Memorandum (ISRP 2015-5)  
June 22, 2015

To: Phil Rockefeller, Chair, Northwest Power and Conservation Council

From: Greg Ruggerone, ISRP Chair

Subject: Review of the Shoshone-Bannock Tribes’ Southern Idaho Wildlife Mitigation Program Management Plan (project #1995-057-02)

Background
At the Northwest Power and Conservation Council’s May 1, 2015 request, the ISRP reviewed the Shoshone-Bannock Tribes’ Southern Idaho Wildlife Mitigation Program Management Plan (project #1995-057-02). This project mitigates Federal Columbia River Power System impacts to wildlife by acquiring, restoring, enhancing, and protecting properties within the Upper and Middle Snake Provinces.

In 2009, as part of the Wildlife Category Review, the Council placed a condition on this project to produce a management plan that addressed the ISRP’s review concerns. Specifically, the ISRP recommended:

Completion of management plans and selection of implementation methods will provide a stronger base for future program evaluation. Acquisitions and management planning are scientifically justified, but future O&M is not justified until management plans are complete and linked to M&E. This is the qualification on this proposal. The M&E should consist of effectiveness monitoring tools. HEP is suitable for crediting, but not scientifically credible for monitoring. It is important to use population monitoring to validate the results of habitat work. Results from ongoing projects like this one should summarize results to date in the proposals. It would have been informative to have seen the deer radio telemetry results and ruffed grouse point counts summarized. Similarly, there is a need to summarize baseline information. (ISRP 2009-17, pages 92-94)
ISRP Recommendation

Meets Scientific Review Criteria (Qualified)

In response to the recommendations by the Council and the ISRP, the project sponsor developed a Management Plan. The proposed Management Plan does not fully address all qualifications outlined in the last ISRP review. The sponsors refer to adaptive management numerous times, but the management plan does not describe a formal, quantitative adaptive management framework. They should define an adaptive management process that they will apply to individual properties. Specifically, the ISRP recommends that the Management Plan be improved in three areas critical to effective adaptive management:

1. **Objectives**: Quantifiable management objectives (the sponsors refer to them as management strategies) and time schedules are generally lacking but are needed.

2. **Monitoring and Evaluation**: The sponsors need to identify specific monitoring and assessment techniques (i.e., effectiveness monitoring tools) associated with individual management objectives (i.e., management strategies) in either Part I or in the management plans for individual properties. The sponsors should also acknowledge the limitations of the Habitat Evaluation Procedure (HEP) within the draft management plans for individual properties; the plan would be improved by including wildlife population monitoring to validate the results of habitat work.

3. **Results Reporting**: The ISRP recommends that the sponsors provide summaries of annual activities that have occurred since the purchase of the properties. On p. 40-41, the sponsors identify the information for multiple categories (e.g., O&M and Restoration, Public Use, Inventory and Monitoring) that they will include in annual reports. Soda Hills and Rudeen Ranch have been under management since early 2000. Not including annual summaries of these activities is a major shortcoming of this report. A summary of the management actions that have occurred on these properties over the past 15 years is lacking and is critical for adaptive management to occur. A strength of the plan is the inclusion of partners’ specifications (e.g. 2005 BLM fuel reduction, p.54-57) and figures showing recent GIS coverage of wetlands and habitat conditions (p. 80-82). To improve this report, the ISRP requests that the sponsors link monitoring with these quantitative specifications for each of the properties.

The ISRP recommends development of a revised adaptive management plan, including a summary of annual results, to be completed in time for the Council’s upcoming Wildlife Review tentatively scheduled for 2016. The revised plan should incorporate all comments in this ISRP review.
Below, the ISRP provides specific comments for each section of the report.

**ISRP Comments**

1. **Programmatic Management Plan**

   a. **Overview Material (Chapters 1-3)**

In general, Chapters 1-3 provide concise and useful context to place this project geographically and historically, as well as within the Fish and Wildlife Program and subbasin plans.

Chapter 1 – Introduction/Overview. In the section, Columbia River Fish and Wildlife Program (p. 7), there is presentation of how the Habitat Evaluation Procedure (HEP) was used to measure the quality and quantity of habitat for selected animal species, but the scientific limitations of Habitat Suitability Index (HSI) models used in HEP were not explained. Standard statements within the preface of almost all HSI models published by the U.S. Fish and Wildlife are “The HSI models presented herein are complex hypotheses of species-habitat relationships, not statements of proven cause and effect relationships” and “The models have not been tested against field population data.” Attempts by researchers have generally failed to find relationships between HSI values for a species and measures or indices of abundance or density for the species. While HSI models offer a systematic approach for assessing habitat quality for animal species, both the authors and publishing agency acknowledge that they cannot be used as tools to predict either the quality or quantity of habitat for species. Converting HSI values for a species to Habitat Units (HUs) within a study area may provide a sense of how much habitat may be present, but HUs cannot be considered precise or accurate measures of the amount of habitat for a species. The management plan does not recognize the limitations of HEP and HSI models as management tools.

Chapter 2 – Relevant Laws, Planning and Guidance, and Relationships includes two tables; one lists six pertinent laws, acts, and ordinances and the second lists four relationships among the laws, acts, and ordinances. The sponsors do not describe how this information was used to guide the development of the management plan. The ISRP recommends that the sponsors present a summary of how the laws, acts, and ordinances identified in these Tables were used to develop the management plan.

Chapter 3 – Descriptions of the project area in Southern Idaho provided information about the general management area. Within the subsection, “Fish and Wildlife” beginning on p. 15, sponsors present a list of 17 species entitled, “Species identified to determine HU’s within loss assessments under CRB Fish and Wildlife Program.” The sponsors should present citations of the HSI models used for each of these species. In general, Tables that use HSI’s should include citations in the footnotes.
In a subsection of Chapter 3, Limiting Factors and Causes, it is stated: “The Upper and Middle Snake River Subbasin Plans describe limiting factors for focal species identified in the CRBFW loss assessments and HEP’s. Those limiting factors are habitat focused factors limiting the success of fish and wildlife species’ abundance, productivity, and diversity, thereby becoming factors to manage within the CRBFW Program. The SIWM Program will take into consideration those factors outlined in the subbasin plans, and any subsequent plans, for the Upper and Middle Snake River for all management guidance within the program.” This is a comprehensive statement of intent, but the ISRP requests that the sponsors describe the specific adaptive management process they will use.

b. Programmatic Management (Chapter 4)

This chapter outlines the plan(s) using a standard, general template with Strategic Goals, Objectives, and Metrics. For instance, two programmatic goals (p. 16) are stated, the first of which is to “protect, mitigate, restore, and enhance wildlife populations and habitat through acquisition of land, operation and maintenance, and management activities.” On p. 17, a table includes criteria to be considered before acquisition of a mitigation property. The list of criteria appears reasonable, but the descriptions are subjective with no quantification. Quantifiable criteria would provide more objectivity and openness to the decision-making process regarding proposed land purchases.

In the Management Strategies section there is a subsection, Site Baseline Assessment (p. 19). The sponsors state that baseline assessments will describe the area generally, and include known habitat conditions, as well as general fish and wildlife information for particular species. The ISRP suggests that the sponsors provide a description as to how quantitative, baseline assessments will be conducted and reported. This description needs to clearly identify whether there is a systematic approach planned for development of baseline assessments. Also, within this subsection, the sponsors identify a goal statement and two objectives (p. 19). The first objective is to define future desired conditions within two years of acquisition. This is an important element of the management process. It is important that a systematic, objective, quantitative approach be used to define desired future conditions. The desired future condition should also be achievable. The management process for identifying desired future conditions needs documentation since it is a key component to future adaptive management. The ISRP suggests that the sponsors provide references to pertinent sections and appendices. The ISRP believes that the sponsors could find the following publication valuable in their work to identify restoration targets: Maxwell, S.L., E.J. Milner-Gulland, J.P.G. Jones, A.T. Knight, N. Bunnefeld, A. Nuno, P. Bal, S. Earle, J.E.M. Waterson, and J.R. Rhodes. 2015. Being smart about SMART environmental targets. Science 347: 1075-1076.
The Management Strategies section (p. 19) lists four elements: Utilize Acquisition Documents, Perform In-house Assessments, Contract Baseline Assessments, and Focal Species Report. The ISRP found this section too brief and did not fully understand how management strategies will be developed. Numerous questions come to mind regarding the four listed elements: How is a HEP report developed? What additional information may be developed in-house? What would be included in a baseline assessment by a contractor? How will presence or absence of focal species be determined?

Within the second paragraph of the Habitat Management and Restoration section (p. 20) the sponsors state “property acquired under the SIWM Program must retain and/or increase the highest documented HEP values.” This statement may be an unreasonable constraint because it fails to recognize the imprecision (measurement error and subjectivity) of HEP values. They may vary due to changes in sampling methods, observer bias when making field measurements, subjective decisions regarding habitat ratings for variables within HSI models, and many other factors that are not associated with actual changes in habitat. The ISRP suggests that the sponsors address the constraints above in this section.

There are several subsections within the Habitat Management and Restoration section: Vegetation; Water Resources; Public Use and Access; Hunting, Fishing, and Gathering; Trapping; Other Recreation; Fish and Wildlife; Cultural Resources; Operation and Maintenance; Administration; Water Rights; Fee to Trust: Strategy for Land Acquisition; public Involvement and Outreach; Revenue Sources; and Funding Opportunities and Cost Sharing Programs. The sponsors present Strategic goals and objectives, Metrics, and Management Strategies for each of these subsections. These subsections are well developed, but more thorough documentation of the metrics that will be used to assess change is needed. It is important that monitoring involves more than HEP and focuses on habitat needs of animal species.

c. Monitoring, Evaluation, and Reporting (Chapters 5 and 6)
Chapter 5 provides a conceptual framework for monitoring and evaluating properties by first stating that M&E designs will be developed. However, it does not contain sufficient detail for review and comprehensive evaluation. The ISRP believes there are several limitations in the proposed process that sponsors need to address. For example, the sponsors state that “The Program will not monitor resources unless adaptive management is an option.” The ISRP has stated that that the value of HEP for resource monitoring is questionable. Chapter 5 should include a section that addresses the recommendations of ISRP regarding the correct use and limitations of HEP, what HEP cannot do, and relating HEP to species population metrics. The sponsors propose to follow up HEP with a cover type vegetation assessment program, which is to be developed. A specific point in the Implementation/Effectiveness Monitoring section that should be addressed is a detailed description of monitoring design with an effect size for a power of 80%. (Note: There is no requirement that alpha equals “1-power.” Alpha is a
In the subsection Inventory and Assessment (p. 38), the sponsors stated: “Cover types will be identified and mapped on NatureServe Ecological Systems (NatureServe 2011). A qualitative survey of a subset of each cover type will be conducted in relation to vegetation metrics based on Howell et al (2007) and other relevant sources (Appendix 3) and categorized as functioning, functioning at risk, not functioning.” Without a literature cited section, it is not possible for the ISRP to assess the methods or data that will be obtained. This subsection could be expanded and substantially strengthened. It is good that NatureServe will serve as a repository for the data, but how will the cover types be identified and mapped? How will vegetation metrics and other metrics be selected? What are the criteria for categorization as functioning, functioning at risk, and not functioning? Monitoring associated with Conservation Value Monitoring, Hydrologic Monitoring, and Public Use Monitoring are too vague to be evaluated. Are there plans to upload these data to CHaMP or similar databases in the Columbia system?

The subsection Status and Trend Resource Monitoring (p.39) begins with the statement: “The ISRP has stipulated that while HEP is a valuable accounting tool its value for resource monitoring is low. In addition to follow up HEP, SIWM will develop and implement a cover type vegetation monitoring program.” It is important that the limitations of HSI models and HEP as monitoring tools be recognized. Within the paragraph it is stated further that “Resource status and trend will be measured against the vegetation metrics based on Howell et al. (2007) and other relevant sources (Appendix 3) with an objective of trending toward metric values.” The same series of questions mentioned in the previous paragraph apply to this sentence. It is additionally stated that “Metrics will be measured using techniques outlined in Elzinga et al. (2001) and other relevant sources with techniques and sample sizes that will allow for a power level of 80% certain to detect change (alpha 0.2).” It is assumed that Elzinga et al. (2001) is the book, *Measuring and Monitoring Plant Populations*. This book provides substantial guidance on setting quantitative objectives, sampling designs, field techniques, and data management, in addition to power analysis. As written, this paragraph does not illustrate the full array of steps needed for monitoring vegetation. It would be good to expand this subsection utilizing Elzinga et al. (2001) to demonstrate an understanding of the effort needed for effective vegetation monitoring. It is not clear from the manuscript (Chapter 6) under what conditions annual reporting of status and trend results for focal species will be addressed. Details are also lacking in terms of what specific monitoring and evaluation information will be included, for example, “other relevant information.” More specific information on monitoring and evaluation for individual properties is presented in Part II of this report. Nevertheless, the management strategies in Part II are too broad for meaningful review.

The following subsection, Implementation/Effectiveness Monitoring (p. 39), is highly redundant with the previous subsection, Status and Trend Resource Monitoring. The sponsors identify that implementation monitoring is designed to evaluate project success, but then the description of methods is identical to those for Status and Trend Resource Monitoring. The ISRP suggests that
the sponsors more clearly differentiate between Status and Trend Resource Monitoring and Implementation/Effectiveness Monitoring. For instance, how will objectives differ? How will metrics, sampling designs, field techniques, and data management differ?

The subsection, Conservation Value Monitoring (p. 39) identifies awareness of a need to monitor “conservation value” and interact with BPA in doing so. However, there is no definition of what is meant by “conservation value,” how it will be monitored, or, a process for SIWM and BPA to collaborate on this issue. The management plan needs this clarification and would benefit from expansion of this subsection.

Another subsection (p. 39) is entitled, Hydrologic Monitoring. The single sentence in the subsection identifies awareness for hydrologic monitoring, but nothing else. What is the process for collaboration of SIWM with the Water Department to determine water hydrologic monitoring needs?

Within the subsection, Public Use Monitoring (p.40) the sponsors stated: “The Program may use many methods of counting and tracking public use, including: car counts per day, sign-in logs, call ahead reservation logs, or other methods.” The ISRP suggests that the sponsors complete this section by addressing the following questions: Are there standard methods for monitoring public use and documentation that can be cited? What process/criteria will be used to determine when public use monitoring is needed? The sponsors should provide appropriate references for this section.

The final subsection of Chapter 5 addresses adaptive management. The subsection is comprised of four generalized sentences regarding adaptive management. In the last sentence, the reader is directed to “see below” for the management cycle that guides management decisions. The ISRP could not identify the management cycle being referred to, until Appendix C (p. 128). While the sponsors mention the need for adaptive management in the management plan, they must describe a formal process for adaptive management and reference this process in the various chapters of Part II – Area Management Guidance with chapters specific to various properties. The ISRP suggests the management plan would benefit from inclusion of specific protocols for implementing the adaptive management philosophy. Additionally, the ISRP recommends that the adaptive management subsection be substantially enhanced to provide guidance on the adaptive management process for managers who will be carrying out the management plan.

In Chapter 6, the sponsors could provide templates for tables and figures they will use to summarize annual monitoring and evaluation data. The ISRP suggests that the sponsors present 3-5 year means in these summary Tables and Figures as well as annual estimates.

d. Public Involvement (Chapter 7)
For the internal review, it is not clear if there is a separate Tribal Fish and Game Department and a Tribal Fish and Wildlife Department. Is one of these the Idaho Department of Fish and Game?
The effort to solicit input from a variety of internal departments is a good step. A report on the attendance at the Tribal district meetings and the two open houses and copies of the meeting agendas would be useful to include in this report. Additionally, a summary of the comments received at the meetings should be included in an appendix. The ISRP believes the management plan would benefit from a stated protocol that describes when future public involvement is needed regarding purchase or continued management of individual properties and how the public will be involved at such times. Public involvement should be recognized as a component of an adaptive management process.

2. **Soda Hills (Part II: Chapter 1)**
The ISRP recognizes that Soda Hills is unique among the properties included in the management plan because the BLM holds fee title to the property and the Tribes serve as co-manager to ensure wildlife values are maintained in perpetuity and Tribal Treaty Rights are protected. Consequently, the management process is largely driven by BLM protocols for defining desired future conditions and management strategies. Habitat monitoring appears to be limited to application of HEP to mule deer population monitoring by IDFG. While desired future conditions for various vegetation cover types are stated quantitatively, there is no mention as to how progress toward desired future conditions will be monitored and assessed. The BLM’s list of best management strategies can serve as a checklist for accomplishments, but no timeline is provided. Overall, methods for monitoring and assessment of movement toward achievement of management strategies are not described. The primary goal is to improve mule deer over-wintering habitat and increase upland bird habitat. As part of evaluating the effectiveness of the Program, the IDFG monitors deer numbers in the area and the Shoshone-Bannock Tribes have assisted through monitoring population, sex, age, hunting, and fawn survival. The results of monitoring should be presented to show the impact of the Program over time. The effect of habitat restoration efforts on wildlife should be monitored, evaluated, and reported.

3. **Rudeen Ranch (Part II: Chapter 2)**
The ISRP found the Introduction/Property Description, Historical Land Uses and Tribal Uses, Infrastructure and Capital Improvements, Environmental Settings and Issues, Water and Mineral Rights, and Current Condition sections to provide a very informative description of the management area. Conversely, the ISRP found presentation of baseline data on habitat conditions was limited to: (1) Table 6, Rudeen Ranch Cover Types and Descriptions, (2) Table 7, Rudeen Ranch HU summary, (3) Table 8, Rudeen Ranch HSI and HU’s by cover type and species, and (4) Figure 9, Current habitat cover types. In Chapter 5, Status and Trend Resource Monitoring, on page 39, it was encouraging to see the statements: “The ISRP has stipulated that while HEP is a valuable accounting tool, its value for resource monitoring is low. In addition to follow up HEP, SIWM will develop and implement a cover type vegetation monitoring program” and “Resource status and trend will be measured against the vegetation metrics based on Howell et al (2007) and other relevant sources (Appendix 3) with an objective of trending
toward metric values.” However, elements of monitoring and assessment beyond HEP do not appear to have been incorporated in the management plan for this property.

In regard to the HEP process, there are many sources of variation in the outcome of an individual HEP that are not due to changes in habitat. Human error can be a major factor causing variation in HSI scores and HUs. To reduce the potential for variation in HUs due to human error, it is important that the sampling methods and HIS models applied, the data obtained, and the HIS ratings given to each variable be accurately documented and archived every time the HEP is conducted. It is unclear what may be included in Ashley (2011). It is important that sampling methods be similar among intervals when HEP assessments occur and that the field and/or remotely sensed data be archived. Comparison of data among sampling efforts is likely to yield far more insight into temporal variation than the final HSI scores or HUs. Further, it is important that the same HSI models be used among HEP assessments and that the ratings for each variable in an HSI be documented because of the subjectivity associated with the ratings of many HSI variables. Clear identification of how and where archival HSI and HEP data are stored should be a component of the management plan for this property.

The sponsors present seven habitat management strategies. Some strategies are quantified in a manner that would enable assessment of progress linked to a specific objective (see strategies 2, 4, and 5). In order for adaptive management to occur, managers will need quantifiable strategies (i.e., objectives) with time schedules for their achievement. Quantification of all habitat management strategies, with time schedules for their achievement, is needed for the management plan for the Rudeen Ranch.

The seventh habitat management strategy focuses on monitoring and evaluation (p. 73). The management plan would be greatly enhanced by inclusion of specific plans for monitoring and assessment, as well as a process for inclusion of this information into a defined adaptive management process. Hints of an adaptive management process are mentioned in 7b, but the process needs elaboration and emphasis.

Similarly, a list of 13 management strategies for public use and access are included in the management plan (p. 75-76). None of these strategies provide quantitative metrics. As mentioned in regard to habitat management strategies, in order for adaptive management to occur, managers will need quantifiable public use and access strategies (i.e., objectives) with time schedules for achievement of strategies. Quantification of all public use and access strategies, with time schedules for their achievement, are needed for the Rudeen Ranch management plan. Continuation of current levels of public use and access may be defensible if current levels are quantitatively defined in some manner.

The 13th public use and access strategy addresses monitoring. However, the statement is only a sentence fragment. “The SIWM Program may monitor public use and access through various methods, such as:” The management plan needs inclusion of specific plans for monitoring and assessment of public use and access, as well as a process for inclusion of this information into a defined adaptive management process.
In summary, the management plan for the Rudeen Ranch would be substantially enhanced if the following were included: (1) monitoring protocols beyond HEP that address metrics included in management strategies, (2) archiving of methods, data produced from HSI models, and ratings of variables in HSI models used in HEP assessments, (3) quantification of management strategies using measurable metrics with time schedules for their achievement, (4) specific plans for monitoring and assessment of individual management strategies, and (5) description of an adaptive management process that identifies how monitoring and assessment information will be incorporated into the decision-making process. The primary goal is to protect, enhance, and restore habitat for mule deer, upland birds, and bald eagle. Management actions are designed to increase productivity of wildlife and to improve hunting opportunities which implies that monitoring and evaluation should be focused on the impact of actions on wildlife. Threats to conservation values include overuse of the property and resources. The ISRP suggests that the sponsors provide details on a monitoring program that will provide early awareness of declines in focal plant and animal species rather than waiting until the Program reveals notices severe declines. Additionally, status and trend monitoring for wildlife populations should be implemented rather than waiting until the Program sees a need or notices a severe decline in populations as stated in the Management Strategies section. The statement that “the SIWM Program will attempt to enhance gathering resources ...” is too vague to be evaluated, so the sponsors must better develop these methodologies. Also, because examples of methods for Public Use Monitoring are missing, the ISRP suggests that the sponsors provide this additional information.

4. **Bannock Creek (Part II: Chapter 3)**
The management plans would be substantially enhanced if the following were included: (1) monitoring protocols beyond HEP that address metrics included in management strategies, (2) archiving of methods, data produced by HSI models, and ratings of variables in HSI models used in HEP assessments, (3) quantification of management strategies by including measurable metrics with time schedules for their achievement, (4) specific plans for monitoring and assessment of individual management strategies, and (5) description of an adaptive management process that identifies how monitoring and assessment information will be incorporated into the decision-making process. As an example, the following descriptions should provide additional information: “During the time of 2009 through 2013, the SIWM Program performed a number of activities to maintain, improve, or enhance habitat quality. Livestock grazing has been excluded through the maintenance of existing boundary fencing. Staff cleaned and removed junk piles consisting of scrap metal, tires, fencing equipment, farm equipment, and other items. The majority of interior fencing within the property was removed. Staff has combated invasive plant species through controlled burns, chemical control, and mechanical methods.” Questions to be answered include: Is the dump clean-up complete? How many acres and where were invasive plants controlled by the various methods? What were the results of this work?
5. **Lavaside (Part II: Chapter 4)**
The ISRP requests that the sponsors use comments on Rudeen Ranch and Bannock Creek to revise this Chapter.

6. **Legacy Springs (Part II: Chapter 5)**
The ISRP requests that the sponsors revise this Chapter based on our comments about Rudeen Ranch and Bannock Creek. The ISRP read that between 1997 and December 31, 2013, the SIWM Program excluded livestock grazing, maintained boundary fences, and controlled invasive plant species (Russian olives, thistle, knapweed, etc.) on over 80 acres of the property through controlled burns, chemical and mechanical controls, and prevention methods. Main access roads were improved while un-needed roads were closed for the benefit of fish and wildlife. The ISRP requests that the sponsors provide a description of what they learned from the application of various methods to control invasive plants and how many miles of road were closed.

7. **Appendices**
Appendix 1, SIWM ledger, is essentially meaningless as presented. The ISRP suggests that at a minimum the appendix be supplied with detailed headings for its rows and columns and that definitions of terms be placed in footnotes.

Appendix 2 provides an invasive plant management strategy that incorporates some elements of adaptive management. This appendix provides an opportunity to demonstrate how adaptive management may be applied to invasive plant management but should be modified to illustrate a specific protocol for conducting adaptive management. A discussion of adaptive management is included in Step 5, but it does not extend to a real adaptive management process.

Appendix 3 provides definitions of vegetative cover types and metrics that may be used to monitor and assess conditions in each cover type. The ISRP suggests that the sponsors describe how information in the appendix applies to management strategies, monitoring, and assessment within Parts I and II of the management plan.

Appendix 4 is documentation of public comments made at public meetings in 2013 and 2014. This is useful documentation and demonstrates the interests and concerns of the general public and tribal members relative to lands managed. The public concerns provide challenges not addressed in the science-based approaches to habitat and public use management. The appendix illustrates the delicate balance between ecologically based management and human needs and desires. The ISRP would be interested in reading strategies for achieving the balance.

**Editorial Comments**
The ISRP suggests that the sponsors identify the issues highlighted in ISRP reviews of this Project in a cover letter or appendix attached to the Shoshone Bannock Tribes Southern Idaho Wildlife Mitigation Management Plan. Citations of scientific literature are provided throughout
the document, but a literature cited (i.e., references) section is not included in the report. For completeness, a literature cited section should be added.