

**National Marine Fisheries Service**

**Willamette Falls Pinniped-Fishery Interaction Task Force  
Marine Mammal Protection Act, Section 120**

**Final Report**

**October 2018**

## Table of Contents

<b>BACKGROUND .....</b>	<b>3</b>
<b>Brief History of Pinniped Removal Activities Authorized Under Section 120 of the     Marine Mammal Protection Act in the Columbia River .....</b>	<b>3</b>
<b>Current Application .....</b>	<b>3</b>
<b>Purpose of Convening the Task Force .....</b>	<b>4</b>
<b>Public Participation.....</b>	<b>6</b>
<b>NMFS' Decision and Implementation Process.....</b>	<b>6</b>
<b>Other Applicable Laws.....</b>	<b>6</b>
<b>TASK FORCE RECOMMENDATIONS.....</b>	<b>6</b>
<b>Process Overview .....</b>	<b>6</b>
<b>Section 120(d) Considerations.....</b>	<b>6</b>
<b>Discussion of Questions #1-6 .....</b>	<b>8</b>
NMFS Question #1:.....	8
NMFS Question #2:.....	9
NMFS Question #3:.....	9
NMFS Question #4:.....	9
NMFS Question #5:.....	10
NMFS Question #6:.....	11
<b>SUMMARY AND FINAL VOTE.....</b>	<b>11</b>
<b>CONCLUDING REMARKS OF THE FACILITATOR .....</b>	<b>13</b>
<b>APPENDICES</b>	
<b>Appendix A:</b> Task Force Membership	
<b>Appendix B:</b> Task Force Agenda, Section 120 Overview and Task Force Instructions, and Meeting Summary	
<b>Appendix C:</b> Task Force Account by Tim Ragen	
<b>Appendix D:</b> Presentations and Documents Provided to the Task Force	
<b>Appendix E:</b> List of Attendees	
<b>Appendix F:</b> List of Federal Register Notice and Media Notices	

## BACKGROUND

### **Brief History of Pinniped Removal Activities Authorized Under Section 120 of the Marine Mammal Protection Act in the Columbia River**

In December 2006, the National Marine Fisheries Service (NMFS) received an application co-signed by the directors of the Washington Department of Fish and Wildlife, the Oregon Department of Fish and Wildlife (ODFW), and the Idaho Department of Fish and Game (states), on the states' behalf, requesting authorization under section 120 of the Marine Mammal Protection Act (MMPA) to intentionally take, by lethal methods, individually identifiable predatory California sea lions (CSLs) in the Columbia River, which were then having a significant negative impact on the recovery of threatened and endangered Pacific salmon and steelhead. NMFS partially approved the state's 2006 request in 2008, issuing its Letter of Authorization (LOA) on March 18, 2008.<sup>1</sup>

A second request for lethal removal authorization was submitted by the states on December 7, 2010. NMFS' consideration of the request included new information gathered since the prior authorization, as well as recommendations from the Bonneville Pinniped-Fishery Interaction Task Force. NMFS authorized lethal take with the removal program structured similarly to the 2008 authorization, this time with modifications. The new LOA was issued on May 13, 2011.<sup>2</sup>

The states submitted a third request on August 18, 2011, seeking lethal removal authorization of CSLs at Bonneville Dam. The program was to commence with the same restrictions and conditions as the second authorization. The Bonneville Task Force reconvened in October 2011, evaluating the states' application as well as public input before recommending that NMFS approve the proposed lethal take. After submission of the Bonneville Task Force's final report and recommendations on November 14, 2011, NMFS issued a new LOA. The new LOA went into effect on March 15, 2012.

NMFS received an application from the same states for extension of the 2012 LOA on January 27, 2016. The proposed extension would end on June 30, 2021. No additional changes or modifications to the 2012 LOA terms and conditions were requested by the states and NMFS subsequently issued a new LOA on June 28, 2016.

### **Current Application**

NMFS received an application on October 6, 2017, signed by the director of the ODFW on the state's behalf, requesting authorization under section 120 of the MMPA to

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<sup>1</sup> Following issuance of the LOA, the Humane Society of the United States (HSUS) filed a lawsuit alleging violations of the MMPA Section 120 and the National Environmental Policy Act (NEPA). The District Court upheld NMFS' approval in November 2008, but the LOA was vacated and remanded in November 2010 following an appeal to the Ninth Circuit Court of

<sup>2</sup> An additional lawsuit was filed by the HSUS in the federal court for the District of Columbia, alleging NMFS had incorrectly followed MMPA Section 120 protocols regarding public notice, among other things, before issuing the authorization. HSUS withdrew the lawsuit following NMFS' revoking the May 13<sup>th</sup> authorization on July 22, 2011.

intentionally take, by lethal methods, individually identifiable predatory CSLs in the Willamette River, that had qualified as having a significant negative impact on the recovery of the Upper Willamette River (UWR) steelhead distinct population segment (DPS) and the UWR spring Chinook salmon evolutionary significant unit (ESU). Both species are listed as threatened species under the Endangered Species Act (ESA).

Historically, predation by pinnipeds played an insignificant role in the decline of these species; rather, hydroelectric dams, habitat degradation, hatchery practices, and unregulated harvest of stocks negatively impacted the populations throughout the 20<sup>th</sup> century. Despite considerable efforts to address these issues by implementing actions outlined in the joint State/Federal Recovery plan, these populations are not showing signs of consistent recovery. Instead, the overall population trends suggest there has been a general decline since the early 2000's. This is because of a number of factors, though predation by CSLs now explains a large proportion of the increased extirpation risk.

Pinniped populations had dramatically declined during the 19<sup>th</sup> and 20<sup>th</sup> centuries as well, primarily as a result of hunting and pollutants. Following the implementation of the MMPA in 1972 though, the population of CSLs rebounded from an estimated 75,000 to over 300,000 in 2012. This increase in population may have led to the encroachment further upriver in Washington and Oregon as male CSLs migrate and search for food. Since the mid-1990s, the ODFW has documented frequent sightings of CSLs feeding on salmon and steelhead that have gathered at the base of Willamette Falls' fish ladder as the fishes attempt to continue their annual migration upstream for spawning.

Monitoring of CSL presence at Willamette Falls occurred from 1995-2003, 2009-2012, and 2014-2017, and indicated a steady increase in maximum daily sightings throughout the last decade. Initially, non-lethal deterrent methods (e.g., seal bombs [underwater firecrackers], pulsed power, acoustic deterrents, physical barriers near fish ladder entrances) were employed from 2010-2013 but their efficacy was short-lived. As with Ballard Locks in the 1980s and Bonneville Dam in the 2000s, Willamette Falls is now the next area to consider implementing lethal removal.

Following the state's submission of the application, NMFS published a Federal Register notice on November 9, 2017 soliciting public comments for a period of 60 days. Of the 792 comments received by January 9<sup>th</sup>, 2018, 677 voiced support for the lethal take of predatory sea lions while 99 opposed it; 16 neither supported nor opposed the application, rather, they nominated members for the Task Force or were unclear in their position.

The Task Force met from August 20-22, 2018 and has 60 days to submit their recommendations to NMFS.

#### **Purpose of Convening the Task Force**

As required by the MMPA §120(c), NMFS convened this Task Force to provide the agency with a recommendation to either approve or deny the state's October 6, 2017, application for the intentional lethal taking of CSLs that are having a significant negative impact on the recovery of UWR steelhead DPS and the UWR spring Chinook salmon

ESU. In formulating its recommendation, NMFS asked the Task Force to consider the following:

- a. Population trends, feeding habits, the location of the pinniped interaction, how and when the interaction occurs, and how many individual pinnipeds are involved;
- b. Past efforts to non-lethally deter such pinnipeds, and whether the applicant has demonstrated that no feasible and prudent alternatives exist and that the applicant has taken all reasonable non-lethal steps without success;
- c. The extent to which such pinnipeds are causing undue injury or impact to, or imbalance with, other species in the ecosystem, including fish populations; and
- d. The extent to which such pinnipeds are exhibiting behavior that presents an ongoing threat to public safety

In addition, the Task Force was asked to respond to the following questions when preparing its recommendation and provide additional guidelines or suggestions where applicable:

1. If lethal removal is included in the recommendations, what (if any) additional criteria, in addition to the criteria proposed by the state in their application, does the Task Force recommend that would improve the effectiveness of the lethal removal program?
2. If lethal removal is included in the recommendations, does the Task Force recommend a limit (different than the limit proposed by the state in their application) to the number of sea lions that may be removed, and if so what is the justification for that limit?
3. If lethal removal is included in the recommendations, what limitations (if any) would the Task Force recommend on timing, location, take methods or duration of the authorization?
4. There are various proposed pieces of legislation to amend Section 120 of the MMPA (e.g., HR 2083, S 1702, S 3119) in Congress. Of particular interest are the proposed modifications to the individually identifiable and significant negative impact criteria. Our initial assessment of the proposed legislation as it relates to these two criteria, is that measures for identifying predatory sea lions via branding, natural features, etc., and documenting predation to determine its impact on salmonid fishery stocks, would no longer be required. Instead, identification of sea lions for removal would be based on a geographic criterion, so that any sea lion within a specified geographic area, e.g., above river mile 112 on the Columbia River, or a tributary to the Columbia River that includes spawning habitat of threatened or endangered salmon or steelhead, would be deemed eligible for removal. Therefore, we are asking the Task Force to provide us with their views regarding the proposed modifications to the individually identifiable and significant negative impact criteria, and include those considerations in your recommendations to NMFS.

5. If NMFS approves the states' application, what criteria does the Task Force recommend for evaluating whether the implementation of the lethal removal program has been successful in addressing the pinniped-fishery interaction?
6. Regardless of the outcome of this process, what might be the most effective means to achieve a long-term resolution to the pinniped-fishery interaction?

### **Public Participation**

As required by the MMPA, the August 20-22 Task Force meeting was open to the public, either through personal attendance or calling in to an UberConference line. Meeting information had been disseminated via the NOAA Fisheries West Coast Region website and associated press releases. While the public was not permitted to join discussions, they were designated times to speak to provide the Task Force with any relevant information that could inform the Task Force's deliberations. During the August 20-22 meeting however, no members of the public submitted comments.

### **NMFS' Decision and Implementation Process**

Following receipt of the Task Force recommendations, NMFS has 30 days to either approve or deny the state's application.

### **Other Applicable Laws**

Besides the MMPA process described above, in considering the state's application, NMFS must also comply with the NEPA, the ESA, and other relevant statutes.

## **TASK FORCE RECOMMENDATIONS**

### **Process Overview**

As requested by NMFS, the Task Force began deliberations and assessed where and what types of recommendations/alternatives were warranted after all presentations had concluded. The Task Force generated the lists of recommendations through discussion (see session summary for further detail). It should be noted that these recommendations are not indicative of consensus among all Task Force members.

### **Section 120(d) Considerations**

*(a) Population trends, feeding habits, the location of the pinniped interaction, how and when the interaction occurs, and how many individual pinnipeds are involved;*

Regarding Section 120(d)(a)'s consideration, the Task Force discussed concerns over the numbers of CSLs at the Falls from year to year. At least 40 unique individuals have been documented in a single day at Willamette Falls (in 2017). However, the maximum number of CSLs that forage at Willamette Falls (40~100 individuals) is difficult to determine given many animals are unmarked and monitoring is limited in time and space. One member of the Task Force felt the open-ended nature of the Willamette Falls system will result in continued influx of animals, while most members felt this was a separate issue only clarified once removal actions occurred. Some Task Force members also

expressed opinions that this new application reflects the lessons learned at Bonneville Dam where ongoing removal efforts have prevented an increase in CSL presence, but have not been of sufficient magnitude to reduce social transmission by completely removing the resident pool of animals.

Determining the location of predation events was also a topic of discussion, as many factors such as migration timing, water temperatures, flow, dam locations, and pinniped presence influence the speed at which salmonids move upriver. However, some of the alternative methods for preventing choke points for salmonids were outside the scope of the application. Some Task Force members pointed out that some studies estimating that predation is occurring in the larger river system are not rigorous enough due to small or incomplete datasets. Other Task Force members indicated these initial studies have evolved to address some of the early issues, and regardless of the precision of estimates, the data highlight there is a significant level of predation occurring. Many Task Force members agreed that the history of hydroelectric dams and the lengthier process of other mitigation strategies (such as habitat restoration) should always be considered, with the understanding that positive outcomes may be slow in coming. Ultimately, recovery efforts should not be seen in an *either, or* light; rather, a multifaceted approach should be continued with pinniped removal being a part of that approach.

Many, but not all, Task Force members concluded the data describing the number of animals described in the application was sufficient, while all members agreed data collection should continue as monitoring techniques are improved.

*(b) Past efforts to non-lethally deter such pinnipeds, and whether the applicant has demonstrated that no feasible and prudent alternatives exist and that the applicant has taken all reasonable nonlethal steps without success;*

Many Task Force members stated they felt the applicant had sufficiently shown no non-lethal alternatives remain, especially when trapping and relocation efforts resulted in the majority of animals returning to Willamette Falls within a month (at the latest). Others, however, felt that retaining non-lethal methods as an option was warranted: The Task Force generally agreed to keep non-lethal methods in mind for use on naïve animals once long-term resident CSLs have been removed. The majority of the Task Force felt that the application had sufficiently documented that no feasible alternative remains and the majority felt that lethal removal was an appropriate course of action.

*(c) The extent to which such pinnipeds are causing undue injury or impact to, or imbalance with, other species in the ecosystem, including fish populations;*

The majority of the Task Force concluded the data demonstrated predation by CSLs was a threat to salmonid populations. There were some concerns, however, on the degree to which CSLs were a threat requiring lethal action. The Task Force broadly agreed that no one was suggesting pinnipeds are the sole cause of salmonid population decline, especially given the presentations mentioning the deleterious history related to hydroelectric facilities, harvest, hatcheries, and habitat destruction. Based on current

datasets (that will become more robust as monitoring efforts continue), the state now considers pinniped predation to be a very significant factor in explaining the current decline. When one Task Force member expressed surprise over the application's omission of Steller sea lions as a possible target for removal, other members stated there is no data currently indicating the degree to which Steller sea lions are having a significant negative impact on salmonids (though they are impacting white sturgeon) and therefore cannot be removed under the law. Should data collection in the future show a greater impact of Steller sea lions on salmonid populations, the issue would be addressed and a subsequent application submitted.

*(d) The extent to which such pinnipeds are exhibiting behavior that presents an ongoing threat to public safety.*

The Task Force briefly discussed this matter since some members felt it had not been adequately addressed through earlier presentations. A few members relayed information from active fishermen who have seen sea lions throughout the harvest season and are needing to modify their release methods (e.g. using modified poles instead of nets). Ultimately, the Task Force concluded this is a public safety issue, but may be one more appropriately addressed through outreach and educational efforts.

### **Discussion of Questions #1-6**

In addition to addressing the Section 120(d) considerations, NMFS also requested the Task Force respond to the following questions when preparing its recommendations:

#### **NMFS Question #1:**

**If lethal removal is included in the recommendations, what (if any) additional criteria, in addition to the criteria proposed by the state in their application, does the Task Force recommend that would improve the effectiveness of the lethal removal program?**

The Task Force primarily focused on addressing the “individually identifiable” terminology, improved methodologies to identify animals, and the time period over which a CSL would need to be observed to qualify for removal. Initial discussions raised recommendations to continue monitoring throughout the removal process to have clear ‘before’ and ‘after’ datasets, using facial recognition technology to identify individuals through photographs, and stating CSLs would need to be observed at least twice across a number of individual days. Following deliberations and verifying the feasibility of some discussed recommendations, some of the Task Force members submitted the following two recommendations for consideration:

- The Task Force believes that, in this case, the data collected within the scope of the application supports identifying CSL for removal based on their presence between the mouth of the Clackamas River and Willamette Falls.



- The state’s application included the following qualifier for a predatory CSL: “They have been observed between Willamette Falls and the mouth of the Clackamas River on a total of **any three calendar days** (consecutive days, days within a single season, or days over multiple years) between November 1 and August 15 of any year.” The Task Force suggests changing the wording in application to: “...**any two calendar days**” instead.

**NMFS Question #2:**

**If lethal removal is included in the recommendations, does the Task Force recommend a limit (different than the limit proposed by the state in their application) to the number of sea lions that may be removed, and if so what is the justification for that limit?**

Discussion ensued as to whether the current limit proposed by the applicant was sufficient; ideas were put forth that 1) revolved around attaching a monitoring and notification stipulation should the number removed approach the upper limit yet predation was still continuing or 2) modifying the overall percentage of PBR that could be lethally removed under the permit. Ultimately though, no additional recommendations were put forth by the Task Force for Question #2.

**NMFS Question #3:**

**If lethal removal is included in the recommendations, what limitations (if any) would the Task Force recommend on timing, location, take methods or duration of the authorization?**

After confirming the proposed approach and removal methods were the same as those currently used at Bonneville Dam, the Task Force discussed options for removal itself. As NOAA has accepted the option of relocating trapped animals to U.S. zoos and aquaria before, keeping this option available was favored. Additionally, there was discussion that capture success in traps at Willamette Falls has varied and some concern was expressed over improving removal efficiency. However, the Task Force put no specific recommendations forth for Question #3.

**NMFS Question #4:**

**There are various proposed pieces of legislation to amend Section 120 of the MMPA (e.g., HR 2083, S 1702, S 3119) in Congress. Of particular interest are the proposed modifications to the individually identifiable and significant negative impact criteria. Our initial assessment of the proposed legislation as it relates to these two criteria, is that measures for identifying predatory sea lions via branding, natural features, etc., and documenting predation to determine its impact on salmonid fishery stocks, would no longer be required. Instead, identification of sea lions for removal would be based on a geographic criterion, so that any sea lion within a specified geographic area, e.g., above river mile 112 on the Columbia River, or a**

**tributary to the Columbia River that includes spawning habitat of threatened or endangered salmon or steelhead, would be deemed eligible for removal.**

**Therefore, we are asking the Task Force to provide us with their views regarding the proposed modifications to the individually identifiable and significant negative impact criteria, and include those considerations in your recommendations to NMFS.**

The Task Force debated for some time the question of how these pieces of legislation would impact the outcome of this meeting. Of concern to many on the Task Force was that Task Force work would be disregarded or not deemed relevant in the event an amendment to the MMPA was passed addressing predation in these rivers. A reasonable solution was proposed to reconvene via conference call to make adjustments if needed.

The removal of sea lions from within a geographic range as opposed to solely individually identifiable animals had been discussed by the Task Force during the assessment of Question #1 and was viewed by most on the Task Force as an improvement. However, the Task Force took no position on the specific bills in congress and put no additional recommendations forth for Question #4.

#### **NMFS Question #5:**

**If NMFS approves the state's application, what criteria does the Task Force recommend for evaluating whether the implementation of the lethal removal program has been successful in addressing the pinniped—fishery interaction?**

After discussion of monitoring and evaluation, there was broad agreement among Task Force members that NMFS adopt the following six criteria to evaluate the effectiveness of any implemented lethal removal program:

- Monitor, evaluate implementation, and report on specific animals observed, when they were removed, and time spent at the Falls.
- Monitor and report on the number of prey observed and estimated to have been taken.
- Monitor, evaluate, and report on expediency (number of days animal present before removal) of removal.
- Monitor and report on key population parameters for the Chinook salmon and steelhead populations so that changes in population status can be detected.
- Ensure that monitoring efforts include other pinnipeds that may occur in the Willamette Falls area.
- Update Population Viability Analyses (PVA) after 5 years of implementation to determine, to the extent possible, any changes in the estimated extinction risk to the salmonid stocks in question.

## NMFS Question #6:

### **Regardless of the outcome of this process, what might be the most effective means to achieve a long-term resolution to the pinniped—fishery interaction?**

Regarding a long-term resolution to pinniped-fishery interactions, discussions continued around how best to achieve a full recovery of the salmonid stocks. Human impact on the environment was pointed out as the largest contributor, particularly given the history of dam development. Proactive and multi-pronged management, in addition to balanced stewardship, was described as the overarching goal. No specific recommendations were suggested, though, with regards to Question #6.

## SUMMARY AND FINAL VOTE

### *Support For/Opposition To Recommendations:*

Question #1: If lethal removal is included in the recommendations, what (if any) additional criteria, in addition to the criteria proposed by the state in their application, does the Task Force recommend that would improve the effectiveness of the lethal removal program?

Task Force members proposed the following two recommendations:

- The Task Force believes that, in this case, the data collected within the scope of the application supports identifying CSL for removal based on their presence between the mouth of the Clackamas River and Willamette Falls.
- The Task Force suggests changing the wording in the application to: "...any 2 calendar days" instead of 3.

With regard to Question #1's first recommendation, fourteen (14) Task Force members approved, one (1) opposed (HSUS) and one (1) abstained (USACE).

Discussion regarding Question #1's second recommendation resulted in fourteen (14) Task Force members approving while two (2) members abstained (USACE and HSUS). No opposition was voiced.

Question #5: If NMFS approves the states' application, what criteria does the Task Force recommend for evaluating whether the implementation of the lethal removal program has been successful in addressing the pinniped—fishery interaction?

Task Force members proposed the following six recommendations:

- Monitor, evaluate implementation, and report on specific animals observed, when they were removed, and time spent at the Falls.
- Monitor and report on the number of prey observed and estimated to have been taken.

- Monitor, evaluate, and report on expediency (number of days animal present before removal) of removal.
- Monitor and report on key population parameters for the Chinook salmon and steelhead populations so that changes in population status can be detected.
- Ensure that monitoring efforts include other pinnipeds that may occur in the Willamette Falls area.
- Update PVA analyses after 5 years of implementation to determine, to the extent possible, any changes in the estimated extinction risk to the salmonid stocks in question.

Given these recommendations focused on conducting further research, fifteen (15) Task Force members approved of these points; one (1) member abstained (USACE). No opposition was voiced.

*Vote on State's Application:*

With regard to the state's application, the Task Force was asked whether to:

**(A)** recommend to the Secretary whether to approve or deny the proposed intentional lethal taking of the pinniped or pinnipeds, including along with the recommendation a description of the specific pinniped individual or individuals, the proposed location, time, and method of such taking, criteria for evaluating the success of the action, and the duration of the intentional lethal taking authority; and

**(B)** suggest nonlethal alternatives, if available and practicable, including a recommended course of action.

The vote on the State's application was considered both "as-is" and "with the following modifications" suggested by some of the Task Force members:

Question #1:

- Does the Task Force believe that, in this case, the data collected within the scope of the application supports identifying California sea lions for removal based on their presence between the mouth of the Clackamas River and Willamette Falls.
- Does the Task Force suggest changing the wording in application to: "...any 2 calendar days" instead of 3.

Question #5:

Does the Task Force support a recommendation to:

- Monitor, evaluate implementation, and report on specific animals observed, when they were removed, and time spent at the Falls.
- Monitor and report on the number of prey observed and estimated to have been taken.

- Monitor, evaluate, and report on expediency (number of days animal present before removal) of removal.
- Monitor and report on key population parameters for the Chinook salmon and steelhead populations so that changes in population status can be detected.
- Ensure that monitoring efforts include other pinnipeds that may occur in the Willamette Falls area.
- Update PVA analyses after 5 years of implementation to determine, to the extent possible, any changes in the estimated extinction risk to the salmonid stocks in question.

*Voting on the Application Submitted As-Is*

Nine (9) Task Force members voted to approve the state’s application as-is, one (1) Task Force member voted to deny the state’s application (HSUS), and six (6) Task Force members abstained.

*Voting on the Application Submitted With Modifications*

Twelve (12) Task Force members recommended approving the state’s application with modifications. One (1) Task Force member voted to deny the state’s application (HSUS) on grounds that despite further research emphasized in the modifications, the lethal removal action itself was not merited. Three (3) Task Force members abstained (USACE, ODFW, and NMFS).

**CONCLUDING REMARKS OF THE FACILITATOR**

The Willamette Falls Pinniped-Fishery Task Force convened from August 20 to 22, 2018. This meeting allowed for presentations on current salmonid and sea lion population statuses, updated population models, ongoing mitigation efforts, and threat assessments, while encouraging sharing of additional information between Task Force members, all of which served to provide a foundation on which to debate the complex issue of pinniped removal at a new location, Willamette Falls. A summary of all presentations and subsequent deliberations has been provided in Appendix B.

A total of twelve (12) Task Force members recommended approving the state’s application with modifications. One (1) Task Force member (HSUS) voted to deny the state’s application on grounds that despite further research being emphasized in the modifications, they felt previous lethal removal actions in other locations had been ineffective; as such, a new removal program at Willamette Falls was not warranted. Three (3) Task Force members abstained (USACE, ODFW, and NMFS).

*[Facilitator’s Note: This final report was written by the facilitation team at Write Brain LLC. Task Force members were given the opportunity to comment and edit an initial draft, as well as see the ‘near final’ draft prior to submission. All edits were merged into the final document.]*

*Final report respectfully submitted on October 15<sup>th</sup>, 2018.*