Bureau of Land Management
Ely District, Schell Field Office

SNPLMA Round 15
Conservation Initiative Project

Pahrump Poolfish Habitat Enhancement at the Shoshone Ponds ACEC

Amount Requested: $541,690

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BLM
Ely District Office

NATIONAL SYSTEM OF PUBLIC LANDS

Purpose Statement:
The Ely District Bureau of Land Management (BLM), in cooperation with the Pahrump Poolfish Recovery Implementation Team (RIT), is proposing to enhance the Pahrump poolfish (*Empetrichthys latos*) habitat at the Shoshone Ponds Area of Critical Environmental Concern (ACEC) in South Spring Valley, Nevada (Figure 1) to ensure there is adequate habitat and sustainable populations of this federally listed endangered species. Improving the Pahrump poolfish habitat at the Shoshone Ponds ACEC will help ensure that the BLM will be able to better maintain the habitat and ensure a sustainable Pahrump poolfish population.

Background and Need:
The Shoshone Ponds ACEC contains one of the three remaining populations, and currently the largest, of the federally endangered Pahrump poolfish in the state of Nevada. The refuge ponds (north, middle and south ponds), the springbrook from artesian well #2, and the stockpond associated with artesian well #4, in the ACEC are inhabited by Pahrump poolfish (Figure 2). The Pahrump Poolfish RIT is made up of BLM, U.S. Fish and Wildlife Service (USFWS), Nevada Department of Wildlife (NDOW), U.S. Geological Survey (USGS), Southern Nevada Water Authority (SNWA), Nevada Natural Heritage Program (NNHP), and North Dakota State University (NDSU) representatives that meet at least annually to discuss Pahrump poolfish population trends, studies, habitat rehabilitation, and any related issues or concerns regarding the species. Over the last few years, the RIT has been discussing habitat enhancement at the Shoshone Ponds ACEC.

The Ely District Approved Resource Management Plan (RMP), states the BLM would "manage public lands to conserve, maintain, and restore special status species populations and their habitats; support the recovery of federally listed threatened and endangered species…" The USFWS programmatic biological opinion determined that implementation of the programmatic activities as proposed in the RMP was not likely to jeopardize the continued existence of the Pahrump poolfish. The following management actions are identified in the RMP:

> SS-11: Manage the refugium at Shoshone Ponds for Pahrump poolfish in accordance with the Recovery Plan for the Pahrump killifish (now called the Pahrump poolfish).
>
> SS-14: Develop additional ponds at Shoshone Ponds to increase the habitat for the Pahrump poolfish. This development would be consistent with the biological opinion.

Additionally, two of the objectives of the Recovery Plan for the Pahrump Killifish (poolfish; 1979), is to "preserve and protect existing transplanted Pahrump killifish (poolfish) populations and their habitats" and "establish and protect viable self-sustaining Pahrump killifish (poolfish) population's in suitable new or restored habitats."

The refuge ponds, the springbrook from artesian well #2, and artesian well #4 and its associated stockpond, are proposed for habitat enhancement projects:

The Refuge Ponds:

The refuge ponds (north, middle, and south) were constructed in 1972 jointly by the BLM, NDOW, and USFWS as a refuge for Pahrump poolfish and other sensitive fish species (Figures 3 & 4). Over the last 40 years the ponds have decreased substantially in size, and therefore fish habitat, due to vegetation encroachment and siltation. In recent years, Pahrump poolfish have been lost in the north pond, presumably due to declining habitat size and poor water quality linked to the ongoing changes in habitat. The issue has been resolved for the immediate future with hand tools and repair of the NDOW well that was constructed in the early 1970's, but excessive vegetation and siltation in all the refuge ponds remains a long-term challenge (Figures 5 & 6). There is need to improve the Pahrump poolfish habitat at the three ponds to ensure a sustainable and thriving population.

The Pahrump Poolfish RIT has discussed numerous options on how to improve the habitat conditions at the refuge ponds for poolfish. Ideas include connecting the existing middle and north pond with a channel, connecting all three of the existing ponds with multiple channels, or creation of one large pond from the three existing ponds. Additional discussion among the RIT is needed to determine the best plan of action for the refuge ponds.

Springbrook from Artesian Well #2:

The springbrook from artesian well #2, which was constructed by the Civil Conservation Core (CCC) in the 1930's, contains one of the larger populations of Pahrump poolfish in the ACEC (Figure 7). The springbrook was fenced in the summer of 2014 to prevent livestock from over utilizing the riparian vegetation and trampling the riparian meadow created by the springbrook. The RIT has been discussing possible ways to further enhance the habitat for this population, such as developing a pond along the extent of the springbrook.

Artesian Well #4 and Stockpond:

Artesian well #4 that currently provides water to the stockpond was also constructed by the CCC in the 1930's (Figure 8). Over the last two years water levels in the stockpond has fluctuated drastically and poses a risk to the Pahrump poolfish population (Figure 9 & 10). Historically the well has flowed ~5.8 gpm, however this past year the lowest flow measurement was <0.5 gpm. The fluctuating water levels are believed to be caused by drought, irrigation pumping, and possibly due to an improperly functioning well. Water levels in the stockpond were drastically low in July of 2014 and 52,000 gallons of water were hauled to the stockpond. The well currently has a solar-powered, self-priming submersible pump, pumping ~3.3 gpm. The submersible pump along with recent precipitation has kept the stockpond at bankfull.

The RIT has been discussing the benefits of reconditioning the well to improve well efficiency. Reconditioning the well would include performing a video log of the well to see the condition of the well prior to redevelopment. Drilling the well deeper to increase well output will also be examined utilizing the expertise of local and regional hydrologists. Additionally, a hydrological assessment will occur to look at seepage concerns of the ponds and overall groundwater level changes due to climate change and local water pumping.

This project supports Goals 1 and 2 in the SNPLMA Strategic Plan that reflects the projects sustainability, connectivity, and community. This project will enhance the sustainability of Pahrump poolfish populations through increased water availability through proposed habitat enhancements. This project will help connect the community to the importance of protecting an endangered fish species and the ecological importance of the Shoshone Ponds ACEC. Additionally, the project will enhance the biological community through habitat restoration, significantly increasing the habitat available to the poolfish.

Goal 1: Sustain the quality of the outdoor environment by conserving, preserving, and restoring natural and cultural resources.

- *Conserve and Restore Natural Resources – Maintain or increase the quality of natural resources and protect their ecological integrity and sustainability.*
  Over the last 40 years there have been various issues with the poolfish habitat at the Shoshone Ponds ACEC, from vegetation encroachment, siltation, and poor water quality and/or quantity. This enhancement project will resolve these issues and minimize the likelihood of them occurring in the future. The proposed habitat enhancements are necessary to ensure there is adequate habitat to support sustainable and thriving populations of Pahrump poolfish.

Goal 2: Improve the quality of life for all publics in urban and rural communities by enhancing recreational opportunities that connect people with the outdoor environment.

- *Promote education- Provide opportunities to improve the public's connection with natural, cultural, and recreational resources through education.*
  A component of this project is to design and install an interpretive kiosk to educate the public regarding the importance of the Shoshone Ponds ACEC. It will describe the history of the refuge ponds, importance of the Pahrump poolfish, as well as other wildlife that utilize the area. The kiosk may also include information regarding the cultural importance of the area.

Project Timeframe:

Year 1:

- Pre-planning with the RIT to determine habitat enhancement actions

- Develop contract/agreement for hydrological assessment, riparian restoration, and RIT labor and travel
- Implement seepage study
- Begin NEPA analysis including:
    - Section 7 consultation
    - Section 106 consultation
- Monitor Pahrump poolfish populations
- Monitor extent of noxious weeds

Year 2:

- Complete NEPA analysis
- Develop contract/agreements for reconditioning of well
- Implement habitat enhancement projects
- Implement noxious weed treatments
- Monitor Pahrump poolfish populations

Year 3:

- Habitat enhancement projects continued
- Noxious weed treatments continued
- Begin design of kiosk
- Monitor Pahrump poolfish populations

Year 4:

- Habitat enhancement projects continued
- Noxious weed treatments continued
- Finalize kiosk design
- Monitor Pahrump poolfish populations

Year 5:

- Final noxious weed treatments
- Complete implementation of proposed habitat enhancement
- Annual Pahrump poolfish population monitoring
- Install kiosk
- Project close-out

Project Location: Shoshone Ponds ACEC, South Spring Valley, White Pine County, NV (Figure 1).
114°25'6.34"W 38°56'15.33"N
Congressional District: NV-4

Project Deliverables:

1. **Primary Deliverables**
    a. Shoshone Ponds Habitat Enhancement Action Plan

b. Memorandum of Understanding among participating agencies of the Pahrump Poolfish RIT
c. Pahrump poolfish habitat enhancement at Shoshone Ponds ACEC
d. Hydrological assessment of Shoshone Ponds ACEC

2. **Anticipated Deliverables**
   a. Design and install an interpretive kiosk with cultural and biological educational information
   b. Eradication of noxious thistle (and other weeds) in the ACEC, specifically near the refuge ponds.
3. **Standard Deliverables**
   a. NEPA analysis
   b. Section 106 Consultation with SHPO
   c. Section 7 Consultation with USFWS
   d. Noxious and invasive weed assessment of project area

vii. Relevant Performance Measures

Outcome: Enhance Pahrump poolfish springbrook habitat from artesian well #2. Achieving the following output shall achieve this:

Output: Enhance <1mile of Pahrump poolfish springbrook habitat from artesian well #2 to ensure the system will support sustainable fish populations. The springbrook is about 400 feet in length total. This will fulfill the following performance measure:

Performance Measure H2: Miles of Riparian Stream or Shoreline Habitat Treated, Enhanced or Restored

Outcome: Enhance Pahrump poolfish habitat at the refuge ponds and the stockpond to ensure these habitats can support sustainable fish populations. Achieving the following output shall achieve this:

Output: Enhance <1acre of Pahrump poolfish habitat. The refuge ponds and stock pond are collectively approximately 0.25 acres. This will fulfill the following performance measure:

Performance Measure H6: Acres of Wetland/Riparian Habitat

Outcome: Eliminate noxious weeds and restore the Shoshone Ponds ACEC back to its native vegetative community. Achieving the following output shall achieve this:

Output: Treat <1 acre of bull thistle (and other noxious species) in the Shoshone Ponds ACEC. Bull thistle currently covers approximately 0.15 acres. This will fulfill the following SNPLMA Performance Measure:

Performance Measure H9: Acres of Invasive Plant Species Treated or Restored

Outcome: Implement the Pahrump Killifish (poolfish) Recovery Plan (1979) to fulfill the Plan's primary objective "to restore the Pahrump poolfish to non-endangered status; by establishing at least three viable, reproducing populations." Achieving the following output shall help achieve this outcome:

Output: Implement 3 recovery actions outlined in the Pahrump Killifish (poolfish) Recovery Plan. The following actions will be implemented from the Plan:

1) Preserve and protect existing transplanted Pahrump killifish (poolfish) populations and their habitats:

2) Establish and protect viable self-sustaining Pahrump killifish (poolfish) populations in suitable new or restored habitats.

3) Inform public of Pahrump killifish (poolfish) status and recovery plan objectives

Performance Measure H14: Number of Threatened and Endangered Species Recovery Actions Implemented

Outcome: Increase the public's awareness of the cultural and wildlife importance of the Shoshone Ponds ACEC. Achieving the following output shall achieve this:

Output: Design and install one kiosk that informs the public of the cultural and wildlife importance of the Shoshone Ponds ACEC. This will fulfill the following SNPLMA Performance Measure:

Performance Measure O6: Number of New Interpretive or Education Publications/Signs/Kiosks/Displays/etc. produced

viii. Project Implementation Process:

Year 1:

1. Establish contracts and/or agreement for riparian enhancement, hydrological assessment, and RIT labor and travel.
2. Coordinate with the Pahrump Poolfish RIT and riparian enhancement specialist to develop the habitat enhancement action plan.
3. Seepage study of stockpond and hydrological assessment of Shoshone Ponds ACEC
4. Internal and external scoping
5. Preparation of Environmental Assessment
6. Section 7 Consultation with USFWS
7. Section 106 Consultation with SHPO

Year 2:

1. DR/FONSI
2. Establish contract/agreement for reconditioning Well #4
3. Begin implementation of habitat enhancement projects
4. Begin implementation of noxious weed treatments

5. Monitor Pahrump poolfish populations with NDOW

Year 3:

1. Habitat enhancement projects continued, if necessary
2. Noxious weed treatments continue
3. Begin design of kiosk
4. Monitor Pahrump poolfish populations with NDOW

Year 4:

1. Habitat enhancement projects continued, if necessary
2. Noxious weed treatments continue, if necessary, or monitor treatment effectiveness
3. Finalize kiosk design
4. Monitor Parhrump poolfish populations with NDOW

Year 5:

1. Final noxious weed treatments, if necessary, or monitor treatment effectiveness
2. Complete implementation of proposed habitat enhancement project
3. Monitor Pahrump poolfish populations with NDOW
4. Install kiosk
5. Project close-out

ix. Level of Readiness for Project Implementation:

The Pahrump Poolfish RIT has been discussing habitat improvement at Shoshone Ponds for numerous years, but time and money has been a limiting factor for completing on the ground work. The RIT is concerned about the current habitat conditions at Shoshone Ponds, and are eager to enhance Pahrump poolfish habitat. The RIT fully supports this project proposal and are prepared to work collaboratively to develop the habitat enhancement action plan to ensure sustainable populations of Pahrump poolfish.

Additionally, the Ely District Resource Management Plan states the BLM will conserve, maintain, and restore special status species populations and their habitats. This includes managing the refugium at Shoshone Ponds and the development of additional ponds to increase the habitat for Pahrump poolfish. The RMP was approved by the USFWS and determined the proposed activities would not jeopardize the continued existence of the Pahrump poolfish.

x. Relationship to Previous Phases and Anticipated Future Phases:

This is not a phased project and there are no anticipated future phases.

xi. Proposed Project Budget:

The $541,690 being requested through SNPLMA will allow the development and implementation of the Pahrump poolfish habitat enhancement at Shoshone Ponds ACEC. An additional $50,000 has been contributed by USFWS in FY2014 toward this habitat enhancement. Obtaining SNPLMA funding would be the best option for ensuring this habitat enhancement

project would get completed within a specified timeframe to ensure sustainable populations of this endangered species continues at the Shoshone Ponds ACEC.

The budget developed for this proposal incorporates the current salaries of specialists needed to complete various portions of the project. Specialists outside the BLM were also consulted to determine cost estimates for well reconditioning and contracting out habitat enhancement work based on similar habitat enhancement projects.

xii. Conservation Initiatives Ranking Criteria:

1. *Project supports one of the three priority types of projects*
   a. *Habitat Enhancement*
   This is a habitat enhancement project for the federally listed endangered Pahrump poolfish at the Shoshone Pond ACEC.

2. *Project includes public outreach/education as a component*
   One component of this project is to design and install an interpretive kiosk to educate the public regarding the importance of the Shoshone Ponds ACEC. It will describe the cultural significance of the area, history of the refuge ponds, and information on the Pahrump poolfish and other wildlife that utilize the area. The Shoshone Ponds ACEC was designated as such for its cultural and wildlife significance.

3. *Project supports 1 of the 20 priority sub-types of projects:*
   a. Project supports any of the priority sub-types (1-15)
   2. Habitat Enhancement – Endangered species
   5. Habitat Enhancement – Invasive species treatment and/or control (plant or animal)
   9. Cultural – project includes tribal involvement and/or consultation
   This project is specifically designed to enhance habitat for the federally listed endangered Pahrump poolfish at the Shoshone Ponds ACEC. Habitat conditions at the Shoshone Ponds ACEC have been declining due to various reasons, and it is important that the BLM takes proactive steps to improve the habitat to ensure there is suitable habitat for Pahrump poolfish populations. One component of the habitat enhancement is to eradicate the noxious bull thistle that has spread near the refuge ponds and in other areas of the ACEC. Tribal involvement is a part of the NEPA process and is required for all BLM projects.

4. *Project enhances partnerships in promotion of cooperation and collaboration*
   b. Addresses the needs of more than one Federal agency
   c. Involves non-Federal public partners
   Pahrump poolfish restoration efforts will be coordinated with the RIT, which is made up

of BLM, USFWS, NDOW, USGS, SNWA, NNHP, and NDSU representatives. The RIT meets at least annually to discuss Pahrump poolfish population trends, studies, habitat rehabilitation, and any related issues or concerns regarding the species.

5. Project has identified committed non-SNPLMA sources of funding or in-kind contributions in the development and/or implementation of the project

The USFWS has contributed $50,000 towards Pahrump poolfish habitat enhancement. These funds will be on hold until determination of approval of this SNPLMA project. USFWS contribution will be used for habitat enhancement at the refugee ponds even if additional SNPLMA funding is not obtained.

6. Project promotes sustainability by providing benefits in the near and long term by emphasizing healthy and resilient landscapes as well as durability, relevancy, and shared support

a. Conserves resources to ensure availability of future generations

The purpose of this project is to ensure there is adequate habitat and sustainable populations of a federally listed endangered species. The proposed project is to improve habitat to ensure the Pahrump poolfish populations in the refuge ponds, springbrook, and stockpond will remain stable in the long term.

b. Restores or maintains natural processes as demonstrated by implementation monitoring within the project timelines.

NDOW annually conducts Pahrump poolfish population surveys at the Shoshone Ponds ACEC. These surveys will continue throughout the five years of the project timeline and will give an indication of how the poolfish responds to the habitat enhancements within the three different locations (refuge ponds, springbrook, and stockpond). This monitoring will be an indicator of the success of the habitat enhancement project.

c. Will remain relevant and continue to provide a benefit beyond the existence of SNPLMA

The Shoshone Ponds ACEC contains one of the three remaining populations, and currently the largest, of the federally listed endangered Pahrump poolfish in the state of Nevada. It is BLM's responsibility to ensure there is no take of a listed species on public land, to manage the habitat, and to ensure these populations continue to thrive.

7. Project promotes connectivity by linking people to nature and recreational opportunities, and by uniting important places across the landscape

a. Encourage people to meaningfully connect with their natural environment and helps them to appreciate and care for the environment

One component of this project is to design and install an educational kiosk. It will include information regarding the cultural and wildlife significance of the Shoshone Ponds ACEC. It will discuss the historic CCC camp, the history and importance of the Pahrump poolfish, as well as other wildlife that utilize the area.

b. Connects habitats, migratory corridors, or protected areas

An ACEC is designated as such where special management attention is needed to protect, and prevent irreparable damage to important historical, cultural, and scenic values; fish or wildlife resources; other natural systems or processes; or to protect human life and safety from natural hazards. The Shoshone Ponds ACEC was designated for its cultural and fish and wildlife resources. It is important the BLM continues to maintain the Pahrump poolfish habitat at this site to ensure there are thriving and sustainable populations.

8. Project promotes community by improving the quality of life for the human community and protecting the integrity of biological communities

a. Conserves or restores the functionality, resiliency, and integrity of biological communities.

The proposed project will enhance habitat for the Pahrump poolfish. It will minimize or eliminate some of the current issues of vegetation encroachment into the refuge ponds and fluctuating water levels of the stockpond. The project will make the Pahrump poolfish habitat at Shoshone Ponds more resilient to anthropogenic and natural changes.

b. Encourages partnerships and helps build a sense of community.

Pahrump poolfish restoration efforts will be coordinated with the RIT, which is made up of BLM, USFWS, NDOW, USGS, SNWA, NNHP, and NDSU representatives. This project requires federal and non-federal agencies to work together to determine the best actions for enhancing Pahrump poolfish habitat. This interaction between agencies will strengthen partnerships among agencies and build a sense of accomplishment when the project is completed.

c. Improving quality of life for the human community by preserving the past (cultural and historic sites) for present or future generations.

A component of this project is designing and installing and interpretive kiosk that includes information regarding the cultural significance of the area.

xii. Letters or Statements of Support:

U.S. Fish and Wildlife Service dated August 28, 2014
Nevada Natural Heritage Program dated September 4, 2014
Nevada Department of Wildlife September 8, 2014

CONSERVATION INITIATIVES

ESTIMATED NECESSARY EXPENSES

Project Name:	Pahrump Poolfish Habitat Enhancement at the Shoshone Ponds ACEC		
Project #:		**Priority #:**	
Agency(ies):			
Prepared by:	Nancy Herms		
Phone:	775-289-1838	**Initial**	☐
Date:	August 8, 2014	**Updated**	☐

1. Planning & Environmental Documentation (Surveys/ reports for cultural, natural, biological, archaeological resources, NEPA documentation, etc)	$ 0	0%
2. FWS Consultation - Endangered Species Act (direct expenses for FWS if consultation is required)	$ 0	0%
3. Direct Federal Labor to Implement Project (Payroll) (Interagency nominations: include one dedicated lead/team member per agency)	$ 105,930	20%
4. Project Equipment and/or Supplies/ Materials (include specialized equipment for Law Enforcement Officers, supplies and materials not included in contracts/ agreements)	$ 3,500	1%
5. Travel & Per Diem for Implementation	$0	0%
6. Official Vehicle Use (Based on agencies procedures for use, fuel, equipment, and mileage charges)	$5,160	1%
7. Required Training to Implement Project (includes initial and annual training for LEOs and training necessary to implement project)	$0	0%
8. Contracts, Grants, and/or Agreements (CESU, IGO, Assistance Agreement, IDIQ Task Orders, etc)	$417,600	77%
9. Other Necessary Expenses - See Appendix B-11	$9,500	1%
TOTAL	**$541,690**	100%

Describe Commitment(s) for Either Cash or In-Kind Contributions to Complete the Nominated Project:
$50,000 from USFWS for habitat enhancement at the refugee ponds.
General Comments:

Sections 1 thru 10 are intended as a guide. Please feel free to delete columns to reflect time frame necessary to complete project, add line items, clarify headings or insert new "other rows" if current descriptions do not adequately describe an anticipated allowable and/or necessary cost. The intent of this form is to assist in the development of more accurate nomination cost estimates; SNPLMA understands that this is a preliminary estimate and that if approved these figures may change as the project undergoes further refinement, planning and development.

Necessary Expenses

1. Planning and Environmental Assessment Costs *(included in 3 below)*	**Year 1**	**Year 2**	**Year 3**	**Year 4**	**Year 5**	**Total**
Specialist Surveys/Reports	$0	$0	$0	$0	$0	$0
NEPA	$0	$0	$0	$0	$0	$0
Permitting	$0	$0	$0	$0	$0	$0
Consultant Fees	$0	$0	$0	$0	$0	$0
Other (describe)	$0	$0	$0	$0	$0	$0
Subtotal	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
2. FWS Consultation - Endangered Species Act *(included in 3 below)*	**Year 1**	**Year 2**	**Year 3**	**Year 4**	**Year 5**	**Total**
Subtotal	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
3. Direct Labor/Payroll to Perform the Project (use fully loaded labor rate)	**Year 1**	**Year 2**	**Year 3**	**Year 4**	**Year 5**	**Total**
Project Manager & Wildlife Specialist	$8,320	$5,200	$5,200	$5,200	$5,200	$29,120
Field Manager	$1,950	$1,300	$1,300	$1,300	$1,300	$7,150
Renewables Supervisor	$2,120	$1,060	$1,060	$1,060	$1,060	$6,360
Non-renewable Supervisor	$1,680	$1,120	$1,120	$1,120	$1,120	$6,160
Invasive Species Specialist	$1,560	$1,950	$1,950	$1,950	$1,950	$9,360
Hydrology Specialist	$6,500	$5,000	$2,000	$2,000	$2,000	$17,500
Recreation Specialist	$500	$700	$700	$700	$700	$3,300
Cultural Specialist	$3,500	$2,500	$2,000	$1,100	$1,100	$10,200
Minerals Specialist	$800	$800	$0	$0	$0	$1,600
Realty Specialist	$800	$800	$0	$0	$0	$1,600
Native American Coordinator	$800	$800	$0	$0	$0	$1,600
Kiosk Design	$800	$2,460	$2,460	$1,640	$820	$8,180
Public Affairs	$800	$600	$600	$600	$1,200	$3,800
Subtotal	**$30,130**	**$24,290**	**$18,390**	**$16,670**	**$16,450**	**$105,930**
4. Project Equipment	**Year 1**	**Year 2**	**Year 3**	**Year 4**	**Year 5**	**Total**
Subtotal	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
5. Project Materials and Supplies	**Year 1**	**Year 2**	**Year 3**	**Year 4**	**Year 5**	**Total**
Kiosk	$0	$0	$0	$3,500	$0	$3,500
Subtotal	**$0**	**$0**	**$0**	**$3,500**	**$0**	**$3,500**

6. Travel (airfare, car rental, per diem, etc) *(calculated into 9, #2)*	**Year 1**	**Year 2**	**Year 3**	**Year 4**	**Year 5**	**Total**
Subtotal	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
7. Official Vehicle Use	**Year 1**	**Year 2**	**Year 3**	**Year 4**	**Year 5**	**Total**
Vehicle Use 1 (wildlife)	$430	$430	$860	$860	$430	$3,010
Vehicle Use 2 (weed, other)	$0	$430	$860	$430	$430	$2,150
Subtotal	**$430**	**$860**	**$1,720**	**$1,290**	**$860**	**$5,160**
8. Required Training for Resource Protection Positions (including tuition and required books)	**Year 1**	**Year 2**	**Year 3**	**Year 4**	**Year 5**	**Total**
None	$0	$0	$0	$0	$0	$0
Subtotal	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
9. Cost of Contracts and/or Agreements to Perform Project	**Year 1**	**Year 2**	**Year 3**	**Year 4**	**Year 5**	**Total**
Contract/Agreement #1: Reconditioning of Well #4 (includes supplies and equipment, possible drilling, labor)	$0	$100,000	$0	$0	$0	$100,000
Contract/Agreement #2: Pahrump Poolfish RIT labor and travel (IAA) (4 RIT members, 2 weeks each)	$6,600	$1,100	$4,400	$4,400	$1,100	$17,600
Contract/Agreement #3: NDOW agreement to contract out Riparian Implementation	$0	$100,000	$0	$0	$0	$100,000
Contract/Agreement #4: Hydrological Assessment	$200,000	$0	$0	$0	$0	$200,000
Subtotal	**$206,600**	**$201,100**	**$4,400**	**$4,400**	**$1,100**	**$417,600**
10. Examples of Other Necessary Expenses (providing a breakdown of these costs is optional, however a total estimate is required.)	**Year 1**	**Year 2**	**Year 3**	**Year 4**	**Year 5**	**Total**
Budget Tracking/Accounting	$500	$1,000	$1,000	$1,000	$1,000	$4,500
SNPLMA support	$500	$500	$500	$500	$500	$2,500
Support Services (GIS, mailing,etc)	$500	$500	$500	$500	$500	$2,500
Subtotal	**$1,500**	**$2,000**	**$2,000**	**$2,000**	**$2,000**	**$9,500**
Expense Summary	**Year 1**	**Year 2**	**Year 3**	**Year 4**	**Year 5**	**Grand Total**
Total	**$238,660**	**$228,250**	**$26,510**	**$27,860**	**$20,410**	**$541,690**

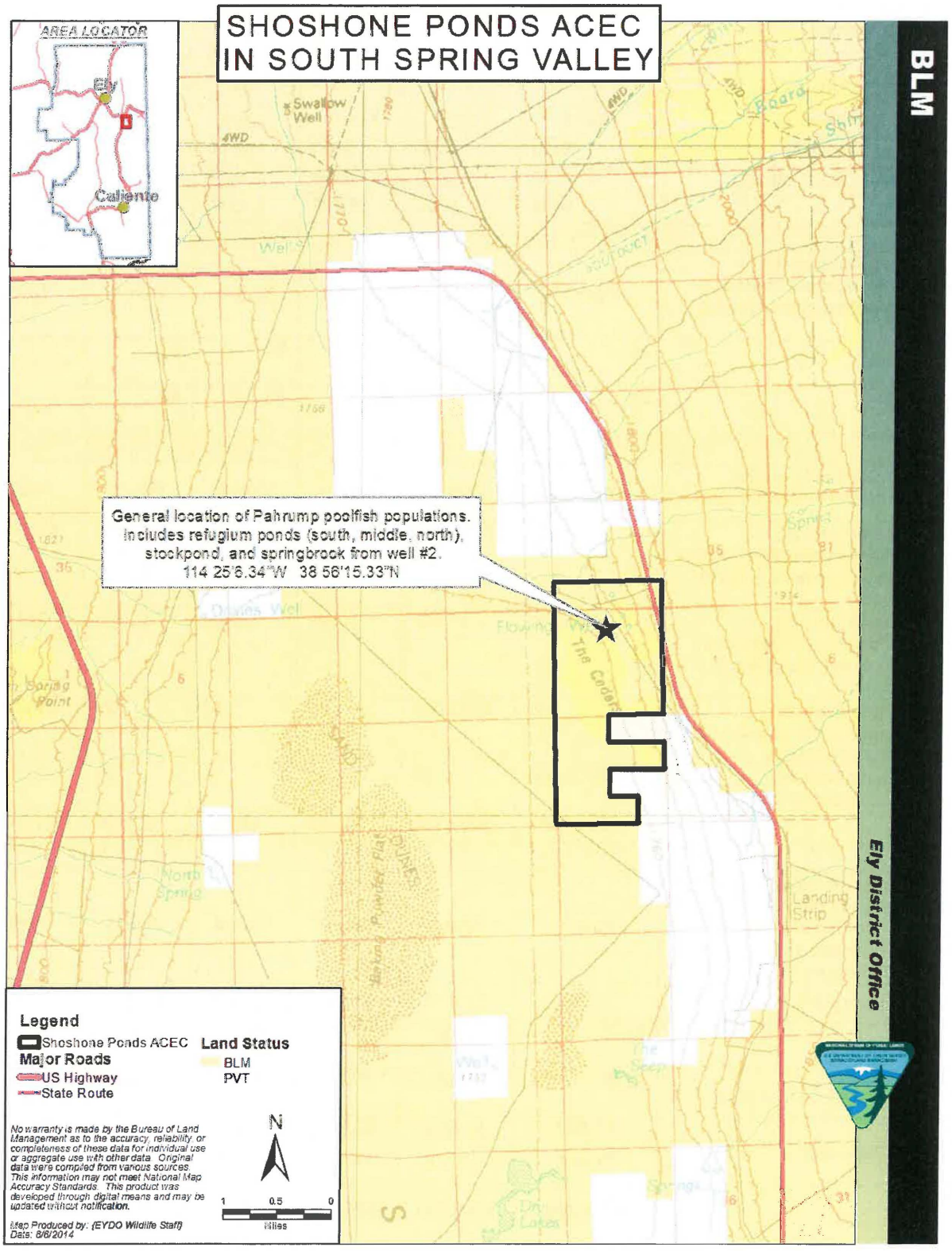

Figure 1. Location of Shoshone Ponds ACEC in South Spring Valley.

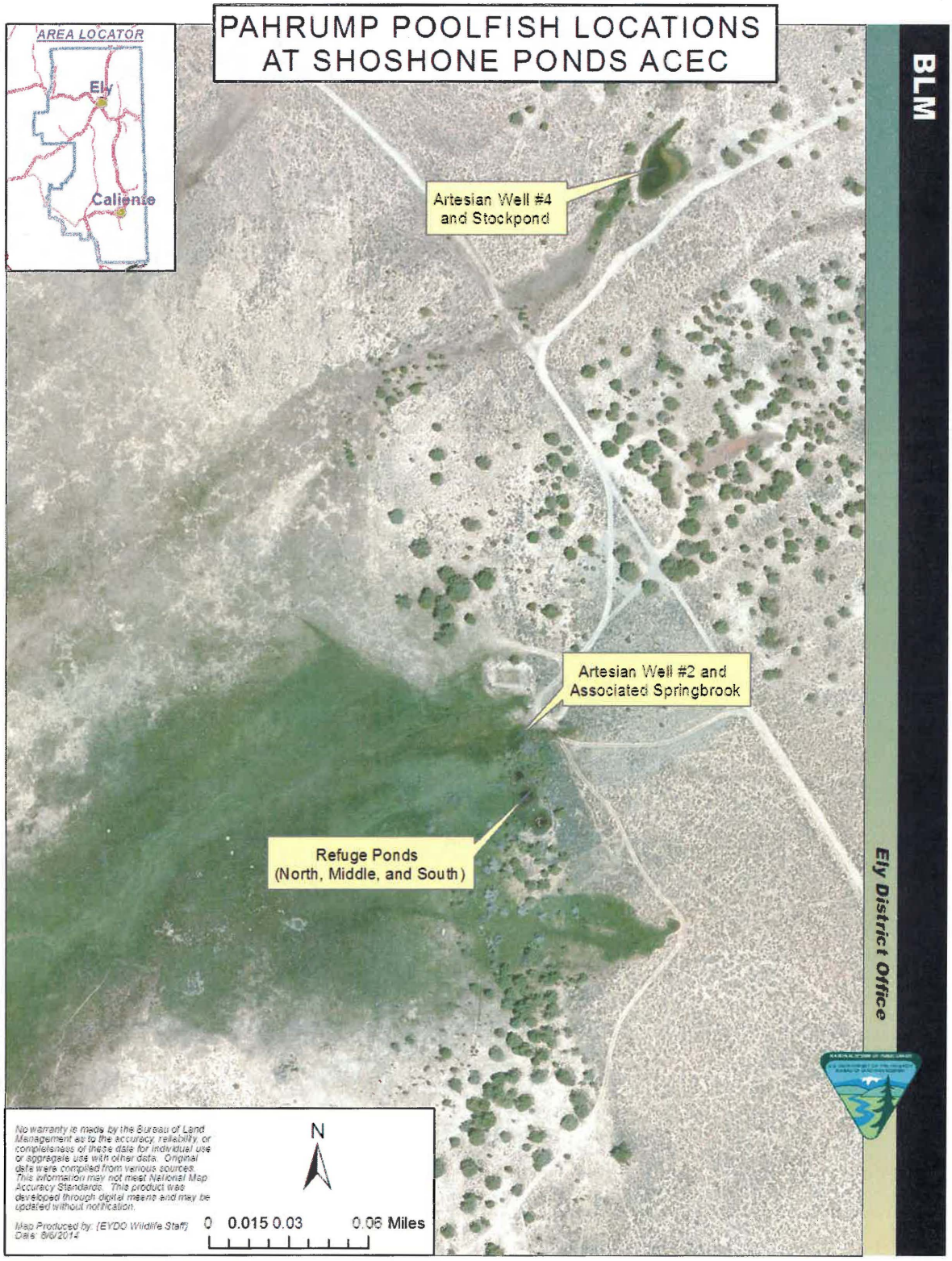

Figure 2. Location of the Pahrump poolfish populations within the Shoshone Ponds ACEC.

Figure 3. North Pond (2007)

Figure 4. Middle and South Pond (2007)

Figure 5. Middle Pond with vegetation encroachment (NDOW photo, August 23, 2012).

Figure 6. Middle Pond after vegetation removal (NDOW photo, August 23 2012).

Figure 7. Springbrook from artesian well #2 (October 10, 2011).

Figure 8. The wellhead from artesian well #4 that supplies water to the stockpond (June 25, 2014).

Figure 9. The stockpond with banks full (2012).

Figure 10. The stockpond with very low water levels (June 27, 2014).

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Nevada Fish and Wildlife Office
4701 North Torrey Pines Drive
Las Vegas, Nevada 89130
Ph: (702) 515-5230 ~ Fax: (702) 515-5231

August 28, 2014

Executive Committee
Southern Nevada Public Lands Management Act
Round 15 Project Proposals

Dear Committee:

Subject: Letter of Support for Round 15 Proposal to Enhance Habitat for Pahrump poolfish at Shoshone Ponds, White Pine County, Nevada

This is a letter of support for the subject proposal, which will be submitted by the Bureau of Land Management (Ely District) to benefit the endangered Pahrump poolfish at Shoshone Ponds in White Pine County, Nevada. The Nevada Fish and Wildlife Office is committed to partnering with BLM to help conserve this unique fish and the ecosystems upon which it depends.

Pahrump poolfish were formally recognized as endangered in 1967, well before the Endangered Species Act was written. BLM provided vital refuge habitat at Shoshone Ponds early in the struggle to conserve this fish – initially in 1972 and again (following vandalism) in 1976. The Shoshone Ponds refuge has helped prevent the extinction of Pahrump poolfish for over 40 years. Despite this success, the Shoshone Ponds area has evolved over time and would benefit now from a careful review leading, presumably, to actions designed to enhance habitat quality for the poolfish. We believe BLM is wise to avoid too much specificity in these actions pending review.

We hope that SNPLMA will agree that the Shoshone Ponds area is worthy of the review and work proposed by BLM. We fully support this work and look forward to working with BLM to manage Nevada's wildlife effectively. If you have any questions or require additional information, please contact senior fish biologist Lee Simons in the Nevada Fish and Wildlife Office in Las Vegas at (702) 515-5230.

Sincerely,

Michael Senn
Assistant Field Supervisor

cc:
Paul Podborny, Field Manager, Schell Field Office, Bureau of Land Management, Ely, NV
Jon Sjöberg, Chief of Fisheries, Nevada Department of Wildlife, Reno, NV

Nevada Natural Heritage Program

STATE OF NEVADA
DEPARTMENT OF CONSERVATION AND NATURAL RESOURCES
Nevada Natural Heritage Program

Brian Sandoval
Governor

Leo Drozdoff
Director

Jennifer Newmark
Administrator

Bureau of Land Management
SEP 11 2014
RECEIVED
Ely, NV

04 September 2014

Nancy Herms
Wildlife Biologist
Bureau of Land Management
Ely District-Schell Field Office
702 North Industrial Way
Ely, Nevada 89301

RE: Round 15 SNPLMA Pahrump Poolfish habitat enhancement at Shoshone Ponds

Dear Ms. Herms:

It is our understanding that the Bureau of Land Management (BLM) will be submitting a proposal for Pahrump poolfish habitat enhancement at Shoshone Ponds through Round 15 funding from the Southern Nevada Public Land Management Act. The Nevada Natural Heritage Program (NNHP) supports the proposal for Pahrump poolfish habitat enhancement at Shoshone Ponds in White Pine County Nevada and its goals to advance the recovery of this Federally Endangered, endemic native fish by creating a more stable and secure habitat. Populations of Pahrump poolfish at the Shoshone Ponds remain the most abundant of the three populations in existence; however, over the past 40 years the ponds have biologically degraded through siltation, vegetation encroachment, over utilization of riparian vegetation from livestock and increasingly- water fluctuation from drought, irrigation pumping and well failure. The habitat enhancements proposed by the Pahrump poolfish Recovery and Implementation Team would substantially benefit the conservation of these important populations at Shoshone Ponds, further ensuring the persistence of this Endangered species.

NNHP strongly supports BLM's proposal and urges SNPLMA to fund this important project. If we can be of further assistance or can provide additional information on the importance of this project for this endangered species please do not hesitate to contact me at (775) 684-2904 or at jnewmark@heritage.nv.gov. Thank you.

Sincerely,

Jennifer Newmark
Program Administrator

901 S. Stewart Street, Suite 5002 Carson City, NV 89701-5245 Tel: 775-684-2900 Fax: 775-684-2909 http://heritage.nv.gov

Brian Sandoval
Governor

STATE OF NEVADA
DEPARTMENT OF WILDLIFE
1100 Valley Road
Reno, Nevada 89512
(775) 688-1500 • Fax (775) 688-1595

TONY WASLEY
Director
RICHARD L. HASKINS, II
Deputy Director
PATRICK O. CATES
Deputy Director

September 8, 2014

Executive Committee
Southern Nevada Public Lands Management Act

RE: Letter of Support - Round 15 SNPLMA proposal for Pahrump poolfish habitat enhancement at Shoshone Ponds Natural Area

Executive Committee Chair and Members:

It is our understanding that the Bureau of Land Management (BLM) will be submitting a request for Conservation Initiative funding through Round 15 of the Southern Nevada Public Lands Management Act (SNPLMA) for restoration of the Shoshone Ponds Natural Area (Shoshone Ponds) in White Pine County, Nevada. These restoration activities will increase the quantity and quality of habitat for the endangered Pahrump poolfish *Empetrichthys latos* currently residing at Shoshone Ponds, as well as secure suitable habitat for the species in future generations. The Nevada Department of Wildlife (NDOW) strongly supports BLM's SNPLMA proposal to enhance Pahrump poolfish habitat at Shoshone Ponds. Enhancement of this Area of Critical Environmental Concern (ACEC) will also advance the status and recovery of other native aquatic and terrestrial species occurring at this site which are Federally and State Protected, and/or identified by NDOW as Species of Conservation Priority through our Nevada Wildlife Action Plan.

The Pahrump poolfish is a monotypic genus eliminated from its historic range due to habitat loss and is entirely dependent on transplant refuge populations to prevent extinction. The Pahrump poolfish at Shoshone Ponds is one of only three extant transplant populations for the species, and one of only two that maintain a consistent population greater than 500 fish required for consideration to down list as identified in the 1976 Recovery Plan. Of these extant populations, Shoshone Ponds remains the only location without nonnative aquatic competitors and predators. Portions of the population at Shoshone Ponds have undergone complete loss of habitat due to fluctuations in groundwater flow, siltation, and 40 years of riparian vegetation encroachment. Habitat degradation and loss of ground water flows remain the most prominent threats to the persistence of this species at this site. Habitat enhancements that promote larger and more stable populations (e.g. creating larger, deeper, and more stabilized ponds) decrease deleterious effects of inbreeding and genetic stochasticity (genetic drift) associated with small, isolated populations. Habitat stabilization and enhancement can protect against fluctuating water events caused by drought, localized irrigation pumping, and potential catastrophic failures to the pumping mechanism.

NDOW has worked closely with BLM field staff and other partners to complete a number of recent emergency habitat enhancement actions at Shoshone Ponds and we are appreciative of the BLM's clearly demonstrated commitment to conserving the Pahrump poolfish and this important site. Again, NDOW strongly supports the BLM's application for SNPLMA Round 15 funding for habitat enhancements at Shoshone Ponds. We look forward to continuing to work cooperatively with the BLM to protect and

enhance aquatic habitat at Shoshone Ponds. If you have any questions or need additional information in regards to this letter of support, please contact me at (775) 688-1530 or at sjoberg@ndow.org. Thank you for your consideration.

Sincerely,

Jon C. Sjöberg
Chief, Fisheries Division
Nevada Department of Wildlife

cc: BLM: N. Herms
NDOW: B. Senger, M. Beckstrand, K. Guadalupe
US FWS: L. Simons, Nevada FWO