

Program Performance & Adaptive Management Components

*Program Goals, Objectives, Performance Indicators,
Monitoring, Evaluation, Data Management, Reporting*

Council Staff

Summary of Recommendations & Comments:

Goals, Objectives, Indicators, Monitoring, Data, Evaluation, and Reporting

Goals, Objectives, Indicators

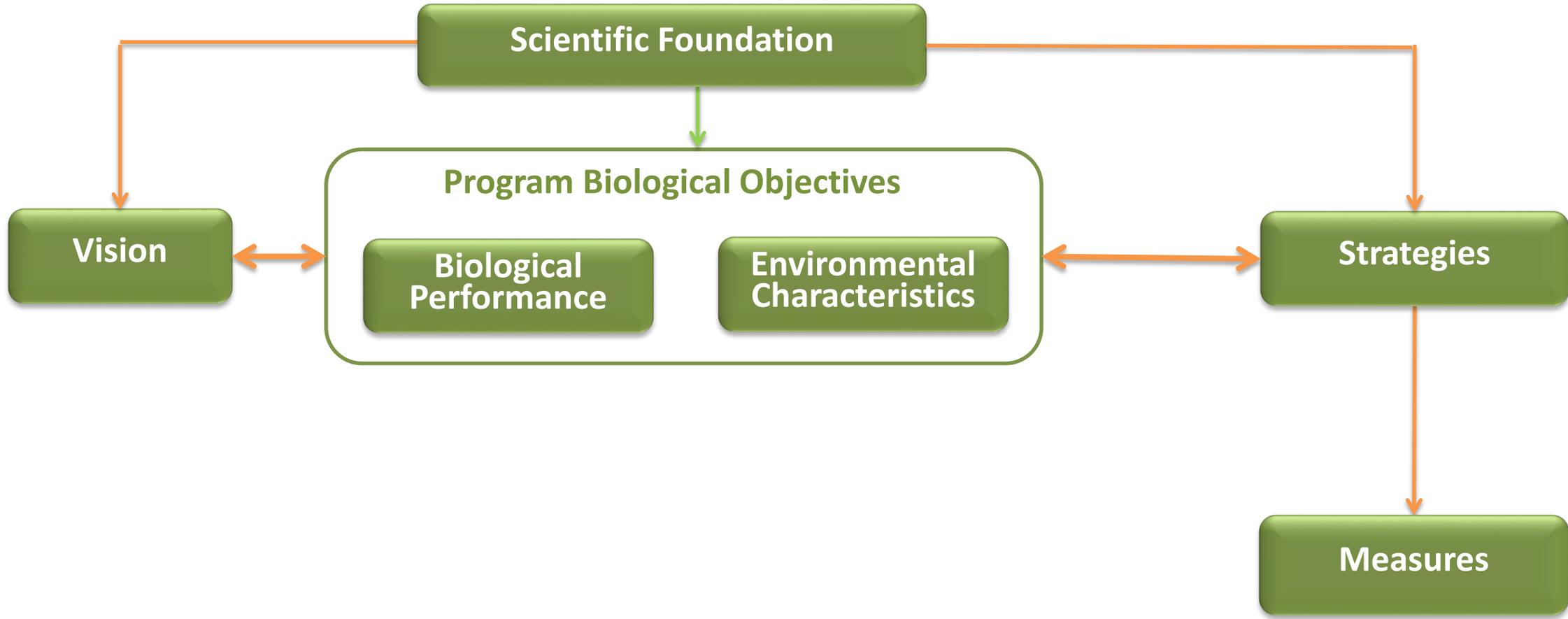
- Improve linkage and reporting.
- Retain, clarify, and restructure.
- Add new or interim.
- Update and expand review and refinement process.

Monitoring, Data, Evaluation, Reporting

- Continue collaborative efforts; and provide an explicit M&E strategy.
- Fund and support data exchange and database management.
- Delineate research from monitoring.
- Develop concise templates for project annual reports to Bonneville.
- Ensure that summarized data are accessible from centralized website.

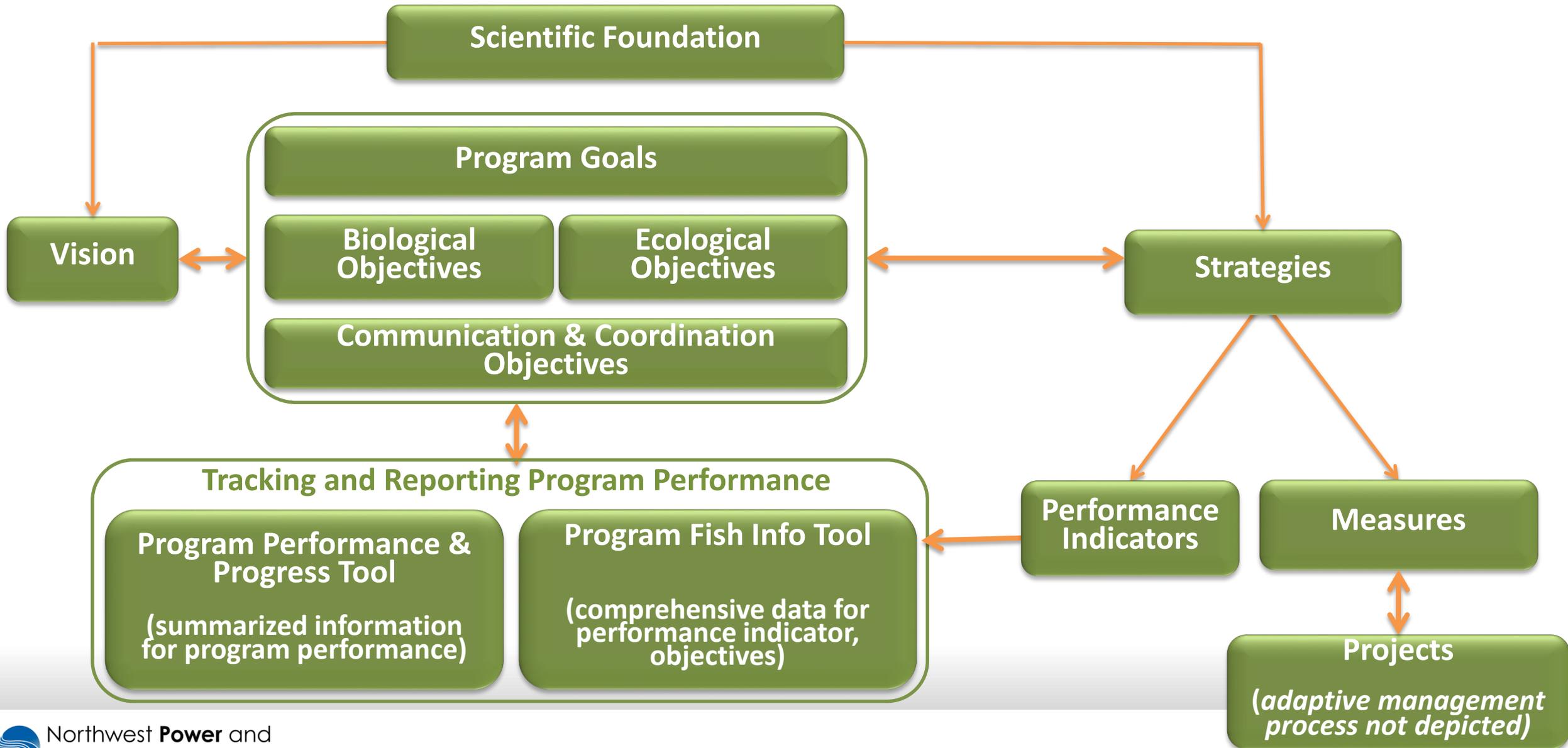
Fish and Wildlife Program Framework

Current 2014 program



Fish and Wildlife Program Framework

2019 proposed refinements



Program Goals

Mitigating for hydrosystem impacts

Salmon and Steelhead	<p>The program's hydrosystem mitigation goal is to increase total adult salmon and steelhead runs returning annually to the Columbia River mouth, including ocean harvested fish, to a 10-year rolling average of 5 million by 2025, in the interim.</p> <p>This goal is within the hydropower estimated losses identified in the program's <i>Numerical Estimates of Hydropower-Related Losses</i>. Achieve this goal in a manner that emphasizes populations that originate above Bonneville Dam, supports tribal and non-tribal harvest, encourages diversity, and as natural production increases the proportion of hatchery fish contributing to this goal will decrease. <i>(refined Objective 14a)</i></p>
Wildlife	<p>Mitigate for wildlife losses caused by the development and operation of hydropower dams.<i>(refined Goal 12)</i></p>
Resident Trout	<p>As an interim goal, achieve hydrosystem mitigation for native resident trout focal species by restoring healthy, self-sustaining, and harvestable populations. Healthy populations are defined as being abundant, productive, diverse and spatially distributed. <i>(refined Goal 13)</i></p>
White Sturgeon	
Pacific Lamprey	
Additional Native Focal Fish Species	

Program Goals

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White Sturgeon	<p><i>Coming soon</i></p>
Pacific Lamprey	<p><i>Coming soon</i></p>
Additional Native Focal Fish Species	<p><i>Coming soon</i></p>

Tracking Progress towards Program Goals Objectives and Performance Indicators

Program Goal

Objectives

Biological

Ecological

Communication & Coordination

May utilize existing broader regional targets to which the program contributes through its hydrosystem mitigation efforts.

Strategies

Performance Indicators for Strategies

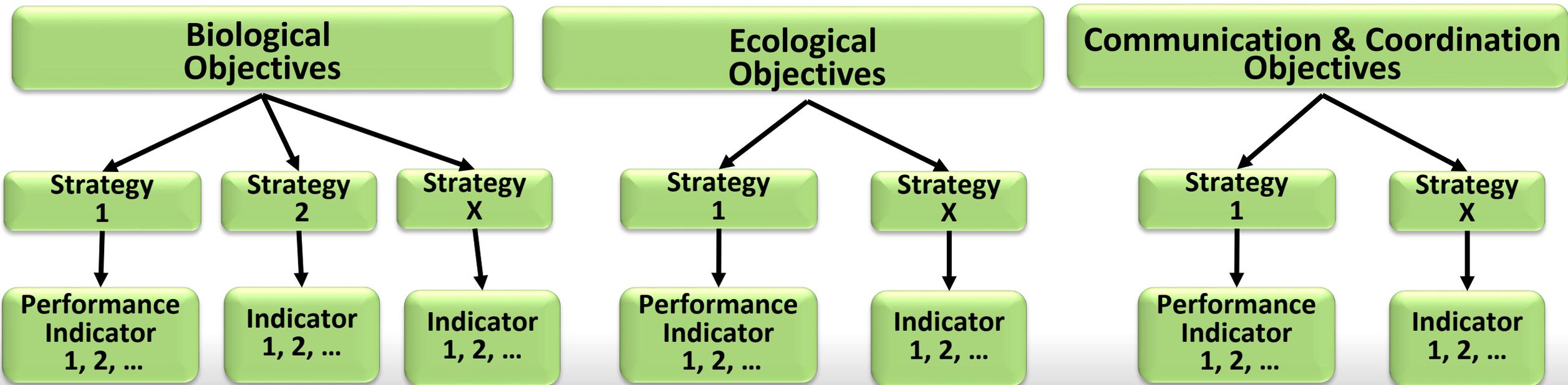
Draft Example: **Salmon and Steelhead**

Program Goals, Objectives and Performance Indicators

Program Goal for Salmon and Steelhead

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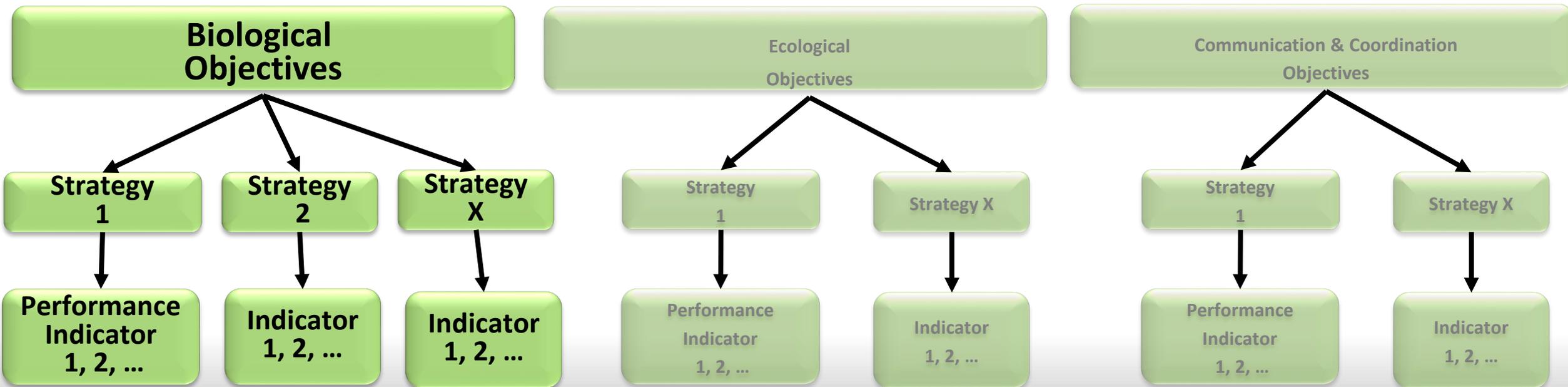
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Biological Objectives Draft Example: **Salmon and Steelhead**

Program Goal for Salmon and Steelhead

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Biological Objectives for Salmon and Steelhead *(draft, incomplete)*

As an interim objective for hatchery-origin and natural-origin adult returns to the Columbia River mouth achieve and exceed the low range value in the near term, progressing towards the higher range value in the long-term, for all 5 groups of stocks based on a 10-year rolling average *(refined objective 14a)*.

The 5 groups of stocks are Lower Columbia, Mid-Columbia, Upper Columbia, Snake River, and Willamette River stocks.



Strategies

Wild Fish Fish Propagation including Hatchery Programs

Other Strategies?



Performance Indicators for Salmon and Steelhead Related Strategies *(draft, incomplete)*

Wild Fish Strategy *(refined objective 14a)*

Interim indicator trending towards achieving low, medium, and high natural-origin adult spawner escapement abundance for the 22 individual stocks based on a 10-year rolling average.

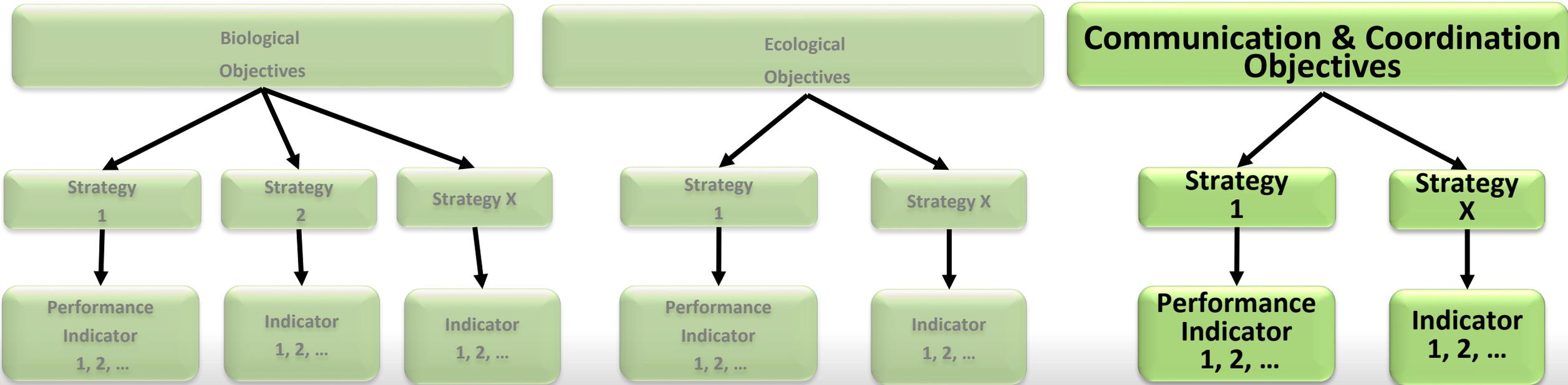
Draft Example: **Salmon and Steelhead**

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Communication & Coordination Objectives

Draft Example: **Salmon and Steelhead**

Program Goal for Salmon and Steelhead

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Communication & Coordination Objectives for Salmon and Steelhead *(draft, incomplete)*

Communication (new)

Annually report on the average 10-year total adult return and the natural-origin adult spawner escapement for the 22 stocks along with contextual information, e.g., ocean conditions.



Strategies

Public Engagement

Other strategies?



Performance Indicators for Salmon and Steelhead Related Strategies *(draft, incomplete)*

Public Engagement Strategy (new)

Annually report on the

- 22 stocks on the Council's Program Fish Info Site and subset for HLIIs
- 5 stock groups on the Council's Program Performance & Progress Tool; and in the Council's financial reports.
- Update annually the Artificial Production Programs O&M mapper

Communication & Coordination Objectives

Draft Example: **Salmon and Steelhead**

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Communication & Coordination Objectives for Salmon and Steelhead *(draft, incomplete)*

Coordination (new):

- Review and refine interim stock objectives and indicators by 2022 with the Basin's salmon and steelhead managers. (new)
- Annually identify the essential maintenance for artificial production programs to be addressed (new based on Asset Strategy)



Strategies

Wild Fish

Fish Propagation including Hatchery Programs

Other strategies?



Performance Indicators for Salmon and Steelhead Related Strategies *(draft, incomplete)*

Wild Fish (new)

- By 2024, work with salmon/steelhead managers to refine interim stock objectives and indicators based on Columbia Basin Partnership Task Force 2020 report.
- Improve data access through regional databases by 2023 working with data stewards and salmon/steelhead managers.
- Check progress towards indicators and objectives prior to program amendment with Regional Coordination Forum participants.

Fish Propagation including Hatchery Programs (new)

- Track progress in addressing essential maintenance in the Asset Management Strategic Plan for artificial production Programs

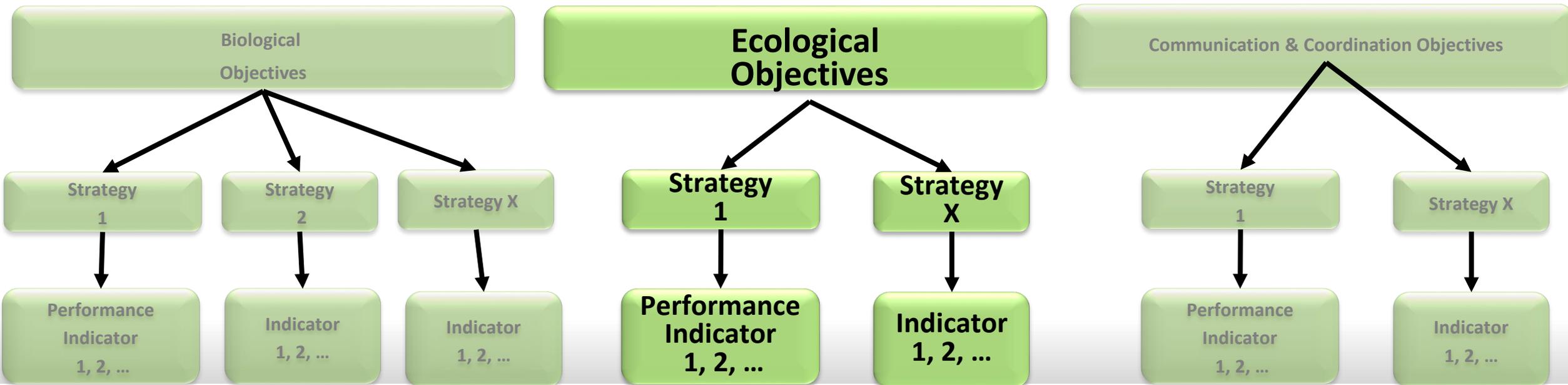
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Ecological Objectives Draft Example: **Salmon and Steelhead**

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Ecological Objectives for Salmon and Steelhead *(draft, incomplete)*

As an interim objective, decrease avian predation on smolts by reducing the number of Caspian terns on East Sand Island in the Lower Columbia River and estuary.

(New based on the Predator Management Strategy Measure)



Strategies

Predation Management

Other strategies?



Performance Indicators for Salmon and Steelhead Related Strategies *(draft, incomplete)*

Predation Management Strategy

- As an interim indicator reduce the availability, and maintain this reduction, of suitable nesting habitat for Caspian terns on East Sand Island from 5 acres to 1 acre *(New based on Caspian Tern Management Plan & Project 1997-024-00 annual report)*
- As an interim indicator reduce the Caspian tern colony on East Sand Island to between 3,125 and 4, 375 breeding pairs, and maintain this reduction *(same source as above)*

Ecological Objectives Draft Example: **Salmon and Steelhead**

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Ecological Objectives for Salmon and Steelhead *(draft, incomplete)*

- As an interim objective, achieve smolt-to-adult return rates (SAR) in the 2-6 percent range (minimum 2 percent; average 4 percent) for listed Snake River and upper Columbia salmon and steelhead (objective 14b).
- Provide adequate water quality and quantity to support targeted species (goal 4)



Strategies

Mainstem Hydrosystem Flow and Passage Operations

Water Quality

Other strategies?



Performance Indicators for Salmon and Steelhead Related Strategies *(draft, incomplete)*

Mainstem Hydrosystem & Water Quality Strategy

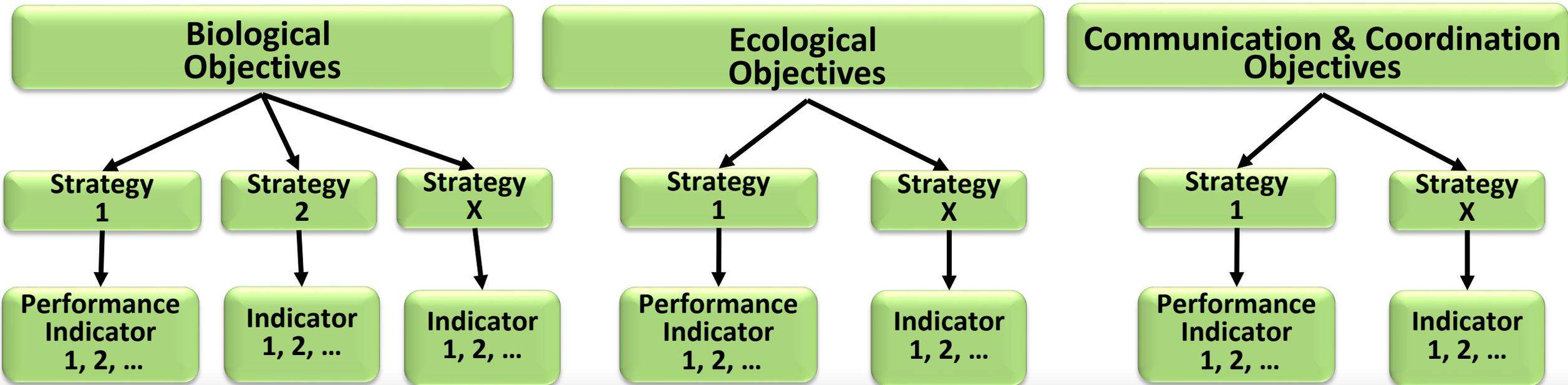
- Increasing trend in SARs based on a 10-year rolling average
- Meet total dissolved gas standards as shown in appendix D updated to reflect recommendations and new spring spill operations at the Columbia River and Snake River Dams (objective 4a)
- Meet or exceed juvenile survival standards as shown in Appendix D or as modified to address new spill operations (coordination indicator could be to establish a suite of survival performance metrics for new spill operation)

Draft Example: **Wildlife**

Program Goals, Objectives and Performance Indicators

Program Goal for Wildlife

Mitigate for wildlife losses caused by the development and operation of hydropower dams
(refined Goal 12)

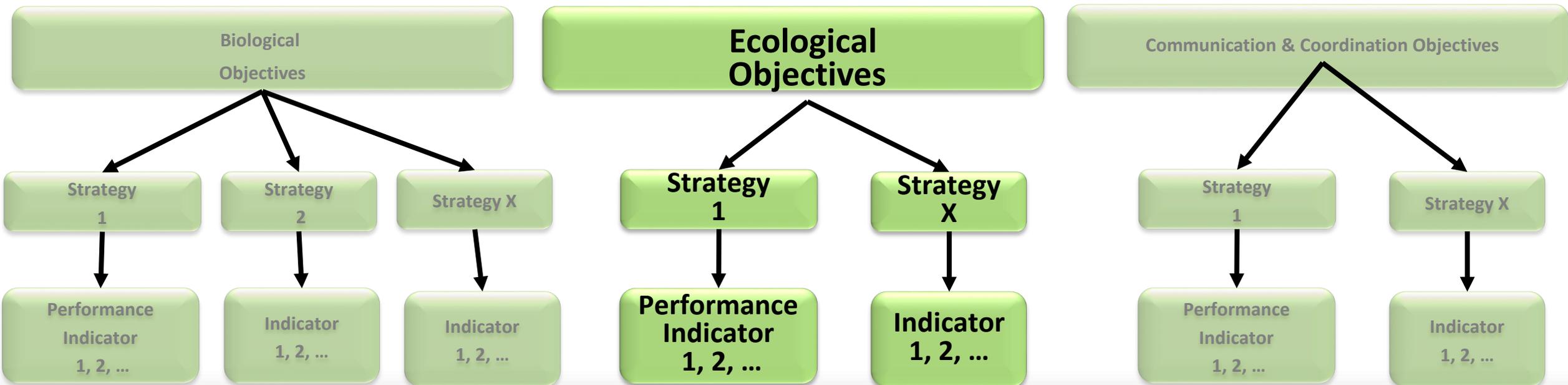


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Ecological Objectives Draft Example: **Wildlife**

Program Goal for Wildlife

Mitigate for wildlife losses caused by the development and operation of hydropower dams (*refined Goal 12*)

Ecological Objectives for Wildlife (*draft, incomplete*)

- Mitigate for construction and inundation losses identified in the program's loss assessment by acquiring habitat units or fulfill settlement agreements.
- Mitigate for operation losses as identified in loss assessment by acquiring habitat units or as identified in settlement agreements.
- Maintain and improve habitat quality on land purchased to mitigate for hydrosystem impacts on wildlife by developing and using approved land management plan for all parcels.

(refined objective 12a and Wildlife Strategy language)

Strategies

Wildlife

Other Strategies?

Performance Indicators for Wildlife Related Strategies (*draft, incomplete*)

Wildlife Strategy (interim, new)

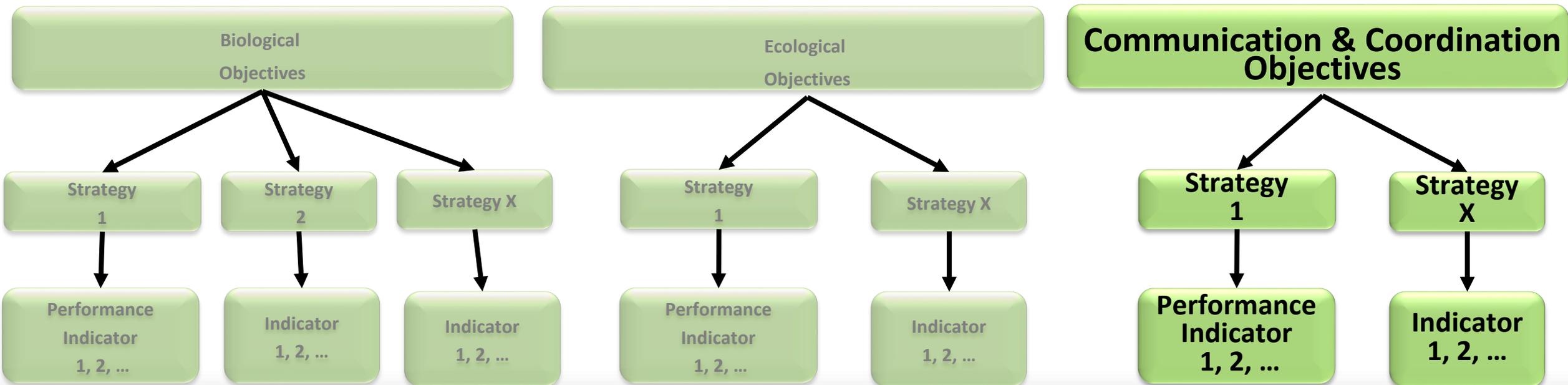
- Percent of mitigation addressed
- Percent of land managed for weed control per management plan is achieved
- Develop and approve land management plans for the remaining X parcels within a certain time period.
- Make progress towards assessing remaining loss assessments prior to 2024

Draft Example: **Wildlife**

Program Goals, Objectives and Performance Indicators

Program Goal for Wildlife

Mitigate for wildlife losses caused by the development and operation of hydropower dams
(refined Goal 12)



Communication & Coordination Objectives Draft Example: **Wildlife**

Program Goal for Wildlife

Mitigate for wildlife losses caused by the development and operation of hydropower dams (*refined Goal 12*)

Communication & Coordination Objectives for Wildlife (*draft, incomplete*)

Communication (*new*)

- Annually report on habitat units and acres acquired and maintained.



Strategies

Public Engagement

Wildlife

Other Strategies?



Performance Indicators for Wildlife Related Strategies (*draft, incomplete*)

Public Engagement Strategy (*new*)

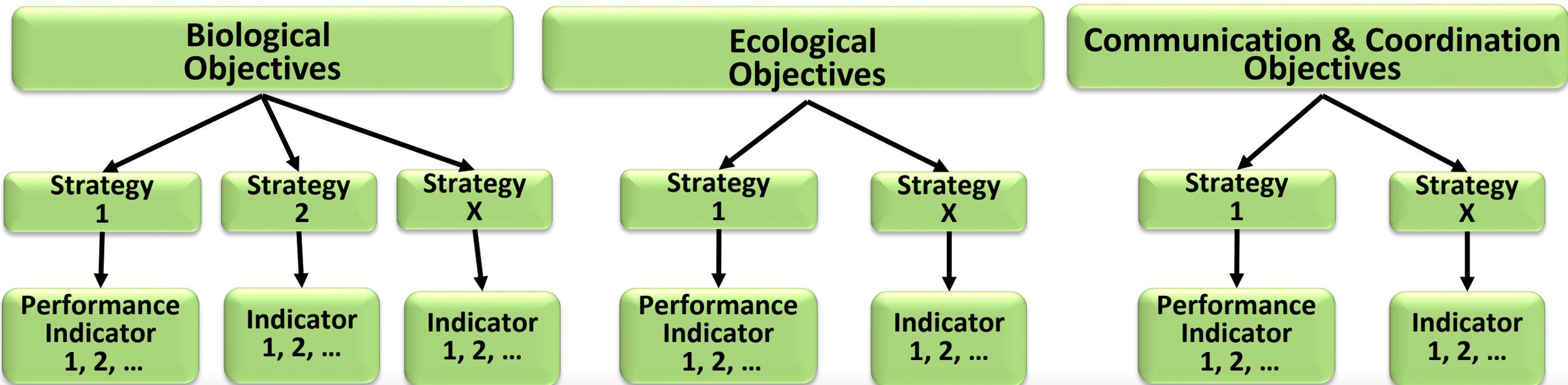
- Annually report on the habitat units and acres on the Council's Fish Info Site, HLIs, Program Performance & Progress Tool, Financial reports, and social media tools.

Draft Example: **Resident Trout – Redband Trout**

Program Goals, Objectives and Performance Indicators

Program Goal for Resident Trout

As an interim goal, achieve full mitigation for native resident trout focal species by restoring healthy, self-sustaining, and harvestable native resident trout focal species. Healthy is defined as having abundance, productive, diverse and spatially distributed populations. *(modified Goal 13).*

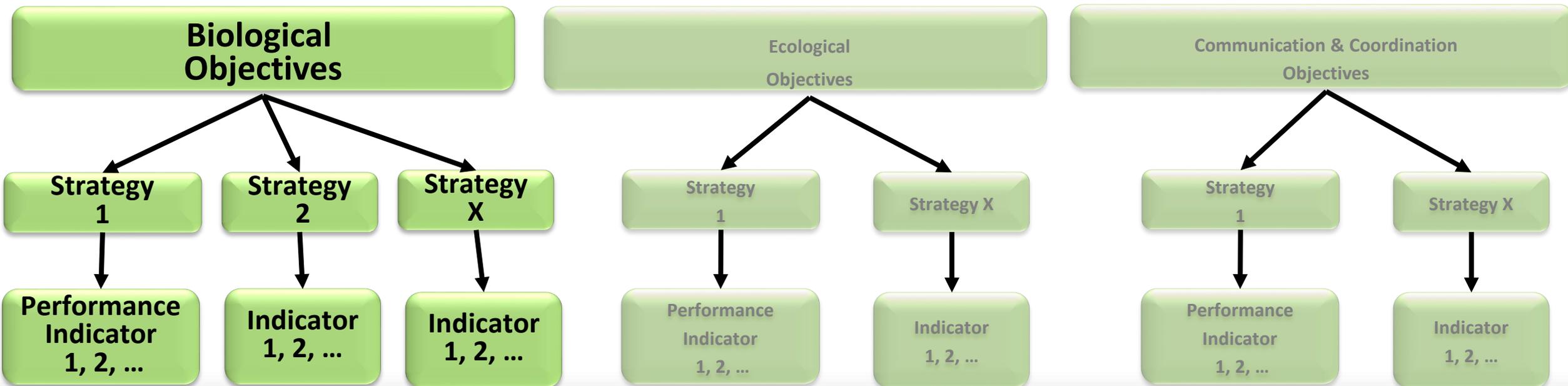


Draft Example: **Resident Trout – Redband Trout**

Program Goals, Objectives and Performance Indicators

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Biological Objectives Draft Example: **Resident Trout - Redband Trout**

Program Goal for Resident Trout

As an interim goal, achieve hydrosystem mitigation for native resident trout focal species by restoring healthy, self-sustaining, and harvestable populations. Healthy populations are defined as being abundant, productive, diverse and spatially distributed. (*refined Goal 13*).

Biological Objectives for Redband Trout (*draft, incomplete*)

- As an interim objective, increase current range occupied by redband trout in the basin towards historical occupancy range. (*based on redband HLI*)
- As an interim population objective, maintain a stable and increasing population trend for redband trout. (*modified objective 13f*)



Strategies

Resident Fish

Other Strategies?



Performance Indicators for Redband Trout Related Strategies (*draft, incomplete*)

Resident Fish Strategy

As interim indicator, maintain and increase the percentage of historical locations and stream miles currently occupied by redband trout for each of the 7 geographic units. (*based on HLI*)

Discussion: Goals, Objectives, Performance Indicators

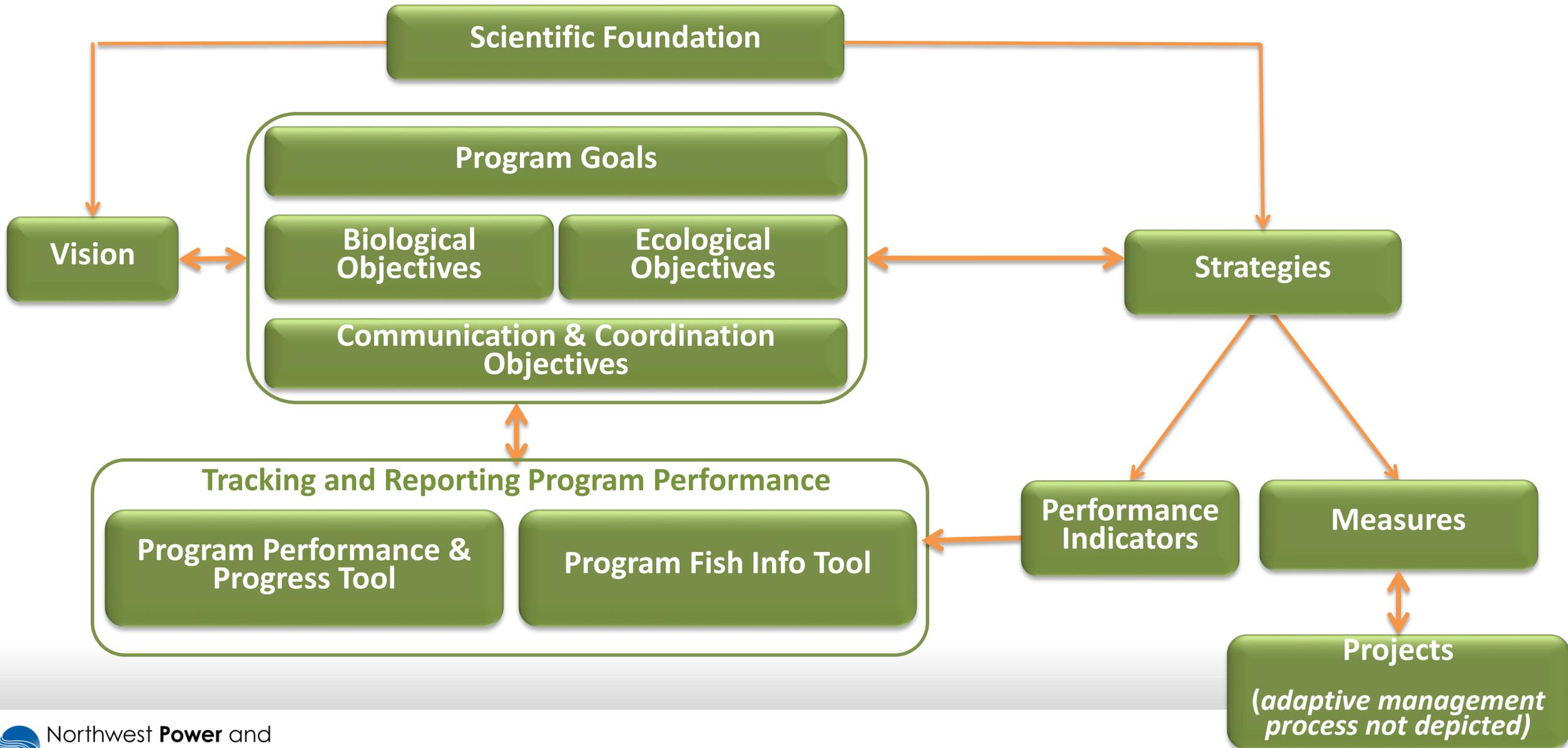
Summary of Recommendations & Comments:

Adaptive Management Monitoring, Data Management and Reporting

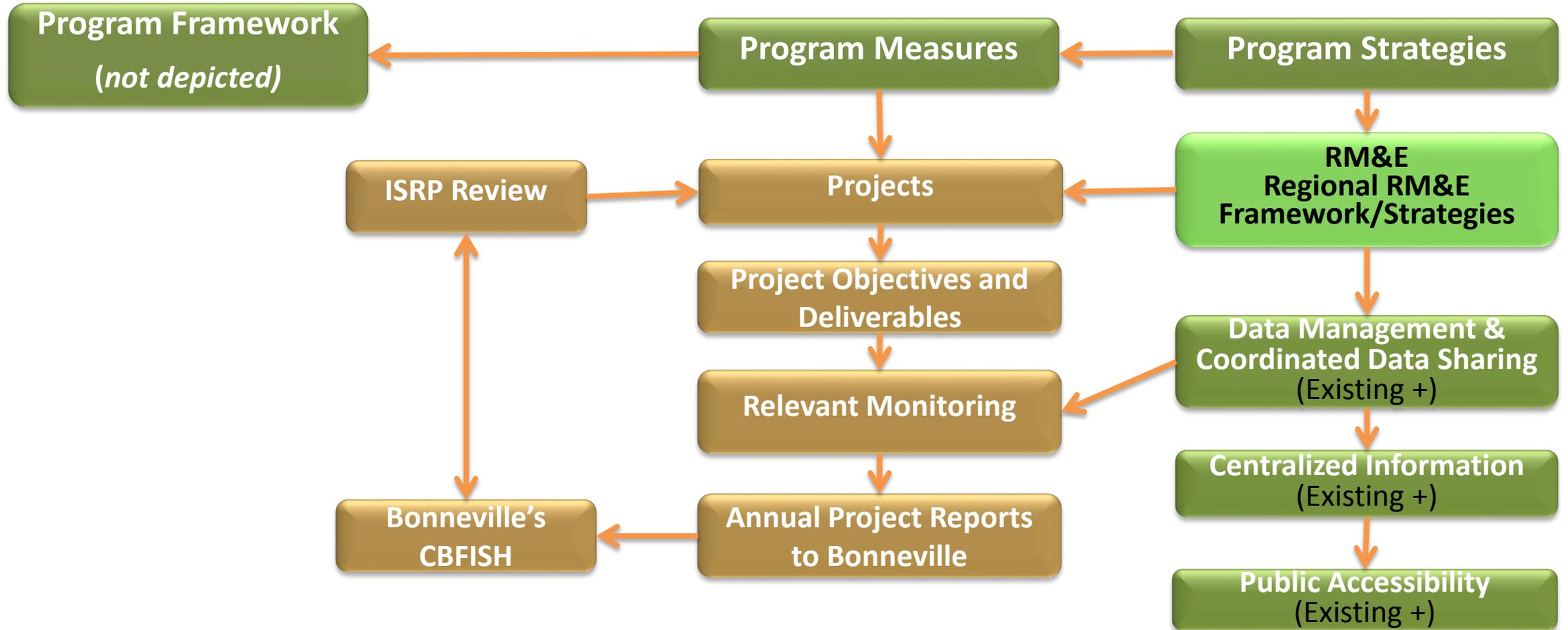
- Continue collaborative efforts to improve coordination of research, monitoring and evaluation; provide an explicit Monitoring and Evaluation strategy.
- Support efforts to coordinate and implement a consistent, sustainable regional direction for data management and reporting.
- Provide adequate funding for data management within agencies and tribes and support regional and basinwide processes and projects (specific names provided).

Fish and Wildlife Program Framework

2019 proposed refinements



Schematic of Recommendations: Adaptive Management (monitoring, data management, reporting)



Potential Program Amendment Language

Update the Program to provide better linkage between data management and data delivery and Program performance/ adaptive management

- Option 1: add language that describes process and approach for data management and data delivery to meet Program performance needs
- Option 2: name the explicit core program projects/efforts including Streamnet/CAX effort/ intertribal/library/etc. and their role in meeting program Performance needs.

Next Steps: Committee Direction

- Support for proposed organization of adaptive management, monitoring, data management, reporting, goals, objectives as described above.
- Support for updated title for this new organization to “Program Performance and Adaptive Management”.
- Support for staff to draft the revised Program Performance & Adaptive Management section
 - Continue work on goals, objectives and performance indicators (Appendix D)
 - Incorporate all elements of adaptive management within new section

Questions?