

Idaho Bureau of Land Management (BLM) Special Status Plant Survey and Clearance Protocols

It is Bureau of Land Management (BLM) policy to conduct inventories to determine the occurrence and status of special status plant species (SSP) on lands managed by BLM or affected by BLM actions. This includes proactive inventories directed toward developing plans or determining the status of plant species, as well as inventories conducted to determine the impacts of BLM planned or authorized actions on any special status plants that might be within the area of a proposed project. This protocol and associated instruction memorandum (IM) direction outlines survey and clearance protocols to conduct such actions and provides suggested criteria and qualifications for contract SSP surveys.

BLM 6840 Special Status Species Management Policy

6840.01 ...Conservation of BLM sensitive species means the use of programs, plans, and management practices to minimize or eliminate threats affecting the overall condition of the species, and/or improve the condition of the species habitat.

6840.02

- A. To conserve and/or recover ESA-listed species and the ecosystems on which they depend so that ESA protections are no longer needed for these species.
- B. To initiate proactive conservation measures that reduce or eliminate threats to Bureau sensitive species to minimize the likelihood of and need for listing of these species under the ESA.

Definition and Purpose

Inventory is the periodic and systematic collection of data on the distribution, condition, trend, and utilization of special status plant species (BLM Manual 6600). Inventories are conducted for many reasons; however, for the purpose of this document only one inventory “reason” is addressed.

To ensure compliance with the National Environmental Policy Act (NEPA) and the Endangered Species Act (ESA) by having sufficient information available to adequately assess the effects of proposed actions on special status plants. Assessments of the effects of these actions are documented in biological assessments (if the project involves Federally listed species and qualifies as a "major construction activity" as defined by the ESA).

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BLM Idaho Special Status Plant Categories

- BLM Type 1 – Species Federally listed by the United States Fish and Wildlife Service (USFWS) as threatened or endangered.
- BLM Type 2 - Rangewide/Globally Imperiled Species-High Endangerment. Species that have a high likelihood of being Federally listed in the foreseeable future due to their global rarity and significant endangerment factors. Species also include; USFWS Proposed and Candidate species, ESA species delisted during the past 5 years, ESA Experimental Non-essential species, and ESA Proposed Critical Habitat.
- BLM Type 3 - Range-wide or State-wide Imperiled - Moderate Endangerment. Species that are globally rare or very rare in Idaho, with moderate endangerment factors. Their global or state rarity and the inherent risks associated with rarity make them imperiled species.
- BLM Type 4 – Species of Concern. Species generally rare in Idaho with small populations or localized distribution and currently have low threat levels. However, due to small populations and habitat area, certain future land uses in close proximity could significantly jeopardize these species.

The rarity status of BLM Idaho Special Status Plants is reviewed and updated every two years, based on the current Idaho Fish & Wildlife Information System (IFWIS) Plant and Wildlife Conservation Database and as well as other information including, but not limited to (anthropogenic and natural threats, plant demography, and changes in land use activities).

Protocol

A qualified specialist (Botanist, Natural Resource Specialist, Ecologist, Range Specialist or Wildlife Biologist) familiar with the SSP in their management unit will conduct this and the subsequent steps outlined in this protocol.

1. PRE-FIELD REVIEW

Review available information to determine if there are occurrences of SSP's or noxious weeds in the project area or adjacent to the project. Consider the access routes of any vehicles and/or equipment into the project. Available data sources include, but are not limited to:

- Idaho Fish & Wildlife Information System (IFWIS) Plant Conservation Database in GIS (Line, Point, Poly, and Element Occurrences) and associated PDF Rare Plant Observation Reports

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- District/Field Office Herbaria and on-line resources such as the Regional Networks of North American Herbaria <http://symbiota.org/docs/seinet/>
- District Botany Survey/Clearances GIS database
- State/District Noxious Weeds GIS database

If there are previously known SSPs and associate element occurrences (EO's) or noxious weeds in the vicinity of the project, load these data onto GPS units or tablets, or take hard copies to the field.

If all project information is not available in the clearance request form, check in with the project lead to see if the project is flagged, marked, and to obtain specific directions. Ask the project lead about access to the project area; you may need landowner permission or a gate key.

2. FIELD EXAMINATION

The field exam will consist of surveying the project area and a surrounding buffer area. All surveying will be done on foot and at the appropriate time of year that matches the phenology of target species to confirm identification. Many SSP can only be identified when in flower, however others may have distinguishable characteristics prior to flowering that would allow pre-project surveys to occur outside the optimal plant phenology, e.g. for a species like *Mirabilis macfarlanei* for-instance. When special status plants are known to occur in the type(s) of habitat present in the project area, reference sites should be observed to determine that the plants are identifiable at the time of survey.

For a linear project (fence, right-of-way, etc.), the investigator will walk a meandering transect along the centerline of the project. For a polygon-shaped project, the investigator will do a "limited-focus" or an "intuitive-controlled" walking survey. These types of surveys allow the general area to be examined while focusing the majority of field time on any high-potential habitat. Land exchanges, disposals, sales, or any action that will result in the conversion of federal land to private or state ownership must have a "complete" survey. Depending on the terrain and habitats (type and condition), walking transects will be done at intervals of no greater than 50 meters. The parcel should be visited twice or more to get a complete species list. See Figures 1 and 2 for survey intensity levels.

Buffer zones are as follows:

- Fence, power line, fiber optic cable: 16 m (50 ft) on either side of centerline
- Road: 31 m (100 ft) on either side of centerline, or 16 m (50 ft) beyond requested Right of Way (ROW)

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- Pipeline: 31 m (100 ft) on either side of centerline
- Water trough, spring development: 0.40 km (1/4 mile) radius
- Gravel/sand/rock pits: access routes and a buffer 62 m (200 ft) beyond requested pit area

Document that you were in the correct place by taking several GPS points while surveying. If you have the capability, turn on the “tracks” feature on you GPS unit.

Use District or Field Office data dictionary or hard-copy field forms to document field site information to such as project name, date, GPS file names and location, and/or quad name and township, range and section if no GPS is available. Ensure the correct GPS datum is used e.g. NAD 83 Zone 11 and/or 12. Other data should include;

- Description and photographs of any SSP plant communities as well as the most common or dominant communities in the project area
- Complete list of all plant species encountered and consider making voucher specimens, especially if the area is not well documented floristically. Collect any unknown plants for later identification and take photos.
- General description of soil types, i.e. parent material and soil texture (sandy loam, etc)
- Description of any noxious weed infestations (existing or new) in the area including estimated size, number of individuals, and plant phenology

Recording all plant species ensures that the investigator conducts a thorough survey. The species list creates a reference for the findings and recommendations in the survey/clearance report. Attachment 1 lists optional GPS data dictionary fields.

3. SURVEY/CLEARANCE REPORT

Project Description and Location:

Include all information given in the survey/clearance request from the project lead. Though the project lead will write a project description, a more detailed description may be necessary to help describe potential impacts to SSP. In the survey/clearance report include the description of the project, the type of equipment to be used, the approximate time of year the project will be constructed (if known), and the access routes. For off-highway vehicle events, include the number of riders expected, for range projects, state the season-of-use for

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the pasture, etc. Also include the legal description, i.e. the township, range, section; include quarter/quarter section location if applicable.

Biological Evaluation:

Briefly document where you surveyed and describe the applicable buffer zones. If the project area is unclear or not flagged, a larger area than the stated buffer zones will need to be surveyed. If you went beyond the buffer to survey SSP habitat, document it in the report narrative and/or through the attached project map. If you have GPS “tracks” indicate where the electronic shapefile is located and include the tracks on the project map. If the project area was too poorly marked to be certain you were in the right place, make that clear.

What will happen if the project proceeds?

Determine the direct and indirect impacts to SSPs. If SSPs were not found, use the statement (or similar statement): “special status plants were not found during the field exam and none were previously known from the project area.” If no SSPs were found, state, “the project will have no impact on any known SSP or its habitat.” It is much easier to picture the project outcome when you are out on the ground than when you are trying to visualize it back at your desk. Take time to make notes in the field on the current condition of both the habitat surveyed and any of the identified SSP populations.

If SSPs were found, consider the long-term viability of the population and the impact this project will have on the species as a whole. Describe the direct impacts of the project. Estimate the number of plants or the percent of the population that will be impacted and what the impact will be. Will there be SSP mortality or will the result be disturbance that poses no long-term threat? Also consider the indirect impacts. For example, fence construction often results in cattle trailing along the fence or bunching up at gates. Noxious or invasive weed invasion could also be an indirect impact of a project.

In the biological evaluation narrative, give enough background about any SSPs found so that the deciding manager can put the project in perspective. Include basic information, such as the SSP BLM type designation, state and global ranking (if applicable), species’ range, the number of occurrences in Idaho and in the field office, threats to other populations in the area, etc.

Do not use the biological evaluation to express opinions of the positive or negative merits of the project in general. The intent of the biological evaluation is to capture and discuss the known or potential impacts the project would have on a SSP and/or its habitat.

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How can the project be modified to minimize or eliminate those impacts?

Possible project modifications or design features to minimize impacts can be included and should be discussed with the project lead. Mitigation measures would be addressed via the NEPA process and would only be necessary if after project modifications and design features are implemented residual impacts remain.

If you find SSPs, picture how the project could be modified. Could the fence simply be moved to a different location? Could timing of the project be changed to limit the impacts to an annual species? It may be appropriate to designate an avoidance area.

If noxious weeds are found during the survey or were previously known to occur within the project area (as determined by consulting the district or field office noxious weeds GIS database) report these findings to the district noxious weeds specialist (or weeds supervisor if the specialist is not available). Include specific location, size of infestation, number of plants and plant phenology during the survey. The noxious weeds specialist or supervisor will be responsible for determining if the proposed project will negatively impact noxious weed control efforts in the area or will contribute to further spread of the noxious weed infestation. The noxious weeds specialist or supervisor will also be responsible for contacting the project lead for potential project mitigation. Provide the noxious weeds specialist with your GPS tracks if available.

CLEARANCE FINDINGS:

This checklist succinctly reports if SSPs or SSP habitat were found during the field examination.

DOMINANT PLANT SPECIES AND/OR COMMUNITY TYPE IN PROJECT AREA:

List the plant communities and soil types you found. Make reference to the attached species list. List any SSPs and/or noxious weeds in this section. If the project was already completed, document it.

DETERMINATION:

This checklist succinctly reports the final determination based on all information gathered during the clearance process.

- A “Full Clearance” is given to a project that will have no adverse impacts to SSPs and/or their habitat.

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- A “Conditional Clearance” may be given to a project that needs further investigation at a more appropriate time depending on plant phenology. In this case a date must be given for when additional surveys will be conducted.
- A “Conditional Clearance” may alternatively be given to a project that will have no adverse impact on SSP if the modifications recommended in the biological evaluation are followed.
- Section 7 Consultation/Conferencing with the Fish and Wildlife Service will be required for any federally listed, proposed, or candidate species or habitat that could be directly or indirectly impacted by the project. Section 7 consultation will not be described in this protocol.
- A “Negative Clearance” is given to a project that cannot be modified or mitigated such that adverse impacts to individuals, a population, or habitat of SSPs will occur. A negative clearance does not necessarily mean the project cannot proceed. Given all of the information provided in the clearance report, the field office manager will determine whether to proceed with the project or not.

4. RARE PLANT OBSERVATION REPORT

If a previously unrecorded SSP was found in conjunction with a clearance, fill out an Idaho Department of Fish and Game (IDFG) Rare Plant Observation Report <https://fishandgame.idaho.gov/ifwis/portal/page/report-information>. Complete all portions of the report including specific GIS location data. Attach one copy of the rare plant report to the clearance report. Additionally, send a PDF to IDFG Heritage Program as instructed at the top of the report form and file an electronic copy in the appropriate district/field office botany directory.

5. DELIVER THE CLEARANCE REPORT AND FILE:

The qualified specialist will review and sign all clearance reports to ensure concurrence with the findings. After the review, make two copies of the form, and sign and date both copies. Attach the species list to both copies and deliver it to the project lead; this copy will be part of the official project file. Attach the original map, original clearance request form, any other pertinent maps, and the IDFG heritage report (if applicable); to the second copy and file with the district/field office lead botanist or natural resource specialist. File an electronic copy in the district/field office Botany directory.

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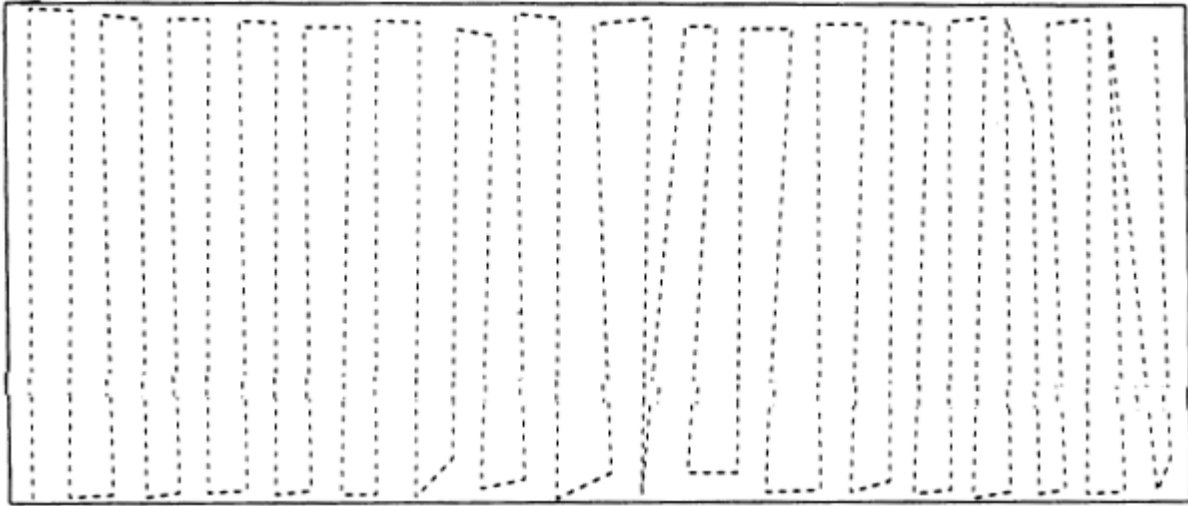


Figure 1. Complete Survey

A complete survey is a 100 percent visual examination of the project area (Figure 1) using transects. The length of the transect and distance between transects might change as the topography changes throughout the project area. Transects should be spaced so that all of the area between transects is visible and so that the smallest rare plant expected to occur is visible.

Intuitive Controlled Survey

An intuitive controlled survey is a complete survey of habitats with the highest potential for supporting rare plant populations and a less intense survey of all other habitats present (Figure 2). This type of survey can only be accomplished by resource specialists familiar with the habitats of all the plant species that may reasonably be expected to occur in the project area. The specialist traverses through the project area enough to see a representative cross section of all the major plant habitats and topographic features. During the survey, the surveyor compiles a species list of all plant taxa seen en route and keeps track of the plant community or habitat type where each taxon occurs. When the surveyor arrives at an area of “high potential” habitat, survey that area completely as described above and shown in Figure 1. High potential habitat areas include areas defined in a pre-field review of potential rare plants and habitat and other habitats where a rare species appears during the course of initial field work traversing the project area. Areas within the project area that are not the focus of a complete examination must be surveyed sufficiently so that is the specialist and BLM reasonably believe that few if any additional species would be added to the complete species list for the project area. The report must justify why the specialist did not consider these areas to have a high potential for supporting rare plant species and thus did not subject the area to a complete survey.

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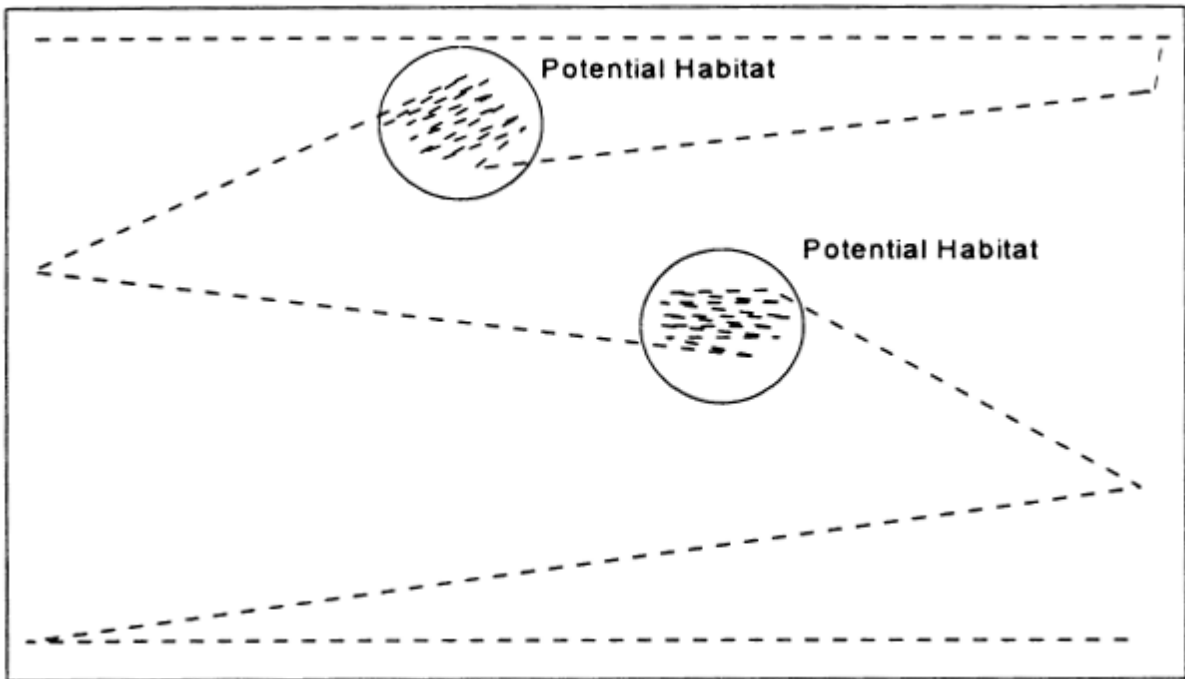


Figure 2. Intuitive Controlled Survey

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Attachment 1. Optional Data Dictionary Fields for Special Status Plants and Noxious Weeds

SSP_Points – Special Status Plant Species point locations

1. **Com_Name** (String) – Species common name (ex. slickspot peppergrass)
2. **Sci_Name** (String) – Scientific name, include genus and species (ex. *Lepidium papilliferum*)
3. **Quantity** (String) – Include this information if plants are counted (ex. 5)
4. **Site_Notes** (String) – Optional, additional information about the occurrence (ex. LEPA patch 10 m x 40m feet; few, scattered LEPA; LEPA clump of 3 mature plus 2 seedlings)
5. **Surv_Date** (Date) – Date of data collection (ex. 6/12/2016)
6. **Surv_Name** (String) – Name of individual surveyor(s) (ex. Joe Smith)
7. **GPS_type** (String) – Make and model of GPS unit (ex. Garmin 76CSx, Trimble Juno, Magellan Mobile Mapper)
8. **Proj_Notes** (String) – Shall include project name, proponent, and surveyor or company name (ex. Survey for Well or pipeline name, Lybrook area, Consultant’s Company Name)
9. **Photo_ID** (String) – A unique photo identifier (ex. filename of any photo associated with that specific location)

SSP_Polygons -- Special Status Plant Species area locations

1. **Com_Name** (String) – Species common name (ex. Slickspot peppergrass)
2. **Sci_Name** (String) – Species scientific name (ex. *Lepidium papilliferum*)
3. **Quantity** (String) – Estimate or actual count
4. **Surv_Date** (Date) – Date of data collection (ex. 6/13/2016)
5. **Hab_Type** (String) – Occupied or suitable habitat
6. **Surv_Nam** (String) – Name of individual(s) doing survey (ex. Joe Smith)
7. **GPS_type** (String) – Make and model of GPS unit (ex. Garmin 76CSx, Trimble Juno, Magellan Mobile Mapper)
8. **Proj_Notes** (String) -- Shall include project name, proponent, and surveyor or company name (ex. Exxon rodeo pipeline, Consultant’s Company Name, June 13 and 20, 2016)
9. **Photo_ID** (String) – A unique photo identifier (e.g. filename of any photo associated with that specific location)

Noxious Weed Points – Noxious Weed species point locations. Create a point file for each species in which multiple points of the same species are collected.

1. **Com_Name** (String) – Species common name (ex. Canada thistle)
2. **Sci_Name** (String) – Scientific name, include genus and species (ex. *Cirsium arvense*)
3. **Quantity** (String) – Include this information if plants are counted or estimated (ex. 5)
4. **Site_Notes** (String) – Optional, additional information about the occurrence (ex. CIAR patch 40 feet x 60 feet; few, scattered CANU; BRTE along existing road)
5. **Surv_Date** (Date) – Date of data collection (ex. 7/12/2016)

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6. **Surv_Name** (String) – Name of individual surveyor(s) (ex. Joe Smith)
7. **GPS_type** (String) – Make and model of GPS unit (ex. Garmin 76CSx, Trimble Juno, Magellan Mobile Mapper)
8. **Proj_Notes** (String) – Shall include project name, proponent, and surveyor or company name (ex. Survey for Exxon’s Proposed Well RWF 324-9, Angel Peak area, Consultant’s Company Name)
9. **Photo_ID** (String) – A unique photo identifier (ex. filename of any photo associated with that specific location)

Noxious Weed Polygons – Noxious Weed species area locations. Create a separate polygon for each species if multiple species overlap or co-occur.

1. **Com_Name** (String) – Species common name (ex. Canada thistle)
2. **Sci_Name** (String) – Species scientific name (ex. *Cirsium arvense*)
3. **Quantity** (String) – Estimated count or estimated percent cover.
4. **Surv_Date** (Date) – Date of data collection (ex. 6/13/2016)
5. **Surv_Nam** (String) – Name of individual(s) doing survey (ex. Joe Smith)
6. **GPS_type** (String) – Make and model of GPS unit (ex. Garmin 76CSx, Trimble Juno, Magellan Mobile Mapper)
7. **Proj_Notes** (String) -- Shall include project name, proponent, and surveyor or company name (ex. Exxon Master Leasing development, Consultant’s Company Name, June 13 and 20, 2016)
8. **Photo_ID** (String) – A unique photo identifier (e.g. filename of any photo associated with that specific location)

SSP Surveys – Threatened, Endangered, and Sensitive Species survey boundaries, and Survey Tracks

1. **Surv_Date** (Date) – Date of data collection (ex. 6/15/2017)
2. **Surv_Nam** (String) – Name of individual(s) doing survey
3. **GPS_type** (String) – Make and model of GPS unit
4. **Proj_Notes** (String) – Shall include project name, proponent, and surveyor or company (ex. Idaho Power)
5. **Photo_ID** (String) – A unique photo identifier (ex. filename of any photo associated with that survey location).
6. **Tran_Wid** (String) – Transect widths, if survey area polygons are submitted instead of GPS tracks. (Separate polygons must be submitted where transect widths change.)

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Attachment 2. Suggested Contractor Personnel Qualifications

All contractors conducting plant inventories must be approved by a BLM qualified specialist administering the rare plant program of the specific district or field office prior to conducting fieldwork. If there is no designated rare plant program administrator contact the Idaho state Botanist. Resumes shall be submitted for every surveyor who will be working on a botanical survey. Resumes should include educational background (colleges and universities attended, and any diplomas and degrees received), botanical survey work history, and any related work experience.

All personnel conducting inventories for special status plants should have strong backgrounds in plant taxonomy and experience with local flora. Recommended qualifications are listed below for the principal investigator (PI) or consultant crew leader and field assistants. Such qualifications help to ensure that all special status plants and noxious weeds occurring in the area to be inventoried will be located and properly identified.

- The *field crew leader* should have a degree in Botany, Plant Science, or Plant Ecology and/or at least 24 semester hours in botany, basic plant science, or ecology. A minimum of two field seasons of surveying experience for special status species in the geographic area is required. A combination of coursework and appropriate experience may be substituted if it is determined that it meets the requirements by the PI or BLM Specialist/Rare Plant Program lead. *Field assistants* must possess at least one year of biological coursework at the college level, to include at least 6 semester hours in any combination of scientific or technical courses (biology, entomology, geology, or botany); and at least 1 course in plant taxonomy.

Field crew leaders must be present with their crew during surveys and must have the ability to identify species using whatever means necessary (e.g., dissecting microscopes, technical keys, and monographs, etc.). Crew leaders should possess a wide array of skills necessary to plan, oversee and conduct vascular and non-vascular plant surveys, particularly: training and experience with vascular plant survey methods; familiarity with the flora and geological formations of Idaho; and the knowledge and ability to locate and identify target species.

Field assistants must have the ability to recognize special status plant species in Idaho and use dichotomous keys appropriate to the area. While it is not necessary for every field assistant to possess GPS skills, every assistant should be capable of supporting the field crew's efforts to document surveys using field notes, paper maps, GPS, or other means necessary and be capable overland navigation and general orienteering.

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SURVEY GUIDELINES

A. General

1. Initially consult local BLM staff and experts. If GIS imagery and data do not provide a clear understanding of the presence of potential habitat, a reconnaissance may be conducted at any time of year when the ground is snow-free to determine whether a project site contains potential habitat. If potential habitat is found to exist on the site, a survey shall be conducted during the time at which the plant is able to be positively identified (e.g. blooming season).
2. Many special status plants can be located and positively identified only when in flower. The flowering period varies by species from early March to late-August. Note that the flowering season may vary considerably from year to year based on precipitation, soil temperature, elevation and other factors including drought conditions.
3. Multiple site visits may be necessary during a single field season to ensure that surveys are conducted during the appropriate life stage of all target species in the area.
4. Reference populations (i.e., known occurrences of the target species) shall be visited to confirm that target species are flowering or otherwise identifiable prior to initiating surveys. For assistance in locating a reference population, contact the qualified specialist. Unless otherwise specified, buffer surveys may be valid for a period of 3 years – contact BLM and USFWS for confirmation; if the project is not initiated within one year of the surveys, a project footprint clearance check is required by the qualified specialist.
5. Document the presence of target species using GPS. Refer to the GPS data collection standards provided by BLM.
6. Document the presence of target species with at least one high quality photograph of the plant and one of occupied habitat. If a large area is covered during the survey, take photographs at a representative number of locations, and make note of the unique identifier(s) of photos taken at specific GPS coordinates.
7. Photographs used in place of actual voucher specimens should be of sufficient scale and resolution to show the identifying characteristics of the given target species. Physical collection of plants (actual voucher specimens) may be necessary in cases of taxonomic ambiguities, habitat or range extensions. However, the collection of federally listed

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species on Federal lands requires a permit from the USFWS and typically also requires a permit from the Federal land management agency. Ensure that you have all necessary permits before collecting voucher specimens. The Idaho State Office (ISO931) botanist shall be consulted prior to vouchering BLM sensitive species.

8. If species that could be confused with the target species are observed within the areas surveyed, identify them (to species), and describe how these species were distinguished from the target species.
9. Specifically note the presence of existing or potential threats to the target species or its habitat (e.g., invasive exotic species, grazing, unmanaged or excessive recreational use). Assess the relative severity of these threats across all sites surveyed. If multiple threats are present at a given location, assess the relative importance of each threat at that site.
10. Use standard field forms (provided by Natural Heritage Idaho) for field observations, with clear and standardized means of assessing presence/absence and abundance of target species at a given location.