

Reviewer Report on Fish Passage Program Review

Reviewer #5

May 24, 2018

General Observations and Recommendations:

It was a pleasure to serve as a panelist for NOAA's (Agency) fish passage program review. Over the course of the review, I was struck by two overarching thoughts. (1) NOAA staff contributing to the Agency's fish passage (FP) efforts are dedicated, mission-driven stewards of this nation's fisheries resources. (2) We are being asked to provide a review of a program that does not appear to officially exist. Instead, the review consists of two distinct programs that have fish passage as a core part of their mission. And, while I am leery of recommending the formation of additional groups or anything that adds to the administrative burden, the Agency may benefit from the formation of a fish passage working group that pulls headquarters staff, select regional representatives from both Community-based Restoration (CRP) and Hydropower programs, and select staff from Protected Resources. The group could serve as a vehicle for coordination, problem solving, and (perhaps) implementation of some of the recommendations received as part of the panel review. The exercise of implementing something similar to this—combined with the bullets below—could help address the challenges encountered with coordination.

- Encouraging better coordination between Habitat and Protected Resources at the regional level in areas where it is currently lagging.
- Increased Headquarters oversight and guidance over the Hydropower Program while preserving regional autonomy similar to regional CRP staff.
- Succession planning for longer term projects, both in terms of implementation and planning, as well as post-project requirements.

I explore recommendations related to the general concept of coordination in more detail below, and while I attempted to confine my recommendations to the most relevant key question, several of the ideas discussed below are cross-cutting and could also serve to address guidance sought in other key questions.

Key (specific) Findings and Recommendations (as reviewer has comments on)

- **Question 1: Our goal is to, “conserve habitat for managed fisheries and protected resources,” and one of the strategies for achieving this goal is expanding available habitat type by “increasing access to historic riverine rearing and spawning habitat for targeted diadromous fish species.” Where do you see us excelling in achieving this goal? What kinds of things could we be doing or doing more of to help us achieve this goal?**
 - Observations
 - Strengths
 - NOAA staff provide technical support and expertise that makes them valuable members (i.e., not just a “funding” partner) of a project team.
 - Successful at building coalitions and partnerships.
 - Challenges
 - CRP has continued to grow and add increasingly complex projects to their portfolio. However, the funding support received by the program has not seen a similar rate of growth.
 - Recommendations to address issue

1. Continued programmatic focus on barrier removal and hydrologic reconnection to the extent practicable.

2. Identify and establish mechanisms (e.g., interagency agreements) to provide funding for the purchase of high priority dams for removal. As we explore ways to reconnect and re-establish fish passage in systems that are the most critical for species recovery and/or survival, additional incentives are needed in order to increase the Agency’s negotiating stance with owners whose dams are determined to have “value”. It is understood that the Agency is prevented from holding land; however, there may be other mechanisms that would allow NOAA to contribute resources to sister agencies that do not have similar restrictions.

3. Develop an internal fish passage vision and outcome that is both measurable and ambitious.

- **Question 2: How do we better integrate Hydropower regulatory requirements and timelines with voluntary habitat restoration opportunities into a strategy for addressing highest priority barriers?**
 - Observations
 - Strengths
 - Individual staff are doing valuable work.
 - Challenges
 - Through the course of the panel review, it became apparent that the division and communication challenges between the CRP and Hydropower programs could be leading to missed opportunities and (worse-case scenario) individual staff working at cross purposes.
 - Recommendations to address issue

1. *Leverage distinct tools and strengths of the individual programs as potential incentives to bring parties to the table and increase fish passage opportunities.* Helping programs identify opportunities for mutually beneficial work may encourage a willingness to coordinate early on. For example, Hydropower staff could be better positioned in a future relicensing by CRP efforts to address an upstream fish passage barrier, improving habitat, and reconnecting important mileage for migratory species. Likewise, knowing that Hydropower staff will exercise their authority to ensure passage at downstream facilities instills confidence in eventual successful outcomes for potential CRP investments upstream. CRP can also be a vehicle through which to provide project funds if a licensee elects to pursue voluntary fish passage (i.e., decommissioning and dam removal) instead of whatever traditional fish passage prescriptions may be a condition of their license renewal. While likely limited in its applicability, it may provide a negotiating tool that would allow the Agency to optimize fish passage outcomes for a project or suite of projects.

2. *Mapping and prioritization exercises should include both hydro and non-hydro facilities.* This fairly simplistic additive tool can help identify synergies for increased collaboration and opportunities to maximize fish passage restoration opportunities. Perhaps this is being done in certain regions. I appreciated hearing discussion of the increased coordination and watershed planning that has been spurred (to some extent) by the Penobscot projects. This, however, seems to be the exception and not the rule.

- **Question 3: How do we better incorporate a “watershed” approach into high priority fish passage habitat restoration?**

- Observations
 - Strengths
 - Despite current constraints, NOAA staff have demonstrated their ability to take discrete opportunities and leverage them to build watershed approaches (multi-barrier projects) at varying levels.
 - Driven staff with a vision and willingness to play a leadership role.
 - Challenges
 - Lack of coordination among some programs at the regional level can lead to missed opportunities.
 - It’s not clear that there is a consistent practice of using existing prioritization efforts to proactively engage in pursuit of fish passage in areas where pre-existing projects don’t already exist.
- Recommendations to address issue

1. *Maintain flexibility to capitalize on the opportunistic chances to restore fish passage.* The nimbleness NOAA has demonstrated in turning watershed opportunities into broader, linked watershed efforts has served it well. It is important for future efforts to maintain that flexibility and allows the Agency to take advantage of opportunities as they arise. These are opportunities

that may later develop—due to an ever changing political and economic climate, shifting land ownership, etc.—into a broader watershed approach.

2. *In supporting regional identification of high priority watersheds, establish a coordinated vision among regional CRP, hydropower, and other FP staff on longer term and mid-range fish passage restoration efforts in the priority area in question.* The Agency has already developed an array of regional prioritizations that provide insight into where it believes it can be most effective in restoring fish passage. It was apparent that the prioritization efforts of the CRP and hydropower staffs are rarely coordinated on a regional level. “Coordination” recommendations are discussed in more detail under questions #2 and #4; however, these recommendations could have a direct bearing on the Agency’s ability to establish a “watershed” approach. Once you have a shared map and a sense for where overlap is occurring, program staff should work together to establish a vision and goal for what actions could lead to the most effective fish passage in the watersheds¹ being discussed. Another avenue for establishing this coordinated vision is through the development of voluntary comprehensive plans (with both Hydropower and CRP regional staff at the table) for some of these areas where you foresee overlap in CRP priorities and future relicensing activity.

3. *Modify existing CRP grant programs to better support longer term, watershed-scale approaches to fish passage².* CRP grant funds should allow for two tracks. Continue existing community-based restoration funding programs with a focus on smaller-scale projects that have discrete benefits to particular system, species, and/or community. These would be competitive awards with one to three year grant timelines. A second, larger subset of grant funds should be set aside to provide funding support for systems with the opportunity to address multiple barriers within a system and achieve connectivity at a scale that exceeds what one would traditionally anticipate in tackling one-off projects. These grants would also be awarded competitively; however, once the Agency issues an award to the initial project/concept, future work conducted as part of this fish passage restoration effort could be allocated funds from this award pot non-competitively. Timeframes for these awards should be longer than what is currently authorized in order to allow for anticipated longer timeframes. Perhaps risk could be minimized by continuing to dole out future funds after completion of certain milestones are met. An example of what this could look like includes a partner proposal in a previously identified high priority watershed that has two dams, one perched culverts, and a side channel reconnection. The proposal could identify all projects and the cumulative ecological and community benefit for the suite of work but, at the time of application, may only have secured landowner approval for one dam, the culvert, and the side channel reconnection. Funds for the second dam would only be obligated after successful removal of the first dam, design work is complete on the culvert, and the owner of dam #2 has signed a letter of intent.

- **Question 4: How can we better coordinate our Hydropower and Community-based Restoration projects to build momentum within a watershed to open and create more opportunities for accessible habitat?**

¹ I’m using this term in the broadest way possible. Depending on the region and the prioritization effort, it could mean watershed or systems of varying HUC size, etc.

² Current CRP priorities, not traditional augmented fish passage.

- Observations
 - Strengths
 - Challenges
- Recommendations to address issue

1. *Increased Headquarters oversight and guidance over the Hydropower Program while preserving regional autonomy similar to regional CRP staff.* This recommendation is not intended to inhibit regional staff from being able to meet regional goals. It is clear that each region faces its own set of challenges and opportunities, and as such, guidance and processes may vary by region, species, etc. However, it is ludicrous to think that coordination can be easily achieved when communication challenges are baked directly into the current organizational and reporting structure. Both programs should be organized in a similar fashion such that they fall under the same headquarters umbrella.

2. *Establish a clear vision as early in the process as possible.*

3. *See also Questions 2 and 3.*

- **Question 5: How can we improve our strategy and structure for evaluating agency-wide fish passage program outcomes?**

- Observations
 - Strengths
 - Challenges
- Recommendations to address issue

1. *Establish headquarters-level guidance for Hydropower staff engaged in developing license conditions (prescriptions or settlement agreements).* For example, all conditions relating to efforts to improve fish passage should include requirements that certain efficiency standards be met, have to adhere to X level of specificity, etc. Broad guidelines will increase program consistency, create consistent factors in which to evaluate the effectiveness of fish passage outcomes, and still allow the flexibility for regional staff to develop targets most appropriate for the project (e.g., species) in question.

2. *Create protocols for analyzing monitoring data acquired and using said analysis to modify and inform future efforts.* To NOAA's credit, this was discussed as a desired outcome and something the CRP Program is working toward. It is equally important that monitoring and effectiveness data acquired by the Hydropower Program under their right to review licensee monitoring reports (metadata, if available) be analyzed in a similar programmatic fashion.

- **Question 6: Within our program activities, what is the most effective balance for investing in implementation and monitoring and evaluation?**

- Observations
 - Strengths

- There are existing monitoring and evaluation efforts underway that will allow the CRP to better understand effectiveness and the outcomes of specific projects.
 - Challenges
 - Using the number of stream miles opened as a metric to measure effectiveness is insufficient.
 - Funding is often time-limited, which is problematic when the goal may be long-term monitoring at a suite of projects.
 - Managing large volumes of data is challenging without central repository or a data czar.
- Recommendations to address issue

1. *Continue focusing Tier 2 level monitoring efforts on representative projects that provide an index by which to measure effectiveness at a broad array of similar projects.* In order for this to allow the Agency to improve effectiveness in relation to fish passage outcomes, projects selected for evaluation should be able to address areas of research where the Agency and the broader practitioner community would benefit from additional insight.

2. *Implementation is a key tool in our ability to learn and improve the effectiveness of the work.* Therefore, I recommend the Agency maintain levels similar to what currently exist when balancing implementation with monitoring and evaluation. It is likely that there may be a need to periodically increase focus on monitoring and evaluation in order to address some of the challenges highlighted during the panel review, but any such shifts should ensure the agency maintains resources such that implementation continues to be a priority.

- **Question 7: What are steps we can take to improve our outreach to ensure we are effectively communicating the importance of fish passage?**

- Observations
 - Strengths
 - Challenges
- Recommendations to address issue

1. *Concentrate outreach and engagement activities in watersheds where you anticipate future FP work.* Most regions have a rough idea of priority areas for restoring fish passage. These may become even clearer when you combine CRP and Hydropower program layers (recommendation above). Basic marketing principles indicate that it takes at least seven “touches” before people begin to internalize a specific message or concept. Invest in staff, partnerships, and unique messaging opportunities to lay the groundwork for future fish passage efforts.

2. *Support, leverage, and amplify partnerships.*

3. *Further refine the audiences for your outreach efforts, particularly at a national or regional scale.* Are your tools (e.g., the campaigns, messages, newsletters, website) aimed at partners or a broader audience? Once target audience for these products has been defined, the Agency can evaluate whether the mechanism, message, etc. resonates with that audience. For

example, audience may dictate increased presence at technical conferences (if looking to reach practitioners) or the need for the need for more things like local editorial boards (if looking to lay the groundwork for future efforts within a watershed or community).

4. *Understand that the best way to achieve fish passage outcomes (from a messaging perspective) may depend on messaging around other anticipated outcomes of the work.* The ability to capitalize on the secondary benefits (e.g., improved safety, economics, infrastructure investments, recreation) of a project with multiple benefits may improve standing within a local community, increase the Agency's ability to broaden its partnerships and coalitions, and provide for a more robust cost-benefit analysis.