**Program Effectiveness**:  An assessment of how well the tag/mark serves the technical/decision-making needs associated with the Bonneville funded F&W Program.  Primary topical areas include

1. ability to support Management Questions and Indicators,
2. Geographic Coverage,
3. Species Diversity,
4. Life Cycle Tracking and
5. Reliability (e.g., tag loss and detection/recovery rate).

Secondary topical areas include Data Management and Coordination.

**Biological Effectiveness**:  An assessment of the tagging/marking impact on fish health and behavior.  Topical areas include:

1. handling,
2. tag/mark-related mortality,
3. intrusive v. external tag/mark, and
4. sample collection (e.g., lethal or passive).

**Cost Effectiveness**:  An assessment of how the relative life-cycle costs of tagging/marking technologies (from application to detection/recovery and associated data management) compare when addressing similar management questions or indicators.  IEAB will be developing a detailed approach for this assessment.

**Basis for Recommendations**:  Recommendations should be focused on opportunities to improve the effectiveness (program, biological, cost) of the tagging/marking investments.  The recommendations should consider both short and long-term opportunities for improvement.

Improvements could include:

1. addressing gaps,
2. reducing duplicative efforts,
3. eliminating unnecessary activities, and/or
4. changing approaches.

Some questions to inspire identification of actionable recommendations include:

1. Are there management questions/indicators that are currently (and perhaps unnecessarily), being supported by more than one tagging/marking technology?
2. Will there be changes to management questions or indicators over time such that the necessary (or desirable) tagging/marking technologies will evolve?  For example, will there be reduced need for route-specific data such that reliance on acoustic tag investments would be expected to decrease over time?
3. Are there redundant data management systems?
4. Are there gaps or inefficiencies in the data management lifecycle that are inhibiting the timeliness or accuracy of data needed to support management questions and/or adaptive management decision-making?  For example, there is currently a lack of regional data management systems and protocols for genetics data.
5. Are there changes in study design (e.g., confidence interval, release strategies) that could be made to reduce the costs associated with tagging?
6. Are there actions that can be taken to improve tag detection/recovery rates such that data quality improves and/or sample sizes decrease?
7. Is there a priority to management questions and indicators that can be used to make decisions regarding the allocation of funds to tagging related projects?
8. Are there any near term investments in technology development or infrastructure that would make long-term tagging investments more cost effective?
9. Are there opportunities to improve coordination related to study design/methodology?
10. Are there opportunities to improve coordination on data management?
11. Are there opportunities to improve coordination on infrastructure investment and utilization?
12. Are there instances where there is an imbalance between entities that fund and entities that benefit from tagging/marking related data (e.g., fair share)?