Order Statement of Work
Peer Review (without attribution) of the Scientific Findings in
U.S. Fish and Wildlife Service's Proposed Rule Removing the Greater Yellowstone Ecosystem Population of Grizzly Bears From the Federal List of Endangered and Threatened Wildlife; Availability of Draft Recovery Plan Supplement: Revised Demographic Criteria and a Draft 2016 Conservation Strategy for this Population.

Date: March 10, 2016

1. Introduction/Background

Grizzly bears (*Ursus arctos*) in the lower 48 States were listed as a threatened species under the Endangered Species Act (ESA) in 1975. Excessive, unregulated human-caused mortality was the primary factor leading to grizzly bear decline. Today, grizzly bears in the lower 48 States persist in five separate ecosystems, including the Greater Yellowstone Ecosystem (GYE), with Yellowstone National Park at its core. Since their listing in 1975, the GYE population of grizzly bears has nearly tripled in size and more than doubled its range. While human-caused mortality remains the limiting factor for nearly all grizzly bear populations in the world, including in the GYE, partner agencies and Tribes have successfully regulated this mortality to stay within sustainable limits that allow for population stability or growth.

On March 11, 2016, the U.S. Fish and Wildlife Service will publish a proposed rule to remove the Greater Yellowstone Ecosystem population of grizzly bears from the Endangered Species List. Concurrent with the proposed rule, we are proposing to update portions of the Recovery Plan: Demographic Recovery Criteria in the GYE and the Conservation Strategy based on new scientific analyses, information, and methods. The Conservation Strategy is the post-delisting management plan that will guide management in perpetuity after delisting.

To effectively manage human-caused mortality, the Service established demographic recovery criteria that are monitored by the Interagency Grizzly Bear Study Team. Some mortality is unavoidable in a dynamic system where hundreds of bears inhabit large areas of diverse habitat with several million human visitors and several hundred thousand residents. The objective of demographic recovery criteria is to ensure the long-term persistence of the GYE population of grizzly bears while allowing for human removal of some individuals when they become a threat to human safety or livestock.

The Conservation Strategy ~~is the post-delisting management plan. It~~ provides ~~detail~~ all the habitat management specifics and population management specifics that will be in place and implemented by all the agencies post-delisting. The threats analysis regarding the adequacy of regulatory mechanisms post-delisting in the proposed rule refers to the Conservation Strategy.~~.~~

As part of the Service peer review policy we are requesting peer review of this proposed delisting rule, the draft Recovery Plan Supplement: Revised Demographic Criteria, and the draft 2016 Conservation Strategy.

2. Description of Review

Comment [SRM1]: This sentence is kind of conclusory about the very thing you are asking review of. Consider avoiding that by deleting it and merging this and the next paragraph. It's a small point but you probably want to stay away from troubling perception issues in the opening paragraph, if possible.

Comment [SRM2]: Consider combining the whole highlighted section into a single effective paragraph The next to the last paragraph is so short – it's not really a paragraph, in my opinion.

We are seeking peer review on this proposed rule, the draft Recovery Plan Supplement: Revised Demographic Recovery Criteria, and the draft 2016 Conservation Strategy. The purpose of the review is to help us ensure that we have used the best scientific and commercial information when we make our final decision as to whether the GYE grizzly bear population should be delisted. Thus, we are looking for independent scientific perspectives on the comprehensiveness, and logic of the 3 documents, as well as how well the technical conclusions are supported by the data and analyses.

~~Our purpose in seeking independent peer review is to ensure that we've adequately considered and addressed all factors relating to the continued survival of a healthy grizzly bear population in the Greater Yellowstone Ecosystem. The purpose of seeking independent peer review is to ensure that the best biological and scientific data are being used in this revision process. We are asking for your candid expert opinion pertaining to the logic of our assumptions, arguments, and conclusions.~~

~~We are seeking peer review on this proposed rule, the draft Recovery Plan Supplement: Revised Demographic Recovery Criteria, and the draft 2016 Conservation Strategy to gain an independent scientific perspective. We seek peer review to ensure that these 3 documents will allow us to meet our objective of assuring that we have used the best available scientific and commercial information when we make our final decision as to whether the GYE grizzly bear population should be delisted.~~

~~The purpose of seeking independent peer review is to ensure that the best biological and scientific data are being used in this revision process, as well as to ensure that reviews and input by recognized experts are incorporated into these 3 documents~~.

3. Methods, Protocols and/or Scientific Standards

The independent peer reviewers shall be experienced senior-level ecologists, bear biologists, or population modelers, and~~/or~~ bear managers who have previously conducted similar reviews or regularly provided reviews of research and conservation articles for the scientific literature. Reviewers must be well-versed in the demographic management of mammals, preferably bears or other carnivores. The reviewers must be independent of the Service, the States of Montana, Wyoming, or Idaho, the Interagency Grizzly Bear Study Team, and the Western Governors Association. Peer reviewers should not have offered an opinion or a statement either for or against delisting. Peer reviewers cannot be directly or indirectly employed by or associated in any way with any organization that has either litigated the federal government concerning grizzly bears or wolves or taken a position on one side or the other about recovery and delisting of grizzly bears or wolves. The contractor will be responsible for assigning an experienced, senior and well-qualified manager to lead this review and for the selection of 4 (minimum) to 6 (maximum) well-qualified, independent reviewers. The ~~combined~~ expertise of qualified ~~the~~ reviewers shall include:

1. A Ph.D. or an M.S. (with significant experience) in Wildlife Ecology, Ecology, or Wildlife Management
2. Demonstrated experience working with the management of large carnivores, especially bears, and wildlife population management.

Comment [SRM3]: This is a quick attempt to capture the important points in the three paragraphs below. It can be improved, it's just something to consider.

Comment [SRM4]: These short paragraphs are redundant and contain vague wording that can be easily fixed (see my attempt above). They can be combined into a single short description of why and what we want from the review. Any revised version should probably avoid ambiguous terms like adequate and healthy, because they are open to interpretation and imply a yes/no response.

Comment [SRM5]: That's a lot of rules; they go way beyond conflict of interest, in my opinion. Are we putting the quality of the review itself at risk? I'm an associate editor for the Journal of Fish and Wildlife Management and if we employed rules like this, it would eliminate our best reviewers. This review isn't a vote on how we should manage grizzly bears. Rather, reviewers are going to be asked to give a scientific or technical review. The criteria seem over-controlling. Are there risks to credibility here? Consider opening it up. You're really looking for bear biologists and the other expertise listed in the first few lines, and listed in 1 – 4 below.

Comment [SRM6]: Just brainstorming here - four to six is more than most journals which usually shoot for three. I trust 4 to 6 experts can cover the technical end of the review nicely, but if there are other objectives like inclusiveness, consider opening it up.

3. Expert knowledge of wildlife biology, wildlife management, demographic management of mammals (especially carnivores), wildlife population dynamics, wildlife population modeling, available literature on bears and other carnivores, and the management of bears and other carnivores.
4. Experience as a peer reviewer for scientific publications.

In addition, the reviewers shall have no financial or other conflicts of interest with the outcome or implications of the report (reviewers should not be currently employed by the Service, the states of Montana, Wyoming, or Idaho or employed by or contracted by any organization that has either litigated or taken a position on grizzly bear recovery or delisting). The Service will have an opportunity to seek clarification on any review comments through the contractor (Task 003.1), for a period of 10 days, starting 60 days after the Service receives the report from the contractor. **The list of reviewers and the combined comments without attribution will be part of the final report and included in the Services' Administrative Record.** Four (4) to six (6) reviewers must be engaged in this effort and provide a thorough, objective peer review.

~~The peer reviewers must consider, but not limit responses, to the following questions and provide any other relevant comments, criticisms, or ideas. Peer reviewers should respond to the questions listed below, at a minimum, in their reviews.~~

Collectively, the review should cover, but not be limited to, the topics listed below. Individual reviewers should, at their own discretion, provide comments, criticisms, and ideas about any of the topics they feel qualified to comment on. The most valuable reviews will focus on how thoroughly and logically the topics have been treated, and how well the conclusions are supported by the data and analyses.

Proposed Rule:

1. ~~Does the proposed rule provide adequate review and a~~Analysis of the factors relating to the persistence of the grizzly bear population in the GYE (demographics, habitat, adequate regulatory mechanisms, disease and predation, and genetics)~~?~~
2. ~~Are our a~~Assumptions and definition of suitable ~~habitat logical and adequate?~~
3. ~~Are the d~~Details for habitat management and regulatory mechanisms ~~adequate in the proposed rule?~~
4. ~~Is the m~~Management of discretionary mortality, including hunting~~, scientifically sound and sufficiently detailed?~~
5. ~~Are the c~~Conclusions relating to the effects of changes in food resources on the GYE grizzly bears ~~scientifically based and logical?~~
6. ~~Is our explanation of d~~Density dependent effects versus whitebark pine decline driven effects ~~scientifically sound?~~
7. ~~Is uncertainty adequately considered and addressed?~~
8. ~~Did we include all the necessary and pertinent literature to support our assumptions/arguments/conclusions?~~

Draft 2016 Conservation Strategy:

1. Are the habitat management mechanisms scientifically sound and sufficiently detailed in the draft 2016 Conservation Strategy?

Comment [SRM7]: See my comment 5

Comment [SRM8]: This section is full of red flags; the same ones mentioned in my comment 4, and more. I'm taking a stab at a rewrite, just for consideration. Any revision should focus on: getting reviewers' thoughts on how thoroughly and logically these subjects have been treated, and how well any conclusions we draw follow from the data and analyses, so consider avoiding yes/no questions. Try avoiding questions all together. It is also worth trying to avoid terms like adequate and sufficient, since nobody will know what that means and it implies there is a threshold. Finally, will all reviewers be able to answer all these questions? It seems to me the list of topics is too diverse to match the expertise of any one person. How is that handled? (see my attempt) All I'm getting at is reviewers with a lot of on the ground management experience and working with regulations and other agencies and states will be better at those topics, and biologists will be better at biology topics.

Comment [SRM9]: Maybe the reviewers would be great at commenting on this. Some certainly would. This is just a caution about inadvertently sending reviewers into an area that is solely the domain of FWS managers. I don't know what is considered open for review and what is not, so it's just something to consider.

Comment [SRM10]: Uncertainty is pretty wide open I assume the treatment of most kinds of uncertainty would be covered in the reviews of the topics. You could add it to the instructions, clarify here, or just delete..

Comment [SRM11]: This would already be covered, in my opinion.

2. Is the management of discretionary mortality, including hunting, scientifically sound and sufficiently clear and detailed so that managers can use this document to successfully implement mortality management in the future?
3. Is management to facilitate connectivity with other grizzly populations adequately addressed in the draft 2016 Conservation Strategy?
4. If implemented, is the Conservation Strategy adequate to reasonably ensure the long-term viability of the GYE grizzly bear population?
5. Did we include all the necessary and pertinent literature?

Draft Recovery Plan Supplement: Revised Demographic Criteria:

1. Given known (and unknown) levels of uncertainty, are the revised demographic criteria likely to support long-term conservation of grizzly bears in the GYE?
2. Is managing to maintain the population around the 2002–2014 model-average Chao2 estimate of 674 (95% CI = 600–757) (instead of stability or an increasing or decreasing population) an appropriate approach for the GYE population of grizzly bears?
3. Is assessment of demographic criteria exclusively within the demographic monitoring area identified a reasonable biological and statistical approach?
4. ~~Do the proposed revisions and supporting documents provide all the necessary and pertinent literature to support our assumptions and conclusions?~~

In accordance with the agreement terms and Performance Work Statement, the contractor(s) is (are) reminded of the requirements to protect information and that services shall consist of unbiased assessments through proper management and enforcement of scientific integrity standards, to include conflict of interests.

4. Required Service (Work) Items - Task Line Item Numbers (TLIN): As described in the agreement's Performance Work Statement, paragraph 2B, the below TLINs are required in the performance of this requirement. The TLINs are different, but interrelated to the tasks listed in task/deliverable and payment schedule**:**
TLIN 001: Selecting for peer reviews or review panels, or for task orders to provide scientific support.
TLIN 002: Organizing, structuring, leading, and managing the scientific reviews and task order products.
TLIN 003: Managing and producing a final report/product.
TLIN 004: Responding to any follow-up questions from the Service on original review comments (not to exceed 10 consecutive days)
TLIN 005: Maintaining an official record for peer reviews or task orders.

5. Deliverables
The following deliverables are in addition to the agreement's Performance Work Statement paragraph 3, which states, "The Contractor shall provide the COR with three key deliverables: (1) Proposed Timeline, (2) Original and summarized scientific reviews, and (3) Complete Official Record."

There are no additional deliverables. However, the contractor will be required to respond

Comment [SRM12]: Same revision as under Proposed Rule.

Comment [SRM13]: Ha! These are much more tricky.

Comment [SRM14]: You won't get much useful review with this question, in my opinion. Known (and unknown) is confusing and probably superfluous. Likely is in the eye of the beholder, and what is long-term conservation? Consider not asking this question, or revising it to create a shared understanding by reviewers. Help them out by adding specifics. Or, create topic areas as you did for the other documents.

Comment [SRM15]: It seems like you are asking a management judgment here. There is no appropriate or inappropriate. It depends on the manger's objectives and risk attitude. Consider a more objective treatment here. I don't really have a suggestion off the top of my head. I wouldn't ask this form of the question. Maybe something about pros and cons of the various metrics? Would it be possible to create topic areas as with the other documents?

Comment [SRM16]: Would it be useful to ask for the technical pros and cons? I'm just thinking about staying away from yes/no questions.

Comment [SRM17]: I assume this would already be covered in reviews of the other topic areas. If you need to add more areas, that might work better than this yes/no version.

to questions, inquiries, or other related requests after the contract expiration date, and final acceptance, as needed. These request(s) will be by the Contracting Officer Representative (in coordination with the Contracting Officer). Inquires or requests are limited to the products provided, and work performed under this contract (order). Responses include, but not limited to: phone calls, written responses, and/or meetings.

Review comments by the Contracting Officer Representative will be provided to the contractor via the Contracting Officer.

6. Task Schedule.
The period of performance shall not exceed the contract expiration date without a contract modification. In accordance with the terms of the contract, the contractor shall notify the Contracting Officer of any delays. Delays by the Government or Contractor must be rectified by accelerating the next deliverable on a one to one basis (i.e., if the delay was 2 days then the next deliverable must be submitted 2 days early). Deliverables that fall on a holiday or weekend must be delivered on the first work day after the weekend or holiday. The period of performance (contract expiration date) includes all possible holidays or weekend deliveries:

TASK/DELIVERABLE	**CALENDAR DAYSAFTER AWARD**
Task 1: Contracting Officer and COR will provide access to materials needed for the review	3
Task 2: The contractor(s) shall conduct a thorough, objective peer review of the Service Proposed Rule Removing the Greater Yellowstone Ecosystem Population of Grizzly Bears From the Federal List of Endangered and Threatened Wildlife; Availability of Draft Recovery Plan Supplement: Revised Demographic Criteria and a Draft 2016 Conservation Strategy for this Population.	17 (14 days)
Task 3: The contractor(s) will provide 4 to 6 expert peer reviews (combined without attribution) and all applicable official records to the project manager	22 (5 days)
Task 4: The project manager summarizes the individual peer reviews and prepares a summary report for the Service	29 (7 days)
Task 5: The project manager facilitates specific follow-up questions/answers between the Service and the reviewers, without attribution (task limited to a 10-day period, 60 days after delivering initial review comments to the Service).	39 (10 days)
Task 6: Final report and official record is submitted to the Service	**45 (6 days) DEADLINE is May 10, 2016**

7. Official Administrative Record

The preparation of an official administrative record is required.

8. Information Sources
The key information sources (estimated total of 150 pages) and links for this review will include the three documents referenced in the Notice of Availability published in the Federal Register: (1) the Proposed Rule Removing the Greater Yellowstone Ecosystem Population of Grizzly Bears From the Federal List of Endangered and Threatened Wildlife; (2) the draft Grizzly Bear Recovery Plan Supplement: Revised Demographic Criteria for the Greater Yellowstone Ecosystem population; and (3) the draft 2016 Conservation Strategy for the Greater Yellowstone Ecosystem population.

9. Payment Schedule:
In accordance with and in addition to the agreement, the contractor will submit invoices via the Internet Payment Platform (IPP) (see agreement). Invoices that do not coincide with a deliverable shall be submitted with a brief status report (not to exceed 1 page). The status report will detail the period of performance, the services performed during the period, key personnel involved, and percentage of the task(s) complete, if other than 100%. Partial payment for task(s) that are not 100% complete will be paid in an amount up to, but not to exceed, 65% of the task's total cost. For instance, if the total cost of the project is $100.00, 100% of task 2 related cost would be $10.00. If task 2 is 75% complete, the invoice amount will not exceed 65% or $6.50.

The payment schedule is as follows:

TASK/DELIVERABLE	**% OF EFFORT & PRICE**
Task 1: Contracting Officer and COR will provide access to materials needed for the review	~~0~~ ~~0~~
Task 2: The contractor(s) shall review appropriate information that will assist in their review.	~~10%~~ ~~0~~
Task 3: The contractor(s) shall conduct a thorough, objective peer review of the Service Proposed Rule Removing the Greater Yellowstone Ecosystem Population of Grizzly Bears From the Federal List of Endangered and Threatened Wildlife; Availability of Draft Recovery Plan Supplement: Revised Demographic Criteria and a Draft 2016 Conservation Strategy for this Population.	~~30%~~
Task 4: The contractor(s) will provide their individual review, and all applicable official records to the project manager	~~0%~~
Task 5: The project manager summarizes the individual peer reviews and prepares a summary report for the Service.	~~10%~~ ~~60%~~
Task 6. The project manager receives follow-up questions from the Service on any review comment, obtains the	~~5%~~

reviewers reply and provides the reply comment, without attribution to the Service (limited to a 10-day period)	
Task 8: Final report and official record is submitted to the Service	
Total	100%

10. Points of Contact:
Contracting Officer, Mr. Steve Gess. Mr. Gess's phone number is 303-236-4334 or email: steve_gess@fws.gov.

Contracting Officer's Technical Expert): Marjorie Nelson, who can be reached at 303-236-4258 or marjorie_nelson@fws.gov**Project Leaders**: Dr. Chris Servheen, Grizzly Bear Recovery Coordinator and Dr. Jennifer Fortin **Mailing Address**: University Hall, Room 309, Missoula, Montana 59812 **Telephone**: 406.243.4903 **Email**: chris_servheen@fws.gov

11. List of Enclosures/Attachments
1) Proposed Rule Removing the Greater Yellowstone Ecosystem Population of Grizzly Bears From the Federal List of Endangered and Threatened Wildlife;
2) Draft Recovery Plan Supplement: Revised Demographic Criteria
3) Draft 2016 Conservation Strategy for this Population

12. Evaluation Criteria (This paragraph will be deleted upon award)
This requirement will be awarded based on best value. Best value will take into consideration price (to include the level of effort applied to each major task), approach (to include the labor categories, TLINs applied to each major task, and the reviewer's resumes (raptor or eagle ecologist/statistician/modeler having performed similar reviews) (reference paragraph 3).

Price must detail cost in accordance with the agreement. The approach must include a detailed/ proposed schedule (timeline), and the disciplines/skill mix of reviewers. The approach should be no more than 2 pages (8 1/2" x 11", 12 point font), excluding information on costs. All contractors must propose four (4) to six (6) reviewers and indicate (separately) the additional cost for a fifth reviewer. Be sure to include the discipline/skills of all reviewers. The fifth and sixth reviewers are considered optional and subject to a determination by the Government and subject to the availability of funds.