

**Intermountain Province
Subbasin Plan
EXECUTIVE SUMMARY**
Spokane, Washington



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SUBMITTED TO:

Northwest Power and Conservation Council
Portland, Oregon

ON BEHALF OF:

Intermountain Province Oversight Committee
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EXECUTIVE SUMMARY – Intermountain Province Subbasin Plan

ES.1 Introduction to Subbasin Planning in the Intermountain Province

The Northwest Power Planning Council¹'s (Council) 2000 Fish and Wildlife Program (Program) introduced substantial changes from past Programs. The Program established a basin-wide vision for fish and wildlife, and included broad biological objectives, and a corollary set of action strategies to achieve that vision. The Council plans on implementing the Program through subbasin plans developed locally in most of the 50 tributary subbasins of the Columbia River, which will ultimately be amended into the Program. Subbasin plans will be used to help direct Bonneville Power Administration (BPA) funding of projects that protect, mitigate and enhance fish and wildlife that have been adversely impacted by the development and operation of the Columbia River hydropower system.

The Intermountain Province (IMP) is located in the northeast corner of Washington State and the northern Idaho panhandle (Figure ES-1). There are six subbasins in the IMP, including Coeur d' Alene, Pend Oreille, Spokane, Upper Columbia, San Poil, and Lake Rufus Woods. The Coeur d' Alene Subbasin is in Idaho. The Pend Oreille and Spokane subbasins are in Washington and Idaho. The remaining subbasins are within Washington. Additionally, portions of the Upper Columbia and Pend Oreille subbasins extend into Canada geographically.

This IMP Subbasin Plan is a response to the Council's request to develop locally derived Subbasin plans for this region. This plan was developed in an open public process, which provided opportunities for participation by a wide range of state, federal, Tribal and local managers, experts, landowners, local governments, and stakeholders. The IMP subbasin plan includes:

- an assessment providing the technical foundation for the plan by describing the current condition of fish and wildlife in the subbasin and identifying limiting factors;
- an inventory providing a summary of recent and ongoing projects to protect, mitigate, and enhance fish and wildlife in the subbasin, along with an analysis of evident gaps; and
- a management plan describing the vision, objectives and prioritized implementation strategies in the subbasin.

Subbasin planners in the IMP generally followed guidelines presented in the Council's, *Technical Guide for Subbasin Planners* (Council 2001) in development of the IMP

¹ Renamed in 2003 as the Northwest Power and Conservation Council. In this document, the organization under both the previous and current names is referred to as "Council."

Subbasin plan. The plan was developed in accordance with the Council's vision, scientific principles, and biological objectives for the Columbia River Subbasin, as described in the 2000 Fish and Wildlife Program (refer to Appendix A for a summary of key elements of the Program).

The IMP Subbasin Planners chose to take Subbasin planning one step farther by coordinating the planning process at both a subbasin and provincial level. This approach included a strong emphasis on consistency between the six subbasins, discussion of province level considerations in both the assessment and the inventory, and development of a province level vision and biological objectives for fish and wildlife.

The technical assessment of aquatic and terrestrial resources was compiled from existing subbasin summaries, other scientific literature, and data provided by province resource managers. The assessment describes the biological and physical characteristics of the subbasin in terms of selected focal fish and wildlife species. Limiting factors for the analysis species were identified and summarized; where insufficient data exists, specific research needs were noted.

The inventory identifies and describes fish and wildlife programs and projects that are in place or currently underway. Existing laws, regulations, and management objectives of the natural resource management entities in the province and six subbasins are also noted. In addition to listing programs and projects, the inventory includes an assessment of the gaps, which are clearly evident when comparing the assessment with the inventory.

Based on the results of the assessment and inventory, teams of resource managers, technical experts, and subbasin stakeholders developed biological objectives and strategies that respond to the limiting factors and resource needs of each subbasin. Biological objectives were developed using a tiered approach, beginning with review of the Columbia River Basin biological objectives and scientific principles identified in the Council's 2000 Fish and Wildlife Program (Appendix A). Subbasin level objectives tiering to the Program objectives and principles were developed by each of the six Subbasin Work Teams. A set of province level objectives was developed by reviewing objectives developed in all of the subbasins, looking for commonalities, and developing a third tier of objective statements intermediate to the basin and subbasin levels.

Finally, a Research, Monitoring, and Evaluation (RM&E) plan was developed to assess the effectiveness of strategies at reaching the desired biological objectives. In light of the various ongoing efforts to develop a regional monitoring plan, subbasin planners in the Intermountain Province (IMP) chose to develop a monitoring plan based on existing monitoring methods described in the scientific literature. The items in the RM&E plan were based on the appropriate objectives and strategies from the management plan. Additional RM&E items were added to the plan by the Technical Coordination Group as needed to complete the plan. Each subbasin has a chapter on RM&E included in this plan.

Intermountain Province



Figure ES-1. Overview map of the IMP. The inset map shows the location of the IMP in relation to the rest of the Columbia River Basin, including the Canadian portion.

One of the directions from the Council to subbasin planners was to establish a clear logic path within the subbasin plans. In the IMP, we established a logic path between the assessment and inventory and the management plan (the limiting factors logic path). We also established a logic path between the objectives in the Council’s 2000 Fish and Wildlife Plan and IMP Provincial Objectives and Subbasin-level objectives (the management plan logic path). In addition, there was a logic path within the process used to develop the IMP subbasin plan whereby a dialogue was established between technical experts and interested stakeholders to allow for the assessment, inventory, and management plan to be developed simultaneously (the process logic path). In the IMP, the working hypothesis was established at the provincial level to draw a logic path between the development of the hydropower system, the limiting factors for fish and wildlife that developed as a result of the hydropower system, and the objectives that were developed in the IMP management plan. These logic paths are described below (Figure ES-2).

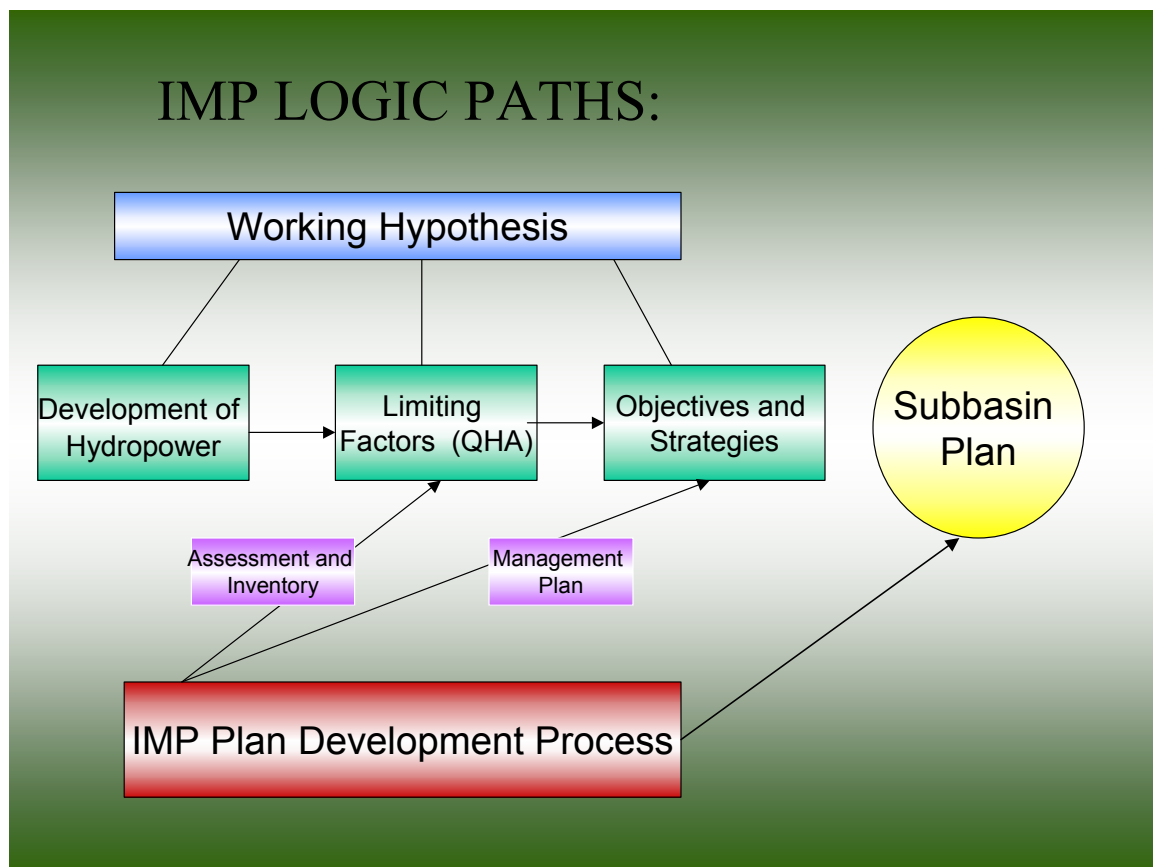


Figure ES-2. IMP Logic Paths. The working hypothesis was established to draw a logic path between the development of the hydropower system, the limiting factors for fish and wildlife that developed as a result of the hydropower system, and the objectives that were developed in the IMP management plan. The plan development logic path was the means to developing the components of the plan.

ES.1.1 The Process Logic Path

Subbasin planners in the IMP had several goals when they established the subbasin planning process. Planners desired to:

- Coordinate subbasin planning at the provincial level.
- Provide a forum in which local, state and Tribal governments, and other interested stakeholders collaborate and coordinate on the creation of subbasin plans
- Have an open public process with multiple opportunities for comment from all interested parties
- Maintain a dialogue between local technical experts and stakeholders during development of the subbasin plan
- Create the assessment, inventory and assessment simultaneously

The IMP subbasin planners chose to develop a coordinated set of plans for the six subbasins within the province, rather than six independent plans. This approach included a strong emphasis on striving for consistency in subbasin planning approach and format across all six subbasins, discussion of province level considerations in the assessment and inventory, development of a province level vision, and where possible, a “roll up” of province level biological objectives, to which each subbasin would tier.

A major commonality between all six subbasins is their location within the ‘blocked area’, that portion of the Columbia River Basin from which all anadromous fish species are blocked due to the construction of Chief Joseph and Grand Coulee dams. Although each subbasin has individual fish and wildlife management needs, there are a number of management issues that are more appropriately and effectively addressed at the province level.

Public outreach and involvement of all interested stakeholders in all stages of the IMP subbasin plans was a priority in the IMP and a key component of the approach used in the IMP. Subbasin Work Teams were established in each subbasin that involved a cross section of representatives of county, state, Tribal, and federal government, conservation districts, industry, environmental groups, and interested citizens. Subbasin Work Team meetings were the heart of subbasin plan development in the IMP. Subbasin planners in the IMP used the six Subbasin Work Team meetings, one about every two months, to provide stakeholder education about the planning process and the Council’s Program; to provide opportunities for public participation; and to actually develop the management plan portion of the IMP subbasin plan.

The process for development of the IMP subbasin plan is depicted in Figure ES-3. The graphic shows how the IMP Provincial vision, objectives, and guiding principals were developed from the Council’s guidance, how the assessment and inventory were developed by the GEI Team with support from the Technical Coordination Group, and how the Subbasin Work Teams developed the management plan at the same time as, and in coordination with, the assessment and inventory development.

In addition to the stakeholder outreach conducted through the subbasin work teams, two evening open houses were held in each of the six subbasins to educate the public about the planning process and provide opportunities for comment. Two newsletters and meeting notices were distributed to the Advisory Council mailing list of over 500 interested individuals. Meeting notices and meeting minutes, drafts of the IMP subbasin plans, maps, newsletters, links and other information about the subbasin planning process in the IMP were maintained throughout the process on an IMP web page on the Council's website at: <http://www.nwcouncil.org/fw/subbasinplanning/admin/level2/intermtn/> In these ways, communication and public participation were emphasized throughout the IMP Subbasin Plan preparation.

ES.2 Fish and Wildlife in the Intermountain Province

Several over-riding issues are of critical importance in the IMP: the loss of anadromous fish, the historic lack of funding provided to the Province for fish and wildlife mitigation, the lack of information about fish and wildlife in the IMP (a problem related to the lack of funding), and water management of mainstem dams.

The complete loss of the anadromous life history has had a wide array of impacts within the Province and is a major focus of this plan. This topic is discussed in depth in the assessment portions of this plan and it is also addressed in objectives and strategies outlined in the management plan.

The lack of funding for fish and wildlife in the IMP is, in part, a direct consequence of the loss of anadromous fish. The BPA currently allocates approximately \$139 million annually to protect, mitigate, and enhance fish and wildlife in the Columbia River Basin (CBFWA 2004). The 2000 Fish and Wildlife Program calls for 70 percent of fish and wildlife mitigation funding to go to anadromous fish. Historically, the IMP has not received funding for anadromous fish mitigation because anadromous fish have been lost due to the construction of Chief Joseph and Grand Coulee dams without upstream fish passage facilities. The IMP has received between \$6 and \$11.5 million per year for fish and wildlife between 2001 and 2003, or between 5 and 8 percent of the total mitigation funds available (CBFWA 2004). This level of funding is not proportionate to the magnitude of the impacts experienced by the IMP, which total approximately 40 percent of the wildlife habitat and anadromous fish losses documented to date.

The lack of data is reflected in the assessment and management plan portions of this plan. For example, several of the aquatic focal species, such as white sturgeon and burbot, are addressed only briefly in the assessment because very little is known about them. In addition, in many cases objectives are, of necessity, broad and general. It was not possible to include numeric targets in most of the management objectives because of a lack of quantitative information.

~ IMP Subbasin Planning Process ~

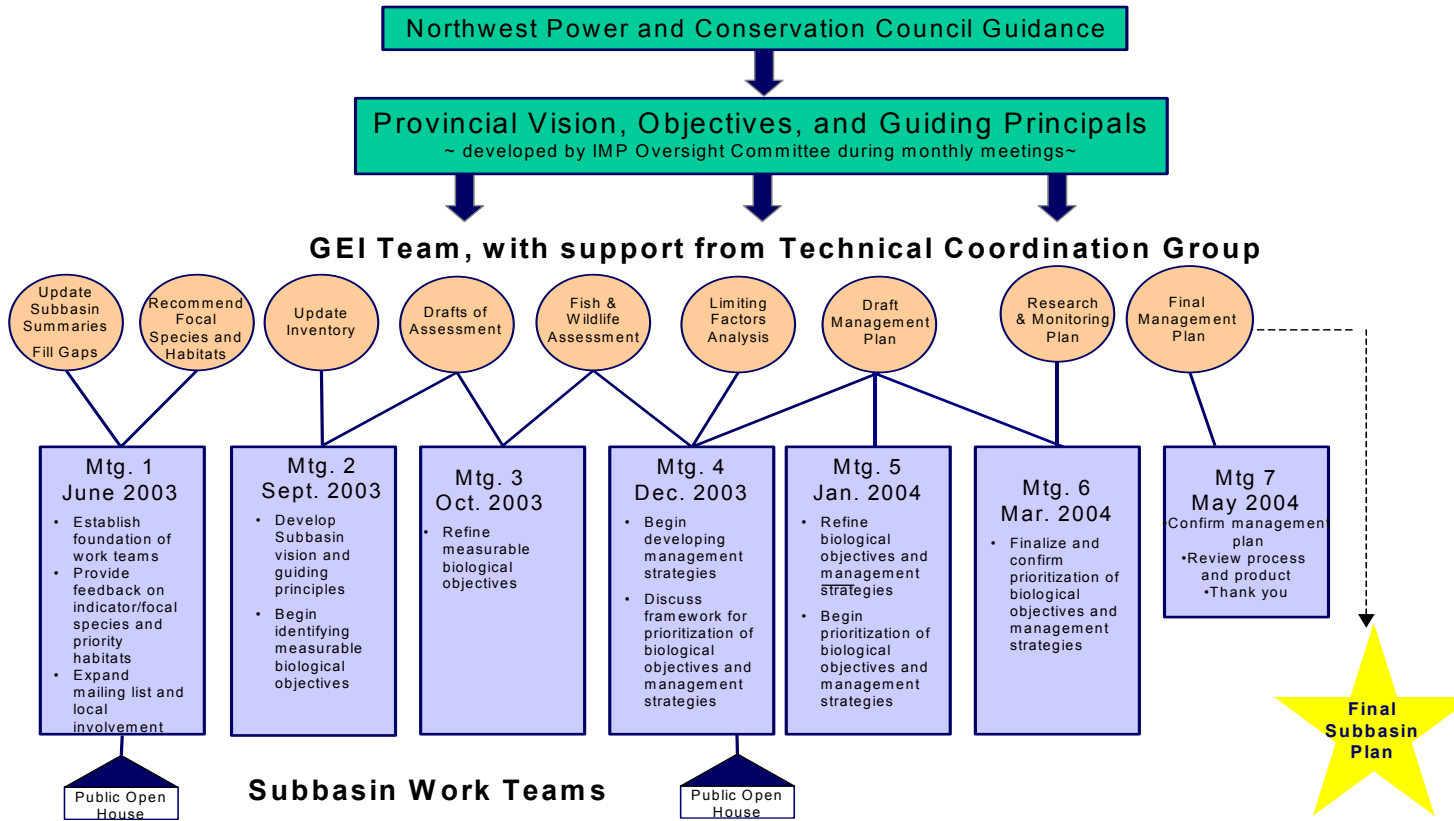


Figure ES-3. The subbasin planning process logic path in the IMP

Water management in the mainstem rivers has a profound effect on fish and wildlife in the IMP. Water levels in all the mainstem reservoirs in the IMP, including Lake Pend Oreille, Coeur d' Alene Lake, Lake Roosevelt, and Lake Rufus Woods are controlled by the hydropower system. Decisions about water management affect people throughout the Columbia River Basin and beyond. Therefore, decisions about water management are made on a system-wide basis. Not all of the key decision makers for water management participated in the process to develop the IMP Subbasin Plan.

In the IMP Subbasin Plan, the management planning work focused on issues that were conceivably within the control of the local Subbasin Work Teams and fish and wildlife managers. Therefore, although water management in the mainstem is an extremely important issue to the Province, this plan largely does not address the topic. Nevertheless, the timing and extent of fill and drawdown has a profound effect on the ability of the reservoirs in the IMP to sustain fish and also affects many species wildlife. Many of the artificial production objectives and strategies described in the management plan are necessary because of operations of the reservoirs.

ES.2.1 Limiting Factors - Aquatic Resources

At the turn of the twentieth century, anadromous Pacific salmon runs in the Columbia River Basin ranged from an estimated 10 to 16 million fish annually (Council 1986), more than any other river system in the world. Today, current annual run size estimates average about 2.5 million fish (Dauble et al. 2003). Although the exact amount of fish lost as a result of hydropower development is unknown, the development of the Federal Columbia River Power System (FCRPS) clearly had, and continues to have, a significant impact on anadromous fish abundance in the Columbia River.

The upper reaches of the Columbia River once fostered some of the most bountiful anadromous fish runs in the entire Columbia Basin, including the famous "June hogs". Among all the Columbia's fisheries, the fishery at Kettle Falls - which is presently submerged under the waters of Lake Roosevelt - was second only to the renowned Celilo Falls in its overall cultural significance and productivity. In the 1800s, prior to over harvest by commercial fisheries in the lower Columbia River, and the extensive habitat degradation that occurred throughout the Columbia Basin, the combined salmon and steelhead harvest of the Indian tribes in the upper Columbia River was estimated in excess of two million pounds annually (Koch 1976).

In the Intermountain Province, anadromous fish were eradicated upstream of RM 596.6 (River Kilometer 959.9) on the Columbia River when Grand Coulee Dam was constructed without fish passage facilities in 1939. The completion of Grand Coulee blocked access by all anadromous fish to approximately 1,140 lineal miles of habitat above it (Scholz et al. 1985). Subsequently, in 1958, Chief Joseph Dam was constructed, also without fish passage facilities, at a location 50 miles downstream of Grand Coulee. The area above these dams is commonly referred to as the "blocked area" (Figure ES-4).

The creation of these impoundments has changed the once connected fluvial system into a series of slack water environments that are connected hydrologically, but quite isolated biologically. The low velocity impoundments often have non-stratified deep environments with fine sediments, elevated dissolved atmospheric gasses, and unnatural flow regimes. These facilities also converted flowing rivers into slow moving reservoirs. In addition, large storage dams built in Canada in the 1960s dramatically changed flow regimes in the upper Columbia River system.

The creation of hydropower caused rapid economic expansion within the Columbia River Basin, which resulted in secondary impacts to fisheries resources. The region's economy shifted from river- and salmon-based to agrarian based. The economic shift resulted in mostly extractive uses of the natural resources. Consumptive use of natural resources is closely associated with aquatic and terrestrial habitat degradation.

Also devastating to the native fish has been the introduction of no fewer than 21 exotic fish species that out-compete or directly prey on native species adding further harm to the native species. Additionally, the reservoirs benefit nonnative species, which further increase nonnative pressure on native species. At present only remnant populations of native resident salmonids remain, including Interior Columbia River redband trout, westslope cutthroat trout, bull trout, and mountain whitefish.

Another impact of the loss of anadromous salmon has only recently been recognized, that is the consequences of the loss of nutrient transport from oceans to freshwater environments. When migratory adult fish leave their ocean rearing grounds and migrate to lakes, rivers, and streams to spawn, they convey nutrients from one location to another. Since Pacific salmon die within a few days of spawning, the nutrients contained in their carcasses become available to the ecosystem, sometimes far inland from where the nutrients were derived. These salmon-transported nutrients are important for the maintenance of ecosystem biodiversity and fish production.

Biological changes created by dams are substantial and well documented. Dams sever the river's historic connection with its floodplain, leading to reduced productivity in both habitats. The river exchanges material and nutrients between the terrestrial environment and aquatic environment creating a symbiotic effect. The river needs to purge itself of fine sediments and detritus and recruit new materials like large woody debris. The process of purge and recruit helps promote a healthy and diverse ecosystem.

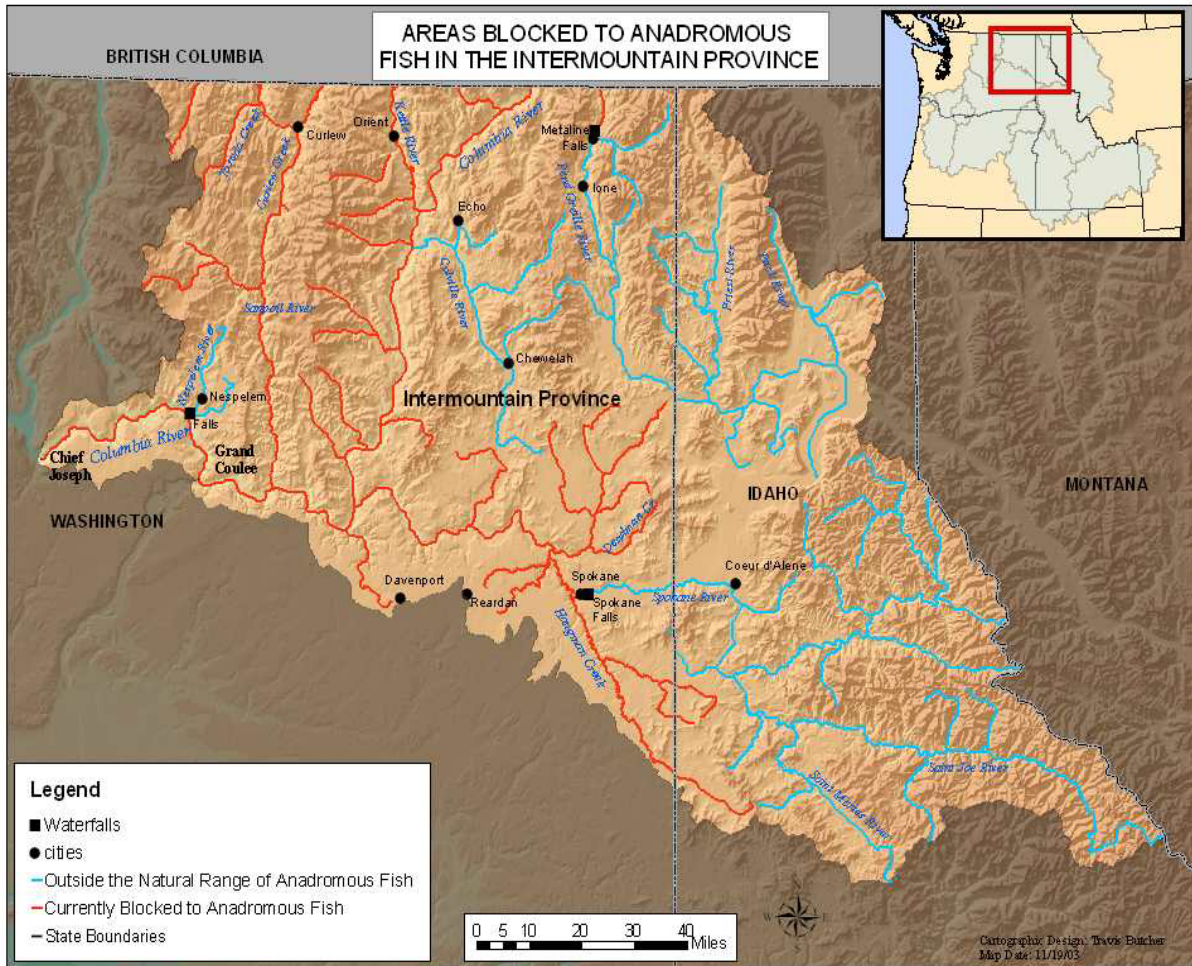


Figure ES-4. Areas blocked to anadromous fish as a result of the lack of fish passage at Grand Coulee and Chief Joseph dams

ES.2.3 Limiting Factors - Terrestrial Resources

Development of the FCRPS projects in the IMP resulted in direct effects on wildlife populations and habitats through construction of facilities and reservoir inundation. Wildlife continue to be affected via operational and secondary, or indirect, effects of the FCRPS. Population growth, and the combined effects of industrial, agricultural, and residential development also have had widespread effects on wildlife and their habitats in the IMP. Much of the province has been converted to developed and agricultural land uses, the majority of forest stands are managed for timber production, naturally-occurring fires have been suppressed, and human presence provides a source of disturbance to native wildlife. Habitat conversion and degradation are the two primary limiting factors to native focal wildlife species in the province. Although some of the direct effects can clearly be linked to the FCRPS, secondary effects of the hydrosystem are tightly intermingled with the effects of other land uses in the province.

Habitat loss assessments were conducted for each of the three FCRPS projects in the IMP to determine the effects of project construction and reservoir inundation on wildlife. Many of the habitats that were inundated by the reservoirs were of high ecological value, including wetlands, riparian areas, and shrub-steppe. The loss assessments used the Habitat Evaluation Procedures (HEP) methodology developed by the U.S. Fish and Wildlife Service to evaluate the quantity and quality of wildlife habitats affected by project construction. The HEP models provided an estimate of the value of the lost habitats to various indicator species of wildlife. HEP models provide results in terms of Habitat Units, which are units of value based on both quality and quantity of habitat. A loss of 149,276 Habitat Units was determined for all three projects in total; approximately 75 percent of the wildlife Habitat Unit losses are associated with the Grand Coulee Project.

The Council's Fish and Wildlife Program includes a summary of the Habitat Unit losses (Table 11-4 of Appendix C of the Program) and provides a commitment to complete the acquisition of Habitat Units. As of February 2004, the Habitat Units acquired for Albeni Falls total 4,822, Grand Coulee totals 56,680, and Chief Joseph totals 1,433. Fifty-eight percent of the Habitat Units (86,341) remain to be acquired in total for the three FCRPS projects in the province.

The Council's Fish and Wildlife Program also includes a commitment to mitigate for operational and secondary effects of the FCRPS projects. Operational impact assessments have not been conducted for any of the three FCRPS hydroelectric projects. Operational effects to wildlife include water fluctuations within the drawdown zone, continuing erosion of reservoir shoreline habitats, transmission line and other facility maintenance, and wildlife disturbance associated with project activities. Secondary effects of development of the FCRPS projects, as defined in the IMP, include increased harvest pressure on other wildlife due to the loss of salmon, increased natural resource extraction such as timber harvest and mining, irrigated and dryland agriculture development, and residential and industrial development. Assessments of secondary effects of the FCRPS have not been prepared by the Council or other federal agencies.

Comparison of current to historic habitat conditions in the IMP shows that habitats have been greatly modified through direct and secondary effects of the FCRPS and through other land uses and development. Habitat conversion is most evident in the lands currently mapped as urban (about 1 percent of the province) and those mapped as agriculture/pasture/mixed development (about 12 percent of the province).

ES.3 Intermountain Province Working Hypothesis

A working hypothesis summarizes a scientifically based understanding of the subbasin at the time the Management Plan was developed and begins to bridge the gap between the science and strategies (Council 2001). The working hypothesis is used to evaluate and derive biological objectives and strategies in relation to the subbasin vision.

The connection between the IMP working hypothesis, the limiting factors in the IMP, and the IMP objectives are displayed in Figure ES-5. The purpose of this figure is to visually

display the linkage between the working hypothesis, limiting factors, and biological objectives. It is also designed to depict the connection to the Council's 2000 Fish and Wildlife Plan. In the IMP, the overarching working hypothesis for the province is that the major hydroelectric facilities in, and upstream of, the IMP are expected to remain in place for the life of the IMP Subbasin Plan. In Figure ES-5, the overarching working hypothesis is displayed in the blue box at the top of the first sheet. The corollaries to this hypothesis are:

- (1) Anadromous fisheries will not be restored in the IMP during the 10-year planning period (with the possible exception of experimental actions).
- (2) The reservoirs will continue to inundate fish and wildlife habitats.
- (3) Operational impacts of the hydroelectric projects will continue to occur to fish, wildlife, and their habitats.
- (4) Secondary impacts of the hydroelectric projects will continue to affect fish, wildlife, and their habitats.

The working hypothesis is based on the expectation that the major hydroelectric facilities in the IMP, both FCRPS and FERC-licensed, are relatively permanent structures, and are likely to remain in place for the foreseeable future. In addition, restoration of anadromy in the IMP is a complex issue that is not likely to be resolved in the first 10-year planning period of the subbasin plan. While experimental fish passage facilities could be installed and tested within the next ten years, it is unlikely that significant restoration of anadromous fish runs will occur in this time frame. Thus, four major types of effects are expected to continue to influence fish and wildlife of the IMP: loss of anadromous fish, inundation of fish and wildlife habitats, operational effects of the projects, and secondary effects of the projects. The four major types of effects of the dams are displayed on sheet one of Figure ES-5, with the resulting impacts depicted in subsequent pages.

The continued loss of anadromous fish results in (sheet 2 of Figure ES-5):

- Continued loss of marine derived nutrients to the aquatic and terrestrial resource. This leads to:
 - Continued reduction of fish and wildlife abundance and diversity
- Subsistence salmon fishing loss continues. This leads to:
 - Tribal loss of traditions and values
 - Tribal loss of culture and ceremony
 - Tribal loss of gatherings and ways of life
 - Tribal loss of a healthy food resource
 - Increased Tribal harvest of wildlife and resident fish
 - Increased pressure on game species of wildlife
 - Continued reduction of fish and wildlife abundance and diversity
- Fishing continues to be limited to resident fish species. This leads to:
 - Continued decrease in fishing opportunities
 - Increased fishing pressure on resident fish

The operational impacts of the dams and reservoirs include, but are not limited to (sheet 4 of Figure ES-5):

- Loss of spawning habitat.
- Continuing shoreline erosion
- Continued loss of riparian and littoral habitats
- Modified hydrographs impact riparian/wetland areas, fish habitat, and fluvial processes
- Disruption of hydrologic connectivity between river and floodplains
- Change in pioneering species recruitment
- Altered aquatic/terrestrial primary and secondary production
- Continued fish entrainment
- Elevated total dissolved gas
- Changes in flood frequency
- Creation of fish passage barriers

The reservoirs affect fish and wildlife through (sheet 3 of Figure ES-5):

- Declining water quality
- Loss of terrestrial habitats, including wetlands, riparian areas, and uplands
- Loss of cold aquatic riverine habitats which continue to be replaced by warmer water reservoir habitats supporting nonnative fishes
- Connectivity of native fish and wildlife habitats continues to be disrupted by reservoirs
- Nutrient sinks
- Loss of habitat diversity

The secondary impacts of the hydrosystem include (sheet 5 of Figure ES-5):

- Flood Control
 - Past flooded areas available for development
 - Aesthetics of river and open water
 - Agricultural conversions of highly fertile floodplain/wetlands
 - Increased access to river
- Low cost electricity continues to provide economic growth incentive in IMP. This leads to:
 - More people live and work in the IMP. This leads to:
 - Hunting, fishing, and recreation pressure continues to increase.
 - Increased human demands for water resulting in loss of aquatic habitat and hydrologic function.
 - Increased pollution
 - Changes in plant community and diversity
 - Increased road densities
 - Increased human development of fish and wildlife habitats
 - Increased conflicts between fish, wildlife, and humans
 - Increased need for regulation, management, habitat protection, habitat restoration and use of hatcheries

The impact of all this is that fish and wildlife habitat continues to decrease and the abundance of fish and wildlife declines as a result of hydroelectric development in the IMP. The objectives developed for the IMP help to address the above impacts from the development, operations, and indirect influences of the FCRPS are designed to address known limiting factors for fish and wildlife. The objectives also attempt to balance the human uses with environmental requirements for fish and wildlife by using an inclusive process involving all stakeholders.

**Albeni Falls, Grand Coulee,
and Chief Joseph Dams remain
for 10-year period of IMP Plan**

THEREFORE:

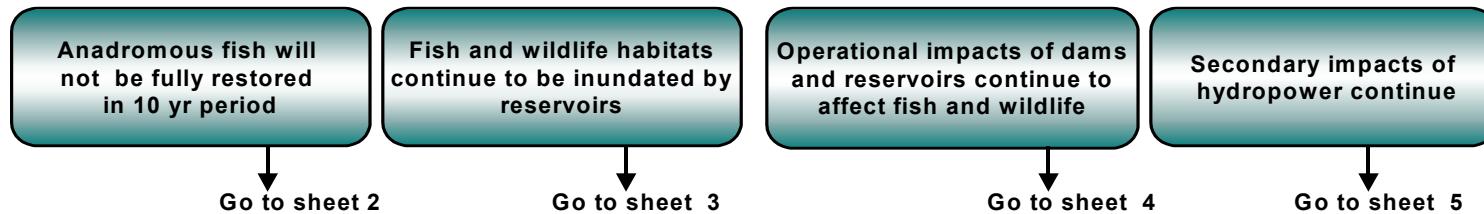
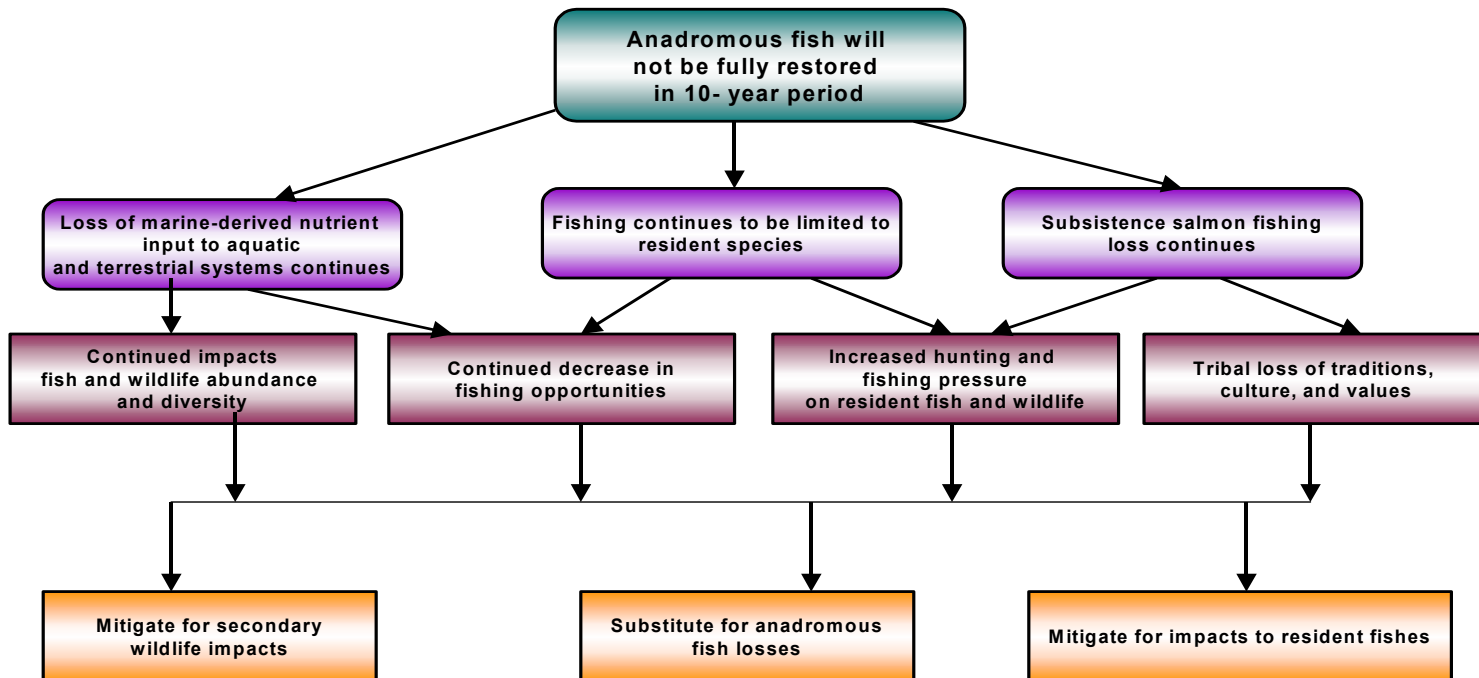
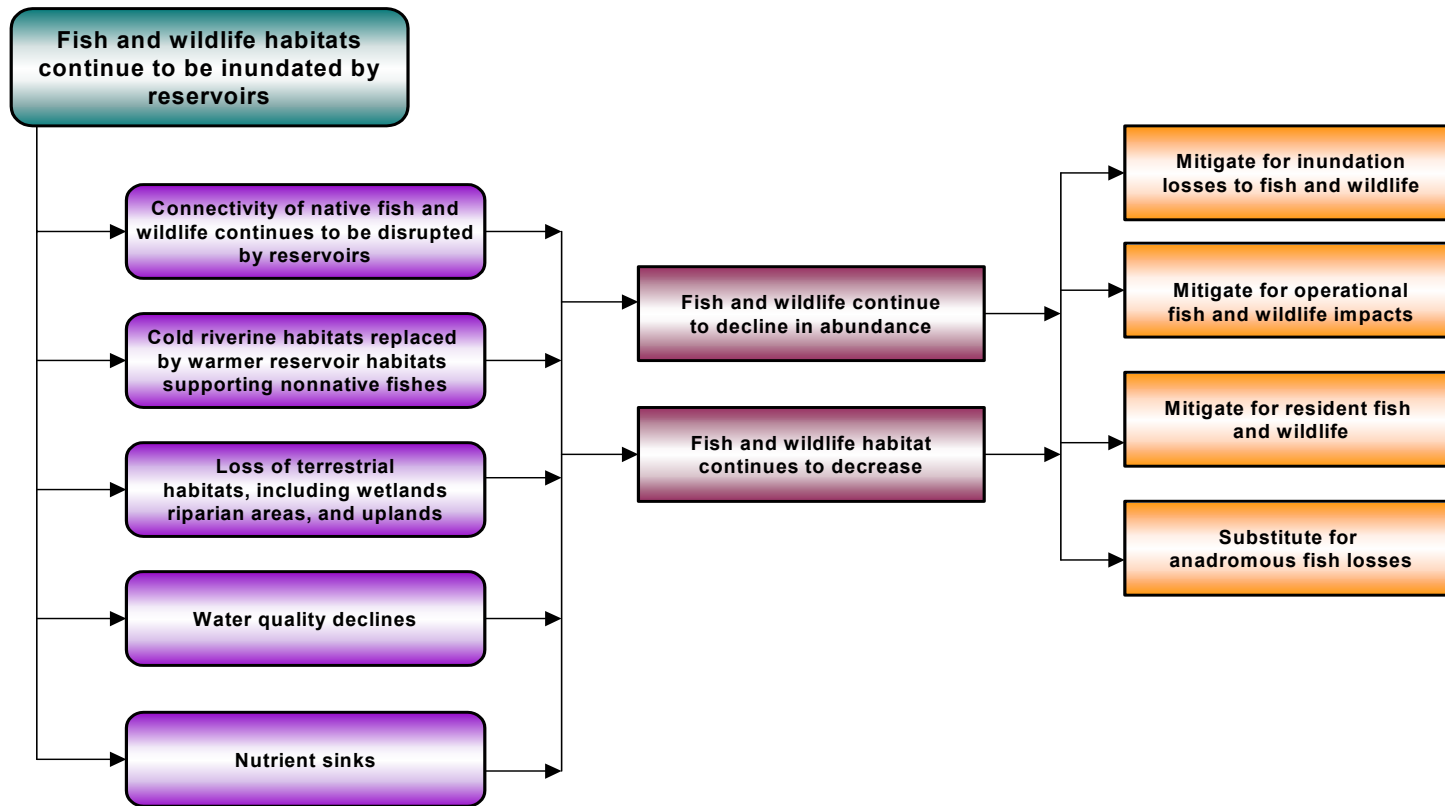


Figure ES-5, sheet 1. IMP Working hypothesis. Plan hypothesis is that the hydroelectric facilities will remain in place for the life of the plan. This will lead to limiting factors which are addressed by objectives in the IMP management plan.



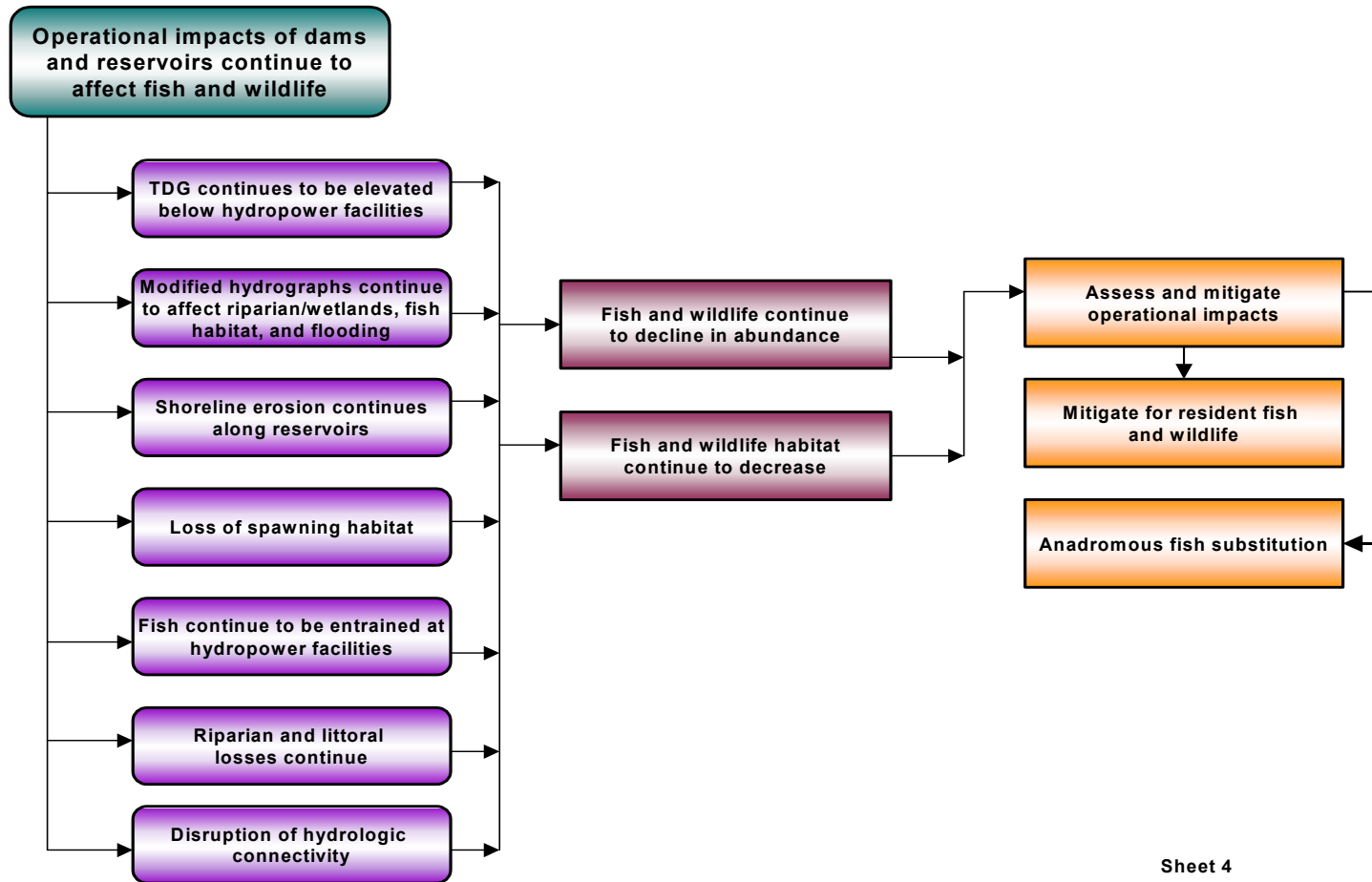
Sheet 2

Figure ES-5, sheet 2. IMP Working hypothesis. Loss of the anadromous life history leads to limiting factors which are addressed by objectives in the IMP management plan.



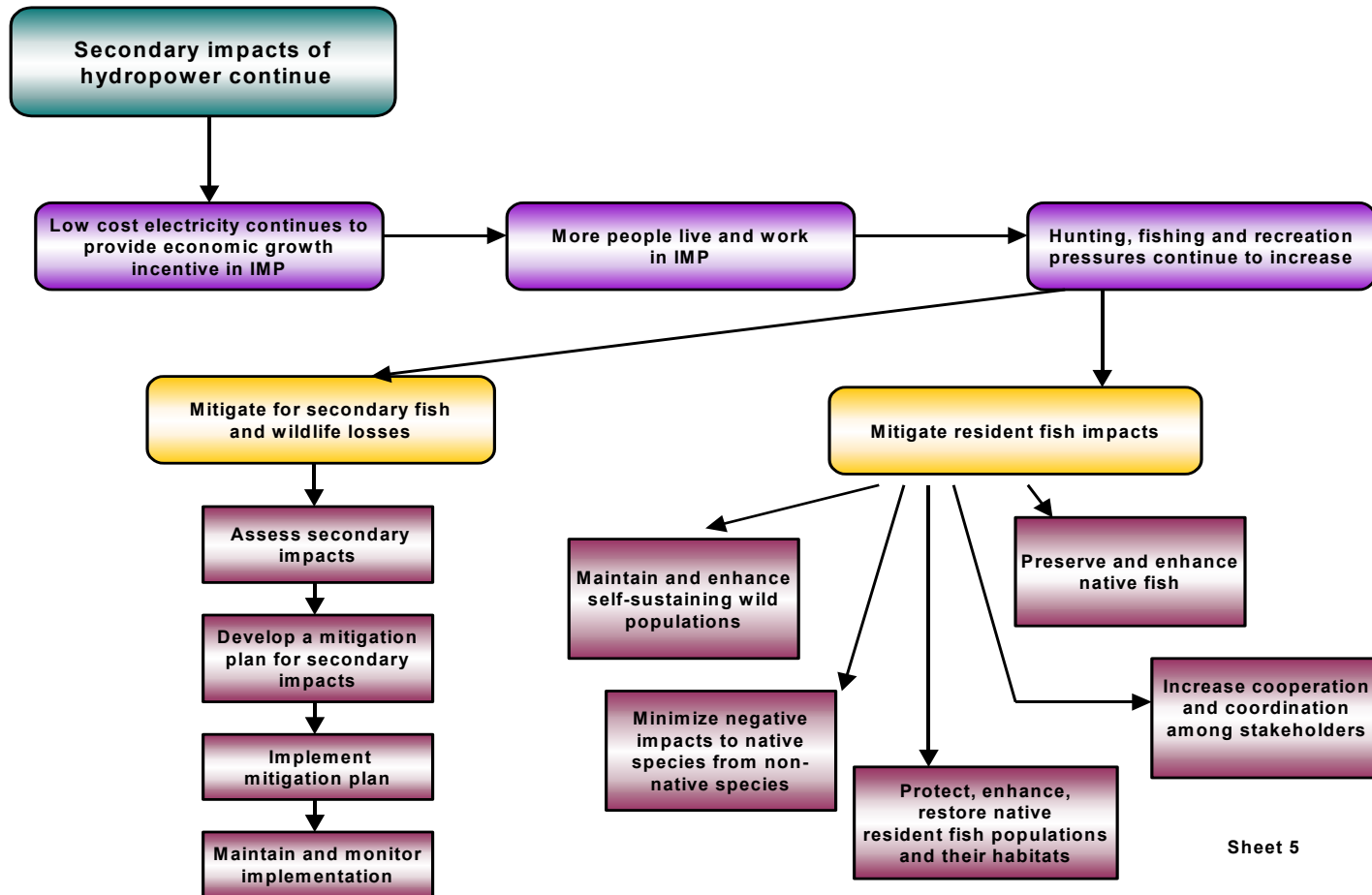
Sheet 3

Figure ES-5, sheet 3. IMP Working hypothesis. Construction of the dams inundated land and rivers and led to limiting factors which are addressed by objectives in the IMP management plan.



Sheet 4

Figure ES-5, sheet 4. IMP Working hypothesis. Operational impacts of the hydropower system lead to limiting factors which are addressed by objectives in the IMP management plan.



Sheet 5

Figure ES-5, sheet 5. IMP Working hypothesis. Secondary impacts of the hydropower system lead to limiting factors which are addressed by objectives in the IMP management plan.

ES.4 Overview of the Intermountain Province Management Plan

The IMP Oversight Committee (OC) developed the province-level vision and objectives for the IMP, as follows:

“We envision the Intermountain Province being comprised of and supporting viable, diverse, fish and wildlife populations, and their habitats, that contribute to the social, cultural, and economic wellbeing of the Pacific Northwest.”

The OC also developed the following guiding principles:

- The role of the IMP OC is to facilitate development of subbasin plans at the subbasin level.
- Public outreach is essential for successful plan development and implementation.
- Human interests can be balanced with fish and wildlife needs.
- All people are stewards for future generations.
- Integrated subbasin plans should consider ecological, not political, boundaries.
- Subbasin plans will address cultural and subsistence issues.
- Subbasin planning should be consistent with the Northwest Power Act, the Council’s Fish and Wildlife Program, and technical guidance for subbasin planning, while complimenting existing plans, policies, and planning efforts.
- Fish and wildlife species and habitat should be managed in perpetuity based on scientific, ecological, and biological principles.

These are the supporting objectives developed by the OC:

- Manage the natural resources of the Province for human use and a healthy environment.
- Emphasize ecological principles and apply an inclusive approach to restore, enhance, and maintain fish and wildlife and their habitats and our quality of life.
- Include monitoring, research, and adaptive management to support achievement of the vision.
- Develop subbasin plans within the framework of the Northwest Power Act, the Council’s Fish and Wildlife Program, and subbasin technical advice.

The objectives and strategies were developed in response to the results of the assessment and determination of limiting factors for the Province and each subbasin. The IMP Province vision, guiding principles, and objectives were developed consistent with the Columbia River Basin 2000 Fish and Wildlife Program, as shown in the logic path diagram in Figure ES-6. Each subbasin developed a set of measurable biological objectives using a tiered approach. The Columbia River Basin level objectives were identified through review of the Council’s 2000 Fish and Wildlife Program objectives (the green boxes on Figure ES-6), which are based on the eight scientific principles identified in the plan. Subbasin specific objectives were developed in response to limiting factors, and were categorized by tiering to the Columbia River Basin objectives. Province level biological objectives were developed as a third tier, intermediate to both the

Columbia River Basin and the subbasins; the province level objectives summarize resource objectives common across the Province. By tiering the objectives into subbasin, province and basin levels, we could be confident that we were developing objectives that were consistent with the Council's Fish and Wildlife program. In addition, we could clearly display the linkage between the Council's objectives and the IMP objectives.

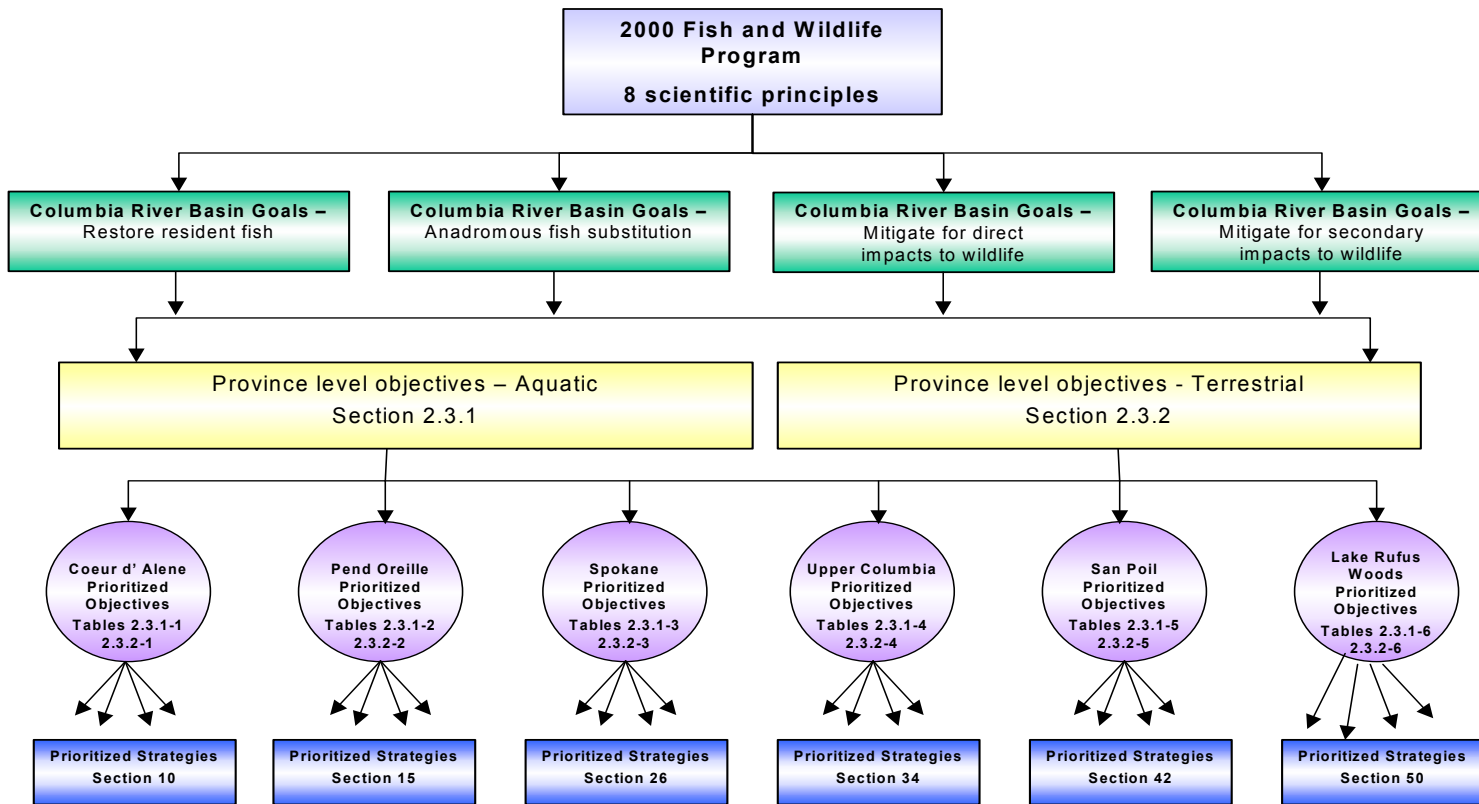


Figure ES-6. Management plan logic path: IMP objectives and strategies are tiered from the Council's Fish and Wildlife Program. Sections where more information is available are shown.

ES.4.1 Provincial Objectives for the Intermountain Province

Figure ES-7 shows each of the ten provincial objectives and illustrates the logic path connecting the provincial objectives to the limiting factors and the provincial vision. Each objective also has examples strategies and RM&E from the subbasin chapters.

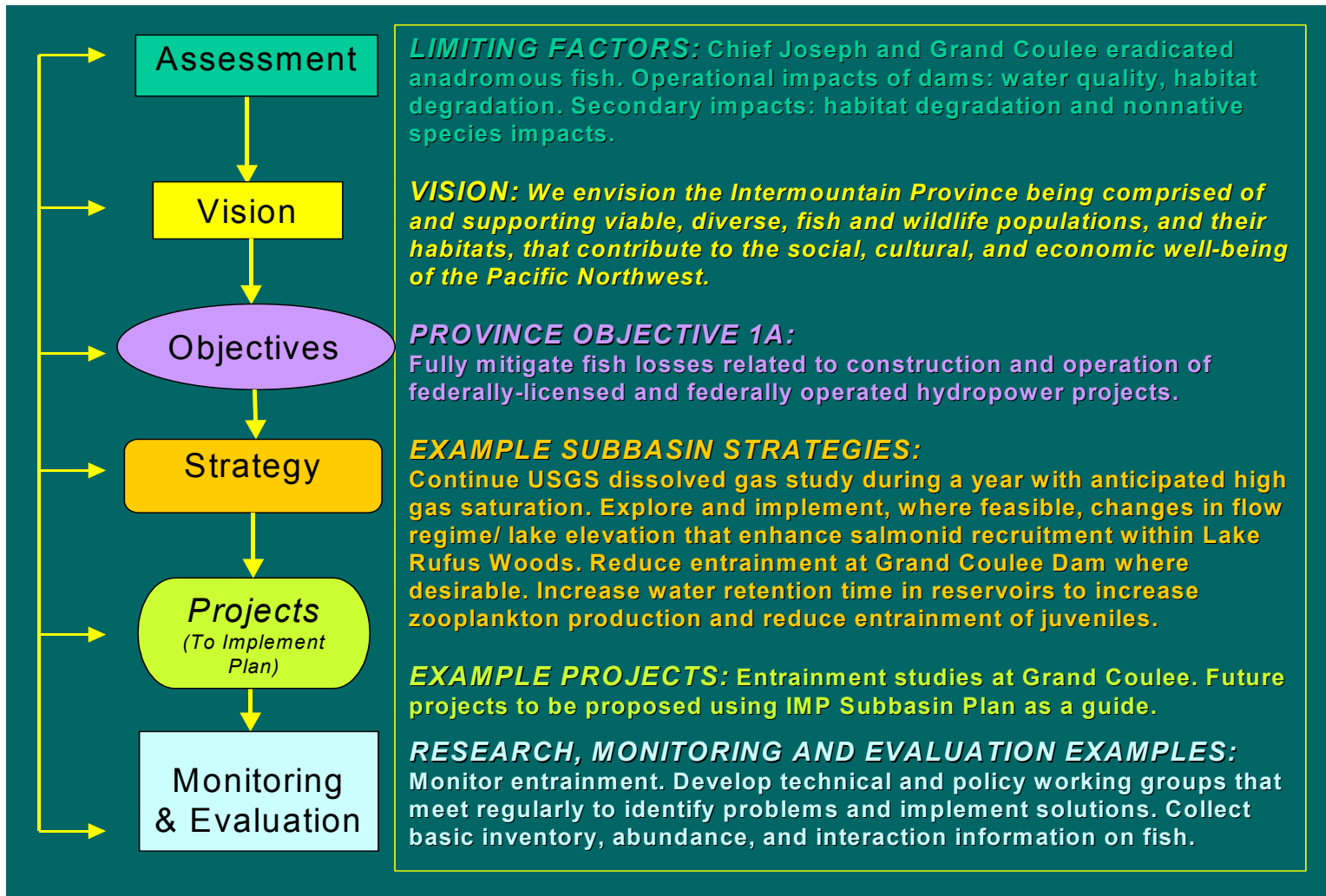


Figure ES-7, sheet 1. Connection between the limiting factors for aquatic life and Province Objective 1A and the subbasin strategies and RM&E

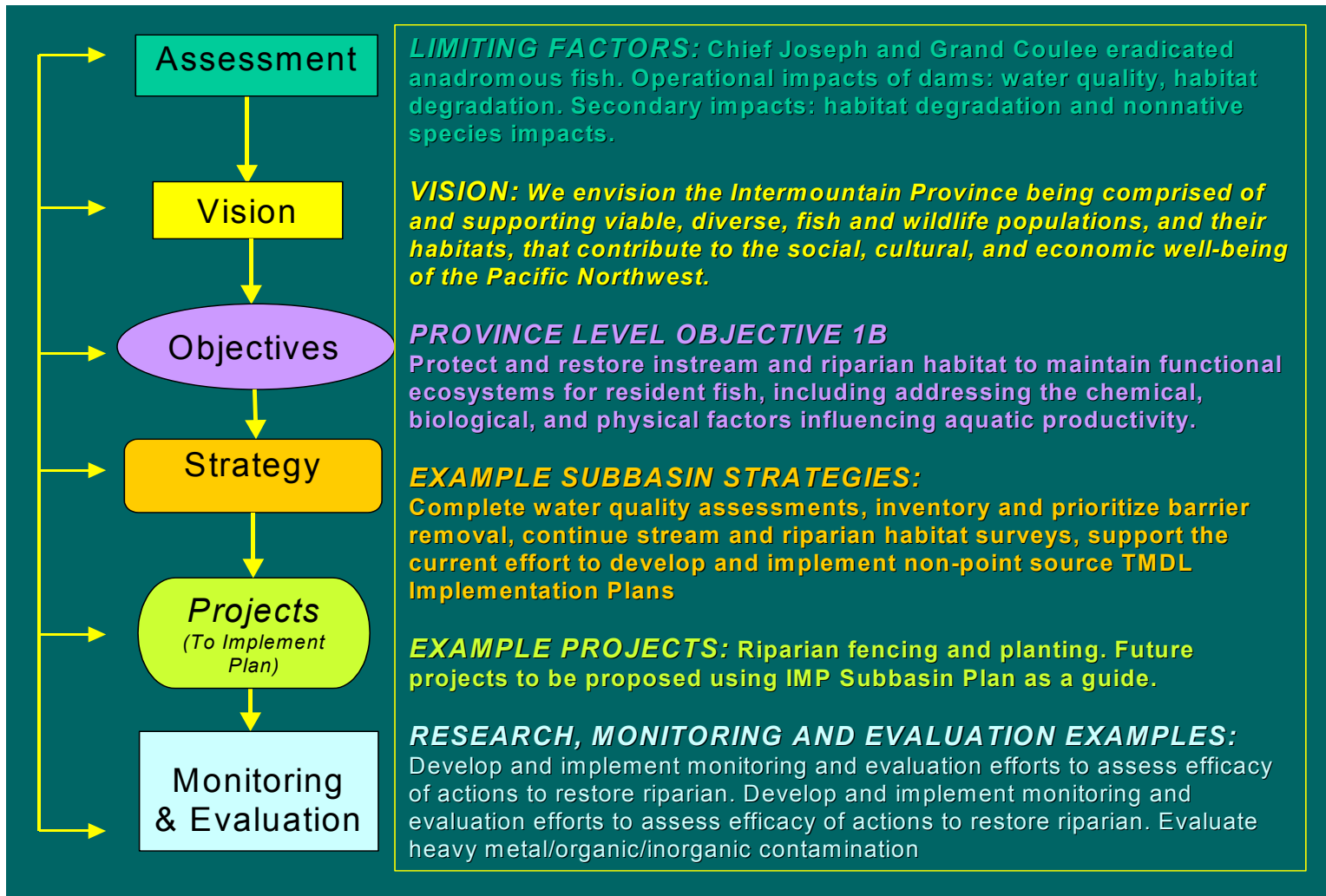


Figure ES-7, sheet 2. Connection between the limiting factors for aquatic life and Province Objective 1B and the subbasin strategies and RM&E

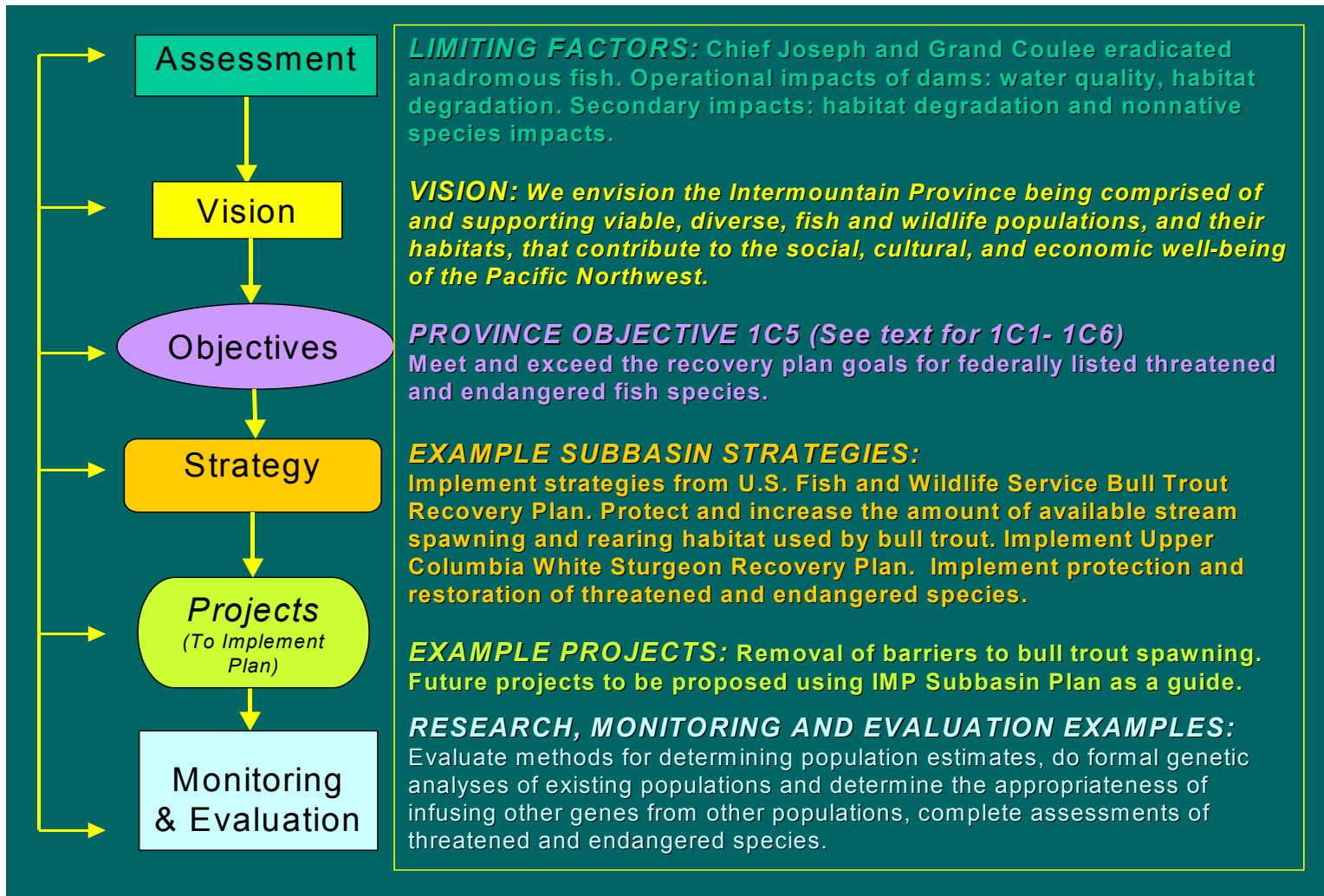


Figure ES-7, sheet 3. Connection between the limiting factors for aquatic life and Province Objective 1C5 and the subbasin strategies and RM&E

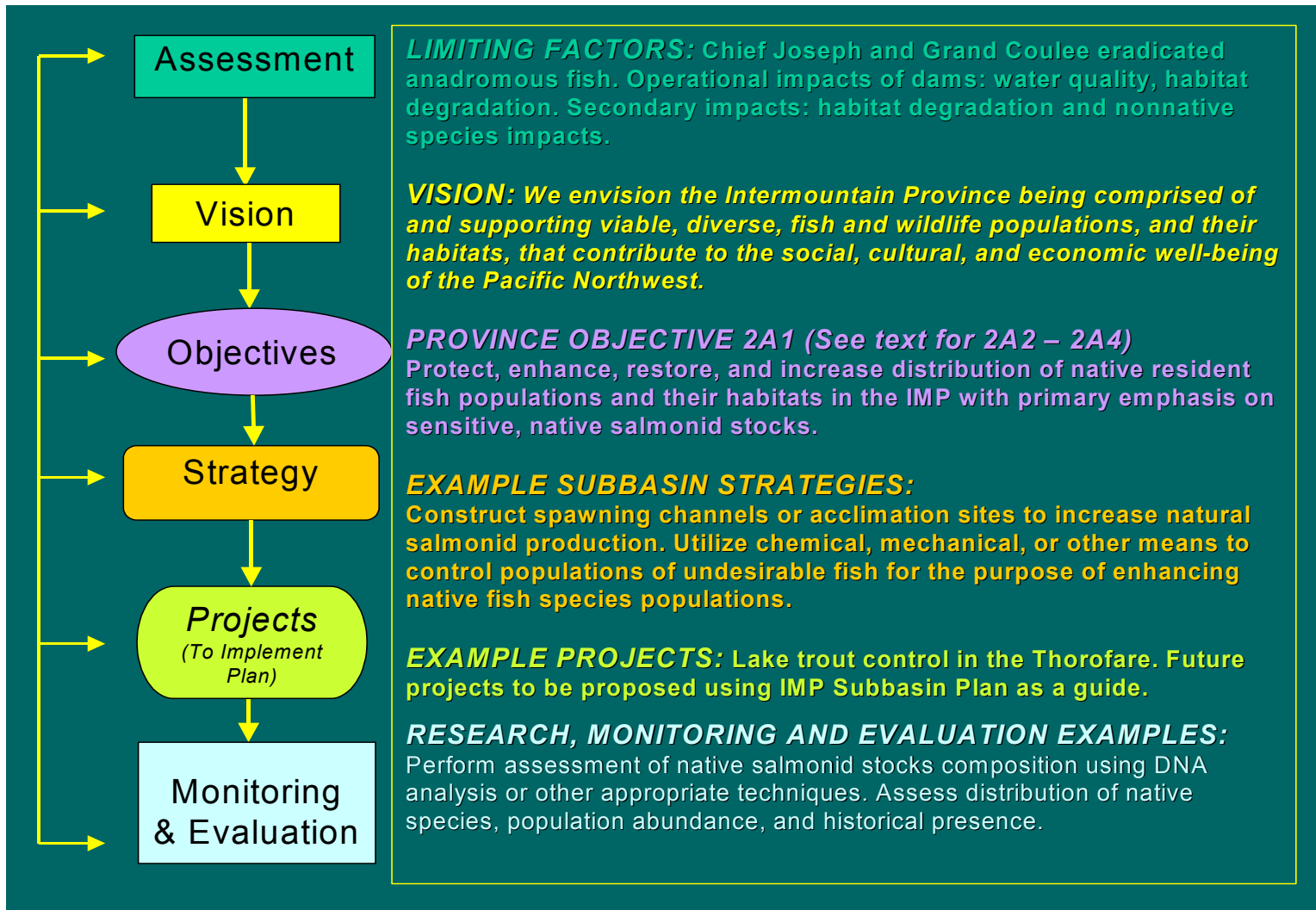


Figure ES-7, sheet 4. Connection between the limiting factors for aquatic life and Province Objective 2A1 and the subbasin strategies and RM&E

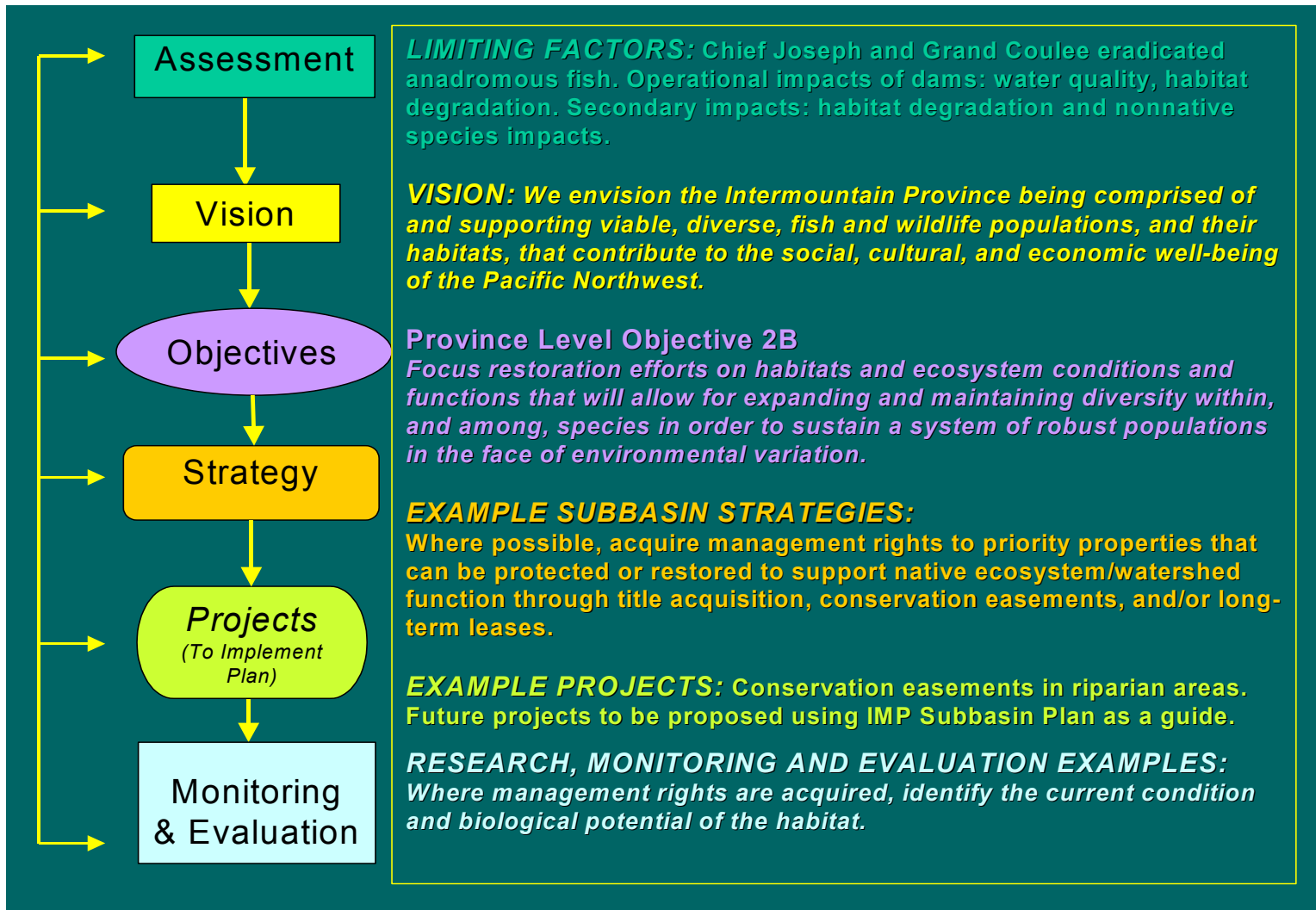


Figure ES-7, sheet 5. Connection between the limiting factors for aquatic life and Province Objective 2B and the subbasin strategies and RM&E

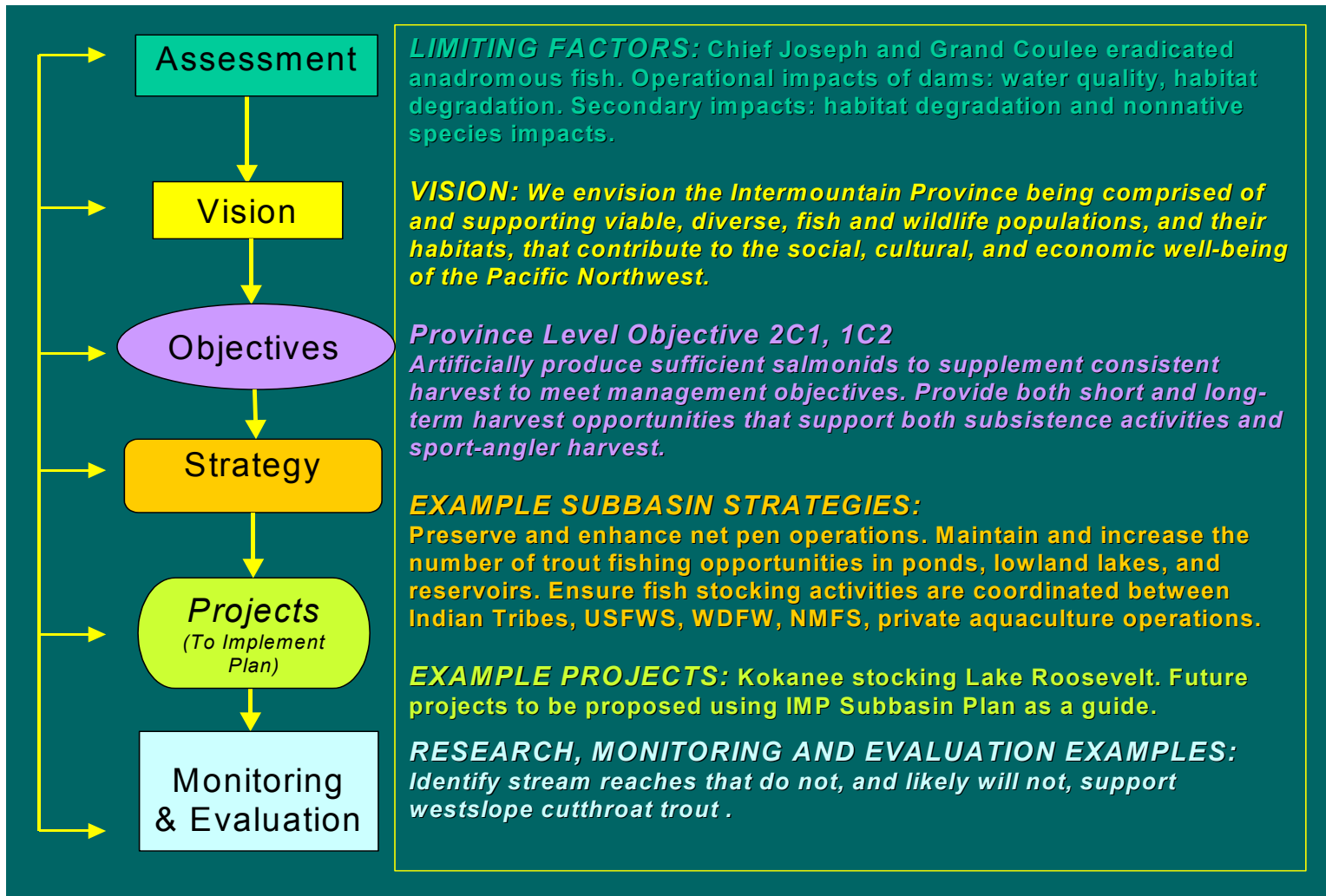


Figure ES-7, sheet 6. Connection between the limiting factors for aquatic life and Province Objectives 2C1 and 2C2 and the subbasin strategies and RM&E

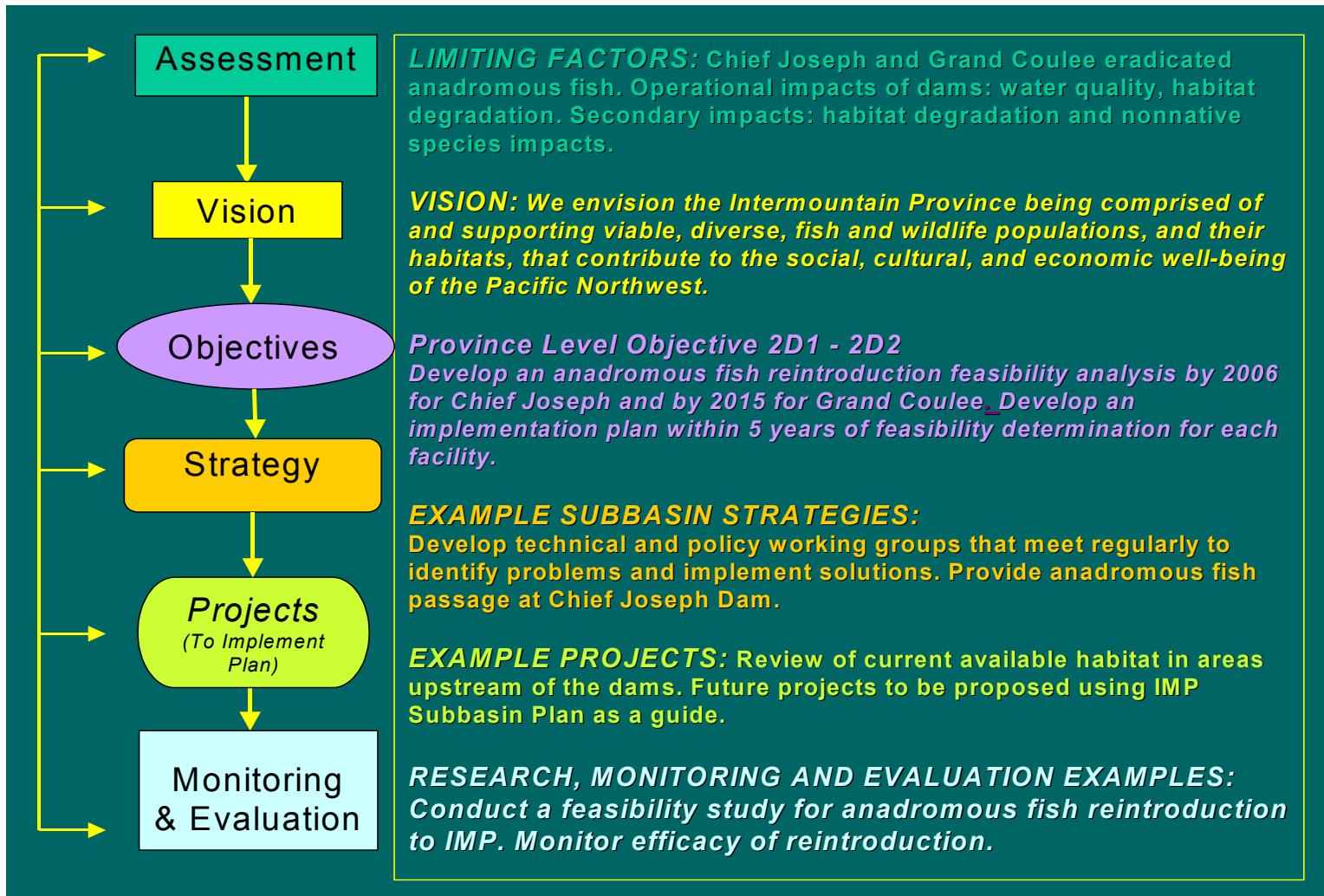


Figure ES-7, sheet 7. Connection between the limiting factors for aquatic life and Province Objective 2D1, 2D2 and the subbasin strategies and RM&E

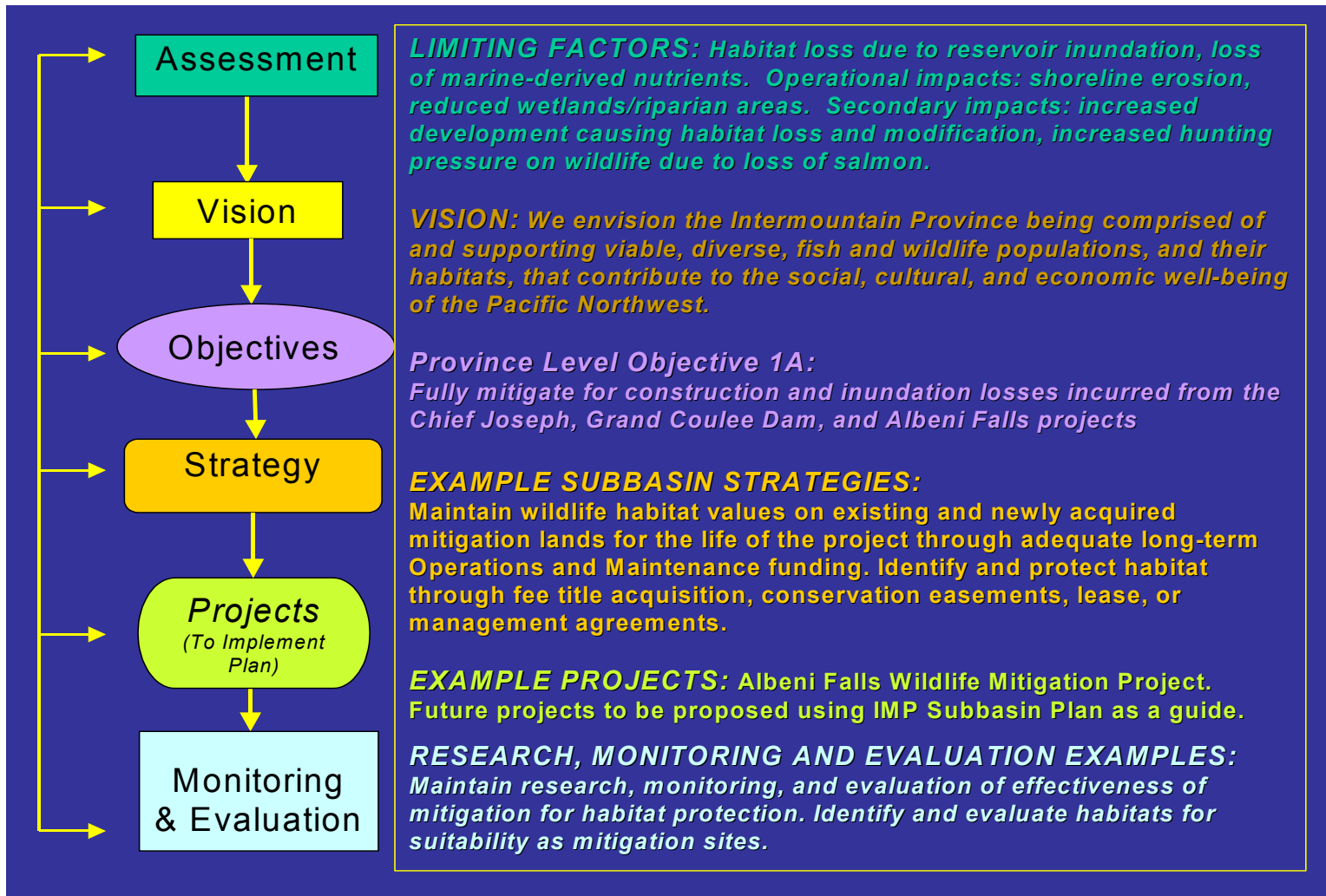


Figure ES-7, sheet 8. Connection between the limiting factors for terrestrial wildlife and habitats and Province Objective 1A and the subbasin strategies and RM&E

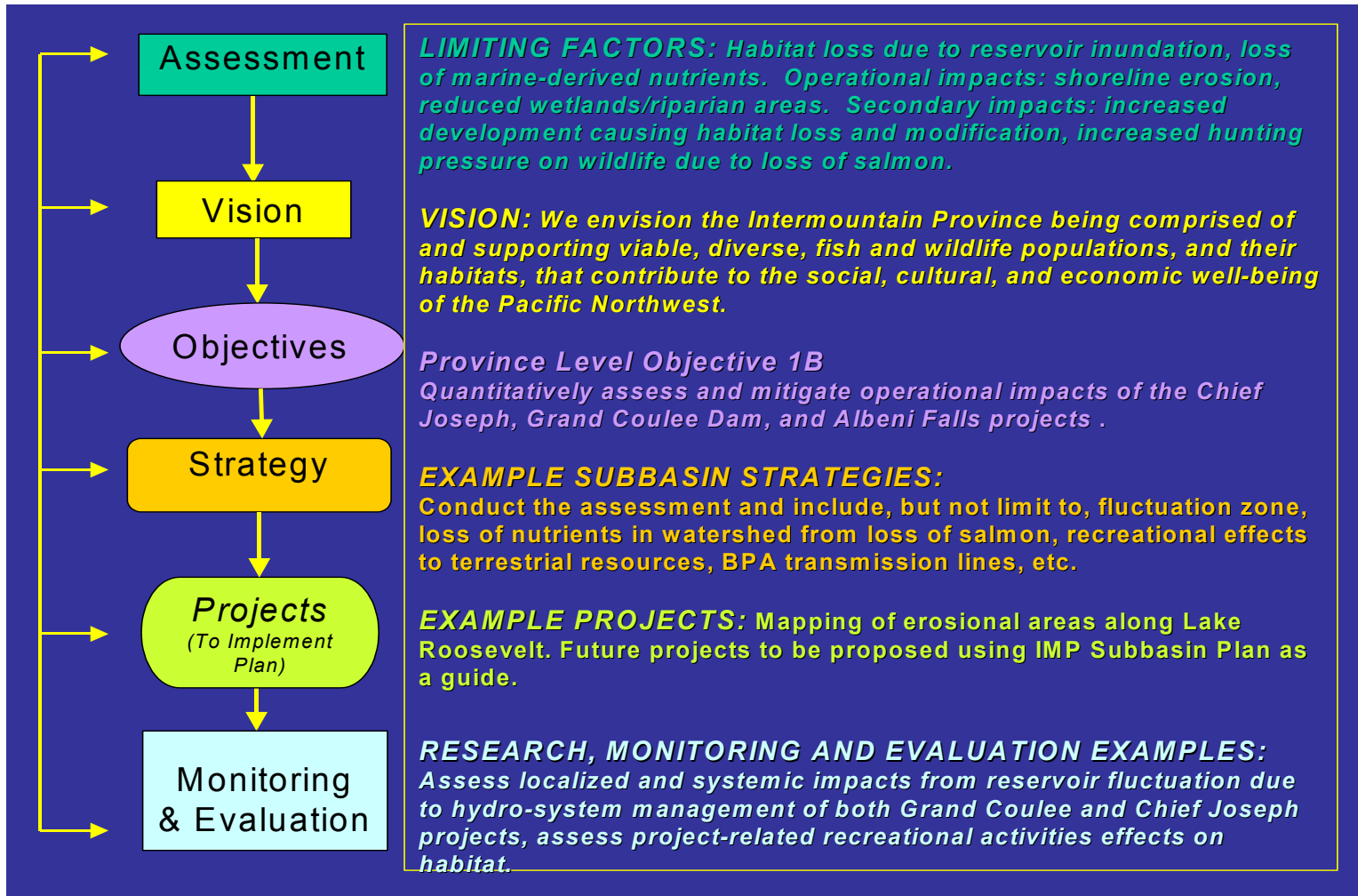


Figure ES-7, sheet 9. Connection between the limiting factors for terrestrial wildlife and habitats and Province Objective 1B and the subbasin strategies and RM&E

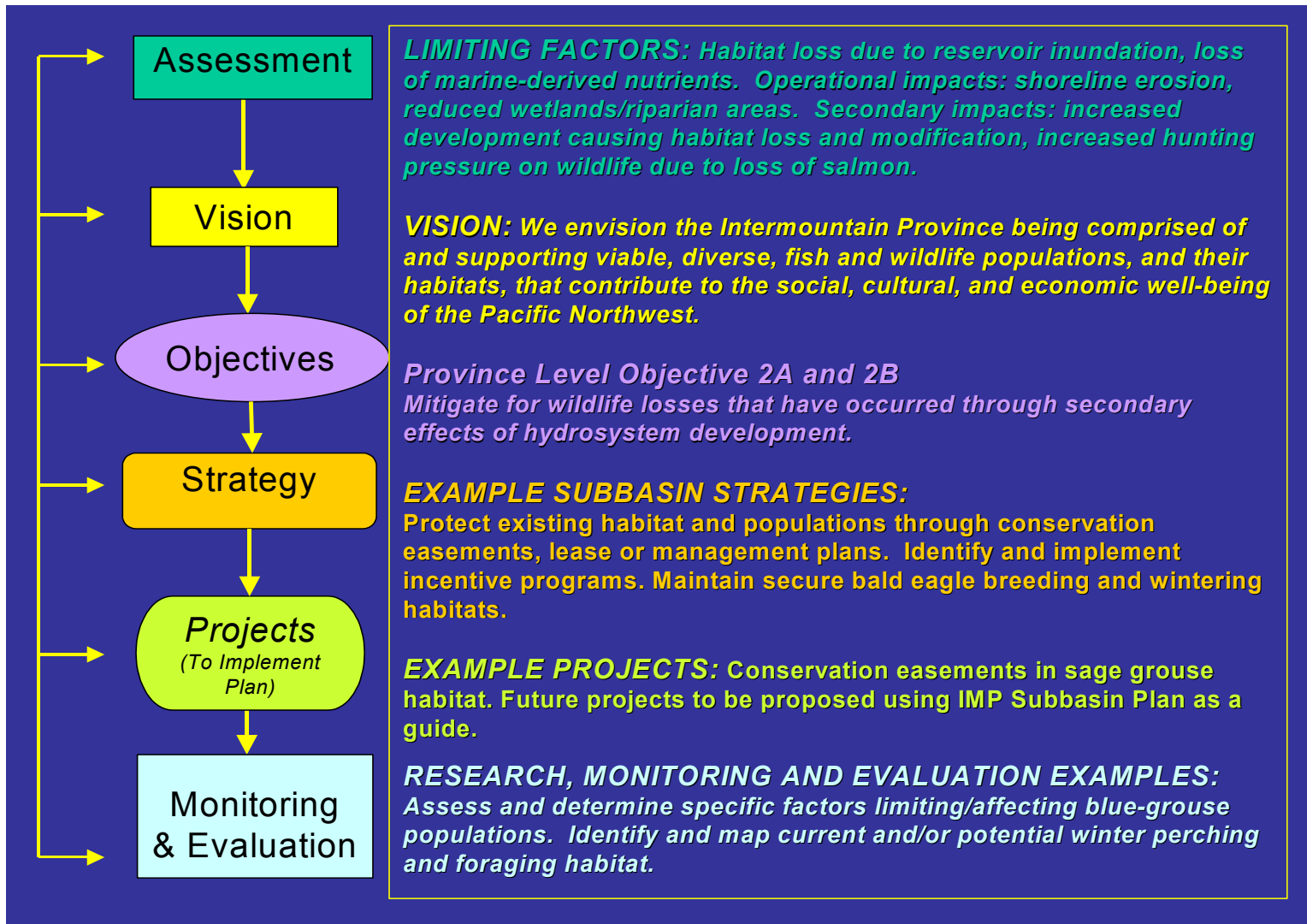


Figure ES-7, sheet 10. Connection between the limiting factors for terrestrial wildlife and habitats and Province Objective 2A and 2B and the subbasin strategies and RM&E

ES.5 How to Get More Information About the IMP Subbasin Plan

The complete IMP Subbasin Plan can be viewed or downloaded at this website: <http://www.nwcouncil.org> . This website also has other information about the IMP planning process, meeting notices, newsletters, contact information, maps, and more. If you would like a CD with the final IMP Subbasin Plan, please send an email with your mailing address to Lynn Palensky at lpalensky@nwcouncil.org.

ES.6 Organization of This Document

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3	Province level assessment of aquatic resources
4	Province level assessment of terrestrial resources
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Appendix G	Recent wildlife harvest data
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Appendix J	Comments received on third and fourth draft