

SECTION 11 – Table of Contents

11 Coeur d' Alene Subbasin Research, Monitoring and Evaluation Plan2

11 Coeur d' Alene Subbasin Research, Monitoring and Evaluation Plan

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 IMP approach to the Research, Monitoring and Evaluation (RM&E) is as follows:

- Research is handled separately from the M&E design. A wish list of research needs is identified based on the biological objectives, strategies and critical uncertainties identified in the subbasin management plans and subbasin assessments. Many of the subbasin work teams developed preliminary research needs lists. Although there is an extensive “wish list” of research questions in the IMP, the limitations of available funding made it important to prioritize the research questions into two categories: “need to know” and “would like to know.”
- For the M&E component, planners in the IMP developed a framework to link specific objectives and strategies identified in the IMP subbasin management plans to a suite of M&E protocols and existing programs (an M&E “tool box”). To do this a subcommittee of the OC identified a broad list of existing M&E protocols and existing M&E programs which represent: peer reviewed, scientifically validated approaches to M&E; are appropriate to range of geographic scales; and, include the range of the Independent Science Review Panel’s (ISRP) three tiers of RM&E. Specific M&E objectives and strategies from each of the subbasin management plans, and from the province level, were then linked in Table 11.1 to:
 - The type of generic approach to addressing limiting factors that is addressed by the strategy or objective (same list used to categorize the inventory of projects)
 - The type of M&E protocol that would be most appropriate
 - Which ISRP M&E tier level of RM&E would be appropriate
 - Which of the “tool box” tools would be used.

The complete tool box bibliography is found in Appendix I. More detailed information on the process for developing the RM&E plan is found in Section 2.

Table 11.1. Research, monitoring, and evaluation plan for the Coeur d' Alene Subbasin

AQUATIC					
Strategy & Objective	Strategy Type ¹	Monitoring Type ²	Tier ³	Scale ⁴	Tool Box-tool ⁵
Columbia River Basin Level Category 1: Mitigate for resident fish losses.					
Columbia River Basin Level Goal 1A: Complete assessments of resident fish losses throughout the basin resulting from the hydrosystem, expressed in terms of the various critical population characteristics of key resident fish species.					
Province Level Objective 1A: Fully mitigate fish losses related to construction and operation of federally licensed and federally operated hydropower projects as it relates to the Coeur d' Alene Subbasin.					
Coeur d' Alene Subbasin Objective 1A1: Fully quantify lost fish resources and opportunities historically used by the Coeur d' Alene Tribe associated with the construction, inundation and operation of the FCRPS outside the Coeur d' Alene Subbasin by 2015.					
Strategy a: Conduct comprehensive loss assessment. This could be done in the following steps: Determine free flowing river reaches flooded by projects. Determine impact from footprint of dam on river channel and fish habitat. Determine former habitat from aerial photos. Determine historic fish use by looking at use in existing habitat of similar type. Link fish population to lost habitat	1, 2, 5	Physical habitat measurements at stratified randomly selected sites. Population estimates and trap counts of native and nonnative salmonids.	1	1, 2	47
Strategy b: Quantify cultural value by interviewing Tribal elders and looking in historic records.		Personal interviews, review historical documents		2, 3	
Coeur d' Alene Subbasin Objective 1A2: Mitigate impacts of Albeni Falls Dam on resident fish by off-site/in-kind opportunities in the Coeur d' Alene Subbasin.				1, 2, 3	
Strategy a: Define the impact of water management above the Post Falls dam and how fish populations have changed as a result of changes in water management.	1, 2, 4, 10	Population estimates and trap counts of native and nonnative salmonids.	1	1, 2	47

AQUATIC					
Strategy & Objective	Strategy Type ¹	Monitoring Type ²	Tier ³	Scale ⁴	Tool Box-tool ⁵
Strategy b: Develop mitigation treatments to address these impacts to be implemented as off-site/in-kind opportunities.	1, 2, 4, 5, 6, 7, 9, 10			1, 2	
Strategy c: Ensure mitigation and maintenance of fisheries for the life of the project through adequate long-term Operations and Maintenance (O&M) funding.	8			1, 2, 3	
Columbia River Basin Level Goal 1B: Maintain and restore healthy ecosystems and watersheds , which preserve functional links among ecosystem elements to ensure the continued persistence, health and diversity of all species including game fish species, non-game fish species, and other organisms. Protect and expand habitat and ecosystem functions as the means to significantly increase the abundance, productivity, and life history diversity of resident fish at least to the extent that they have been affected by the development and operation of the hydrosystem.					
Province Level Objective 1B: Protect and restore instream and riparian habitat to maintain functional ecosystems for resident fish, including addressing the chemical, biological, and physical factors influencing aquatic productivity.					
Coeur d' Alene Subbasin Objective 1B: Fully quantify lost fish habitat historically used by the Coeur d' Alene Tribe associated with the construction, inundation and operation of the FCRPS outside the Coeur d' Alene Subbasin by 2015.	1, 2, 4, 5, 6, 7, 10	Physical habitat measurements at stratified randomly selected sites. Population estimates and trap counts of native and nonnative salmonids	1	1, 2	47
Coeur d' Alene Subbasin Objective 1B1: Mitigate impacts of Albeni Falls Dam on resident fish by off-site/in-kind opportunities in the Coeur d' Alene Subbasin.					

AQUATIC					
Strategy & Objective	Strategy Type ¹	Monitoring Type ²	Tier ³	Scale ⁴	Tool Box-tool ⁵
Strategy a: Review existing habitat data and complete habitat assessments, including pool, riffle, run, channel stability, etc., for native resident fish species within the Coeur d' Alene Subbasin by 2015.	1	Physical habitat measurements at stratified randomly selected sites. Population estimates and trap counts of native and nonnative salmonids	1	1, 2	47
Strategy b: Complete water quality assessments (to include temperature, DO, water chemistry, etc.) and comprehensive watershed assessments in key watersheds to define the existing condition, why it's that way, and how to fix problem areas.	1	Water quality sampling, physical habitat measurements and GIS analysis of road density and land use.	1	1, 2	47
Strategy c: Identify opportunities on federal, state, and Tribal lands for protection of existing habitats.	1, 2, 8	Habitat Protection Plan. Prioritization based on limiting factors analysis		1, 2	48
Strategy d: Identify opportunities for cooperative habitat protection efforts with private landowners and conduct an outreach program to make landowners aware of opportunities.	1, 2, 8	Same as above		1, 2	48
Strategy e: Based on priorities cited in watershed assessments and other processes, secure management control on those identified lands through strategies such as conservation easements, land acquisition, land exchanges, etc.	1, 2, 8	Same as above		1, 2	48
Strategy f: Work with land management agencies to protect existing roadless areas and maintain existing roads.	8			2	
Strategy g: Enforce existing EPA guidelines for timber harvest in riparian areas.	8			2	
Strategy h: Inventory and ground truth all potential fish passage barriers in the Coeur d' Alene Subbasin by 2010; prioritize by determining the amount of usable fish habitat above barriers and determine if barrier is important in isolating a pure strain of native species before identifying it for removal.	1, 2, 4, 8	Survey	1	2	

AQUATIC					
Strategy & Objective	Strategy Type ¹	Monitoring Type ²	Tier ³	Scale ⁴	Tool Box-tool ⁵
Strategy i: Have each land management agency and large private landowner identify known culverts in their ownership and identify potential barriers by gradient and/or size of culvert installed.	8	Survey	1	2	
Strategy j: Where appropriate, remove passage barriers and improve passage impediments, with a goal of correcting 10% of barriers per year with full implementation by 2020.	1, 2, 4, 8				
Strategy k: Consult hydrologists to address downstream impacts to fish habitat from fine sediment and bedload gravel movement.	1, 2, 8			1, 2	
Coeur d' Alene Subbasin Objective 1B2: Complete TMDL Subbasin Assessments, pollutant reduction allocations, and Implementation Plans for impaired water bodies by 2010 and carry out actions identified in TMDL Implementation Plans within 10 years of adoption to restore aquatic life beneficial uses.	1, 2, 5, 6, 8, 10	Water quality sampling, TMDL.	1	1, 2	
Strategy a: Monitor progress toward completion of TMDL assessments.	1, 2, 5, 6, 8, 10	Same as above	1	1, 2	
Strategy b: Integrate DEQ, Tribe and EPA strategies to implement Clean Water Act.	8	Same as above	1	1, 2	
Strategy c: Implement TMDL plans to restore native fish.	1, 2, 8	Population estimates and trap counts of native and nonnative salmonids	1	1, 2	47
Columbia River Basin Level Goal 1C: Restore resident fish species (subspecies, stocks and populations) to near historic abundance throughout their historic ranges where suitable habitat conditions exist and/or where habitats can be feasibly restored.					
Province Level Objective 1C: Meet and exceed the recovery plan goals for federally listed threatened and endangered fish species .					

AQUATIC					
Strategy & Objective	Strategy Type ¹	Monitoring Type ²	Tier ³	Scale ⁴	Tool Box-tool ⁵
Coeur d' Alene Subbasin Objective 1C: In the Coeur d' Alene Subbasin, mitigate for impacts to resident fish historically used by the Coeur d' Alene Tribe by meeting the recovery plan goals for federally-listed threatened and endangered fish species to provide an annual harvestable surplus.	2, 8	Population estimates and trap counts of native and nonnative salmonids	1	1, 2	47
Coeur d' Alene Subbasin Objective 1C1: Pursue the objectives in the U.S Fish and Wildlife Service Bull Trout Recovery Plan. The goal of the bull trout recovery plan is to ensure the long-term persistence of self-sustaining, complex, interacting groups of bull trout distributed throughout the species' native range, so that the species can be de-listed. The current draft goals and objectives for the Coeur d' Alene Recovery Unit (USFWS, 2003) are listed in Appendix A. If these objectives should change in the future, the subbasin plan should be adjusted accordingly.	8			1, 2, 3	USFWS Bull Trout Recovery Plan: Coeur d' Alene Lake Basin
Coeur d' Alene Subbasin Objective 1C2: Protect and restore native, locally adapted, reproducing bull trout that will support an annual harvestable surplus of bull trout in the Coeur d' Alene Subbasin by 2020.					
Strategy a: Implement USFWS Bull Trout Recovery Plan.	1, 2, 5, 6, 7, 8, 9, 10		1	1, 2	USFWS Bull Trout Recovery Plan: Coeur d' Alene Lake Basin. : 47, 48
Strategy b: Protect existing roadless areas in the upper St. Joe.	8	GIS analysis		1, 2 1	USFS GIS road database
Strategy c: Fund watershed improvement projects in National Forest area in the Coeur d' Alene drainage (e.g., road obliteration, channel restoration, watershed hydrological restoration, culvert removal).					
Strategy d: Do formal genetic analyses of existing populations and determine the appropriateness/usefulness of infusing other genes from other populations.	2, 8	Random selected sites for fin-clip collection	1	2	50

AQUATIC					
Strategy & Objective	Strategy Type ¹	Monitoring Type ²	Tier ³	Scale ⁴	Tool Box-tool ⁵
Columbia River Basin Level Category 2: Substitute for anadromous fish losses					
Columbia River Basin Level Goal 2A: Restore resident fish species (subspecies, stocks and populations) to near historic abundance throughout their historic ranges where suitable habitat conditions exist and/or where habitats can be feasibly restored.					
Province Level Objectives 2A:					
a: Protect, enhance, restore, and increase distribution of native resident fish populations and their habitats in the IMP with primary emphasis on sensitive, native salmonid stocks.					
b: Maintain and enhance self-sustaining, wild populations of native game fish, and subsistence species, to provide for harvestable surplus.					
c: Minimize negative impacts (e.g., competition, predation, introgression) to native species from nonnative species and stocks.					
d: Increase cooperation and coordination among stakeholders throughout the province.					
Coeur d' Alene Subbasin Objective 2A:					
a. Protect, enhance, restore, and increase distribution of native resident fish populations and their habitats in the Coeur d' Alene Subbasin with primary emphasis on sensitive, native salmonid stocks.	1 through 10		1, 2	1, 2	47, 48, 49
b. Maintain and enhance self-sustaining, wild populations of native game fish to provide for harvestable surplus in the Coeur d' Alene Subbasin.	1 through 10		1, 2	1, 2	

AQUATIC					
Strategy & Objective	Strategy Type ¹	Monitoring Type ²	Tier ³	Scale ⁴	Tool Box-tool ⁵
c. Minimize negative impacts (e.g., competition, predation, introgression) to native species and nonnative species and stocks in the Coeur d' Alene Subbasin.				1, 2	USFWS Bull Trout Recovery Plan, IDFG Management Plan, Coeur d' Alene Lake Basin. : 47, 48
d. Increase cooperation and coordination among stakeholders throughout the Coeur d' Alene Subbasin.	8			2	
Coeur d' Alene Subbasin Objective 2A1: Protect and restore native, locally adapted, naturally reproducing bull trout to a level that will support annual harvest in the Coeur d' Alene Subbasin by 2020.					
Strategy a: Apply strategies that are consistent with the Bull Trout Recover Plan.	1, 2, 5, 6, 7, 8, 9, 10		1, 2	1, 2	USFWS Bull Trout Recovery Plan, IDFG Management Plan, Coeur d' Alene Lake Basin. : 47, 48
Coeur d' Alene Subbasin Objective 2A2: By 2015, protect and restore remaining stocks of native resident westslope cutthroat trout to ensure their continued existence in the basin and to provide catch rates of over 1.0 fish per hour in the St. Joe, Coeur d' Alene, and St. Maries rivers; an annual catch of over 1,000 fish in Coeur d' Alene Lake; and harvestable surpluses of naturally reproducing adfluvial adult fish from Lake, Benewah, Evans, and Alder Creeks and other populations well-distributed in tributaries throughout the basin.					
Strategy a: Improve riparian conditions; increase channel stability.	1, 2, 5, 6	Physical habitat measurements at stratified randomly selected sites.	1, 2, 3	1, 2	Vitale et al. 2003
Strategy b: Increase habitat diversity.	Same as above	Same as above	1, 2, 3	1, 2	47
Strategy c: Reduce fine sediment.			1, 2, 3	1, 2	47

AQUATIC					
Strategy & Objective	Strategy Type ¹	Monitoring Type ²	Tier ³	Scale ⁴	Tool Box-tool ⁵
Strategy d: Increase flows where appropriate.			1, 2, 3	1, 2	47
Strategy e: Reduce stream temperatures.			1, 2, 3	1, 2	47
Strategy f: Decrease pollutants.					
Strategy g: Remove passage obstructions.					
Strategy h: Evaluate native resident fish distribution and abundance and assess need for conservation aquaculture facilities to assist with enhancing or reestablishing healthy, self-sustaining native fish populations for reproduction, recreation, and subsistence by year 2010.	1, 2, 8, 10	Population estimates and trap counts of native and nonnative salmonids	2		USFWS Bull Trout Recovery Plan, IDFG Management Plan, Coeur d' Alene Lake Basin. : 47
Columbia River Basin Level Goal 2B: Provide sufficient populations of fish and wildlife for abundant opportunities for tribal trust and treaty right harvest and for non-tribal harvest.					
Province Level Objective 2B: Focus restoration efforts on habitats and ecosystem conditions and functions that will allow for expanding and maintaining a diversity within, and among, species in order to sustain a system of robust populations in the face of environmental variation.					
Coeur d' Alene Subbasin Objective 2B: Until anadromous fisheries are restored within their historic range to the Coeur d' Alene Tribe, mitigate and compensate for salmon and steelhead in the Upper Columbia River using a multiple resource approach. Within the Coeur d' Alene Subbasin, focus restoration efforts on habitats and ecosystem conditions and functions that will allow for expanding and maintaining a diversity within, and among, species in order to sustain a system of robust populations of fish and wildlife in the face of environmental variation and provide for subsistence species of wildlife and fish.	8				

AQUATIC					
Strategy & Objective	Strategy Type ¹	Monitoring Type ²	Tier ³	Scale ⁴	Tool Box-tool ⁵
Coeur d' Alene Subbasin Objective 2B1: Protect, restore, and enhance existing aquatic and terrestrial resources in order to meet the increased demands (i.e., cultural, subsistence, and recreation) on these resources associated with the extirpation of anadromous fisheries.	8				
Strategy a: Where possible, acquire management rights to priority properties that can be protected, restored or enhanced to support native ecosystem/watershed function through title acquisition, conservation easements, and/or long term leases in perpetuity.	1, 2, 8	Habitat Protection Plan. Prioritization based on limiting factors analysis		1, 2	48
Strategy b: Where management rights are acquired, identify the current condition and biological potential of the habitat, and then protect or restore and enhance those properties to the extent that their condition is consistent with the Biological Objectives of the 2000 Fish and Wildlife Program. (2000 Program; Basinwide Provisions; D. Strategies; 3. Habitat Strategies; Primary Strategy).	1, 2, 8	Same as above		1, 2	48
Strategy c: Create or use existing incentives and outreach programs for private landowners to protect and/or restore habitats to support native ecosystem/watershed functions.	1, 2, 8	Habitat Protection Plan. Prioritization based on limiting factors analysis		1, 2	48
Columbia River Basin Level Goal 2C: Administer and increase opportunities for consumptive and non-consumptive resident fisheries for native, introduced, wild, and hatchery reared stocks that are compatible with the continued persistence of native resident fish species and their restoration to near historic abundance (includes intensive fisheries within closed or isolated systems).					
Province Level Objectives 2C:					
a: Artificially produce sufficient salmonids to supplement consistent harvest to meet management objectives.					

AQUATIC					
Strategy & Objective	Strategy Type	Monitoring Type ²	Tier ³	Scale ⁴	Tool Box-tool ⁵
b: Provide both short and long-term harvest opportunities that support both subsistence activities and sport-angler harvest.					
Coeur d' Alene Subbasin Objective 2C: As the highest priority, protect, restore, and enhance existing aquatic resources in order to meet the increased demands (i.e., cultural, subsistence, and recreational) on these resources associated with the extirpation of traditional anadromous fisheries from previously occupied areas of the Upper Columbia River basin. Provide both short and long-term harvest opportunities that support Tribal subsistence activities and sport angler harvest until self-sustaining populations of wild fish are present.				2	Coeur d' Alene Tribe Trout Production Facility Master Plan. : 47
Coeur d' Alene Subbasin Objective 2C1: Establish put-and-take fisheries for westslope cutthroat trout in waters that currently do not, or likely will not, support native cutthroat trout populations by 2010.				2	51
Strategy a: Construct a total of 5 ponds in the Coeur d' Alene Watershed to function as put-and-take trout fisheries by 2012.				2	51
Strategy b: Identify locally adapted westslope cutthroat to provide put and take fish in streams that currently don't support native fish.				2	51
Strategy c: Supplement pond and streams with sufficient numbers of fish to meet subsistence and harvest goals.				2	51
Coeur d' Alene Subbasin Objective 2C2: Reduce pressure on native resident fish populations by maintaining fisheries for introduced species at an annual harvest of greater than 500,000 kokanee, greater than 5,000 Chinook salmon, greater than 20,000 rainbow trout in Tribal catch-out ponds, and average catch rates of greater than 0.5 fish/hour for largemouth bass.				2	51

AQUATIC					
Strategy & Objective	Strategy Type ¹	Monitoring Type ²	Tier ³	Scale ⁴	Tool Box-tool ⁵
Strategy a: Increase hatchery capabilities to produce sufficient quantities and quality of gamefish for harvest and subsistence oriented fisheries by year 2015.				2	51
Strategy b: Manage angler harvest through fishing regulations to achieve harvest and catch rate goals.				2	51
Columbia River Basin Level Goal 2D: Reintroduce anadromous fish into blocked areas.					
Province Level Objectives 2C:					
a: Develop an anadromous fish re-introduction feasibility analysis by 2006 for Chief Joseph Dam and by 2015 for Grand Coulee Dam.					
b: Develop an implementation plan within 5 years of feasibility determination for each facility.					
<i>Note: The Coeur d' Alene Subbasin is upstream of the natural range of anadromous salmon and so, at this time, does not have objectives or strategies related to anadromous salmon re-introduction.</i>					

1 Strategy types:

- 1 Habitat Assessments
- 2 Population Assessments
- 3 Instream Diversion
- 4 Instream Passage
- 5 Instream Habitat
- 6 Riparian Habitat
- 7 Upland Habitat
- 8 Education/Coordination
- 9 Population Management
- 10 Reservoir Operations

2 Monitoring Protocol e.g. type of monitoring protocol [note: the specific reference to detailed monitoring protocol is identified in the "tool box"]:

- TMDL
- Survey

- Survey and mapping
- HEP
- P/A and trend surveys
- All habitat

³**ISRP Tier Level:**

- 1) Tier 1: trend or routine monitoring
- 2) Tier 2: statistical (status) monitoring
- 3) Tier 3: experimental research (effectiveness) monitoring

⁴**Scale of Monitoring and Evaluation:**

- 1) Project
- 2) Subbasin
- 3) Province
- 4) Columbia Basin

⁵**Tool Box Tool**

The Tool Box is found in Appendix I.

TERRESTRIAL					
Strategy & Objective	Strategy Type ¹	Monitoring Type ²	Tier ³	Scale ⁴	Tool Box Tool ⁵
Develop management plans that restore degraded habitat to meet specific objectives and address road closure, cattle, soil, vegetation enhancement and management of unwanted species, fire and fuels, nonnative wildlife, etc.	6	?	2	1	
Identify and evaluate sites for potential use in mitigation.	1	?	1	1 and 2	
Identify opportunities for enhancement and restoration on federal, state, and Tribal lands.	1	?	1	1 and 2	
Identify opportunities for cooperative restoration and enhancement efforts with private landowners.	1	?	1	1 and 2	
Quantify the operational effects of federal hydrosystem projects on terrestrial resources, develop mitigation plan in coordination with other resource mitigation and resource planning efforts, and implement projects to mitigate the impacts, including maintenance and monitoring.	1 and 6 and 7 and 10	HEP	1 and 2	1 and 2	32,33,34
Quantitatively assess and mitigate operational impacts of the Chief Joseph Dam, Grand Coulee Dam, and Albeni Falls projects per the requirements of the Northwest Power Act and the current Wildlife Mitigation Program. Complete assessment of operational impacts by 2008; develop mitigation plan by 2010; implement initial mitigation by 2015; incorporate formal methods for review and update of effects assessment and mitigation plan on a three-year cycle to respond to changes in operation and to effectiveness of mitigation actions.	1 and 10	HEP	1 and 2	1 and 2	32,33,34
Quantitatively assess and mitigate operational impacts of Albeni Falls Project on terrestrial resources in the Pend Oreille Subbasin by year 2015 including opportunities where the Coeur d' Alene Subbasin might be able to assist with mitigation efforts.	1 and 10	HEP	1 and 2	1 and 2	30,31,32,33,34

TERRESTRIAL					
Strategy & Objective	Strategy Type ¹	Monitoring Type ²	Tier ³	Scale ⁴	Tool Box Tool ⁵
Conduct an operational loss assessment associated with Albeni Falls Project and identify the suite of impacts to wildlife and wildlife habitat in quantitative terms; begin assessment by year 2005.	1 and 10	HEP +	1 and 2	1 and 2	30,31,32,33,34
Have a third party impartial contractor conduct the assessment and consider fluctuation zone, loss of nutrients in watershed from loss of salmon, identify recreational effects to terrestrial resources, BPA transmission lines, connectivity, and erosion.	2, 5, 6, and 7		1 and 2	2 and 3	
Complete the assessment of operational effects and development of mitigation proposal by year 2008.	1 and 10	HEP+	1 and 2	1 and 2	32,33,34
Mitigate for wildlife losses that have occurred through secondary effects of hydrosystem development, including assessment, development of mitigation plan in coordination with other resources and resource managers, implementation, maintenance, and monitoring.	1, 2, 6, 7, and 8	HEP+	1 and 2	1 and 2	32,33,34
Identify secondary losses and superimpose Coeur d' Alene aboriginal claims to secondary losses.	1 and 2	HEP+	1 and 2	2 and 3	32,33,34
Conduct inventory to determine current distribution and population status of species/guild.	2	Presence/Absence and trend surveys	1 and 2	2 and 3	
Identify limiting factors for species/guilds.	1 and 2		2 and 3	2, 3, and 4	
Develop and implement mitigation to address limiting factors for species/guilds.	1 and 2		1 and 2	1,2, and 3	
Continue and increase monitoring of nesting and wintering bald eagles.	2	Survey	1	2 and 3	30
Monitor current populations to assess survival, fecundity, sex ratios, and post wintering recruitment.	2	?	2 and 3	2 and 3	

TERRESTRIAL					
Strategy & Objective	Strategy Type ¹	Monitoring Type ²	Tier ³	Scale ⁴	Tool Box Tool ⁵
Identify, maintain, restore, and enhance priority habitats (wetlands, riparian areas, upland forests, steppe and shrub-steppe, cliffs and rock outcrops) within the Coeur d' Alene Subbasin, including their structural attributes, ecological functions, and distribution and connectivity across the landscape.	1	HEP+	1 and 2	2 and 3	32,33,34
Identify and implement strategies and opportunities for restoring the diversity, block size, and spatial arrangement of habitat types needed to sustain target wildlife species at ecologically sound levels.	1, 5, 6, and 7?	?	2 and 3	2 and 3	
Identify specific factors limiting/affecting mule deer populations in the Coeur d' Alene Subbasin.	1 and 2	?	2 and 3	2 and 3	

¹Strategy types:

- 1) Habitat Assessments
- 2) Population Assessments
- 3) Instream Diversion
- 4) Instream Passage
- 5) Instream Habitat
- 6) Riparian Habitat
- 7) Upland Habitat
- 8) Education/Coordination
- 9) Population Management
- 10) Reservoir Operations

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- 1) TMDL
- 2) Survey
- 3) Survey and mapping
- 4) HEP
- 5) P/A and trend surveys
- 6) All habitat

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