69	Spring Meadows RD to East Boundary
012	South Spring Meadows Road	3.49	From Rte. 013 to South Boundary
013	West Spring Meadows Road	4.50	From Rte. 012 to West Boundary
100	Shop/Bunkhouse/RV Access Road	.38	From Rte.013 to Shop
101	Longstreet Road	5.62	From Rte. 013 to North Boundary
102	Peterson Reservoir Road	3.8	From Rte. 013 to Rte. 101
103	Crystal Reservoir Road	2.13	From Rte. 013 to Rte. 013
106	Crystal Reservoir Waterfront Road	.5	From Rte. 103 to End
107	Peterson Reservoir Spur Road	.19	From Rte. 102 to Parking Area
109	Crystal Reservoir NW Access	.09	From Rte. 103 to Boat Ramp
108	Warm Springs Road	.84	From Rte. 013 to Fish Facility

RTE #	Route Name	RTE SF	Route Description
900	RV/Bunkhouse/Shop Parking	12048	End of Rte. 100
901	Fairbank Springs Parking	3115	N. Boundary & Imvite Road
902	Rogers Spring Parking	1430	From Rte. 101@ Spring
903	Longstreet Spring Parking	4646	From Rte. 101 @ Boardwalk Trailhead
904	Peterson Reservoir Parking	2627	End of Rte. 107
905	Crystal Reservoir NW Parking	4022	From Rte. 109 @ Reservoir
906	Crystal Reservoir Parking	6972	From Rte. 106 to Parking 1
907	Crystal Reservoir Parking	10401	From Rte. 106 to Parking 3
908	Crystal Reservoir Parking	3401	From Rte. 106 to Parking 4
909	Crystal Reservoir Parking	7991	From Rte. 106 to Parking 7
913	Crystal Reservoir Road W Parking	507	Southwest Corner of Rte. 103

Project Area Photographs – Road Conditions Following Major Rainfall Events in 2010 and 2015

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