

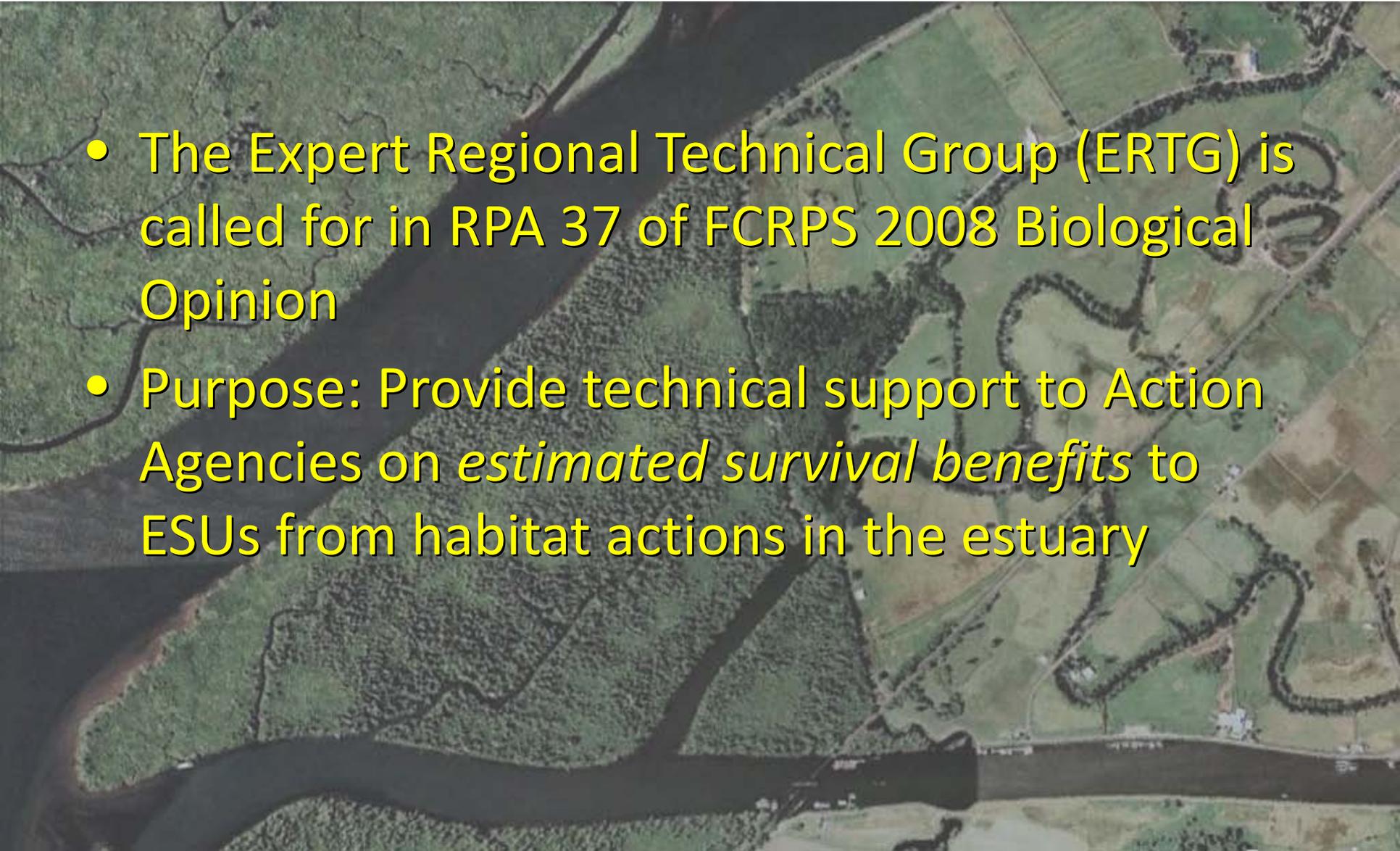
An aerial photograph of a river estuary, showing a wide, dark waterway branching into smaller channels and surrounded by green, vegetated land. A semi-transparent black rectangular box is overlaid on the center of the image, containing the title text in yellow.

Lessons Learned on Lower Columbia River Estuary Ecosystem Restoration from the Perspective of the Expert Regional Technical Group

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Kirk Krueger, Ron Thom

Purpose of ERTG

- The Expert Regional Technical Group (ERTG) is called for in RPA 37 of FCRPS 2008 Biological Opinion
- Purpose: Provide technical support to Action Agencies on *estimated survival benefits* to ESUs from habitat actions in the estuary



Organization

- ERTG Members
 - Ed Casillas (NMFS)
 - Greg Hood (Skagit River System Cooperative)
 - Kim Jones (ODFW)
 - Kirk Krueger (WDFW)
 - Ron Thom (PNNL)
- Steering Committee
 - Tracey Yerxa and Marcy Foster (BPA)
 - Blaine Ebberts (COE, Portland District)
 - Robert Rose (COE NW Division),
 - Cathy Tortorici (NOAA)
- Staff
 - Gary Johnson
 - Phil Trask

Process

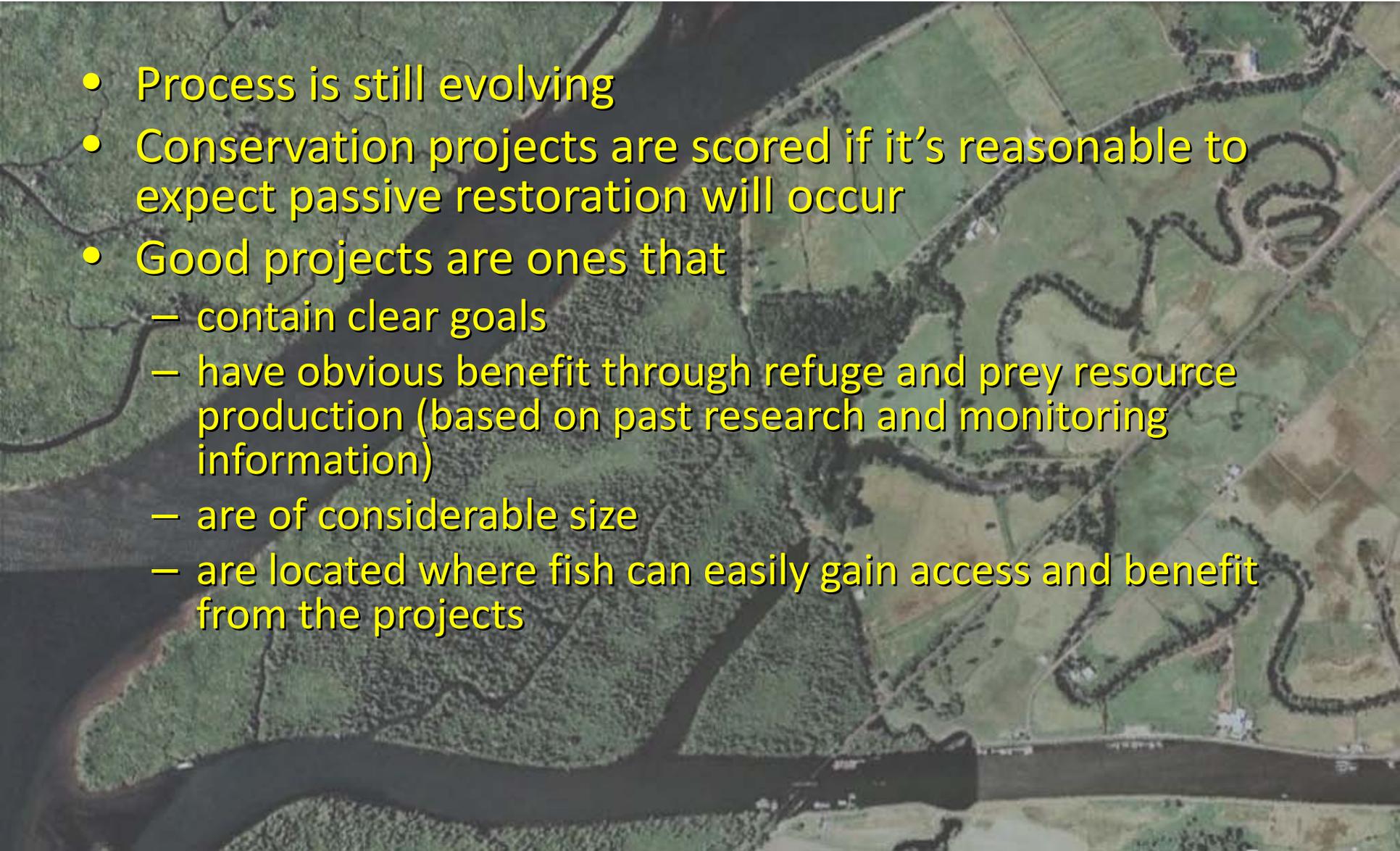
- Currently use the approach applied in FCRPS Biological Assessment to estimate effect of habitat actions on salmon survival
- Project proponent prepares a project summary using the ERTG template
- ERTG conducts a field trip to selected sites
- Proponent makes an oral presentation to the ERTG and with a question/answer session
- The project is evaluated and scored by the ERTG
 - The metrics scored by the ERTG include *certainty of success, potential survival benefit, project size and location, and type of action(s)*.
- These are integrated to calculate the survival benefit score separately for yearling salmon and subyearling salmon
- The results are transmitted via the steering committee

Progress to Date

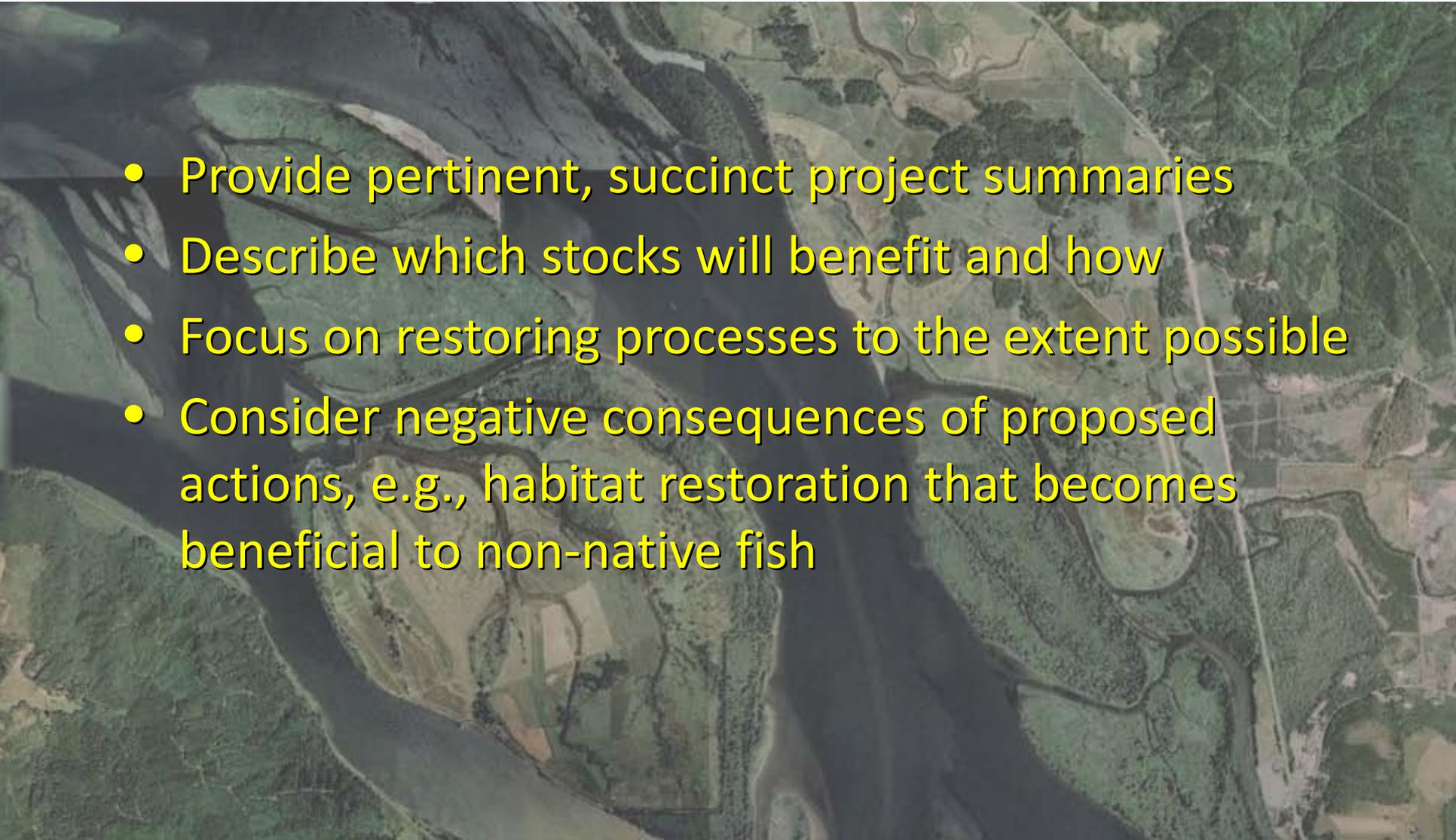
- Started in summer 2009
- Developed a project proposal template
- Refining the existing survival benefits method to make it transparent and repeatable (in progress)
- Reviewed and scored 6 projects
- On the order of 15-30 projects on the list to be evaluated soon

Lessons Learned

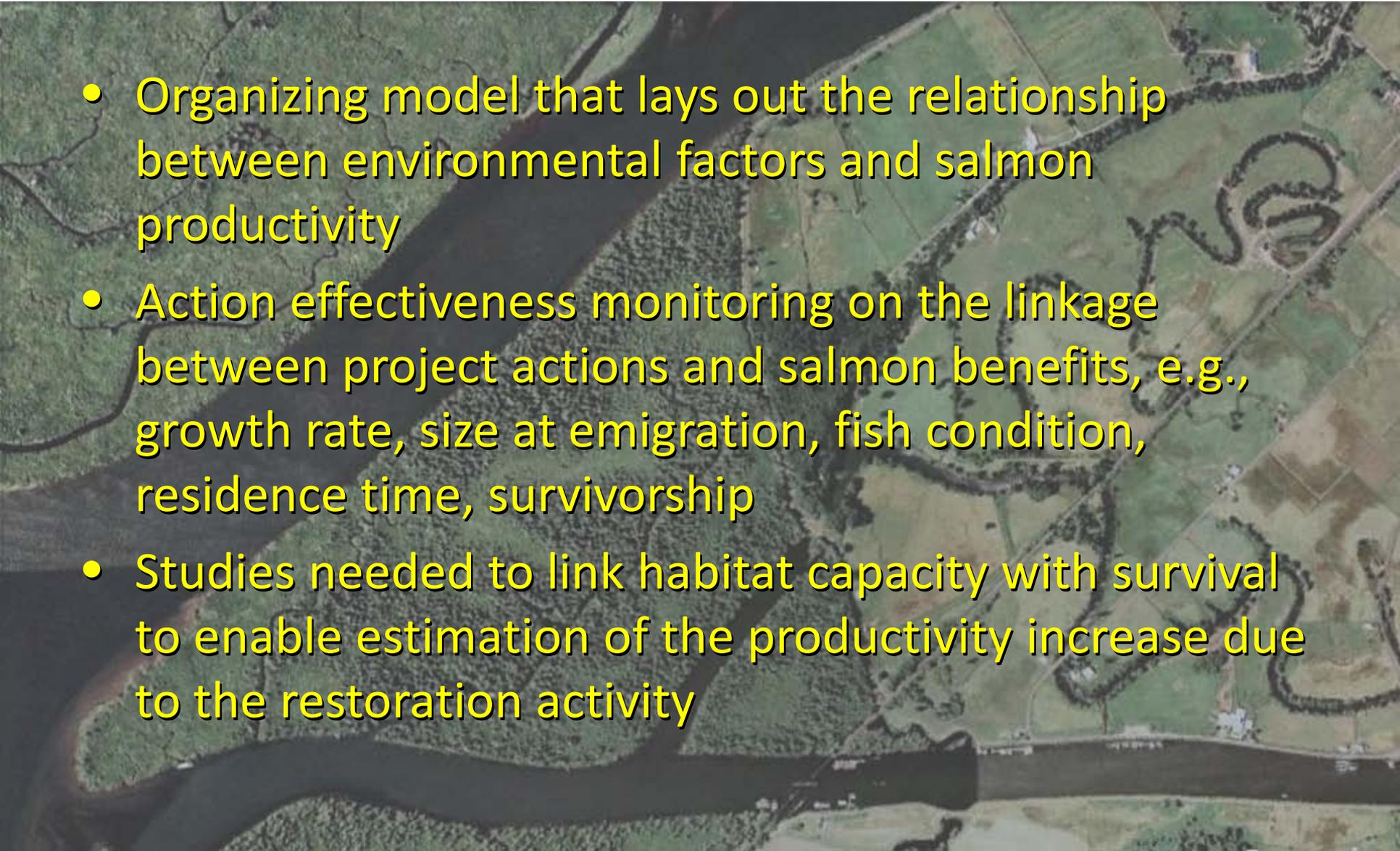
- Process is still evolving
- Conservation projects are scored if it's reasonable to expect passive restoration will occur
- Good projects are ones that
 - contain clear goals
 - have obvious benefit through refuge and prey resource production (based on past research and monitoring information)
 - are of considerable size
 - are located where fish can easily gain access and benefit from the projects



Recommendations to Project Proponents

- Provide pertinent, succinct project summaries
 - Describe which stocks will benefit and how
 - Focus on restoring processes to the extent possible
 - Consider negative consequences of proposed actions, e.g., habitat restoration that becomes beneficial to non-native fish
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- An aerial photograph of a river system, likely a dam or reservoir area. The water is dark, and the surrounding land is a mix of green fields and brownish areas, possibly indicating sediment or different types of vegetation. The river flows from the top left towards the bottom right, with several smaller channels branching off.

Programmatic Recommendations

- Organizing model that lays out the relationship between environmental factors and salmon productivity
 - Action effectiveness monitoring on the linkage between project actions and salmon benefits, e.g., growth rate, size at emigration, fish condition, residence time, survivorship
 - Studies needed to link habitat capacity with survival to enable estimation of the productivity increase due to the restoration activity
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- An aerial photograph of a river system, likely a salmon river, showing a main channel on the left and several meandering tributaries on the right. The surrounding landscape is a mix of green fields and brownish agricultural land, with some small structures and roads visible. The river is dark and flows through the center of the frame.