U.S. Fish and Wildlife Service
Desert National Wildlife Refuge Complex
(Nominating Agency)

SNPLMA Round 16 – Conservation Initiatives

Project Nomination:

Southern Nevada Invasive Weed Education, Prevention and Control

Amount Requested: $3,148,410

Cooperating federal agencies:

- Fish and Wildlife Service, Desert National Wildlife Refuge Complex (Lead)
- National Park Service, Lake Mead National Recreation Area

Project Manager/Contact: Johnny Jones
(for Fish and Wildlife Service)
Arid Lands Restoration Specialist
702-515-5457 fax 702-515-5023
j3jones@blm.gov

Alternate Contact: Curt Deuser
(for National Park Service)
EPMT Liaison/Supervisory Ecologist
702-293-8979
curt_deuser@nps.gov

Submitted by: _____
Christy Smith, Project Leader

I. Purpose Statement

The U.S. Fish and Wildlife Service, Desert National Wildlife Refuge Complex, in cooperation with the National Park Service, Lake Mead National Recreation Area, proposes to educate and engage the public to assist federal managers in the prevention and control of noxious weeds and other invasive plant species on public lands in Southern Nevada.

Although only Fish and Wildlife Service and National Park Service would receive funding through this project, implementation would include weed prevention and control on additional lands managed by the following agencies, through a Service First or similar agreement, and as requested by staff of those agencies:

U.S. Bureau of Land Management, Southern Nevada District;
U.S.D.A Forest Service, Spring Mountains National Recreation Area; and
U.S. National Park Service, Tule Springs Fossil Beds National Monument.

The project would be accomplished through:

A. **Public education and outreach** about invasive weeds and the disruptions they cause to natural ecosystems, wildlife, native plants and insects, as well as impacts to agriculture, people and communities. The increasing economic impact from weed control efforts and reduced crop production necessitates education of rural and urban communities, including how to prevent or reduce the spread of weeds while recreating outdoors;

B. **Volunteer participation and training** in surveying, identifying, and reporting weed infestations through a Citizen Science program, implementing weed control actions where appropriate (such as pulling/cutting), and monitoring treated sites for regrowth or reinvasion that would require retreatment;

C. **Early Detection and Rapid Response** (EDRR) implementation of protocols for surveying and monitoring to detect new weed infestations, and treating them quickly to prevent such infestations from becoming larger and more difficult and costly to control;

D. **Priority weed treatments** of specific infestations already identified by federal agency managers as priority concerns, including: Fountaingrass, Malta starthistle, puncturevine, camelthorn, Russian knapweed, and Sahara mustard, all designated by the State of Nevada as Noxious Weeds, and control of which is required by State law (NRS Chapter 555), including in those locations described in Section V below;

E. **Restoration** of treated sites including seeding and/or planting of native species to prevent reinvasion of weeds, prevent soil erosion, and restore ecosystem structure and function.

Education, outreach and volunteer coordination would be accomplished in partnership with the Southern Nevada Agency Partnership (SNAP) Education and Volunteer Teams

and one or more non-government organizations. Agency volunteer coordinators would ensure compliance with standards, policies, and procedures for recruiting, training and utilizing volunteers on federal lands. Many of the priority invasive weed treatments would be implemented utilizing the National Park Service (NPS) Exotic Plant Management Team (EPMT), which has extensive knowledge and experience surveying and treating invasive weeds on all federal land jurisdictions in Southern Nevada. Plants and seeds for restoration would be propagated or collected by the native plant nursery at Lake Mead National Recreation Area (NRA) and/or procured from other local sources.

Weed control projects would be implemented within Clark County and that portion of Lincoln County that includes the Desert and Pahranagat National Wildlife Refuges. Specific priority weed control projects on public lands have been identified by agency managers, including:

National Park Service (NPS) lands:

Lake Mead NRA and Tule Springs Fossil Beds National Monument, including: shorelines and adjacent uplands of Lake Mead, Lake Mohave, and Colorado River near Laughlin [fountaingrass, Sahara mustard, Malta starthistle, and other Early Detection Rapid Response (EDRR) species], and the Newberry Mountains (EDRR species). Also when/if applicable: Virgin and Muddy Rivers, St. Thomas town site, and Gold Butte.

Bureau of Land Management (BLM) lands:

Muddy River, Arrow Canyon (Malta starthistle, Russian knapweed, Canada thistle), Hiko Spring Canyon (fountaingrass), Newberry Mountains (EDRR species), areas burned by wildland fire (EDRR species), Red Rock Canyon National Conservation Area (NCA) (EDRR species), Sunrise Area of Critical Environmental Concern (ACEC) (EDRR species). Also when/if applicable: Virgin River (camelthorn), and Gold Butte (EDRR species).

Fish and Wildlife Service (FWS) lands:

Desert National Wildlife Refuge (NWR)/Corn Creek (Malta starthistle, Sahara mustard, puncturevine) and springs (EDRR species), Pahranagat NWR/Black Canyon (Russian knapweed and EDRR species), and Moapa Valley NWR (Sahara mustard, Russian knapweed and EDRR species).

Forest Service (FS) lands:

Spring Mountains Visitor Gateway (puncturevine and non-native invasive EDRR species); Willow Creek, Lee Canyon, Kyle Canyon and Wheeler Wash watersheds (puncturevine, Russian knapweed, and EDRR species); and isolated Russian knapweed infestations throughout Spring Mountains National Recreation Area (SMNRA).

This project promotes:

Sustainability: Conserves resources; Restores or maintains natural processes; Will remain relevant and continue to provide a benefit; Includes a stewardship component; Reduces long-term costs and minimizes the human impact on the environment.

Connectivity: Encourages people to meaningfully connect with their natural environment and helps them appreciate and care for the environment.

Community: Conserves or restores the functionality, resiliency and integrity of biological communities; Encourages partnerships and helps build a sense of community.

II. Background and Need

Non-native invasive weeds are a serious threat to the health of public lands, competing with and displacing native plants, altering vegetation communities and wildlife habitats, increasing fire hazardous fuels and altering wildland fire cycles. Some weed species are poisonous or have sharp thorns or spines (such as puncturevine and thistles) that pose a health and safety hazard to wildlife, livestock, pets and people. Many of the invasive plants on public lands are listed by the State of Nevada as noxious weeds, for which control is required by law (Nevada Revised Statutes Chapter 555.150).

Invasive weeds are easily spread to (or from) other sites, by seeds carried by wind, water, wildlife, livestock, and people (including inadvertently on clothing, shoe/boot soles, pet fur, vehicle/ATV/bicycle tires). Public education and collaboration with adjoining land managers and public land users is important for effective prevention and control of the spread of weeds.

Newly introduced weeds can spread quickly from a small area to large expanses of public lands under the right conditions if left untreated (consider cheatgrass). Treatment of small infestations is far less costly and more easily accomplished than larger infestations. Early Detection and Rapid Response (EDRR) protocols include regular surveys to detect invasive plant and treat them before they become a bigger problem. The use of trained volunteers is an inexpensive way to get eyes on the ground and alert land managers to new infestations and changes in other known infestations.

The proposed actions will help to prevent the introduction and spread of weeds on public lands, including from outdoor recreation and other public uses; reduce the risk from and intensity of wildland fire due to increased fire hazardous fuel conditions caused by invasive weed infestations; protect and restore natural ecosystems and sensitive environments from impacts of non-native invasive weeds; reduce the costs of land management; and reduce the risk of injury to visitors, pets, livestock and wildlife.

III. Project Timeframe

The project would be in place for up to 5 years.

IV. Location of Project

Project sites are listed below with latitude and longitude coordinates (single points are shown, but some sites cover large areas). Other sites may be added as new infestations are discovered and prioritized. See map on next page.

FWS:		
Desert NWR/Corn Creek	Lat. 36° 26’ 20.39”	Long. 115° 21’ 36.55”
Desert NWR/Springs	Lat. 36° 34’ 25.82”	Long. 115° 13’ 33.90”
Pahranagat NWR/Black Canyon	Lat. 37° 16’ 48.80”	Long. 115° 07’ 03.07”
Moapa Valley NWR	Lat. 36° 42’ 35.92”	Long. 114° 42’ 56.88”
NPS:		
Lake Mead shoreline/uplands	Lat. 36° 07’ 52.11”	Long. 114° 52’ 51.16”
Lake Mohave shoreline/uplands	Lat. 35° 32’ 17.44”	Long. 114° 40’ 27.28”
Colorado River near Laughlin	Lat. 35° 10’ 41.48”	Long. 114° 34’ 17.11”
Newberry Mountains	Lat. 35° 15’ 52.17”	Long. 114° 41’ 10.82”
Tule Springs Fossil Beds NM	Lat. 36° 26’ 20.39”	Long. 115° 21’ 36.55”
BLM:		
Muddy River	Lat. 36° 41’ 44.67”	Long. 114° 41’ 16.98”
Arrow Canyon	Lat. 36° 43’ 58.08”	Long. 114° 47’ 07.44”
Hiko Spring Canyon	Lat. 35° 09’ 48.84”	Long. 114° 38’ 58.50”
Red Rock Canyon	Lat. 36° 08’ 09.94”	Long. 115° 25’ 45.45”
Sunrise ACEC	Lat. 36° 11’ 28.62”	Long. 114° 56’ 28.62”
FS:		
Spring Mountains Visitor Gateway	Lat. 36° 16’ 17.36”	Long. 115° 35’ 13.93”
Willow Creek	Lat. 36° 24’ 55.40”	Long. 115° 45’ 54.90”
Lee Canyon	Lat. 36° 18’ 36.89”	Long. 115° 40’ 43.87”
Kyle Canyon	Lat. 36° 15’ 35.94”	Long. 115° 39’ 09.26”
Wheeler Wash	Lat. 36° 22’ 28.51”	Long. 115° 49’ 50.75”

Project areas are located within Nevada Congressional Districts 1, 3, and 4.

V. Project Deliverables

A. Primary Deliverables

- Enter into a contract or agreement with a non-government organization for development and implementation of public education and outreach projects and materials. (FWS)

- Enter into a contract or agreement with a non-government organization for volunteer recruitment, training and coordination within agency standards. (FWS)
- Establish and implement Early Detection and Rapid Response (EDRR) protocols to identify and treat new weed infestations on public lands while they are small. (NPS)
- Treat existing priority weed infestations on public lands to eradicate or control weeds and prevent further spread. (NPS)

B. Anticipated Deliverables

- Monitor treated sites for resprouting of treated weeds or new invasions of weeds, and re-treat as needed. (NPS)
- Complete restoration of treated sites as needed, including planting of native plants or seeds, to prevent reinvasion and restore native habitat. (NPS)

C. Standard Deliverables

- National Environmental Policy Act (NEPA) decisions necessary for weed treatments not already covered by previous approvals. (NPS, FWS, BLM, FS)
- Survey, document and monitor weed infestations on public lands. (NPS)
- Develop scope of work for contracts/agreements, and complete the necessary process and approval for entering into each contract/ agreement. (FWS)
- Coordinate with contracted non-government organization(s) in development of education and outreach projects and in planning and conducting volunteer projects. (FWS)
- Propagate or procure native plants and seeds for restoration needs. (NPS)

VI. Relevant Performance Measures

From the SNPLMA Strategic Plan FY2015-FY2019:

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

Outcome: Conserve and restore natural resources – Maintain or increase the quality of natural resources and protect their ecological integrity and sustainability.

Output: Survey, inventory, treat and restore priority invasive weed infestations on public lands.

- **Performance Measure #H9** – Acres of invasive plant species treated or restored.
- **Performance Measure #H10** – Acres of invasive plant species surveyed, inventoried or monitored.

Outcome: Promote education – Provide opportunities to improve the public's connection with natural and cultural resources through education.

Output: Conduct educational programs for schools, interest groups, and the community to increase awareness of invasive weeds and their impacts on the environment and communities.

- **Performance Measure #O5** – Number of outreach contacts made.
- **Performance Measure #O7** – Number of interpretive or educational presentations given and/or community events participated in or hosted.

Output: Participate in community events to provide educational material and presentations to the public.

- **Performance Measure #O5** – Number of outreach contacts made.
- **Performance Measure #O7** – Number of interpretive or educational presentations given and/or community events participated in or hosted.

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.

Outcome: Enhance recreational opportunities – Provide recreational opportunities and improve access to those opportunities on federal, local and regional government lands, increasing the availability and quality of public recreation.

Output: Protect or improve the integrity of environmental resources to enhance the quality of the human experience by reducing infestations of invasive weeds on public lands.

- **Performance Measure #H9** – Acres of invasive plant species treated or restored.
- **Performance Measure #H10** – Acres of invasive plant species surveyed, inventoried or monitored.

Outcome: Promote education – Provide opportunities to improve the public's connection with natural, cultural and recreational resources through education.

Output: Conduct educational programs for schools and interest groups, and the community to increase awareness of invasive weeds and their impacts on the environment and communities.

- **Performance Measure #O5** – Number of outreach contacts made.
- **Performance Measure #O7** – Number of interpretive or educational presentations given and/or community events participated in or hosted.

Output: Participate in community events to provide educational material and presentations to the public.

- **Performance Measure #O5** – Number of outreach contacts made.
- **Performance Measure #O7** – Number of interpretive or educational presentations given and/or community events participated in or hosted.

Outcome: Utilize volunteers in surveying, reporting and treating invasive weed infestations.

Output: Provide training to volunteers in weed identification, reporting and treatment methods.

- **Performance Measure #O10** – Number of volunteers used. (Number of volunteer hours will also be documented).

VII. Project Implementation Process

Year 1:

- Complete a contract or agreement with a non-government organization to develop and implement public education and outreach (FWS in coordination with SNAP agency education/outreach coordinators).
- Complete a contract or agreement with a non-government organization to develop and implement volunteer recruitment and training (FWS, in coordination with SNAP agency education outreach coordinators).
- Begin growing plants in nursery and procuring plant propagules for restoration (NPS and current volunteers).
- Begin surveying and treating weeds with all agency partners (NPS, other agency staff, and current volunteers).

Year 2:

- Conduct educational programs and presentations (NGO, in coordination with agency education/outreach coordinators).
- Recruit and train volunteers (NGO, in coordination with agency volunteer coordinators).
- Survey and document noxious and invasive weed infestations on targeted public lands (EPMT, agency staff, and/or volunteers).
- Treat new invasive weed infestations and priority noxious weed infestations (EPMT, agency staff, and/or volunteers).

Year 3:

- Continue educational programs and presentations (NGO, in coordination with agency education/outreach coordinators).
- Continue to recruit and train volunteers (NGO, in coordination with agency volunteer coordinators).

- Continue to survey and treat noxious and invasive weed infestations (EPMT, agency staff, and/or volunteers).
- Monitor treated areas and re-treat as needed (EPMT, agency staff, and/or volunteers).
- Conduct site restoration. Revegetation and restoration of previous years' weed control sites (EPMT, agency staff, and/or volunteers).

Year 4:

- Continue educational programs and presentations (NGO, in coordination with agency education/outreach coordinators).
- Continue to recruit and train volunteers (NGO, in coordination with agency volunteer coordinators).
- Continue to survey and treat noxious and invasive weed infestations (EPMT, agency staff, and/or volunteers).
- Monitor treated areas and retreat as needed (EPMT, agency staff, and/or volunteers).
- Continue restoration (EPMT, agency staff, and/or volunteers).

Year 5:

- Continue educational programs and presentations (NGO, in coordination with agency education/outreach coordinators).
- Continue to recruit and train volunteers (NGO, in coordination with agency volunteer coordinators).
- Continue to survey and treat noxious and invasive weed infestations (EPMT, agency staff, and/or volunteers).
- Continue restoration (EPMT, agency staff, and/or volunteers).
- Monitor treated areas and retreat as needed (EPMT, agency staff, and/or volunteers).
- Closeout project (FWS, NPS).

VIII. Level of Readiness for Implementation

Participating agencies have already identified priority weed infestations on public lands, and NEPA has been completed for weed treatments at most sites. Educational materials on general weed information and noxious weeds in Nevada are already publicly available from federal agencies (including SNAP publications), Nevada Department of Agriculture, and University of Nevada Cooperative Extension. From these existing resources, educational materials and activities applicable specifically to Southern Nevada can be developed, including for recreation and other outdoor users and the general public.

There are existing non-government organizations and partnerships that could be helpful in promoting weed education, outreach and volunteer coordination. There are already several assistance agreements in place between federal agencies and such organizations

for providing outreach, education and coordination of projects in Southern Nevada, and these agreements can be easily modified to include this project. Coordination with the SNAP Education and Volunteer Teams and each agency's education/outreach and volunteer coordinators will be essential to ensure federal agency standards, policies and procedures are met.

In 2015, the BLM received a $75,000 grant from the National Fish and Wildlife Foundation to assist the development of a cooperative weed management area for Southern Nevada and to implement the Fountaingrass Control Initiative, an education and action campaign to address the spread of green fountaingrass, a noxious weed, from the Laughlin community onto adjacent public lands. This partnership has been successful in educating the community and utilizing volunteers in weed control efforts, and the fountaingrass control initiative is already being expanded to other areas of Southern Nevada.

From this broad-based cooperation, the Southern Nevada Cooperative Weed Management Area (CWMA) was established. The CWMA is a partnership of federal, state and local agencies, organizations and landowners committed to sharing information and working together to address invasive weed issues. All of the SNAP agencies continue to participate in the CWMA as partners through a Memorandum of Understanding. Weed control activities under this project would be coordinated with the CWMA.

The NPS Exotic Plant Management Team (EPMT) has current assistance agreements with all federal land management agencies in Southern Nevada for survey and treatment of invasive weeds. The partner federal land management agencies can modify or develop similar Interagency Agreements under the Service First authority to include the proposed projects.

IX. Relationship to Previous Phases and Anticipated Future Phases

Several previous SNPLMA projects included funding for invasive weed control: Round 4 (4-11/CI-10), Round 5 (5-6/CI-14) and Round 6 (6-7/CI-33). This project would differ by including a major component for education, outreach and volunteer citizen scientist recruitment, training and utilization to support agency efforts and provide a path to sustainability by building a network of support for future weed management needs.

X. Proposed Project Budget

Total 5 year cost: **$3,148,410**

Year 1: $625,920

Year 2: $627,110 FWS total $1,454,685

Year 3: $628,900	NPS total	$1,693,725
Year 4: $633,590	BLM	$0
Year 5: $632,890	USFS	$0

See Cost Estimate Summary and Expanded Budget worksheets for details.

The proposed project is the best value option to provide cost effective and quality work needed. Although project funding is for FWS and NPS, weed control work would be accomplished on BLM and USFS lands as well. All funds listed as EPMT and nursery expenses would be transferred directly to NPS, and EPMT would complete weed control and restoration work on NPS and the other agencies' lands, as needed and requested by each agency, under a Service First or similar agreement. Thus there would be no need for those agencies to have specific agreements or contracts for work with their associated administrative costs. Developing volunteers as citizen scientists and labor source would help continue support to the federal agencies at less cost than contracting or hiring workers. Education and outreach would help reduce the introduction and spread of weeds, thereby reducing the need and expense of weed control and restoration.

Estimated value of in-kind contributions for the project is $1,744,070. This includes:

- **Volunteer labor** – A conservative estimate would be 25 volunteers each contributing 8 hours per month for a total of 2,400 hours per year, or 12,000 hours over 5 years at $21.36 per hour, total estimated value $256,320.
- **Infrastructure and supplies –** NPS/EPMT in-kind contributions not funded by this project (see details below), total estimated value $237,750.
- **Staff time** – Non-permanent EPMT staff time (see details below) for weed control projects not funded by this project, estimated for 10 crewmembers at average $26.04 hourly (including benefits) for 12 pay periods, $250,000 each per year for 5 years, total estimated value $1,250,000.

In addition, agency staff from FWS, BLM and USFS not funded by this project will be involved in coordination and planning of specific weed control projects on their respective agency lands. The value of that time is not estimated here.

EPMT Itemized In-Kind Details:

- Office Space lease and maintenance Warehouse Complex: 4 offices for 6 months= $12,500
- Workshop for crew for 6 months: $2,500 x 5 years= $12,500
- Pesticide Storage Building for 6 months: $2,500x 5 years= $12,500
- Chainsaw and tool Storage for 6 months: $2,500 x 5 years= $12,500

- Safety Storage for PPE, camping and clean gear for 6 months: $2,500 x 5 years= $12,500
- 4 Computers for Coordinator, leaders and Project Data Processing and reporting: $8,000
- IT Support: $5,000/year x 5= $25,000
- 4 GPS Units for project data collection: $10,000
- Office Phone services for 5 years: $2,000
- Coordinator/Leaders Cellular Phone use x 4 for 6 months: $1,500 x 5 years= $7,500
- Personnel hiring and processing for the crew 5,000/year= $25,000
- 2 UTV's provided: $25,000
- 3 x Camera's for project documentation: $750
- Current Inventory of 12 Chainsaws and parts used for the project value: $15,000
- Current inventory of 15 backpack sprayers and parts: $3,500
- 3 Large Tank Sprayers provided: $5,000
- 2 Flatbed Trailers for hauling gear and UTVs for projects: $10,000
- Orientation and Operations Training for 10 person Crew including herbicide and chainsaw operations: $20,000
- Field gear and Camping supplies on current inventory for 10 person crew(tents, sleeping bags, coolers, backpacks, headlamps, hard hats, etc.)= $5,000
- 300 gallon water buffalo for project herbicide mixing water and reveg water: $3,500
- 500 gallon Steam Pressure Washer for decontamination of equipment/vehicles: $5,000
- Printing Copy machine service and ink to print reports, and operation plans, etc.: $5,000

Total: Infrastructure and Supplies In-Kind provided by the EPMT for 5 years= $237,750

Personnel Services In Kind/Match:
In addition we have 10 Term positions funded year round to provide continuity and retain and increase skill level for up to 4 years which also reduces hiring, training and orientation costs per crew member provided by other funding sources (match) for 12 additional payperiods / crew member which totals $25,000/crewmember/year x 10 crewmember= $250,000 x 5 years= $1,250,000 (includes temporary employees/non permanent staff only, this does not include the permanent staff).

Total combined In kind provided by EPMT: $1,487,750

XI. Conservation Initiatives Ranking Criteria (applicable priorities **bolded**)

Ranking Criteria: Priorities identified in the Strategic Plan or Implementation Agreement or developed by the Subgroup	**TOTAL POINTS POSSIBLE**
1. **Project supports one of three priority types of projects**: *(Points should be awarded on a scale of 0-10.)* a. **Habitat enhancement** - ***Project will remove/control non-native invasive weeds that alter and degrade habitats, and restore with native plants.*** b. Cultural Resources c. **Safety and Public Health** - ***Project will reduce puncturevine, starthistle and other weeds hazardous to public land users, and reduce fire hazards from fountaingrass and other weeds.***	10
2. **Project includes outreach/education as a component** - examples could include, but are not limited to: **Volunteer/Partnership Coordination**, Youth Initiatives - Teach the Teachers, Mobile Models, Make the Classroom/Lessons Accessible, Off Highway Vehicle Impacts, Water Conservation, projects that facilitate getting youth into the environment - i.e., Hands on the Land, or projects that incorporate modern outreach efforts and techniques using social media platforms. *(Points should be awarded on a scale of 0-5.)* - ***Project includes partnership with non-government organizations for public outreach and education about weed prevention and management, and for development and coordination of volunteer citizen scientists and other volunteers in weed control projects.***	5
3. **Project supports 1 of the 20 priority sub-types of projects**: *(Factors a-b are mutually exclusive. If the project supports more than one priority sub-type, award points based on the primary priority sub-type. This list is not all inclusive, but gives priority to projects that leave a legacy on the landscape and those that are important to program partners.)* a. Project supports any of the priority sub-types – 10 pts 1. Cultural – Protection/Site Stewards *2.* **Habitat Enhancement – Endangered Species** - ***Prevention/reducing weeds will benefit habitats of listed species such as desert tortoise, southwestern willow flycatcher, Moapa dace and razorback sucker.*** 3. Safety and Public Health – AML Reclamation with habitat restoration component 4. **Habitat Enhancement – Proactive Steps to Prevent Listing** - ***Preventing/reducing Sahara mustard and other weeds will protect habitat of sensitive species such as bearpoppy and sticky buckwheat.*** 5. **Habitat Enhancement – Invasive Species Treatment and/or**	10

Control (Plant or Animal) – *Primary* - ***Project focus is on prevention and control/treatment of invasive plants.*** 6. **Habitat Enhancement – Restoration of Habitat for Sensitive Species at the watershed or landscape level** - ***Project includes watershed level weed control and restoration in Spring Mountains, Muddy River, and Colorado River.*** 7. Cultural – Restoration/Stabilization 8. Safety and Public Health – Litter/Dumping Clean-up 9. Cultural – project includes tribal involvement and/or consultation 10. Habitat Enhancement – project addresses climate change 11. Habitat Enhancement – Water Quality and Quantity Monitoring 12. Habitat Enhancement – Cave Management 13. **Habitat Enhancement – Restoration of Springs/Streams/Rivers** - ***Weed control and restoration would include shorelines of Muddy River, Colorado River, Lake Mead, Lake Mohave, Willow Creek, Corn Creek, Pahranagat Wash and various springs.*** 14. Habitat Enhancement – Road decommissioning and rehabilitation 15. Habitat Enhancement – Reintroduction of Extirpated Species to restore overall ecosystem b. Project supports any of the priority sub-types – 5 pts 16. Cultural – Surveys 17. Cultural – National Register Nominations 18. Safety and Public Health – Information Kiosks and Signs 19. **Safety and Public Health – project addresses and mitigates adverse impacts to resources caused by the volume of people using the resource** - ***Education and outreach component would prevent and reduce the spread of weeds by recreation users including hikers, campers, bikers, OHV/ATV users.*** 20. Safety and Public Health – resolving trespass/encroachment/illegal use of public lands (i.e. marijuana grow sites)/boundary surveys	
4. **Project enhances partnerships in promotion of cooperation and collaboration** – 5 pts *(Points should be awarded between 0-5 based on the following factors:)* a. **Involves individual citizen groups or organizations in the development and accomplishment of resource management goals and other activities during project implementation** – 2 pts - ***Outreach/education and volunteer components of the project would involve partnerships with one or more non-government organizations. Weed control projects will involve coordination with the Southern Nevada Restoration Team.*** b. **Addresses the needs of more than one Federal agency** – 1 pt - ***Project benefits Fish and Wildlife Service and National Park Service lands directly, and also will include weed projects on***	5

Bureau of Land Management and Forest Service lands. c. **Involves non-Federal public partners** – 2 pts - ***In addition to direct partnerships with non-government organizations for outreach/education and volunteer coordination, the project will include coordination with the Southern Nevada Cooperative Weed Management Area, a partnership of federal, state and local agencies, organizations and landowners.***	
5. Project has identified committed non-SNPLMA sources of funding or in-kind contributions in the development and/or implementation of the project – 3 pts a. **Volunteer labor** – valuation to be computed at the rate used by the Independent Sector, currently $21.36/hour - ***The use of volunteers is a significant component of the project. A conservative estimate would be 25 volunteers each contributing 8 hours per month for a total of 2,400 hours per year, or 12,000 hours over 5 years at $21.36 per hour, total estimated value $256,320.*** b. **Salaried employees** – actual hourly rate plus the value of any fringe benefits received - ***In-kind contributions includes non-permanent EPMT staff time for weed control projects not funded by this project, estimated for 10 crewmembers at average $26.04 hourly (including benefits) for 12 pay periods, $250,000 each per year for 5 years, total estimated value $1,250,000.*** c. **Actual costs** for material, equipment and supplies should be used - ***In-kind contributions of NPS/EPMT supplies, equipment, and support (see details in budget Section), total estimated value $237,750.*** *Overhead costs may not be included in determining in-kind contributions.	3
Ranking Criteria: Executive Committee Values	
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 – 10 pts *(Points should be awarded on a scale of 1-10 based on the following factors. Projects can be given a score of 0 to 2 for each factor, depending on how well they address the factor.)* a. **Conserves resources to ensure availability to future generations** – 2 pts - ***Project conserves and restores natural resources.*** b. **Restores or maintains natural processes as demonstrated by implementation monitoring within the project timelines** – 2 pts - ***Project restores natural ecosystem functions, and includes monitoring component***. c. **Will remain relevant and continue to provide a benefit beyond the existence of SNPLMA** – 2 pts	10

- ***Restoration is intended to set ecosystem functions on track for self-sustainability, and the education/outreach and volunteer citizen science components are expected to continue beyond this project.*** d. **Includes a stewardship component to broaden support and share responsibility for operating or maintaining the project** – 2 pts - ***Education/outreach, development of volunteer citizen scientists, and the use of volunteer labor for weed projects promote public stewardship.*** e. **Reduces long-term costs and minimizes the human impact on the environment** – 2 pts - ***Education/outreach and weed control work is intended to help prevent the introduction and spread of weeds, thereby reducing the future impacts of weeds and the costs of weed treatments.***	
7. **Project promotes connectivity** by linking people to nature and recreational opportunities, and by uniting important places across the landscape – 5 pts *(Points should be awarded on a scale of 0-5 based on how well the project supports the following factors:)* **a. Encourages people to meaningfully connect with their natural environment and helps them appreciate and care for the environment** - ***Education/outreach and volunteer components of the project encourage and provide opportunities to the public to connect with and care for the environment.*** AND/OR b. Connects habitats, migratory corridors, or protected areas	5
8. **Project promotes community** by improving the quality of life for the human community and protecting the integrity of biological communities – 15 pts *(Points should be awarded on a scale of 0-15 based on the following factors. Projects can be given a score of 0-5 for each factor depending on how well they address each factor.)* a. **Conserves or restores the functionality, resiliency and integrity of biological communities** – 5 pts - ***Weed prevention/control and ecological restoration helps to conserve and restore functionality, resiliency and integrity of the biological communities***. b. **Encourages partnerships and helps build a sense of community** – 5 pts - ***Education/outreach and volunteer components as well as coordination with the Southern Nevada Cooperative Weed Management Area promote partnerships and sense of community.*** c. Improving quality of life for the human community by preserving the past (cultural or historic sites) for present or future generations – 5 pts	15
TOTAL POINTS AWARDED *(63 pts possible)*	

Schedule B						
CONSERVATION INITIATIVE						
ESTIMATED NECESSARY EXPENSES						
Project Name:	Southern Nevada Invasive Weed Education, Prevention, and Control					
Project #:		**Priority #:**		**Agencies:**	FWS, NPS	
Prepared by:	Johnny Jones					
Phone:	702-515-5457				**Initial**	x
Date:	4/26/2016				**Updated**	

1. Planning & Environmental Documentation		$ 10,000.00	0%
(Surveys/ reports for cultural, natural, biological, archaeological resources, NEPA documentation, etc)			
2. FWS Consultation - Endangered Species Act		$ -	0%
(direct expenses for FWS if consultation is required)			
3. Direct Federal Labor to Implement Project (Payroll)		$ 1,808,785.00	57%
(Federal labor costs for completing the project)			
4. Project Equipment and/or Supplies/ Materials		$ 119,700.00	4%
(include specialized equipment, supplies and materials not included in contracts/ agreements)			
5. Travel & Per Diem for Implementation		$ 57,500.00	2%
6. Official Vehicle Use		$ 50,000.00	2%
(Based on agencies procedures for use, fuel, equipment, and mileage charges)			
7. Contracts/Grants/Agreements to complete the project		$ 1,000,000.00	32%
8. Required Training to Implement Project		$ 7,400.00	0%
(includes initial and annual training for LEOs and training necessary to implement the project)			
9. Other Necessary Expenses - See Expanded Budget		$ 95,025.00	3%
	TOTAL	$ 3,148,410.00	100%

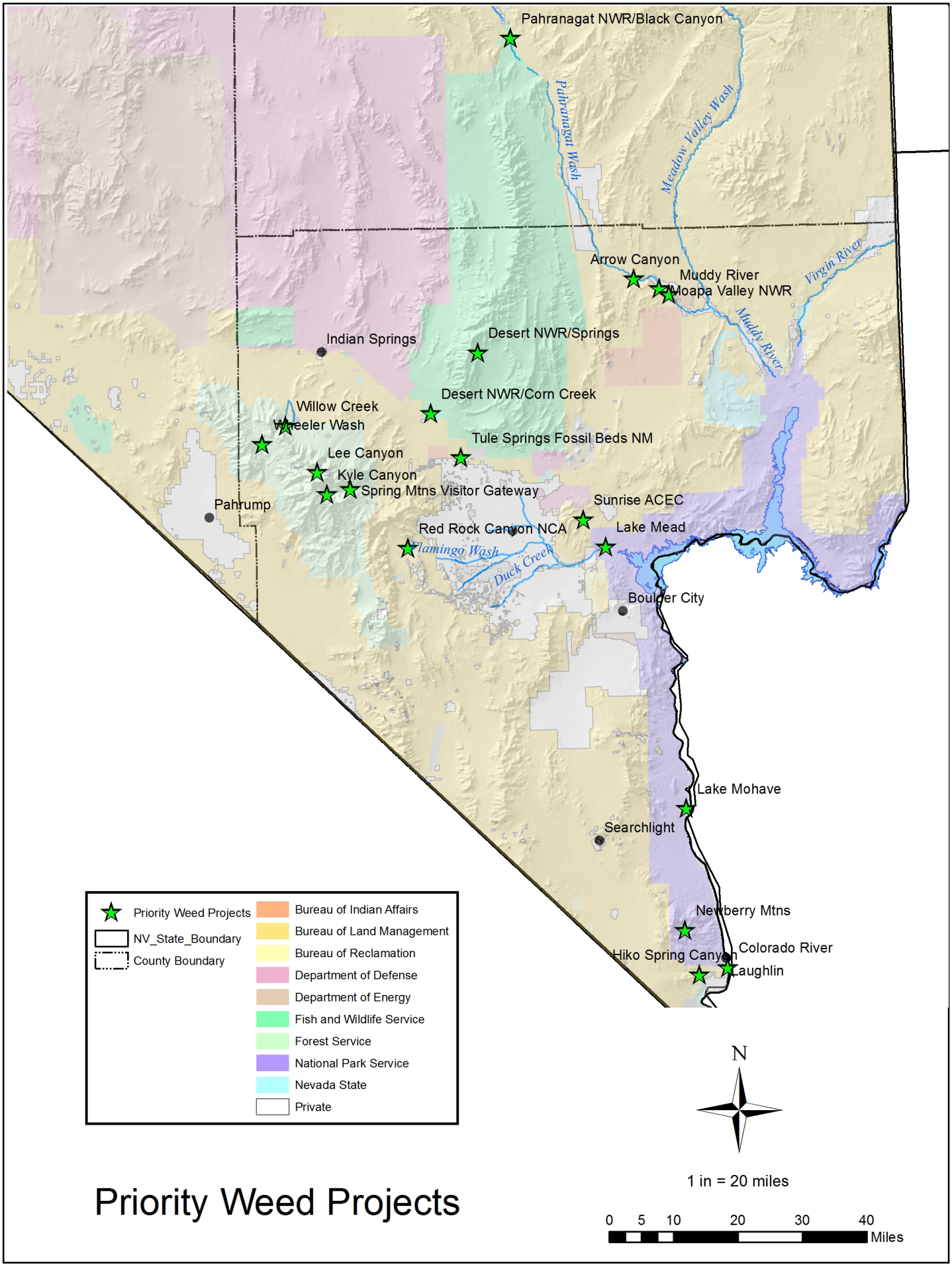
COMMENTS

Detailed Cost Estimate Other Necessary Expense Worksheet

Project Title: Southern Nevada Invasive Weed Education, Prevention, and Control

DETAILED COST ESTIMATE			
1. Planning and Environmental Assessment Costs			
Specialist Surveys/Reports		$	5,000.00
NEPA		$	5,000.00
	Subtotal	$	10,000.00
2. FWS Consultation - Endangered Species Act	**Subtotal**	$	-
3. Direct Labor/Payroll to Perform the Project (use fully loaded labor rate)			
FWS Project Manager, full time (contracted or term) GS-11		$	427,785.00
NPS Exotic Plant Management Team		$	1,381,000.00
	Subtotal	$	1,808,785.00
4. Project Equipment			
Backpack sprayers		$	1,900.00
Chainsaws		$	7,700.00
	Subtotal	$	9,600.00
5. Project Materials and Supplies			
Chemicals/herbicides		$	50,000.00
Safety equipment/PPE		$	5,100.00
Native plants/seeds		$	55,000.00
	Subtotal	$	110,100.00
6. Travel (airfare, car rental, per diem, etc)			
Backcountry per diem for EPMT crew		$	52,500.00
FWS Project Manager travel		$	5,000.00
	Subtotal	$	57,500.00
7. Official Vehicle Use			
EPMT vehicles		$	45,000.00
UTV use		$	2,500.00
FWS Project Manager vehicle		$	2,500.00
	Subtotal	$	50,000.00
8. Required Training for Project Implementation (list purpose)			
Chemical aplication certification		$	2,400.00
FWS Project Manager training		$	5,000.00
	Subtotal	$	7,400.00
9. Cost of Contracts and/or Agreements to Perform Project			
Public education/outreach		$	500,000.00
Volunteer coordination		$	500,000.00

Detailed Cost Estimate Subtotal	$	1,000,000.00
OTHER NECESSARY EXPENSES (APPENDIX B-11)		
10. Examples of Other Necessary Expenses (providing a breakdown of these costs is optional, however a		
ADMINISTRATION COSTS		
Budget Tracking/Accounting and Execution - FWS	$	14,400.00
Budget Tracking/Accounting and Execution - NPS	$	16,125.00
Travel Administration for Required Project Travel - NPS	$	16,125.00
Human Resource/Relations Tasks for SNPLMA-funded Personnel - NPS	$	16,125.00
Tracking Project Activities, Expenses, IGOs, Task Orders (e.g., project database management) - NPS	$	16,125.00
IT Services to Install Hardware/Wiring, Project-Required Software, and Maintain/Trouble Shoot Computers Used for SNPLMA Projects. Hours and costs must be tracked by project and based on percentage of time the computer(s) are used for those projects. - nPS	$	16,125.00
Other Necessary Expenses Subtotal	$	95,025.00
GRAND TOTAL	**$**	**3,148,410.00**
CASH/ IN-KIND CONTRIBUTIONS		
Volunteer in-kind	$	256,320.00
Agency in-kind	$	1,360,000.00
Total	**$**	**1,616,320.00**



Priority Weed Projects

United States Department of the Interior

NATIONAL PARK SERVICE
Lake Mead National Recreation Area
601 Nevada Way
Boulder City, NV 89005

IN REPLY REFER TO: L3631 (LAKE-RN)

April 25, 2016

Laurie Simonds
Desert Refuge Complex Biologist
U. S. Fish and Wildlife Service
4701 N. Torrey Pines Drive
Las Vegas, Nevada 89130

Dear Ms. Simonds:

The National Park Service (NPS) supports the Southern Nevada Public Lands Management Act Round 16 interagency proposal titled "Southern Nevada Invasive Weed Education, Prevention and Control" submitted by the Southern Nevada Restoration Team. The NPS understands that a cooperative and integrated approach to managing weeds is required to achieve success in reducing impacts to southern Nevada ecosystems. The NPS has an Exotic Plant Management Team based at Lake Mead NRA that has capacity, expertise, and availability to assist partner agencies with the operations described in this project. In addition, the NPS has an established Public Education, Outreach and Volunteer Program that is willing and able to actively participate in coordinating the community engagement portion of the project.

Thank you for your hard work in developing this proposal. We believe that completion of the stated goals will be invaluable in protecting southern Nevada's critical desert resources. We look forward to working with you.

Sincerely,

Patrick J. Gubbins

for Lizette Richardson
Superintendent

USDA United States Department of Agriculture | Forest Service | Humboldt-Toiyabe National Forest | Spring Mountains National Recreation Area
4701 North Torrey Pines Drive
Las Vegas, NV 89130
702-515-5400

File Code: 2360
Date: April 26, 2016

Christy Smith
Project Manager
Desert National Wildlife Refuge Complex
U. S. Fish and Wildlife Service
4701 N. Torrey Pines Dr.
Las Vegas, NV 89130

Dear Ms. Christy Smith,

I submit this letter in support of the proposal, nominated as a Conservation Initiative under Round 16 of the Southern Nevada Public Lands Management Act, entitled "Southern Nevada Invasive Weed Education, Prevention and Control." This nomination, submitted by the U. S. Fish and Wildlife Service Desert National Wildlife Refuge, is an interagency proposal developed collaboratively through the Southern Nevada Agency Partnership's Southern Nevada Restoration Team.

The Spring Mountains National Recreation Area, Humboldt-Toiyabe National Forest, continues to work cooperatively and in an integrated approach to managing weeds to reduce impacts to Southern Nevada ecosystems. I sincerely appreciate the consideration of this proposal for the long-term health and resiliency of our public lands and resources throughout Southern Nevada. I fully support the Round 16 Conservation Initiative "Southern Nevada Invasive Weed Education, Prevention and Control."

Sincerely,

DONN CHRISTIANSEN
Area Manager

cc: Cynthia Poff

United States Department of the Interior

BUREAU OF LAND MANAGEMENT
Southern Nevada District
4701 N. Torrey Pines Drive
Las Vegas, NV 89130
http://www.blm.gov/nv/st/en/fo/lvfo_1.html

In Reply Refer To:

April 26, 2016

Christy Smith, Project Leader
U.S. Fish and Wildlife Service
Desert National Wildlife Refuge Complex
4701 N. Torrey Pines Drive
Las Vegas, Nevada 89130

Dear Ms. Smith,

The Bureau of Land Management, Southern Nevada District, supports the U.S. Fish and Wildlife Service's proposal for the Southern Nevada Public Land Management Act's Round 16 Conservation Initiatives project titled "Southern Nevada Invasive Weed Education, Prevention and Control."

The spread of non-native invasive weeds is a threat not only to native ecosystems and wildlife, but to agriculture, recreation and public safety. Coordination across jurisdictional boundaries and public involvement are essential to effective prevention and control of such weeds. This project is an outstanding example of interagency collaboration and coordination between the federal agencies to address invasive weed issues on public lands. It also provides connectivity to the community by raising awareness of these issues and engages the public in helping to prevent and control weeds as volunteer stewards of the land.

The proposed project would benefit public lands and resources as well as our communities. Thank you for the opportunity to partner with this effort.

Sincerely,

for Erick A. Kurkowski
(Acting) District Manager