



Smallmouth Bass Ad Hoc Group: *Review, updates, and next steps*

Laura Dye & Emily Higuera, SBAHG Co-Chairs
GCDAMP Technical Work Group Meeting
October 12, 2022

Overview



1. Presentation to provide review and updates
1. Targeted discussions
 - a. Fish Exclusion Technology - *Clarence Fullard, BOR*
 - b. Operating Alternatives - *Charles Yackulic, GCMRC*
 - c. Rapid response efforts - *Melissa Trammell/NPS*
1. Circle back with remaining thoughts & next steps

Directive from Secretary's Designee - May 18, 2022



The Secretary's Designee directs Reclamation and GCMRC to work with the TWG regarding the following:

- **Develop a draft strategic plan** to prevent, detect, and respond to cool- and warmwater invasive fish establishment below Glen Canyon Dam. The plan should include proposed monitoring, specific activities to be considered for prevention and response, along with their relative effectiveness, detection thresholds (“triggers”) for action, and conditions for discontinuing response activities (e.g. due to success, futility, resource limitations, etc.).
- **Develop 2-4 operational alternatives** that could help prevent cool- and warmwater invasive fish establishment, while minimizing potential adverse effects to other resources. Operational alternatives that are not within the scope of the LTEMP ROD may be proposed, but would require additional NEPA, ESA, and NHPA compliance.

Ad Hoc Group Development



Key challenges:

- How best to not duplicate efforts
- Interpreting the directive
- Balancing effectiveness of an action while minimizing resource impacts
- Who will write the plan?

1. Develop Strategic Plan



GOALS:

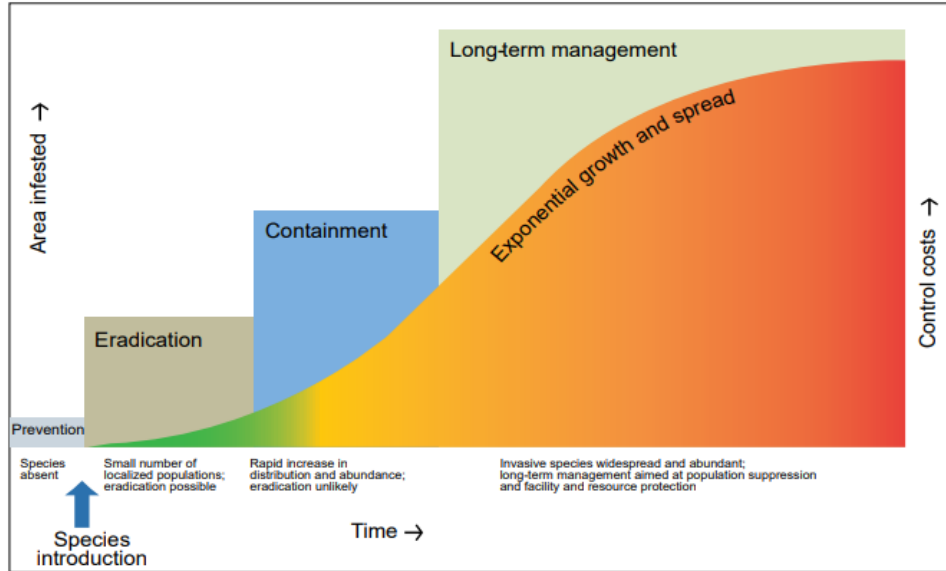
- Living document to address both present and potential future threats
- Integrated pest management approach
- Incorporate information from existing management plans
- Utilize expertise of cooperating agencies and fisheries biologists

2. Develop 2-4 Operational Alternatives

GOALS:

- Incorporate stakeholder feedback throughout process
- Determine effectiveness, feasibility, resource tradeoffs
- Consider alternatives within existing compliance

Review: Common themes in SBAHAG:



- Prevention > response
- Stay in beginning phases of invasion curve
- Rapid response actions are not a substitute for long- and mid-term solutions

Phases of the Invasion Curve. United States Department of the Interior, *Invasive Species Strategic Plan 2021-2025*. (Adapted from Rodgers. 2010. *Invasive Plants and Animals Policy Framework*. State of Victoria, Department of Primary Industries)

Many discussions – Thank you, Smallmouth Bass Ad Hoc Group!

New SMB Detections below GCD



- Developing Strategic Plan while invasion is happening in real time
- YOY SMB in the lower slough (June 2022)
- Mechanical and chemical treatment efforts
- *Underscores need for long- and mid-term solutions in place by spring/summer of 2023*

Three moving pieces to address SMB



- Long-term solution: fish exclusionary device
- Mid-term: operating alternatives
- Short-term/rapid response: current needs to target SMB in Lower Slough & Lees Ferry

Goals:

- Fast-track: long- and mid-term actions
- Include all three pieces in the Strategic Plan, with flexibility of modification for future scenarios
- Get Strategic Plan draft to Secretary's designee as soon as possible

Fish Exclusion Technologies (long-term solution)



Glen Canyon Dam Fish Escapement Options Report (BOR)

- Summary: Multi-stimulus barriers and nets rose to the top of analysis, as did retrofitting the facility
- Effectiveness and adaptability to GCD still unknown
- Reclamation organizing a subject matter expert panel to provide recommendation

Final Report distributed to SBAHG on October 4th, 2022

Fish Exclusion Technologies (long-term solution)



Potential obstacles:

- High cost and lengthy timeline to select → install
- Process may take ~2 years before a device is installed

Operating Alternatives (mid-term solution)

Progress to date:

- Gathered input from stakeholders
 - Brief overview of various tradeoffs, feasibility, effectiveness
- GCMRC developed 4 alternatives
 - 2 temperature ideas (use of bypass)
 - 2 flow disturbance ideas (low/high flows, or blended flow/temperature idea)

Operating Alternatives (mid-term solution)



Potential obstacles:

- Projected low flows and low elevation
- Revise alternatives by ~November 2022
- NEPA EA by March/April 2023
- Scheduled maintenance of GCD bypass tubes (as early as summer 2023)

Updated Directive from Secretary's Designee - August 12, 2022

Strategic Plan: *Nonnative Fish Strategic Plan* – The first of the non-native fish actions is simply to ask the TWG, GCMRC, and Reclamation to complete the draft non-native fish strategic plan and have it ready for distribution as soon as possible. This includes incorporating the next steps and prioritizing activities, equipment, and budgets for short-, mid- and long-term actions as discussed during the first day of AMWG deliberations. In turn, these will be combined into future project management plans within the GCDAMP program.

Operational alternatives: *NEPA Compliance for Operational Flexibilities to Address Nonnative Fish*

Fish Exclusionary Technologies: *Planning to Evaluate Exclusion Projects*

→ ***Shifting focus toward Strategic Plan***

Progress on Strategic Plan



- **Purpose:** captures short-, mid-, and long-term actions
- **Goal:** develop a framework so that the plan is applicable to cool-and warm-water invasive fish species, but also addresses immediate concern of SMB

Strategic Plan Outline



- Introduction
- Guiding Principles
- Strategic Approach
 - Invasive Fish of Concern
 - Monitoring for Presence of Invasive Fish
 - Prevention and Response Actions
 - Monitoring the Effectiveness of Actions
- Concluding Statement and Implementation Recommendation

Thank you to our Strategic Plan writing group members: Shana Rapoport & Craig Ellsworth!

Strategic Plan Attachments



- Short-, mid-, and long-term actions that are specific to SMB
- Existing monitoring & management plans (with compliance)
- Recommended monitoring plan & rapid response approaches
- Suggested actions (outside the scope of the plan)
 - Will include stakeholder alternatives

Thank you GCMRC, NPS, USFWS, AGFD & Reclamation!

Status of Strategic Plan



Draft sent to SBAHG for review on October 7, 2022

- Under technical review:
 - Terminology
 - Detailed framework for new and/or updated monitoring trips
 - Assessment for long-, mid-, and short-term actions
 - Offramps & triggers

Please provide comments/feedback on Strategic Plan by COB October 26, 2022

Update on Smallmouth Bass

- Chemical treatment - September 2022
- YOY SMB in Lees Ferry reach during TRGD sampling
- Increased need for SMB rapid response
 - Suggested to address problem now vs. waiting until next season

Why Rapid Response?



- Mechanical removal likely to be more successful in Lees Ferry
 - Access and logistics downstream pose longer response times and hurdles
 - Downstream actions are more costly due to logistics
- Water temperatures will begin cooling in November
- Paria flooding has provided a temporary turbidity curtain
 - Potential to limit downstream fish movement

NPS coordinating efforts for removals → Current efforts planned for Oct-Dec, 2022

Rapid Response Considerations



- This is a technical proposal & will need to consider:
 - Tribal consultation
 - RBT fishery
 - Note: not a replacement for long- and mid-term solutions
- Development of research elements
 - Method to evaluate effectiveness

NPS coordinating efforts for removals → Current efforts planned for Oct-Dec, 2022

Rapid Response Obstacles



Obstacles:

- Rapid coordination of logistics
- Eventually need a designated logistics coordinator
- Quantitative assessments to identify offramps

Note:

- Funding will come from non-AMP \$\$

NPS coordinating efforts for removals → Current efforts planned for Oct-Dec, 2022

Next Steps



Fish Exclusion Technology

- BOR's subject matter experts panel meeting to review & select device
- Continue to update SBAHG and solicit feedback

Operating alternatives

- Revision of alternatives & NEPA process
- Continue to update SBAHG and solicit feedback

Strategic Plan draft

- Currently in review with SBAHG
- Goal: final version before January TWG meeting
- *Edits by COB October 26*

Rapid Response

- Pending final logistics and coordination
- Target start: mid- to late-October

Thank You!

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Discussion Topics

Operating Alternatives - *Charles Yackulic, GCMRC*

Fish Exclusion Technology - *Clarence Fullard, BOR*

Rapid response efforts - *Melissa Trammell/NPS*

