

# Responses to FERC Additional Information Request TR-1

# Habitat Resource Management

# **Final Report**

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## SCHEDULE A: ADDITIONAL INFORMATION REQUEST TR-1 HABITAT RESOURCE MANAGEMENT

#### Time Required: 9 months

The license application provides a detailed assessment of ongoing project effects on upland and riparian habitat and on mule deer winter range, in particular. It provides a general description of your proposals for mitigation of these effects, but does not identify (1) parcels that would be targeted for acquisition; (2) parcels already in Idaho Power's ownership that would be managed for wildlife; (3) methods of habitat protection or enhancement; (4) methods of monitoring; or (5) mechanisms of plan implementation, including consultation, reporting, or adaptive management over the long term. We understand that Idaho Power and members of the Terrestrial Resources Working Group (TRWG) have continued to discuss these issues since the license application was filed.

We understand that acquisition of particular parcels of land would ultimately depend on whether owners of suitable habitat are willing to sell titles or easements at a reasonable price. However, without more specific information about the program and each of its elements, Commission staff is unable to assess the value of the program in improving terrestrial resources. After consultation with FS, BLM, FWS, IDFG, ODFW, NPT, SPT, SBT, BPT, CTUIR and CTWS, provide the following:

- (a) Acquisition of upland and riparian habitat
  - (i) Develop a set of options for meeting the acreage targets you identified in the license application (22,761 upland acres; 821 riparian/wetland acres), using information you have already compiled (or similar information) about ownership, acreage, vegetation cover types and elevations for the following:
    - (1) Land in private and public ownership in the Brownlee-Oxbow reach;
    - (2) Land along tributaries to all three reservoirs; and
    - (3) Land along the Snake River from Hells Canyon dam to the confluence of the Salmon River.
  - (ii) Discuss how each option would meet the needs identified by the TRWG in terms of size, contiguity with large blocks of habitat, proximity to the project, geographic distribution, and/or benefits to high priority habitats or species.
  - (iii) Provide an analysis of alternative or additional wildlife protection, mitigation, and enhancement (PM&E) lands that may be recommended by the consulted entities, the basis for not adopting any of the recommendations, and a discussion of how each option would meet the needs identified by the TRWG.
- (b) Management of wildlife resources on Idaho Power-owned lands
  - (i) Regarding the integrated wildlife habitat program, you state "[t]he Applicant would potentially include some of its currently owned lands that have high wildlife value." Please explain how land referenced in this measure relates to the "special management areas" or other resource designations described in the Hells Canyon Resource Management Plan.
  - (ii) Please provide the following information about each parcel of Idaho Power-owned land you would include in the integrated wildlife habitat program:
    - (1) A site map, showing adjacent land ownership and features such as roads, trails, recreational facilities, or other development;
    - (2) The acreage of each vegetation cover type within the parcel; and

- (3) Descriptions of habitat conditions and value to wildlife; presence of any special status plants or wildlife or potential habitat for such species; current management practices; site constraints that could reduce habitat suitability or the potential for enhancements; and specific PM&E measures (e.g., planting, fencing) you would consider implementing within the parcel.
- (iii) Discuss how each option contributes to your wildlife habitat mitigation program in terms of its size, contiguity with large blocks of habitat, proximity to the project, geographic distribution, and/or benefits to high priority habitats or species.
- (c) Integrated wildlife habitat program
  - (i) In the license application, you mention that you have already identified several projects that are needed for wildlife, including protection of bald eagle winter roosts, bald eagle nests, big game concentration areas, colonial waterbird rookeries, and bat hibernacula. Please explain how these projects fit into your proposal for an integrated wildlife habitat program. For each project, please provide specific information about the location where the project is to be implemented, methods to be used to protect or enhance habitat, and methods of monitoring the effectiveness of treatments.

Please update your cost estimates to reflect any changes made in your proposal. Please provide your estimate of capital and operating costs over the term of the next license, assuming a 30-year license.

Include comments from consulted entities on your response to items (a)-(c) and your response to their comments with your filing.

### **1. INTRODUCTION**

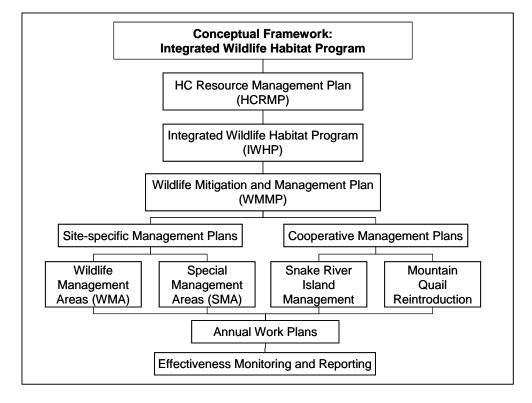
In the final *New License Application: Hells Canyon Hydroelectric Project (FERC Project No. 1971)* (IPC 2003), referred to as the final license application or FLA, Idaho Power Company (IPC) documented operational impacts to wildlife resources (FLA section E.3.2.4) and proposed protection, mitigation, and enhancement measures (PM&Es) (FLA section E.3.2.3). Four measures were proposed: 1) acquisition and management of upland and riparian habitat, 2) cooperative enhancement of four Snake River islands, 3) cooperative enhancement of low-elevation riparian habitat and reintroduction of mountain quail, and 4) management of wildlife resources on IPC-owned lands.

On May 4, 2004, the Federal Energy Regulatory Commission (FERC) requested that IPC provide additional information about the Hells Canyon Complex (HCC). In Additional Information Request (AIR) TR-1, FERC specifically directed IPC to detail two of the proposed wildlife PM&E measures: "acquisition and management of upland and riparian habitat" and "management of wildlife resources on Applicant-owned lands." AIR TR-1 is subdivided into three major sections (a–c) and corresponding subsections. In addition to sections (a) through (c), TR-1 requires that IPC update cost estimates for these measures and, lastly, document consultation comments from specified natural resource agencies and Native American tribes. In section (a) of TR-1, FERC requests that IPC, in consultation with agencies and tribes, develop options for acquiring wildlife habitat and then analyze the options according to needs identified by the Terrestrial Resources Work Group (TRWG). Section (b) requests that IPC describe the currently owned IPC parcels that will be dedicated to wildlife mitigation in the Integrated Wildlife Habitat Program (IWHP) and then explain how these lands relate to the land classification system in the *Hells Canyon Resource Management Plan* (HCRMP) (Johnson 2002). In section (c), FERC directs IPC to explain how specific wildlife protection measures proposed in the FLA will be implemented and how the measures will fit within the IWHP.

IPC's specific responses to TR-1 parallel the organizational structure of FERC's request for TR-1<sup>1</sup>. In addition, IPC first provides a conceptual framework for the IWHP's structure and functions (section 1.1). The IWHP, which tiers from the HCRMP, will be the mechanism for implementing the HCC wildlife PM&Es and stewardship activities. The IWHP will be composed of hierarchically structured management plans. At the programmatic level, the HCC wildlife mitigation and management plan (WMMP; section 1.2) will document and administer the IWHP. Next, the WMMP will be implemented on-the-ground at three levels: 1) site-specific and cooperative management plans (section 1.3), 2) annual work plans (section 1.4), and 3) effectiveness monitoring and reporting (section 1.5). Finally, the IWHP consultation procedures and timetable are proposed (section 1.6).

<sup>&</sup>lt;sup>1</sup> Although FERC Schedule A only includes one subsection (i) under section (c), the associated section of this document (section 4) includes two subsections to address all of the issues in (c)(i).

# **1.1. Integrated Wildlife Habitat Program Framework**



In the HCC FLA, IPC proposed to create the IWHP as the mechanism for administering wildlife PM&Es in Hells Canyon. The IWHP will be an extension of the HCRMP, and IPC's IWHP staff will be an extension of the HCRMP's Interdisciplinary Team. Upon implementation, the HCRMP will define and guide responsible stewardship and resource management decisions for IPC lands associated with the HCC. HCRMP policies will be implemented through its land and water classification system (Johnson 2002). The HCRMP also establishes IPC policies to synthesize HCC regulatory and relicensing requirements (i.e., PM&Es). The Interdisciplinary Team is responsible for applying the HCRMP as defined in Johnson (2002). The HCRMP will apply universally to currently owned IPC lands within and adjacent to the HCC project boundary and to mitigation lands that FERC might require IPC to purchase in the future.

Typically, only broad-based resource goals and objectives are stated in the HCRMP. However, the HCRMP has provisions for developing resource-specific management programs and plans to facilitate the implementation of PM&E measures and land stewardship activities. Accordingly, the IWHP will tier from the HCRMP and constitute such a resource-specific program. The IWHP will be the common coordinating and integrating mechanism for administering IPC's wildlife management policies, PM&Es, and stewardship activities. The IWHP will have six main administration functions:

- 1) Establish of wildlife management policies and guidelines
- 2) Implement wildlife PM&Es and stewardship on IPC lands (i.e., WMAs and SMAs)
- 3) Coordinate wildlife PM&Es on non-IPC lands (i.e., cooperative projects)
- 4) Direct annual work plans
- 5) Integrate wildlife compliance monitoring and reporting
- 6) Facilitate consultation with FERC-designated entities

Like the HCRMP, the IWHP will apply universally to IPC lands associated with the HCC. However, the IWHP will focus primarily on administering IPC lands dedicated to wildlife PM&Es, whereas the HCRMP and other resource-specific programs/plans (e.g., the Recreation Plan in FLA section E.5.4) will administer other IPC lands. The IWHP will guide, through coordination with the Interdisciplinary Team, general wildlife stewardship on the IPC lands not necessarily dedicated to wildlife mitigation.

On non-IPC lands, the IWHP will administer IPC's activities and contributions to cooperative wildlife PM&Es, specifically the enhancement of Idaho Department of Fish and Game (IDFG) and Oregon Department of Fish and Wildlife (ODFW) Snake River islands. Likewise, the IWHP will direct IPC's maintenance of state and federal (e.g., Bureau of Land Management [BLM]) grazing allotments that might be attached to future habitat acquisitions (see section 2.1.1).

## 1.2. Wildlife Mitigation and Management Plan

The HCC WMMP will document IPC's wildlife PM&E and stewardship vision and the IWHP's administration functions. The WMMP will specify programmatic goals, policies, guidelines, and administration procedures. Specifically, the WMMP will define the following elements of the IWHP:

- 1) Overall PM&E and stewardship goals and objectives
- 2) Desired future habitat conditions
- 3) Resource protection and enhancement priorities
- 4) PM&E implementation schedule
- 5) Annual work planning process
- 6) Comprehensive best management practices and programs
- 7) Effectiveness monitoring and evaluation framework
- 8) Reporting process and schedule

- 9) Adaptive management principles
- 10) Independent review process
- 11) Program review and updating
- 12) Consultation process

## **1.3. Site-specific and Cooperative Management Plans**

IPC will dedicate some currently owned lands and specific future acquisitions to wildlife PM&Es. Sitespecific and cooperative management plans will directly apply the goals and policies of the WMMP to the dedicated wildlife PM&E lands. Individual PM&E parcels will be combined into geographically logical groupings with common mitigation goals and management objectives. IPC's Interdisciplinary Team will ultimately designate each parcel grouping as either a Wildlife Management Area (WMA) or a Special Management Area (SMA; see section 3.1 for definitions). Site-specific management plans (referred to as site plans) will be developed for each WMA and SMA. A WMA will be dedicated to the protection and enhancement of wildlife resources, whereas incompatible human uses and activities will be eliminated. An SMA will be designed to protect and where needed enhance highly valuable and sensitive natural resources that maybe associated with potentially incompatible human uses and activities (e.g., a developed recreation area).

Site plans will address the unique setting, assemblage of resources, objectives, human uses, and protection and enhancement needs of a WMA or SMA. Correspondingly, site plans will have site-specific PM&E objectives and priorities, implementation schedules, management practices, monitoring and evaluation procedures, and adaptive management mechanisms. Site plans will also be coordinated with the management of adjacent public lands and conservation easements not owned by IPC (e.g., Cecil D. Andrus Wildlife Management Area and Rocking M Wildlife Conservation Easement).

Similar to site plans, cooperative management plans will be developed for IPC cooperative PM&E efforts on non-IPC lands (e.g., mountain quail reintroductions and island vegetation management). Cooperative management plans will, at a minimum, guide IPC's actions on non-IPC lands, but they may also provide direction for other participating entities. The creation and implementation of cooperative management plans will be coordinated among all participating entities.

Changing conditions and newly acquired information will be incorporated in an adaptive management approach. Therefore, site plans and cooperative management plans are anticipated to require updating at a five- to ten-year interval over the life of the new HCC license. Plan evaluation and updating will likely coincide with general WMMP updates.

# 1.4. Annual Work Plans

The site plans and cooperative management plans will direct on-the-ground management actions through annual work plans and corresponding annual budgets. IWHP staff and the Interdisciplinary Team will develop an individualized annual work plan for each SMA, WMA, and cooperative project. To facilitate integration, efficiencies, and reporting, individual work plans will be combined into a coordinated annual IWHP work plan and budget. Multi-year management projects will also be managed through the annual work planning process, particularly the funding, monitoring, and reporting aspects.

Annual work plans for each WMA and SMA will be implemented as specific management actions to protect and enhance wildlife resources. Management actions will include annual projects both to maintain desirable conditions (i.e., habitat protection) and to reduce undesirable conditions (i.e., habitat enhancement). Weed control, riparian rehabilitation, livestock fencing, road maintenance, recreation restrictions, spring development, mountain quail surveys, and mule deer population monitoring are examples of management actions to be implemented with annual work plans.

The chronology for developing and implementing annual work plans will follow IPC's annual budget cycle, which adheres to the calendar year. Individual draft work plans and budgets for the upcoming calendar year will be developed in late summer each year. Individual work plans will then be integrated into a draft coordinated IWHP work plan for IPC approval in early autumn. The annual coordinated work plan will be finalized by early winter after approval. Implementation of finalized work plans will begin in January of each year.

## 1.5. Effectiveness Monitoring and Reporting

Evaluating the effectiveness of PM&E measures will be an essential component of the WMMP, sites plans, and cooperative management plans. Thus, these plans will include monitoring and reporting provisions to evaluate compliance with PM&E and management objectives. In consultation with FERC-designated entities, IPC will develop and employ scientifically sound monitoring procedures to evaluate progress toward attaining PM&E goals and objectives. Consequently, PM&E goals and objectives must be stated in attainable and measurable terms.

Monitoring protocols and procedures will be designed to evaluate the status and trends of wildlife resources corresponding to PM&E objectives and management activities. Existing conditions and desired future conditions, according to attainable site potential, will be established prior to implementing management actions and subsequent monitoring. Existing conditions will form the baseline for formulating intermediate objectives and evaluating incremental progress toward the ultimate goal of achieving a desired potential condition.

Monitoring protocols and procedures have the following common elements:

- 1) Designated PM&E objective or management action
- 2) Measurement parameter
- 3) Survey sampling design
- 4) Response metric
- 5) Temporal duration
- 6) Spatial extent
- 7) Desired measurement precision and accuracy
- 8) Measurement intensity
- 9) Measurement interval
- 10) Change detection criteria

IWHP staff will prepare monitoring reports at appropriate intervals for each WMA, SMA, and cooperative project to assist with preparing annual work plans. Like annual work plans, draft monitoring reports for individual WMAs, SMAs, and cooperative projects will be integrated into a combined monitoring and evaluation report. The combined report will be submitted to FERC and FERC-designated consultation entities.

Monitoring will provide the information necessary to apply adaptive management principles to future annual work plans. Site plans, cooperative management plans, and the WMMP will require updating if monitoring detects that the designated objectives and management direction cannot achieve the PM&E goals. Monitoring reports will provide the basis to evaluate the success of work plans and overall progress toward IWHP goals.

Monitoring protocols and procedures will verify the successful completion of specific protection and enhancement actions, evaluate progress toward achieving goals of individual site plans, and assess overall PM&E compliance. To address varying resolutions PM&Es, monitoring will be applied at three combinations of spatial and temporal scales: 1) short-term small-scale, 2) long-term small-scale, and 3) long-term broad-scale. The duration, varying from one year through the license term, of small-scale monitoring will depend on the resource objective and the expected response time of the management action. Typically, short-term small-scale and long-term small-scale monitoring will evaluate the status of wildlife resources and track the success of protection and enhancement actions specifically on IPC's PM&E lands. Monitoring the success of a relatively discrete protection and enhancement objective and action on at a specific site or PM&E property will typically requires only short-term monitoring. For example, an objective of a site plan might be the protection of nesting waterfowl from human disturbance. A specific protection action might be the construction of a kiosk informing the public of a seasonal access closure in a waterfowl production area. Kiosk construction would be implemented and funded during a single year with an annual work plan. Monitoring would entail verification that the kiosk was built to specifications during the planning period. This resolution of monitoring would be directly linked to an enhancement action specified in an annual work plan and indirectly linked to an objective of a site plan.

Long-term small-scale monitoring is intended for multiple management actions spanning multiple annual work plan cycles. An example might be a site plan objective to expand riparian cover types into all suitable habitats on a PM&E parcel by the end of the license term. Riparian enhancements might include the combination of riparian plantings, cattle exclusion, and weed control as implemented over many years and multiple annual work plans. Success of this objective would likely be evaluated with long-term small-scale monitoring. Monitoring protocols might include estimating the extent and trend of riparian cover types at five-year intervals throughout the license term. This resolution of monitoring would be directly linked to an objective of a site plan rather than specifically linked to any single riparian enhancement action in an annual work plan.

Long-term broad-scale monitoring would be designed to track the general status and trend of a wildlife resource throughout the license term and at a landscape level, within and beyond the boundaries of designated PM&E lands. Examples of such monitoring activities include tracking the trend in the numbers of wintering bald eagles, waterfowl, and mule deer associated with the HCC reservoirs. Long-term broad-scale monitoring would be administered directly through the WMMP, rather than through individual site plans. These monitoring efforts would be designed to provide background context to evaluate the success of PM&E activities that might be influenced by phenomena beyond the control of IPC. Long-term broad-scale monitoring would reoccur at a time interval appropriate for detecting trends of individual resources.

## 1.6. IWHP Consultation

Clearly stated, attainable, and measurable PM&E goals and objectives will be required for efficient and effective implementation of management plans and compliance with FERC-ordered PM&E measures. Likewise, efficient and effective implantation of the IWHP will also require coordination and integration among consulting entities, neighbors, and other stakeholders and constituents. Consultation with FERC-designated entities will aid in planning and implementing the IWHP and in establishing overall and site-specific PM&E goals and objectives. IPC proposes that IWHP consultation be done in a

workgroup forum (named the IWHP Workgroup) similar to the TRWG. Workgroup functions, consultation protocols, and discussion and feedback procedures will be established during IWHP development.

IPC initially envisions that the IWHP Workgroup will meet at least quarterly while designing the IWHP charter and preparing the WMMP, site plans, and cooperative management plans. Written comments from workgroup members on draft plans will be requested. The IWHP and WMMP will likely require future updating to address changing conditions and newly acquired information. Thus, IPC envisions that the IWHP Workgroup will need to reconvene at five- to ten-year intervals to specifically evaluate the effectiveness of the IWHP and consider adapting and updating the WMMP, sites plans, and cooperative management plans. In addition to the IWHP Workgroup, IWHP staff and the HCRMP Interdisciplinary Team will coordinate site plans, cooperative management plans, and annual work plans with the HCRMP, other applicable IPC management plans/programs (e.g., Recreation Plan [FLA section E.5.4] and *Historic Properties Management Plan: Hells Canyon Complex* [Technical Report E.4-15]), and neighboring landowners or stewards.

## 2. RESPONSES TO (a)—ACQUISITION OF UPLAND AND RIPARIAN HABITAT

## 2.1. Response to (a)(i)—Options for Meeting Acreage Targets

In section E.3.3.3 of the HCC FLA, IPC proposed to acquire (i.e., protect) and manage (i.e., enhance) 23,582 acres of upland and riparian habitat as wildlife mitigation. However, IPC only proposed concepts to accomplish this PM&E measure. Consequently, FERC requested that IPC develop options for meeting the targeted mitigation acreages (i.e., 22,761 upland acres and 821 riparian/wetland acres). To meet the targeted acreages for wildlife PM&Es, IPC proposed in the FLA to dedicate a subset of currently owned IPC lands to wildlife mitigation (see section 3.2) and to acquire and dedicate additional private lands.

Administering IPC's wildlife mitigation during the next license term, the IWHP (see section 1.1) will direct the protection and enhancement of both currently owned and newly acquired wildlife PM&E lands. In coordination with the IWHP Workgroup, wildlife PM&E lands will be managed through the WMMP and site plans to mitigate for HCC impacts to wildlife resources. IPC considers that dedicated wildlife PM&E lands will be protected and enhanced specifically to meet mitigation requirements. IPC will retain ownership and management authority of both newly acquired and currently owned wildlife PM&E lands. IWHP staff will also directly administer and actively manage PM&E lands. Wildlife PM&E lands will be

managed with the overall goals of maintaining existing desirable habitat conditions and reducing undesirable conditions according to site potential.

On IPC lands not dedicated to wildlife PM&Es, wildlife management will be de-emphasized in favor of general land stewardship in accordance with the designations and policies of the HCRMP and other applicable plans. Furthermore, IPC lands not dedicated to wildlife PM&Es might be sold or leased for uses that do not prioritize or protect wildlife habitat.

### 2.1.1. TRGW Recommendations

Acquisition—Although IPC proposed in the FLA to dedicate some currently owned IPC lands to wildlife mitigation (see section 3.2), the majority of the 23,582 acres must be acquired. The TRWG provided IPC with recommendations generally for developing wildlife PM&Es and specifically for acquiring wildlife habitat. IPC consulted extensively with the TRWG prior to filing the HCC FLA, and records of the discussions are found in the Consultation Appendix of the FLA. Table 1 summarizes the TRWG recommendations documented in Appendix A. IPC proposed wildlife PM&Es in the FLA that conceptually agree with TRWG guidance. In responding to this AIR, IPC likewise followed TRWG recommendations to identify and rank acquisition options (i.e., private properties) for meeting the PM&E acreage targets.

To mitigate HCC operational impacts on wildlife habitat, the TRWG prioritized the on-site acquisition and management of wildlife habitat (Table 1). Off-site mitigation would be pursued only when mitigation requirements could not be met on site. The HCC impacts wildlife resources on site and the TRWG recommended many suitable opportunities within Hells Canyon to meet the identified PM&E needs. Consequently, IPC likewise prefers on-site mitigation when protecting and managing wildlife habitat to mitigate HCC impacts to wildlife resources.

IPC defines on-site private properties as occurring within the rim-to-rim study area or straddling the rimto-rim boundary. The rim-to-rim study area, defined by watersheds and hydrologic features of Hells Canyon, includes the three HCC reservoirs, reservoir tributaries within the rim-to-rim boundary, and the Snake River between Hells Canyon Dam and the Salmon River confluence (Figure 1). IPC's rim-to-rim study area is described in detail in the HCC FLA. Within the rim-to-rim study area, IPC additionally prefers the acquisition of private lands adjacent to the HCC reservoirs because the vast majority of wildlife habitat impacted by the HCC is specifically associated with the reservoirs (Edelmann et al. 2002).

The following are TRWG-recommended mechanisms for IPC to acquire and manage wildlife PM&E lands (Appendix A):

- 1) Fee title acquisition including water rights
- 2) Fee title plus federal and state grazing permits
- 3) Conservation easements
- 4) Operation and maintenance (O&M) funds for management
- 5) Funding for current and future purchases

Of the TRWG-recommended acquisition mechanisms, IPC favors fee title purchase of private lands. Fee title will afford IPC with the maximum management authority and alleviate many sources of uncertainty about implementing PM&E measures during the next license term.

The TRWG further recommended that potential on-site acquisitions be evaluated along the HCC reservoirs, tributaries to Brownlee Reservoir (i.e., Sturgill Creek, Cottonwood Creek, Daly Creek, and the Powder River), the Powder River Pool, and the Snake River and tributaries (i.e., Imnaha and lower Grand Ronde rivers) downstream of Hells Canyon Dam. Appendix A details the TRWG recommendations for PM&E parcel locations and characteristics. Note that in Appendix A, the TRWG incorrectly categorized the OX Ranch and Rocking M Ranch as off site. These properties are within the rim-to-rim study area, and subsets of their land holdings adjoin an HCC reservoir. Pine Creek, Sheep Mountain, and Lookout Mountain are also misidentified as off site.

The TRWG emphasized that acquired lands should be large, contiguous parcels rather than many small, scattered parcels. IPC also prefers to acquire relatively large, contiguous parcels, especially those adjacent to public land where a primary directive includes wildlife management. Protecting and enhancing wildlife values on IPC lands could improve the effectiveness of wildlife management on adjoining public lands. IPC considers public lands administered by the U.S. Forest Service (USFS), BLM, IDFG, and ODFW to have wildlife management as a major objective.

**Public Grazing Allotments**—The TRWG emphasized that IPC should obtain water rights and state and federal grazing permits (i.e., grazing preference) attached to private base properties acquired in fee title. A federal grazing permit authorizes a private livestock operator the use of a public grazing allotment. A federal allotment is an area of land designated and managed for livestock grazing within a grazing district as defined by the Taylor Grazing Act of 1934. Allotments administered by the BLM typically require that a livestock operator have control of non-federal lands qualifying as base property before a grazing permit may be issued. Base property must be within or adjoining a grazing district and essentially serve as a base for the permit holder's livestock operation (<u>http://www.blm.gov/utah/resources/grazing/FAQ.htm</u>). Upon issuance of a permit, grazing preference for receiving a permit in the future is attached to the base property of the permit holder (<u>http://www.blm.gov/nhp/news/regulatory/4100-Proposed/4100.0-5.html</u>).

IPC could receive priority over others for an allotment's grazing permit if the acquired land has base property with attached grazing priority.

Blair (2001) reported TRWG discussions about opportunities to implement mitigation actions on public grazing allotments. IPC understood from the TRWG discussions that IPC would gain at least shared management responsibility for state and federal grazing allotments that might have grazing preference attached to base properties acquired as PM&E lands.

At the July 8, 2004, consultation meeting for TR-1 (see section 7), IPC proposed to provide O&M funding to enhance wildlife habitat on public grazing allotments for partial mitigation credit toward the targeted 23,582 acres of wildlife PM&E lands. Thus, IPC initially prioritized the acquisition of private base properties with attached grazing preference for public allotments. Notwithstanding, in a letter received August 18, 2004, the BLM stated, "Therefore, it is not appropriate for IPC to 'take credit' for public lands in their TR-1 acquisition package." This position contrasts with that of the USFS, which stated in a letter dated August 13, 2004, that IPC may be able to "take partial credit" for public grazing allotments if certain habitat improvements and O&M funding conditions are met (see section 7).

The differing agency positions create much uncertainty about administering and implementing PM&E measures on public lands. Therefore, IPC will not include grazing allotments for partial mitigation credit toward the targeted 23,582 acres of wildlife PM&E lands. Nonetheless, IPC will consider obtaining and holding grazing permits attached to a base property as it may provide future mitigation value to adjoining PM&E lands. IPC is not proposing, at this time, O&M funding to protect or enhance wildlife resources on allotments beyond the regulatory requirements of a public grazing permit holder.

Habitat and Wildlife Resources—The TRWG specified high-value habitat and wildlife resources that should be supported on PM&E lands. The TRWG recommended that acquired lands contain desirable riparian habitats including *Emergent Herbaceous Wetland*, *Forested Wetland* (e.g., cottonwoods and aspens), and *Scrub-scrub Wetland* (e.g., willows and springs) cover types. Desirable upland cover types are *Forested Upland* (i.e., pine stands), *Shrubland* (e.g., sagebrush and bitterbrush), and *Grassland* (e.g., native bunchgrasses). These high-value upland and riparian habitats should have maximum diversity to benefit a wide range of wildlife species and communities.

The TRWG also specifically stated that acquired habitats should benefit the following list of high-value wildlife:

- 1) Threatened, endangered, candidate, and special status (TECS) species
- 2) Waterfowl
- 3) Big game

- 4) Upland game birds (i.e., sage grouse and sharp-tailed grouse)
- 5) Amphibians
- 6) Aquatic furbearers
- 7) Neotropical migrant birds

### 2.1.2. Habitat Acquisition Options

Acquisition Analyses—IPC considered, as data permitted, TRWG recommendations when identifying and prioritizing options to acquire PM&E lands. IPC's analysis of private land options occurred in five phases:

- 1) Mapping of on-site private properties
- 2) Mapping of on-site public lands
- 3) Mapping of recommended off-site private properties
- 4) Ranking of private properties relative to TRWG recommendations
- 5) Selection of a preferred acquisition options

**Ownership Mapping**—To develop a complete list of on-site acquisition options, IPC identified and mapped private properties that at least partially occur within the rim-to-rim study area from the upstream end of Brownlee Reservoir at approximately Farewell Bend, Oregon, to the Snake and Salmon river confluence. The private properties within the rim-to-rim study area upstream of Brownlee Reservoir were excluded because no HCC impacts were documented in this reach of the study area (Blair et al. 2002, Edelmann et al. 2002).

IPC also considered off-site parcels that were specifically requested by agencies and Native American tribes during TR-1 consultation (see section 7). The USFS requested that IPC evaluate off-site private properties along portions of the Imnaha River and its tributaries (i.e., Cow, Lightning, Horse, Sheep, and Little Sheep creeks) within the delineated mule deer winter range (Christensen 2001). The Nez Perce Tribe recommended the Wallane Corporation lands in northeastern Oregon. The BLM requested that IPC evaluate delineated private lands near Hog Creek in Washington County, Idaho, and Cottonwood Creek in Nez Perce County, Idaho. ODFW generally recommended islands upstream of Brownlee Dam and specifically Goat Island, which is in the Snake River upstream of the rim-to-rim study area. To address ODFW's recommendation, IPC considered Goat Island and the private islands within the rim-to-rim study area upstream of Brownlee Reservoir. All other private properties and areas recommended by agencies and tribes during TR-1 consultation occur within the rim-to-rim study area.

IPC obtained landownership maps and records from Adams, Idaho, Nez Perce, and Washington counties in Idaho and Baker, Malheur, and Wallowa counties in Oregon. IPC also contacted Todd Fenzel of the U.S. Fish and Wildlife Service (USFWS) to ascertain island ownership within the Deer Flat National Wildlife Refuge, which extends down the Snake River to Brownlee Reservoir. Digital geographic information system (GIS) data for public lands were obtained from the Idaho Department of Water Resources. Digital GIS data of private lands were also requested from counties where available. Otherwise, IPC used tax maps to manually digitize the parcel boundaries of each private property and then attributed ownership data to the resulting polygon(s). Thus, IPC did not survey parcels, and the reported acreages are estimates. Often multiple and sometimes noncontiguous parcels comprised a single property ownership (i.e., grantee). All ownership data were stored in a GIS database.

Using a GIS, each private property greater than 100 acres and with at least 1 acre of the property within the rim-to-rim study area was selected, labeled as on site, and retained for further evaluation. IPC also mapped and evaluated off-site properties recommended during TR-1 consultation. In addition to the recommended Wallane Corporation lands and Snake River islands, IPC evaluated properties greater than 100 acres within the off-site areas of the Imnaha River watershed and near Hog Creek. IPC considered the BLM-recommended parcel in Nez Perce County but did not conduct detailed analyses because it is owned by the Nez Perce Tribe and wildlife values are thus presumably protected.

Only two private islands (Westlake and McRae) within the rim-to-rim study area were evaluated. IPC did not consider any island in public ownership, including Goat Island, which is administered by the USFWS (Todd Fenzl, personal communication). Table 2 provides the complete list of IPC's acquisition options, each with the owner's name, mapping code (Figure 2), geographic location, acreage, and mitigation and acquisition rankings. Figure 2 is IPC's landownership map displaying the private properties considered as acquisition options.

**Mitigation and Acquisition Prioritization**—Considering TRWG recommendations, IPC ranked each acquisition option and identified preferred options to protect and manage a minimum of 23,582 acres (approximately 11,800 acres each in Idaho and Oregon) of wildlife PM&E lands in Hells Canyon. IPC evaluated and then ranked private properties in two stages. In the first stage of evaluation, IPC considered the TRWG's priority that HCC impacts to wildlife be mitigated on site. Therefore, IPC prioritized the relative value of each property to mitigate on site for wildlife impacts based on their proximity to the HCC reservoirs, which contributed 99% of the estimated impacts to terrestrial resources (Edelmann et al 2002).

IPC graphically evaluated the private property map to determine each parcel's geographic location and proximity to the HCC. IPC then qualitatively ranked each private property as having a relatively high,

medium, or low mitigation value. On-site private lands adjacent to the HCC reservoirs, where the large majority of wildlife impacts are documented (Edelmann et al. 2002), received a high ranking for mitigation value. On-site properties downstream of Hells Canyon Dam and upstream of Brownlee Reservoir (i.e., private Snake River islands) received a medium ranking. Off-site properties received a low ranking (Table 2).

During the second stage of evaluation, IPC ranked each property relative to its acquisition priority. Properties that received low and medium rankings for mitigation value during the first stage of evaluation were assigned a low priority for acquisition. On-site properties adjacent to the HCC reservoirs with high mitigation values received a high priority for IPC acquisition if recommended by the TRWG, and the remaining properties received a medium ranking. The TRWG identified a number of specific on-site locations adjacent to HCC reservoirs (Appendix A). Specifically recommended by the TRWG, properties within the following list of on-site areas received a high priority for IPC acquisition:

- 1) Daly Creek in Oregon (Daly Creek Ranch)
- 2) Sturgill Creek in Idaho (Snake River Sheep Company)
- 3) Pine Creek in Oregon (David G. Moore)
- 4) Cottonwood Creek in Idaho (Ronald Lawrence)
- 5) Lookout Mountain in Oregon (Alex Finke, Dan Forsea, Eagle Valley Ag, and others)
- 6) OX Ranch in Idaho
- 7) Rocking M Ranch in Idaho
- 8) Powder River in Oregon (Richard A. Murray, Wadean Holcomb, Daly Creek Ranch, and others)
- 9) Sheep Mountain in Oregon (David G. Moore, Ira Haskett, and others)

**Preferred Acquisition Options**— There are three major components of IPC's proposed strategy for protecting and enhancing the targeted 23,582 acres of wildlife PM&E lands:

- Designation of selected IPC parcels with high value as wildlife PM&E lands (approximately 1046 acres in Idaho and 1944 acres in Oregon)
- Acquisition of additional private property for wildlife PM&E lands (approximately 10,695 acres in Oregon and 11,199 acres in Idaho)
- Long-term management and monitoring, with annual IPC O&M funding, of currently owned and newly acquired PM&E lands to protect existing high-value wildlife resources and to enhance poor-quality wildlife resources

IPC's preferred acquisition options form a subset of private properties with a high acquisition ranking known to be currently or recently available for purchase: Daly Creek Ranch (10,695 acres), Sturgill Creek property (6325 acres), Cottonwood Creek property (1971 acres), and portions of the Rocking M Ranch (2902 acres). IPC proposes to acquire the parcels of the Rocking M Ranch not protected by the Rocking M Wildlife Conservation Easement that adjoin Brownlee Reservoir as well as the portion of the ranch encompassing lower Dennett Creek.

Combining approximately 21,893 acres of proposed new acquisitions and 2990 acres of currently owned lands (see section 3), IPC is proposing to protect and enhance approximately 24,884 acres (12,639 acres in Oregon and 12,245 acres in Idaho) of PM&E lands to mitigate for HCC impacts to wildlife. Table 3 details acres of 1) existing riparian habitat to be protected and enhanced, 2) riparian habitat to be rehabilitated (i.e., enhanced) from existing irrigated pastures, 3) retained upland acres, 4) wildlife food plots to be converted from existing irrigated agricultural fields, and 5) existing upland habitat to be protected and enhanced. Section 2.2 further describes specific characteristics of IPC's preferred acquisition options.

IPC's ability to acquire targeted private properties will ultimately depend on the availability of willing sellers at the time that FERC will issue mitigation orders. Although the future availability of the preferred options is uncertain, identifying these properties assisted IPC with providing the detailed PM&E and cost information requested by FERC. If any of the preferred options are unavailable, IPC proposes that replacement properties be pursued in the order of their ranking categories on the complete list of private land options (Table 2).

# 2.2. Response to (a)(ii)—Characteristics of IPC's Preferred Options

FERC requests that IPC discuss how each private property option would meet the PM&E needs identified by the TRWG in terms of 1) size, 2) contiguity with large blocks of habitat, 3) proximity to the HCC, 4) geographic distribution, and 5) benefits to high-priority habitats or species. IPC documented and evaluated the mitigation value of private property with available data and according to the TRWGrecommended PM&E needs and high-value wildlife resources (Table 1).

IPC identified and tabulated characteristics of private property options (Table 2) with a GIS. Spatial data for land management jurisdictions, vegetation cover types, IPC wildlife data, and agency TECS species observations were plotted onto IPC's landownership map (Figure 2). The spatial overlays formed the foundation for evaluating wildlife values of private parcels, and allowed multiple natural resource and landscape characteristics to be viewed simultaneously. The landownership map displayed the geographic

distribution of each private parcel relative to the HCC. Maps of wildlife resources and vegetation cover types depicted the distribution and concentration areas of characteristics considered by the TRWG to have high PM&E value. The landownership map also provided a comprehensive portrayal of the broad-scale protection and conservation opportunities on private parcels as they fit within the mosaic of large blocks of wildlife habitat managed on various public lands in Hells Canyon.

Vegetation cover types were mapped from Holmstead (2001) and the National Land Cover Data (NLCD) (http://www.epa.gov/mrlc/nlcd.html). Table 4 lists the cover types that were mapped and analyzed and their respective wildlife habitat category (i.e., riparian, upland, and nonhabitat). For these analyses, *Agriculture, Forested/Orchard*, and *Grazing Land/Pasture* were considered upland habitat. These vegetated cover types were considered to currently provide wildlife habitat and will be managed in the future as habitat (e.g., wildlife food plots). Whereas *Cliff/Talus Slope* and *Barren Land* were considered nonhabitat even though these unvegetated cover types provide habitat for some wildlife species.

Cover-type acreages were summed and reported by wildlife habitat category. To estimate acreages of cover types for a private property, IPC cover-type data (Holmstead 2001) were first overlaid on the landownership map with a GIS. Cover-type data were then augmented with NLCD because IPC's cover-type data were limited to an approximate half-mile band along reservoir shorelines. Simultaneously overlaying IPC data and NLCD revealed differences in estimates of riparian acreages. These differences resulted from overlays of two sources of spatial data that were gathered at varying resolutions of accuracy.

The NLCD methods have great difficulty extracting wetland and riparian cover types. Thus, NLCD acreages for riparian habitat are likely underestimated (http://www.epa.gov/mrlc/nlcd.html). IPC calculated a correction factor for riparian acreage by comparing NLCD estimates for riparian habitat to Holmstead (2001) estimates. Because of the small minimum-mapping unit, the cover-type estimates of Holmstead (2001) were assumed to accurately represent the actual acreage of riparian. NLCD underestimated riparian habitat by a factor of approximately 15.8 (Table 5). Thus, NCLD estimates of riparian habitats were increased by the correction factor, and uplands were concomitantly decreased. Riparian and upland estimates for areas covered by Holmstead (2001) were unchanged. Corrected estimates of riparian habitat are reported for properties comprising IPC's preferred acquisition options (Table 3).

TECS species data were obtained from the Idaho Conservation Data Center (ICDC) and Oregon Natural Heritage Information Center (ONHIC). IPC wildlife data were collected during relicensing studies and published as technical reports in the HCC FLA. Appendix B lists the technical reports contributing data to the analyses of wildlife values on private lands. Eleven wildlife features were mapped:

- 1) Big game winter range (Christensen 2001)
- 2) Predicted upland game bird habitat (Turley and Edelmann 2001)
- 3) Mule deer migration corridor (Edelmann 2002)
- 4) Waterfowl concentration areas (Holthuijzen 1999, Rocklage et al. 2001)
- 5) Shorebird concentration areas (Turley and Holthuijzen 2001a)
- 6) Bald eagle nests and roosts (Turley and Holthuijzen 2002, Isaacs et al. 1992)
- 7) Waterbird rookeries (Pope 2001)
- 8) Raptor nesting territories (Pope and Holthuijzen 2000)
- 9) Avian communities (Turley and Holthuijzen 2000)
- 10) Upland game bird habitat (Turley and Edelmann 2001)
- 11) TECS species observations (Turley and Holthuijzen 2002)

Table 6 (on site in Idaho) and Table 7 (on site in Oregon) list the owner's name; a map code; total, uncorrected riparian and uncorrected upland acreages; minimum and maximum elevations; and the number of noncontiguous parcels comprising an individual private property. Table 8 describes the off-site parcels considered. Appendix C reports detailed acreage estimates of each private property by cover type. Table 9 summarizes acreages of big game and upland game bird habitat documented on each property evaluated for acquisition. Tables 10 and 11 present TECS species and other highly valued wildlife resources documented. Figure 2 maps the geographic location, adjoining public lands, and arrangement of noncontiguous parcels for private properties listed in Table 2.

Overall, the high-priority properties selected by IPC as the preferred acquisition options have several common characteristics:

- 1) Relatively large properties
- 2) Contiguous to large blocks of wildlife habitat on public lands
- 3) On site and adjacent to HCC reservoirs
- 4) Adjacent to another preferred acquisition option
- 5) Near IPC's currently owned PM&E lands
- 6) Existing and potential high-value habitats
- 7) Presence of high-value wildlife species

The following sections individually discuss the TRWG's high-priority wildlife values (Table 1) occurring on properties identified as IPC's preferred acquisition options.

#### 2.2.1. Cottonwood Creek

The property owned by Ronald Lawrence and associated with Cottonwood Creek (Map Code 99 on Figure 2) is a preferred acquisition option. These parcels, which are currently used for cattle grazing, would be acquired in fee title and assigned as wildlife PM&E lands to the Cottonwood Creek WMA (see section 3). Through the IWHP, IPC would combine and manage the acquired lands with IPC's other currently owned parcels designated as the Cottonwood Creek WMA.

The Lawrence parcels are in Washington County, Idaho, and situated upslope of Brownlee Reservoir about 9.5 river miles south of Brownlee Dam. The northern parcels of the property adjoin IDFG's Cecil D. Andrus WMA and currently owned IPC PM&E lands (see section 3) along the shoreline of Brownlee Reservoir. The southernmost portion extends up Cottonwood Creek toward Sturgill Peak and the Payette National Forest.

These private lands would contribute approximately 1971 acres (44 acres of riparian, 1925 acres of upland habitat, and 2 acres of existing nonhabitat) to the IWHP (Table 3). The property is situated in five noncontiguous parcels (Table 6) that are imbedded within a mosaic of public lands administered by the Idaho Department of Lands (IDL), BLM, and USFS. Two of the larger parcels encompass segments of the perennial Cottonwood Creek.

The Lawrence parcels comprise one of the last two significant private properties between IDFG's Cecil D. Andrus WMA and Rocking M Wildlife Conservation Easement. The strategic location of these private lands affords an opportunity to cooperatively create a relatively large and unique area with coordinated management dedicated to wildlife habitat protection and enhancement. Thus, the TRWG (Appendix A) and IDFG (see section 7) specifically recommended that IPC purchase these parcels for wildlife mitigation.

These private parcels benefit many high-value wildlife resources. The diverse habitats benefit TECS species and support high-value wildlife species including the Lewis's woodpecker, solitary vireo, Wilson's warbler, yellow warbler, western toad, nesting raptors, and neotropical migrant birds (Tables 10 and 11). The property ranges in elevation from 648 m to 1603 m (2125–5258 ft) and provides crucial winter range for big game and upland game birds (Table 6). More than 1872 and 1971 acres of crucial winter range were mapped for elk and deer, respectively (Table 9). Suitable sage grouse habitat also occurs (767 acres; Table 9) and IDFG has documented sage grouse on one of the parcels (see section 7). Suitable mountain

quail habitat was predicted to occur in Cottonwood Creek, which would provide a reasonable reintroduction site.

Habitats are diverse with a minimum of 10 cover types providing wildlife habitat (Appendix C). Highvalue habitats and plant communities (Table 1) present are *Forested Wetland* (cottonwoods and aspens), *Scrub-shrub Wetland* (springs and willows), *Forested Upland* (ponderosa pine and Douglas-fir), *Shrubland* (sagebrush and bitterbrush), and *Grassland* (Appendix C, unpublished IPC data).

The Cottonwood Creek WMA will be managed to protect and enhance wildlife resources according to site potential while providing compatible types and levels of recreation and traditional land uses. In consultation with the IWHP Workgroup, a site plan will be developed for the WMA. Detailed management direction will be incorporated into the site plan following an initial resource inventory and evaluation of protection and enhancement needs. The site plan will specify WMA goals and coordinate management among all parcels comprising the WMA. Although resource goals must be finalized, IPC anticipates that the following would likely apply:

- 1) Protect and enhance upland and riparian habitat for TECS species
- 2) Enhance winter range for big game and upland game
- 3) Control recreation access where incompatible with wildlife management
- 4) Assess compatibility of livestock grazing as a habitat management tool

#### 2.2.2. Daly Creek Ranch

The Daly Creek Ranch is a preferred acquisition option for wildlife PM&Es (Map Code 17 on Figure 2). The ranch, which would be acquired in fee title, is currently a cattle operation with some restricted recreation access. The ranch is in Baker County, Oregon, about five miles south of the town of Richland in Eagle Valley. The northernmost portion of the ranch begins at the Powder River and Eagle Creek confluence. The northern boundary then extends eastward along the shoreline of Brownlee Reservoir's Powder River Pool. The southern portion of the ranch extends to near the base of Lookout Mountain. Daly Creek Ranch was specifically recommended for IPC purchase by the TRWG (Appendix A), ODFW, and BLM (see section 7).

Through the IWHP, IPC would dedicate and manage the ranch's deeded acres as wildlife PM&E land and designate it as the Powder River WMA. The ranch will contribute approximately 10,695 acres (182 acres of riparian, 10,447 acres of upland habitat, and 66 acres of existing nonhabitat; Table 3) of wildlife PM&E lands to the IWHP. The ranch is situated in two noncontiguous parcels with the larger parcel

(approximately 10,375 acres) straddling Daly Creek, a perennial stream supporting a native trout fishery. The second parcel is situated at the confluence of the Snake and Powder rivers.

Lands acquired with the Daly Creek Ranch would be included with IPC's currently owned parcels around the Powder River Pool to constitute the Powder River WMA (see section 3). The ranch is contiguous to extensive public lands managed by the BLM (Figure 2). The ranch is also base property for the Ruth Gulch and Daly Creek BLM grazing allotments. Combining these multiple land holdings into a single WMA would afford the opportunity to cooperatively create a relatively large and unique area with coordinated management dedicated to wildlife habitat protection and enhancement.

The Daly Creek Ranch benefits many high-value wildlife resources. The ranch borders the southern shoreline of the Powder River Pool, which provides significant riparian habitat. The riparian habitat benefits TECS species and high-value wildlife including aquatic furbearers, nesting raptors, bald eagles, and neotropical migrant birds (Tables 10 and 11). The Powder River Pool also has some of the heaviest use by wintering and reproducing waterfowl and migrating shorebirds within the HCC (Holthuijzen 1999, Turley and Holthuijzen 2001a, Rocklage et al. 2001). Of special importance are bald eagle roosts (Isaacs et al. 1992) and a great blue heron rookery (Pope 2001) (Table 19), which occur on adjoining Powder River WMA lands currently owned by IPC. The burrowing owl, a TECS species, has also been documented on the ranch.

The ranch ranges in elevation from 632 m to 1794 m (2077–5884 ft) and provides crucial winter range for big game and upland game birds (Table 7). Over 5440, 10,416, and 1739 acres of winter range were mapped on the ranch for elk, deer, and bighorn sheep, respectively (Table 9). The Summit Ridge mule deer migration corridor crosses the Powder River at the eastern boundary of the ranch (Edelmann 2002). Habitats are diverse with a minimum of 13 cover types providing wildlife habitat (Appendix C). High-value habitats and plant communities present (Table 1) are *Emergent Herbaceous Wetland*, *Forested Wetland* (cottonwoods and aspens), *Scrub-shrub Wetland* (springs and willows), *Forested Upland* (Douglas-fir), *Shrubland* (sagebrush and bitterbrush), and *Grassland* (Appendix C, unpublished IPC data). IPC also proposes to convert the existing irrigated agricultural fields near the shoreline of the Powder River Pool into a combination of food plots for wintering waterfowl and big game, permanent herbaceous cover for nesting waterfowl, and woody riparian habitats for neotropical migrant birds (Table 3).

The Powder River WMA will be managed to protect and enhance wildlife resources according to site potential while providing compatible types and levels of recreation and traditional land uses. In consultation with the IWHP Workgroup, a site plan will be developed for the WMA. Detailed management direction will be incorporated into the site plan following an initial resource inventory and

evaluation of protection and enhancement needs. The site plan will specify WMA goals and coordinate management among all parcels comprising the WMA. Although resource goals must be finalized, IPC anticipates that the following would likely apply:

- 1) Protect and enhance upland and riparian habitat for TECS species
- 2) Protect eagle night roosts
- 3) Protect the heron rookery
- 4) Protect the mule deer migration corridor
- 5) Enhance waterfowl habitat for wintering and reproduction
- 6) Enhance winter range for big game and upland game
- 7) Control recreation access where incompatible with wildlife management
- 8) Assess compatibility of livestock grazing as a habitat management tool

#### 2.2.3. Rocking M Ranch

The Rocking M Ranch is a preferred acquisition option. IPC would target the fee title acquisition of parcels that are not currently protected by IDFG's Rocking M Wildlife Conservation Easement (Map Code 97 on Figure 2). Of the approximately 2902 acres of the Rocking M Ranch proposed for IPC acquisition (Table 3), approximately 1386 of those acres are not included in the IDFG conservation easement. IPC's acquisition of the Rocking M Ranch lands not included in the conservation easement would augment the overall value of the conservation easement. IPC would acquire the remaining 1516 acres, which are within the conservation easement, along lower Dennett Creek.

These newly acquired parcels would be assigned to IPC's proposed Rocking-M WMA (see section 3). Through the IWHP, IPC would manage the newly acquired lands together with IPC's other currently owned parcel designated as the Rocking-M WMA. Acquisition of these private lands would contribute 2902 acres (117 acres of riparian, 2761 acres of upland habitat, and 25 acres of existing nonhabitat) to the IWHP's wildlife PM&E lands (Table 3). The TRWG (Appendix A), IDFG, and BLM (see section 7) recommended that IPC purchase the Rocking M Ranch for wildlife mitigation.

The Rocking M Ranch is in Washington County, Idaho, and situated along and upslope of Brownlee Reservoir about 25 river miles south of Brownlee Dam. The portion of the ranch not within the conservation easement is situated as four noncontiguous parcels distributed along the shoreline of Brownlee Reservoir. These parcels adjoin currently owned IPC lands designated as the Rocking-M WMA. These lands are currently used primarily as a cattle operation as governed by conditions of the conservation easement. Public access is currently permitted on the private lands within the conservation easement boundary but not those lands proposed for IPC acquisition outside the boundary. Each of the targeted parcels is contiguous to BLM lands, which are also incorporated into the conservation easement. Other parcels of the conservation easement adjoin IDL and USFS lands.

The Rocking M Ranch benefits many high-value wildlife resources. IPC would control nearly two miles of Dennett Creek, which is a perennial stream supporting woody riparian habitat. Springs and tributaries to Dennett Creek provide additional riparian and mountain shrub habitats. The riparian cover types benefit TECS species and high-value plants and animals, including the western toad and neotropical migrant birds. Habitat also occurs in the uplands for sage grouse, southern Idaho ground squirrel, Snake River goldenweed, and neotropical migrant birds (Tables 10 and 11).

The Rocking M Ranch provides crucial winter range for big game and upland game birds (Table 9). Considering the entire ranch, ranging in elevation from 632 m to 1789 m (2073–5868 ft), over 10,400 and 12,495 acres of crucial winter range were mapped for elk and deer, respectively (Table 9). For the parcels proposed for acquisition, a minimum of six cover types provide wildlife habitat (Appendix C). High-value habitats and plant communities present (Table 1) are *Emergent Herbaceous Wetland*, *Evergreen Forest, Shrubland* (sagebrush), and *Grassland* (Appendix C). IPC also proposes to convert portions of an existing agricultural field along the Brownlee Reservoir shoreline to woody riparian habitats (Table 3).

The Rocking-M WMA will be managed to protect and enhance wildlife resources according to site potential while providing compatible types and levels of recreation and traditional land uses. In consultation with the IWHP Workgroup, a site plan will be developed for the WMA. Detailed management direction will be incorporated into the site plan following an initial resource inventory and evaluation of protection and enhancement needs. The site plan will specify WMA goals and coordinate management among all parcels comprising the WMA. Although resource goals must be finalized, IPC anticipates that the following would likely apply:

- 1) Protect and enhance upland and riparian habitat for TECS species
- 2) Enhance winter range for big game and upland game
- 3) Control recreation access where incompatible with wildlife management
- 4) Assess compatibility of livestock grazing as a habitat management tool

#### 2.2.4. Sturgill Creek

Sturgill Creek property owned by the Snake River Sheep Company is a preferred acquisition option (Map Code 107 on Figure 2). These parcels would be acquired in fee title, dedicated to wildlife PM&Es, and assigned to the Sturgill Creek WMA (see section 3). The lands are currently used for cattle grazing and

restricted recreational hunting. Through the IWHP, IPC will manage the acquired lands together with IPC's other currently owned parcel designated as Sturgill Creek WMA (see section 3). Acquisition of these private lands will contribute approximately 6325 acres (311 acres of riparian, 6007 acres of upland habitat, and 7 acres existing nonhabitat) to the IWHP (Tables 3 and 6).

The property is in Washington County, Idaho, and situated upslope of Brownlee Reservoir about 16 river miles south of Brownlee Dam. The property is also situated in two noncontiguous parcels that are embedded within a mosaic of public lands administered by the IDL, BLM, and USFS. The larger of the two parcels (6165 acres) extends upslope from the north along Sturgill Creek, a perennial stream, toward Sturgill Peak. The southernmost portion of the property abuts IDFG's Rocking M Wildlife Conservation Easement.

This property comprises one of the last two significant private properties between IDFG's Cecil D. Andrus WMA and Rocking M Wildlife Conservation Easement. With coordinated management, IPC's acquisition of this private property will create a strategic opportunity to coordinate the management of a relatively large and unique area dedicated to wildlife habitat protection and enhancement. Thus, the TRWG (Appendix A), IDFG, and BLM (see section 7) specifically recommended that IPC purchase this property for wildlife mitigation.

The Sturgill Creek property supports many high-value wildlife resources. More than three miles of Sturgill Creek transect the property and provide woody riparian habitats. Springs and tributaries to Sturgill Creek provide additional riparian and mountain shrub habitats. The relatively extensive riparian cover types support TECS and high-value wildlife species including Lewis's woodpecker, MacGillivray's warbler, solitary vireo, Swainson's thrush, Wilson's warbler, yellow warbler, nesting raptors, and neotropical migrant birds. Snake River goldenweed, a TECS plant species, also occurs in the uplands (Tables 10 and 11).

The property ranges in elevation from 671 m to 1,747 m (2,200–5,730 ft) and provides crucial winter range for big game and upland game birds (Table 6). Over 4,676 and 5,506 acres of crucial winter range occur on the ranch for elk and deer, respectively (Table 9). Habitats are diverse with a minimum of 10 cover types providing wildlife habitat (Appendix C). High-value habitats and plant communities (Table 1) present are *Emergent Herbaceous Wetland*, *Forested Wetland* (cottonwoods and aspens), *Scrubshrub Wetland* (springs and willows), *Forested Upland* (ponderosa pine and Douglas-fir), *Shrubland* (sagebrush), and *Grassland* (Appendix C, unpublished IPC data). IPC also proposes to convert the existing irrigated agricultural fields along Sturgill Creek into food plots for wintering big game and woody riparian habitats for neotropical migrant birds (Table 3).

The WMA would be managed to protect and enhance wildlife resources while providing compatible types and levels of recreation and traditional land uses. In consultation with the IWHP Workgroup, a site plan will be developed for the Sturgill Creek WMA. Detailed management direction will be incorporated into the site plan following an initial WMA inventory and evaluation of resource protection and enhancement needs. Although resource goals must be finalized, IPC anticipates that the following will likely apply:

- 1) Protect and enhance upland and riparian habitat for TECS species
- 2) Enhance winter range for big game and upland game
- 3) Control recreation access where incompatible with wildlife management
- 4) Assess compatibility of livestock grazing as a habitat management tool

# 2.3. Response to (a)(iii)—Alternative Tribal and Agency PM&E Recommendations

FERC requested that IPC analyze alternative or additional wildlife PM&E lands recommended by the consulted entities. As part of the analysis, IPC is to discuss how each additional option would meet the needs identified by the TRWG and provide a basis for not adopting any of the recommendations. Section 7 provides the letters from agencies and tribes where alternative and additional PM&E lands were recommended for consideration.

IPC has adopted for consideration all the specific private properties that were recommended during TR-1 consultation. Table 2 lists all properties evaluated and considered for acquisition. Many of the private properties recommended during consultation are within the rim-to-rim study area and were evaluated and ranked along with the other on-site properties. Recommended properties that are off site were also considered and likewise ranked. Each private property recommended during TR-1 consultation has desirable characteristics and would contribute toward meeting the wildlife PM&E needs identified by the TRWG (Table 1). Tables 9 through 11 include summarizations of wildlife values of on-site and off-site private lands recommended by agencies and tribes. Appendix D provides a summarization and discussion of how each agency- and tribe-recommended property might contribute toward PM&E needs identified by the TRWG.

Whether on or off site, IPC considers that all the properties represented in Table 2 are potentially available for acquisition according to their priority ranking. However, off-site properties recommended by the agencies and tribes received low rankings because these lands fail to meet the primary TRWG recommendation that PM&E acquisitions be on site. More specifically, off-site properties are relatively distant from areas where the HCC impacts wildlife resources.

On-site parcels downstream of Hells Canyon Dam received a medium ranking because relatively few acres of HCC-impacted wildlife habitat were documented in this portion of the study area (Edelmann et al. 2002). On-site private lands adjacent to the HCC reservoirs, where the large majority of wildlife impacts occur, received a high-priority mitigation ranking. Appendix E provides reasoning for the ranking of each agency and tribe recommendation. If the preferred acquisition options are unavailable, IPC proposes that replacement properties be pursued in the order of their ranking category on the complete list of private land options (Table 2).

# 3. RESPONSES TO (b)—MANAGEMENT OF WILDLIFE RESOURCES ON IDAHO POWER-OWNED LANDS

# 3.1. Response to (b)(i)—Land-use Classification and Wildlife PM&Es

FERC requested that IPC explain how the existing land-use classification system of the HCRMP relates to the IWHP and wildlife PM&E lands. Wildlife PM&E lands administered by the IWHP will be classified according to the land- and water-use classification system of the HCRMP. The HCRMP establishes the land classification structure for the HCC and defines corresponding policies for acceptable land uses. The classification system designates two major subdivisions: *human use* and *resource management*. The *resource management* classification designates areas with primary objectives of sustaining and protecting, especially from human disturbance, natural and cultural resources. The *resource management* classification is subdivided into three subclasses: 1) *resource conservation*, 2) *resource protection*, and 3) *special management area* (SMA). These classifications provide varying levels of resource protection but do not explicitly apply PM&Es for HCC impacts.

Of the three *resource management* classifications, only the SMA designation prioritizes wildlife resources suitably for wildlife PM&Es lands. Several SMAs were proposed in the HCRMP to specifically protect wildlife resources. However, these SMAs are typically small, and each focuses on a protecting a specific sensitive resource. In the HCC FLA, IPC also proposed to protect and manage 23,582 acres dedicated as wildlife PM&E lands. Following TRWG recommendations (Table 1), wildlife PM&E lands should emphasize a diversity of high-value wildlife resources with the goal of mitigating HCC impacts to wildlife resources. To accommodate wildlife PM&E lands emphasizing diverse wildlife resources into the HCRMP classification system, IPC proposes to expand the *resource management* classification by adding a new subclass of *wildlife management area* (WMA).

Only the WMA and SMA classifications will be assigned to lands dedicated to wildlife PM&Es, and the dedicated lands will contribute toward the HCC mitigation objective of protecting and enhancing 23,582 acres of wildlife habitat. Both currently owned and newly acquired IPC lands may be classified as either WMA or SMA lands as appropriate. WMA lands will be dedicated to wildlife PM&Es, and incompatible human uses and activities will be eliminated. An SMA will be designed to protect highly valuable and sensitive natural resources that maybe associated with potentially incompatible human uses and activities. Wildlife management on IPC lands other than WMAs and SMAs will function primarily through policies and guidelines of the HCRMP. Moreover, IPC lands not designated as WMA or SMA might be sold or support activities that do not specifically protect wildlife resources. The following sections further define the application of WMA and SMA classifications for wildlife PM&Es.

#### 3.1.1. Special Management Areas

The HCRMP will establish an SMA in an area to protect a specific high-value resource that occurs near areas of human use or is particularly sensitive to disturbance (e.g., the bald eagle nest near IPC's Oxbow facility). Under the HCRMP, natural resource protection will receive the highest management priority of an SMA. The HCRMP considers a specific resource when defining the boundaries and function of an SMA. However, highly valued wildlife, botanical, and aquatic resources often occur together. Furthermore, natural resources on currently owned IPC lands are often in or near existing areas of human use such as IPC facilities, recreation sites, and roads. Highly valued natural resources also occur within existing and defined recreation sites. For example, a bald eagle perch site occurs within McCormick Park, a developed recreation site. Human uses can impact other coexisting natural resources besides the focal natural resource of an SMA.

Rather than emphasize a specific resource in an isolated area when establishing an SMA for wildlife PM&E lands, IPC proposes to consider the larger distribution of multiple resources and sources of potentially impacting human uses. Within the IWHP, an SMA will be an assemblage of parcels that are geographically close and have common management issues and settings. An individual SMA will form a distinct management segment within IPC's overall landownership. Only parcels owned in fee title will be incorporated into an SMA managed by IPC.

Building upon SMAs designated in the HCRMP, section 3.2.1 proposes to create nine SMAs from currently owned IPC parcels that will contain dedicated wildlife PM&E lands. The proposed SMAs are logical groupings of IPC parcels with multiple high-value wildlife resources, including those specifically identified in the HCRMP. Often, the parcels with high-value wildlife resources also have high-value botanical and aquatic resources and adjoin established human use sites. Where practical, a single SMA incorporates IPC parcels that contain both natural resources and the intermingled human uses (e.g., a

dispersed recreation site or road). Correspondingly, the proposed SMAs typically have interior subdivisions with unique priorities dedicated specifically to wildlife PM&Es, recreation (e.g., developed and dispersed recreation sites), or infrastructure (e.g., roads). Incorporating both natural resources and potential sources of impacts in an SMA will facilitate comprehensive and coordinated management and conflict resolution.

Ultimately, the Interdisciplinary Team will designate SMAs and establish goals and priorities with site plans. A site plan will be developed for each SMA that is consistent with the WMMP, HCRMP, and other relevant plans (e.g., the IWHP, WMMP, *Historic Properties Management Plan: Hells Canyon Complex* [Technical Report E.4-15], and Recreation Plan [FLA section E.5.4]). Site plans will address the unique setting, assemblage of resources, human uses, and protection and enhancement needs of an SMA. Mitigation objectives, management actions, monitoring and evaluation procedures, and adaptive management will be components of each site plan. Site plans will also be coordinated with the management of adjacent public and private lands.

Because of the intermingling of multiple resources within an SMA, IPC's Interdisciplinary Team will administer overall SMA management. The Interdisciplinary Team will coordinate and integrate the multidisciplinary (e.g., wildlife, aquatic, and recreation) management activities for the entire SMA, and the IWHP will specifically administer wildlife management on the wildlife SMA lands. Coordinated management of the array of natural resources and human uses within an SMA will facilitate the comprehensive protection of high-value resources on IPC lands. For example, the site plan for the Wildhorse SMA (see section 3.3.9) will simultaneously 1) protect the existing bald eagle perch trees that occur within McCormick Park, 2) establish of future perch trees within and adjacent to the park, and 3) manage winter recreational activities to prevent disturbance to wintering bald eagles.

An SMA might be prone to resource conflicts where multiple land-use designations and priorities coexist. Thus, the Interdisciplinary Team will also resolve resource conflicts in compliance with SMA site plans, the HCRMP, and other applicable plans. During conflict resolution, the Interdisciplinary Team will consider and balance competing resource values by applying HCRMP and discipline-specific policies and by implementing appropriate management actions. The HCRMP establishes that natural resources will receive greater consideration than human uses when choosing solutions to conflicts.

Only those portions of an SMA specifically dedicated to wildlife mitigation, which excludes developed and dispersed recreation sites, will be credited toward the targeted 23,582 acres for wildlife PM&E lands. Thus, the total area of an SMA could include specific acreages dedicated to wildlife PM&Es and acreages dedicated to recreation or other land uses. Portions of SMAs dedicated to wildlife mitigation and attributed to the targeted PM&E acreages will be labeled wildlife SMA lands. Considering the previous

example, only dedicated wildlife habitat within the Wildhorse SMA, but outside McCormick Park, will be counted toward the targeted acreages of wildlife PM&E lands.

#### 3.1.2. Wildlife Management Areas

IPC will classify private lands as WMA lands when acquired and managed exclusively for wildlife mitigation. IPC will also designate some currently owned parcels as WMA. Currently owned WMA parcels will typically be associated with large blocks of habitat, regardless of ownership, that are dedicated to wildlife management. For example, IPC envisions that several of the relatively small IPC parcels along the Idaho shoreline of Brownlee Reservoir will be designated as WMA land and then incorporated, with annual O&M funding, into the larger management of IDFG's adjacent Cecil D. Andrus WMA.

Like SMAs, the Interdisciplinary Team will ultimately designate logical groupings of parcels into individual WMAs. An assemblage of like-designated WMA parcels will be managed as a distinct segment within IPC's overall landownership. Properties forming a single WMA will be in geographical proximity and have common mitigation goals and management settings. IPC also proposes to obtain permits for state and federal grazing allotments that might be attached to any acquired private lands. IPC will maintain the grazing allotments in coordination with the land management agency and according to applicable regulations. Within the HCRMP land- and water-use classification system, such allotments will be designated as WMA along with the attached base property.

The IWHP will provide the general policies and universal guidance for managing WMA-designated lands. Site plans will be developed for each distinct WMA that are consistent with the WMMP, HCRMP, and other relevant management plans. Site plans will address the unique setting, assemblage of resources, objectives, human uses, and protection and enhancement needs of the WMA. Mitigation objectives, management actions, monitoring and evaluation procedures, and adaptive management will be components of each site plan. Site plans will also be coordinated with the management of adjacent public lands and conservation easements.

Both WMA and wildlife SMA lands have a similar intent of protecting and enhancing wildlife resources, and both will be dedicated to wildlife mitigation. In contrast to SMAs, however, the overriding goal of IPC's WMA lands will be the mitigation of HCC impacts to wildlife resources. Consequently, WMA lands will be managed with the sole priority of protecting and enhancing wildlife resources, and no other land-use designation (e.g., developed recreation) will be simultaneously assigned. Only land uses and activities consistent with the WMMP and site plans will be permitted on WMA lands. All human uses on WMA lands will have a lower priority. Some traditional land uses, recreational activities, and

infrastructure development may be permitted on WMA lands, but only if compatible with the wildlife mitigation and management objectives. Incompatible land and human uses will be eliminated. Consequently, land use and inter-resource conflicts should be minimal.

# 3.2. Response to (b)(ii)—Currently owned IPC IWHP Lands

FERC requested that IPC provide the following information about each parcel of IPC-owned land to be included in the IWHP:

- 1) Site maps
- 2) Cover-type acreages
- 3) Descriptions of wildlife habitat conditions

### 3.2.1. Site Maps

See Figure 3 for site maps of IPC's currently owned lands that are proposed as WMAs and SMAs and contain recommended wildlife PM&E lands. Among other features, the site maps display 1) landownership, 2) roads, 3) trails, 4) dispersed recreation sites, 5) developed recreation facilities, and 6) other human developments. The following are names of the proposed WMAs and SMAs:

- 1) Andrus WMA (Idaho)<sup>2</sup>
- 2) Copperfield SMA (Oregon and Idaho)
- 3) Cottonwood Creek WMA (Idaho)
- 4) Farewell Bend SMA (Idaho)
- 5) Powder River WMA (Oregon)
- 6) Rocking-M WMA (Idaho)
- 7) Spring SMA (Oregon)
- 8) Sturgill Creek WMA (Idaho)
- 9) Wildhorse SMA (Idaho)

<sup>&</sup>lt;sup>2</sup> The Andrus WMA lies contiguous to the IDFG's Cecil D. Andrus WMA but is not the same.

# 3.2.2. Cover-type Acreages

Table 12 provides the total acreage of each WMA and SMA, including a breakdown of proposed land uses occurring in each. Only those acres of habitat within the wildlife PM&E portions of an SMA are considered for inclusion toward the targeted 23,582 acres of wildlife PM&E lands. In contrast, WMAs will be entirely dedicated as wildlife PM&E lands and their acreages attributed to the targeted PM&E acreage (Table 3). Because multiple land-use priorities may occur, SMAs include acreages of recreation sites (i.e., dispersed and developed) and other land uses in addition to wildlife PM&E lands. Only authorized recreation sites will be permitted within a WMA or SMA. Some unauthorized dispersed recreation sites currently exist on proposed WMA and SMA lands. Existing but unauthorized recreation sites on wildlife PM&E lands will be rehabilitated and maintained as wildlife habitat. Figure 3 displays the locations of authorized recreation sites within SMAs.

GIS methods described in section 2.2 were used to analyze cover types of currently owned IPC lands. IPC cover-type data (Holmstead 2001) and parcel data were overlaid to estimate acreages of cover types occurring in WMAs and SMAs. Cover-type data were augmented with NLCD, because IPC's cover-type data were limited to an approximate half-mile band along reservoir shorelines. However, the riparian correction for NLCD (Table 5) was not applied because these data only applied to only a 6.5% of the 2,990 acres of currently owned PM&E lands (Table 12). Table 4 provides a list of cover types, data sources, and wildlife habitat categories mapped and analyzed. Table 13 summarizes acreage estimates for cover types on wildlife PM&E lands within each WMA and SMA. Acreages of authorized recreation sites within an SMA are only reported in Table 12 and not included in cover-type acreages of Table 13.

Acreage estimates result from overlays of multiple sources of GIS spatial data that were gathered at varying resolutions of accuracy. Consequently, some errors likely occur, especially along polygon boundaries. These boundary errors probably account for small amounts of certain nonhabitat cover types (Table 4) reported for wildlife PM&E lands in Table 13. Small acreages of Residential (<6 acres), Parks/Recreation (<3 acres), and Industrial (<3 acres) cover types were reported in some WMAs and SMAs. A final on-the-ground delineation of WMA and SMA boundaries will be required to exclude nonhabitat cover types from the accounting of wildlife PM&E lands.

In the absence of a final delineation, nonhabitat cover types are excluded from acreages of riparian and upland habitats for determining the contribution of currently owned IPC lands toward the 23,582-acre target for wildlife mitigation lands (Table 3). Table 14 reports estimated acreages of upland (2,649 acres) and riparian habitats (290 acres) for wildlife PM&E lands within currently owned WMA and SMA parcels. Fifty-one acres of nonhabitat occur within the proposed boundaries for wildlife PM&E lands. Final WMA and SMA delineation will determine whether these 51 acres will remain designated and

managed as wildlife PM&E lands or be excluded. Nonetheless, data uncertainties currently prevent the 51 acres from being counted toward the targeted mitigation acres.

### 3.2.3. Wildlife Habitat Condition

**High-value wildlife habitats**—The TRWG identified the high-value upland and riparian habitats that IPC should target for wildlife PM&E measures (Table 1). Tables 13 through 16 summarize the high-value cover types and habitats present on currently owned IPC lands proposed as WMAs and SMAs. Overall, 289 acres of riparian cover types occur in the WMAs and SMAs, with varying amounts occurring in each (Table 14). Significant amounts (i.e., >10 acres) of *Emergent Herbaceous Wetland*, *Scrub-shrub Wetland*, and *Forested Wetland* occur in the Copperfield SMA, Farewell Bend SMA, Wildhorse SMA, and Powder River WMA (Table 13). Furthermore, some combination of springs and cottonwood, willow, or aspen stands occur in all but the Sturgill Creek WMA (Table 16). Although less than 1 km from a HCC reservoir, all nine of the proposed WMAs and SMAs are contiguous to larger blocks of wildlife habitat managed on public lands (Table 15).

Upland habitats comprise 2649 acres of the WMAs and SMAs (Table 14). Each WMA and SMA contains desirable upland habitat that occurs within the mule deer winter range identified by Christensen (2001). Significant amounts of *Shrubland* and *Grassland* cover types, important components of mule deer winter range, proportionally comprise the upland habitats (Table 13). *Forested Upland* is relatively uncommon adjacent to Brownlee and Oxbow reservoirs, but it was documented in the Copperfield SMA as pine stands (Tables 15 and 16).

**Special status plants and wildlife**—IPC's proposed WMAs and SMAs provide habitat for a variety of TECS species and high-value wildlife resources specified by the TRWG (Table 1). Tables 17 through 19 document occurrences of high-value wildlife resources on the WMAs and SMAs. ICDC, ONHIC, and IPC data indicate at that least one TECS species has occurred on or very near each WMA and SMA. Most notably, sensitive bald eagle habitats (i.e., a nest, roosts, and perches) occur at the Copperfield and Wildhorse SMAs and the Powder River WMA (Table 17). Other noteworthy TECS species include river otter at the Cottonwood Creek and Powder River WMAs, southern Idaho ground squirrel at the Farewell Bend SMA, and Columbian sharp-tailed grouse at the Spring SMA (Table 18). Sage grouse habitat has been mapped at the Andrus WMA, Cottonwood WMA, and Spring SMA (Table 19). TECS amphibians have been observed on the Andrus WMA, Copperfield SMA, Powder River WMA, and Wildhorse SMA lands (Table 18).

Tables 17 through 19 also report that the WMAs and SMAs support other high-value wildlife resources specified by the TRWG (Table 1). Big game winter range occurs at all nine of the WMAs and SMAs.

Upland game bird and neotropical migrant bird habitat likewise occurs at all nine of the sites. The Powder River WMA and Farewell Bend SMA provide wintering, nesting, and brood-rearing habitat for waterfowl. These two sites also support migrating shorebirds, and a heron rookery occurs at the Powder River WMA. Aquatic furbearers have been observed at the Andrus WMA, Cottonwood Creek WMA, Powder River WMA, Spring SMA, and Wildhorse SMA. Amphibians and reptiles have been observed at all but the Rocking-M WMA.

**Current management practices and site constraints**—Table 20 specifies IPC's current management practices and potential sites constraints for each WMA and SMA. Wildlife habitat is actively managed only on lands proposed as the Powder River WMA. Otherwise, limited land stewardship activities are implemented on the WMA and SMA parcels. Weed spraying, encroachment monitoring, and some dispersed recreation management are the most common IPC management practices on SMA- and WMA-designated parcels.

Several potential site constraints have been identified (Table 20). The constraints typically involve an unauthorized use of IPC lands. Any unauthorized use will be eliminated and then enforced during implementation of site plans, thus eliminating the constraints in the future. A use and enjoyment easement, however, might impose a significant constraint. The Daly Creek Ranch holds a use and enjoyment easement on some IPC parcels along the southern shoreline of the Powder River Pool within the proposed Powder River WMA. These parcels are valuable for the protection and enhancement of riparian habitat for bald eagles, waterfowl, neotropical migrant birds, and aquatic furbearers. This potential constraint will be removed if IPC successfully acquires the Daly Creek Ranch for wildlife mitigation. If the ranch cannot be purchased, IPC will seek other means (e.g., conservation easement, superior property rights/condemnation) to regain complete management authority for these lands.

**Specific PM&E measures**—In contrast to the minimal amount of wildlife management occurring on currently owned lands, IPC is proposing to implement extensive PM&E measures during the next license term. The proposed measures target the protection and enhancement of high-value wildlife habitats and wildlife resources identified by the TRWG (Table 1). Section 4.2 contains the specific PM&E measures proposed for currently owned wildlife PM&E lands within the proposed WMAs and SMAs.

# 3.3. Response to (b)(iii)—Contribution of Currently owned IPC Parcels to the IWHP

FERC requested that IPC discuss how IPC's currently owned parcels contribute to wildlife mitigation in terms of 1) parcel size, 2) contiguity with large habitat blocks, 3) proximity to the HCC, 4) geographic distribution, and 5) benefits to high-priority habitats and species. Table 15 summarizes the information

that FERC requested for each proposed WMA and SMA as discussed in the following sections (sections 3.3.1–3.3.9). Detailed information characterizing each WMA and SMA is contained in Tables 16 through 19. Section 4 provides additional details about WMA and SMA resources and IPC's proposed PM&E measures.

### 3.3.1. Andrus WMA (Idaho)

Currently owned IPC lands proposed as the Andrus WMA are distributed along the Idaho shoreline of Brownlee Reservoir and contribute approximately 12 acres of riparian and 339 acres of upland habitat to the IWHP (Table 14). These lands are contiguous to IDFG's Cecil D. Andrus WMA, which is more than 23,000 acres of habitat specifically managed for fish and wildlife resources (Figure 3). For efficiency, IPC proposes that currently owned parcels be managed as part of IDFG's lands. These parcels benefit several high-value wildlife habitats and species. Specifically, crucial winter range is provided for big game and upland game birds (Table 19). TECS and other high-value plant and animal species also occur on these parcels (Tables 17–19), and a cottonwood stand is located at the mouth of Dukes Creek (Table 16).

## 3.3.2. Copperfield SMA (Oregon and Idaho)

Currently owned IPC lands proposed as the Copperfield SMA are distributed along the Oregon and Idaho shorelines (Table 12) of Oxbow and Hells Canyon reservoirs and contribute approximately 55 acres of riparian and 1011 acres of upland habitat to the IWHP (Table 14). These lands are contiguous to extensive public lands managed by the BLM (Figure 3). IPC's parcels benefit many high-value wildlife resources. Particularly, crucial winter range is provided for big game and upland game birds (Table 19). The relatively extensive riparian habitats also benefit TECS species and other high-value plant and animal species (Tables 17–19). Of special importance is the presence of a bald eagle nest. Pine Creek passes through a portion of the SMA that contains a robust cottonwood stand and provides bull trout habitat. Other high-value plant communities present are aspen, willow, and pine (Table 16).

### 3.3.3. Cottonwood Creek WMA (Idaho)

Currently owned IPC lands proposed as the Cottonwood Creek WMA are distributed along the Idaho shoreline of Brownlee Reservoir and contribute approximately 5 acres of riparian and 208 acres of upland habitat to the IWHP (Table 14). These lands are contiguous to extensive public lands administered by the IDL, which are in turn contiguous to IDFG's Cecil D. Andrus WMA (Figure 3). Several of these parcels are also contiguous to 1971 acres of private lands associated with Cottonwood Creek that IPC has proposed to acquire and include in the Cottonwood Creek WMA (see section 2.1.2). Cottonwood Creek WMA parcels benefit many high-value wildlife resources: particularly, crucial winter range is provided

for big game and upland game birds (Table 19). Riparian and upland habitats support numerous highvalue wildlife including neotropical migrant birds and river otter (Tables 18 and 19). Snake River goldenweed, a TECS plant species, also likely occurs in upland habitats at this site (Table 17). Other high-value plant communities present are aspen and cottonwood stands associated with springs (Table 16).

### 3.3.4. Farewell Bend SMA (Idaho)

Currently owned IPC lands proposed as the Farewell Bend SMA are distributed along the Idaho shoreline of Brownlee Reservoir and would contribute approximately 58 acres of riparian and 218 acres of upland habitat to the IWHP (Table 14). These lands are contiguous to public lands managed by the BLM (Figure 3). These parcels benefit many high-value wildlife resources. The relatively extensive riparian habitats (i.e., *Emergent Herbaceous Wetland* and *Scrub-shrub Wetland*; Table 13) benefit waterfowl, shorebirds, and neotropical migrants (Table 19). Upland habitats in this SMA are also near southern Idaho ground squirrel and burrowing owl habitat (Table 18). Other high-value riparian habitats are springs, willows, and cottonwoods (Table 16). High-value upland habitats present are shrublands and grasslands (Table 16).

### 3.3.5. Powder River WMA (Oregon)

Currently owned IPC lands proposed as the Powder River WMA are distributed along the Powder River Pool shoreline of Brownlee Reservoir in Oregon and would contribute approximately 140 acres of riparian and 356 acres of upland habitat to the IWHP (Table 14). Several of these parcels are contiguous to extensive public lands administered by the BLM (Figure 3). Many of these parcels are also contiguous to the 10,695-acre Daly Creek Ranch that IPC has proposed to acquire and include in the Powder River WMA (see section 2.1.2). IPC's parcels benefit many high-value wildlife resources. The relatively extensive riparian habitats benefit TECS species and high-value species including amphibians, aquatic furbearers, nesting raptors, waterfowl, neotropical migrant birds, and shorebirds (Tables 17–19). Of special importance are the two bald eagle night roosts and a great blue heron rookery (Table 19). The *Shrubland, Grassland*, and *Grazing Land/Pasture* cover types (Table 13) provide crucial winter range for big game and upland game birds (Table 19). High-value habitats and plant communities present are cottonwood, willow, and springs (Table 16).

## 3.3.6. Rocking-M WMA (Idaho)

Currently owned IPC lands designated as Rocking-M WMA are distributed along the Idaho shoreline of Brownlee Reservoir and would contribute approximately 1 acre of riparian and 61 acres of upland habitat to the IWHP (Tables 14). These lands are contiguous to the IDFG's Rocking M Wildlife Conservation Easement, which is more than 35,000 acres of habitat managed for fish and wildlife resources (Figure 3). Many of these parcels are also contiguous to 2902 acres of the Rocking M Ranch that IPC has proposed to acquire and include in the Rocking-M WMA (see section 2.1.2). IPC proposes to manage Rocking-M WMA lands in coordination with the IDFG's adjacent Rocking M Wildlife Conservation Easement. IPC's currently owned Rocking-M WMA lands primarily provide winter range for big game and upland game birds (Table 19). However, TECS habitat also occurs for the southern Idaho ground squirrel and Snake River goldenweed (Table 17). High-value habitats and plant communities present are willow, shrublands, and grasslands (Table 16).

## 3.3.7. Spring SMA (Oregon)

Currently owned IPC lands proposed as the Spring SMA are distributed along the Oregon shoreline of Brownlee Reservoir and would contribute approximately 4 acres of riparian and 345 acres of upland habitat to the IWHP (Table 14). These lands are contiguous to extensive public lands administered by the BLM (Figure 3). Spring SMA parcels benefit wintering big game and upland game birds (Table 19). Springs and associated *Scrub-shrub Wetland* are also present (Table 16) and provide neotropical migrant bird and aquatic furbearer habitat (Table 19). A Columbian sharp-tailed grouse (Table 18) was observed, and sage grouse habitat has been mapped at this site (Table 19). Snake River goldenweed, a TECS plant species, has also been documented to occur here (Table 17).

## 3.3.8. Sturgill Creek WMA (Idaho)

The currently owned IPC parcel designated as Sturgill Creek WMA occurs along the Idaho shoreline of Brownlee Reservoir and would contribute approximately 1 acre of riparian and 35 acres of upland habitat to the IWHP (Table 14). Although this is a small parcel, it is near the approximately 6,325 acres of private land associated with Sturgill Creek that IPC has proposed to acquire and include in the Sturgill Creek WMA (see section 2.1.2). The parcel is also contiguous to extensive public lands administered by the BLM and managed to include wildlife resource values (Figure 3). This parcel benefits wintering big game and upland game birds (Table 19). The TECS species Snake River goldenweed has also been documented nearby (Table 17).

### 3.3.9. Wildhorse SMA (Idaho)

Currently owned IPC lands proposed as the Wildhorse SMA are at the confluence of the Wildhorse River and Oxbow Reservoir in Idaho. The Wildhorse SMA would contribute approximately 14 acres of riparian and 75 acres of upland habitat to the IWHP (Table 14). These parcels are contiguous to the IDFG's Cecil D. Andrus WMA and extensive public lands administered by the BLM (Figure 3). IPC's parcels benefit many high-value wildlife resources including the bald eagle, amphibians, aquatic furbearers, neotropical migrant birds, big game, and upland game birds (Tables 18 and 19). Specifically, TECS species including the western toad, trumpeter swan, bald eagle, plumbeus vireo, and yellow warbler have been documented at this site (Table 18). Of special importance is the bald eagle perch within McCormick Park. High-value cottonwood and willow communities are also present along the Wildhorse River (Table 16).

# 4. RESPONSES TO (C)—INTEGRATED WILDLIFE HABITAT PROGRAM

# 4.1. Response to (c)(i)—Administration of Protection Projects

FERC requested that IPC explain how the wildlife protection projects listed in the HCC FLA would fit into the IWHP. In the FLA, IPC specified several protection projects to mitigate for documented and potential HCC impacts and to provide general land stewardship on lands controlled by IPC. Wildlife protection measures identified in the FLA will be implemented on IPC's currently owned lands designated as WMAs and SMAs.

Correspondingly, the wildlife PM&E measures will be administered by the IWHP and implemented through the WMMP and WMA and SMA site plans. Entities participating in the IWHP Workgroup will provide consultation input according to IWHP procedures. Wildlife PM&E measures will be further coordinated by IPC's Interdisciplinary Team according to the HCRMP and other applicable HCC programs/plans. Sections 1.1 through 1.6 of this report describe the IWHP framework, the WMMP outline, and the WMA and SMA planning and implementation process. Section 3.1 defines SMA and WMA functions. Detailed WMA and SMA site plans will be developed to implement on-the-ground wildlife mitigation measures. Individual site plans will consider unique combinations of characteristics such as site potential, resource protection needs, and land/human uses. WMA and SMA site plans will contain detailed methods and monitoring provisions to implement wildlife protection measures identified in the FLA.

Specifically for SMAs, IPC's Interdisciplinary Team will coordinate multidisciplinary management activities (e.g., wildlife, recreation, and aquatic). Site plans will address and balance the multiple natural resource issues and human use issues that occur in an SMA. Correspondingly, site plans will more holistically address and coordinate all management efforts and projects intended to protect and enhance resources on IPC-owned SMA lands, including portions of SMAs dedicated to wildlife PM&Es.

Protection of wildlife values and promotion of wildlife mitigation will govern WMAs above all other resource values and human uses. Only those human uses compatible with wildlife and habitat management will be permitted in a WMA. In addition to measures proposed in the FLA, other wildlife protection and enhancement needs might be identified during the WMA and SMA planning process and likewise addressed in site plans.

# 4.2. Response to (c)(ii)—Specific Protection Methods

Wildlife needs identified in the FLA for currently owned IPC lands are protection from impacts of human disturbance (e.g., recreation and IPC's O&M activities), livestock grazing, dispersed recreation, and reservoir operations. Protection needs will typically be met with traditional habitat management actions such as fencing, grazing elimination, seasonal area closures, O&M constraints, and a wildlife information and education (I&E) program. Riparian and upland habitat enhancements (e.g., weed control and desirable species plantings) are also proposed to rehabilitate unauthorized recreation sites and areas impacted by livestock grazing.

In general, management actions mediating human disturbance will largely focus on SMAs, because IPC land having shared value for wildlife and human/land use will typically be designated as an SMA. For example, the eagle perch in the Wildhorse SMA is composed of trees within McCormick Park, a developed recreation site. SMA plans will provide policies and guidance for managing conflicts among coexisting resource values.

The IWHP's wildlife I&E program will specifically address issues of human disturbance to sensitive wildlife species and habitats on both IPC lands and non-IPC lands surrounding the HCC. The I&E program will inform both IPC employees and the public (e.g., recreators) about the value and sensitivity of certain wildlife resources. I&E information will include recommendations about how to avoid activities that might disturb sensitive wildlife species during critical seasonal periods irrespective of landownership. Where applicable, HCC O&M constraints might also be applied to both IPC and non-IPC lands during critical periods of potentially significant disturbance to sensitive resources (e.g., bald eagles during nesting and mule deer during a severe winter). Because IPC has no jurisdiction on other land ownerships, however, IWHP staff will coordinated development and implementation of the wildlife I&E program and O&M constraints with the IWHP Workgroup, the Interdisciplinary Team, and HCC operational personnel.

As requested by FERC, the following sections address site-specific wildlife protection needs identified in the FLA for IPC's currently owned parcels within proposed WMAs and SMAs. Because unique combinations of resource values typically occur in a proposed WMA or SMA, protection and

enhancement methods are presented individually for each WMA and SMA (sections 4.2.1 to 4.2.9). The proposed methods would also likely be applicable to those adjacent lands that are targeted for future WMA acquisition. For example, proposed methods of protecting winter range on currently owned lands designated as the Cottonwood Creek WMA would likely apply to the targeted future acquisition of adjacent private property that would comprise the bulk of the proposed Cottonwood Creek WMA.

### 4.2.1. Andrus WMA (Idaho)

IPC proposes to dedicate for wildlife mitigation approximately 355 acres (12 acres of riparian, 339 acres of upland habitat, and 5 acres of nonhabitat; Tables 12 and 14) of currently owned parcels along the Idaho shoreline of Brownlee Reservoir (Figure 3). These IPC parcels are generally adjacent to the IDFG's Cecil D. Andrus WMA and will be designated as the Andrus WMA.

Although IPC's parcels are typically small and scattered, they are situated along the boundary of Cecil D. Andrus WMA and share many of the same wildlife values that IDFG's lands have. Many of these parcels are currently within the boundary fence of the Cecil D. Andrus WMA and thus passively receive IDFG management. IPC also performs some limited land management, such as localized weed control, on portions of these parcels (Table 20). Consequently, IPC proposes that the currently owned IPC parcels be managed with IDFG lands.

These parcels benefit several high-value wildlife habitats and species. Specifically, crucial winter range is provided for big game and upland game birds (Table 19). TECS plant and animal species and other high-value wildlife resources also occur on these parcels (Tables 16–19). Considering the existing wildlife values and juxtaposition to IDFG lands, IPC's goals during the new license period for these parcels will correspond largely with the following goals of the Cecil D. Andrus WMA:

- 1) Protect and enhance upland and riparian habitat
- 2) Enhance big game winter range
- 3) Manage livestock grazing

For efficiency and continuity with wildlife management within the surrounding landscape, IPC proposes that these parcels and their annual O&M funding be contractually managed by IDFG as part of the adjoining Cecil D. Andrus WMA. Because of compatible wildlife protection goals, IPC's parcels would be administered directly under the management plan for the Cecil D. Andrus WMA. IPC proposes that IDFG's management plan be updated to include the goals and management of IPC's parcels. The updated plan would include provisions to achieve wildlife protection and enhancement needs identified in the HCC FLA. Specifically, management actions would be designed to protect wintering big game from

human disturbance (Table 21) and enhance winter range with weed control, shrub plantings, and habitat rehabilitation at unauthorized recreation sites (Table 22).

The updated management plan would suffice as the site plan for IPC's Andrus WMA parcels. If IDFG accepts management responsibility, IPC would also establish IDFG reporting protocols to evaluate the success of management actions and WMA goals and compliance with FERC mitigation requirements.

### 4.2.2. Copperfield SMA (Oregon and Idaho)

IPC proposes to designate approximately 1114 acres of currently owned lands along the Idaho and Oregon shorelines of Oxbow and Hells Canyon reservoirs as the Copperfield SMA (Figure 3). Of the 1,114 SMA acres, 1,079 acres (55 acres of riparian, 1,011 acres of upland habitat, and 12 acres of nonhabitat; Table 14) will be dedicated to wildlife mitigation (Table 12). This SMA is largely situated at the confluence of Pine Creek and the Snake River at Oxbow, Oregon. Many of the HCC O&M facilities are at Oxbow, Oregon (Johnson 2002). These lands are contiguous to extensive public lands administered by the BLM and managed to protect wildlife resources.

Parcels comprising the Copperfield SMA benefit many high-value wildlife resources. Particularly, crucial winter range is provided for big game and upland game birds (Table 19). The SMA also contains riparian habitat along Pine Creek, Hells Canyon Reservoir, and other smaller tributaries. The relatively extensive riparian habitats benefit TECS species and other high-value plant and animal species (Tables 17–19). Extensive bunchgrass and bitterbrush uplands occur upslope from the riparian zones. Of special importance is the presence of critical bald eagle habitats: a nest, night roosts, and day perches (Isaacs et al. 1992, IPC unpublished data). A decommissioned train tunnel adjacent to Pine Creek provides bat habitat. Pine Creek passes through a portion of the SMA that contains a robust cottonwood stand and provides bull trout habitat. Other high-value plant communities present are aspen, willow, and pine (Table 16).

The Oxbow Airstrip (13.5 acres), several dispersed recreation sites (21 acres), and several major access roads occur within this SMA (Table 12). These areas of human use will be excluded from the wildlife PM&E acreages (Table 3). Unauthorized livestock grazing also likely occurs. IPC's current land management on these parcels includes limited amounts of dispersed recreation administration, weed control, and encroachment monitoring (Table 20).

The Copperfield SMA supports many and diverse high-value wildlife resources. These resources are also in close proximity to numerous land uses and HCC facilities. Thus, protection and enhancement measures are needed to prevent and offset resource conflicts. Correspondingly, there will be nine SMA goals during the next license period:

- 1) Protect the bald eagle nest from human disturbance and development
- 2) Protect bald eagle night roosts from human disturbance and development
- 3) Protect the documented bald eagle perches from development
- 4) Protect bat habitat within the train tunnel from human disturbance
- 5) Protect and enhance upland and riparian habitats
- 6) Protect wintering big game from human disturbance
- 7) Enhance big game winter range
- 8) Eliminate livestock grazing
- 9) Contain dispersed recreation sites within authorized boundaries

The wildlife PM&E lands within the SMA will be managed through the IWHP to protect and enhance wildlife resources according to the site potential while preventing impacts from disturbance, recreation, and livestock grazing. The SMA plan will have provisions for managing vegetation (e.g., riparian restoration, weed control), recreation, refuse, fencing, access/travel, and I&E. Detailed management direction will be incorporated into the site plan following an initial SMA inventory and evaluation of site-specific resource needs and potential. Management actions will then be planned and implemented through the IWHP's annual work planning process. Monitoring, evaluation, and mitigation compliance will also be components of the site plan and implemented through the annual work planning process.

Wildlife protection measures will focus primarily on preventing human disturbance to bald eagles, bats, and wintering big game (Table 21). Of paramount importance, I&E and management actions will be designed to prevent disturbance from HCC O&M and recreation to the bald eagle nest and roosts (Table 21). The existing bald eagle nest will be protected from human disturbance. Numerous IPC facilities (e.g., roads, powerlines) existed within 800 meters (m) of the current nest site prior to the nest's establishment. Nonetheless, facility construction and maintenance will not be permitted within 800 m of the nest on the Oregon side of Oxbow Reservoir during the eagle reproductive period (March–July). Routine daily road maintenance (e.g., rock and snow removal) will be permitted during this period only to the extent that the road remains safely passable. Major road maintenance (e.g., resurfacing) and construction near the nest will not be permitted without review by the Interdisciplinary Team and IWHP staff.

Likewise, the SMA site plan will contain policies preventing facility development within the designated boundaries of the documented bald eagle night roosts (Isaacs et al. 1992) in the SMA. IPC will construct no facilities nor actively remove roost trees from the night roosts. IPC will also plant native trees at

suitable sites within the SMA along Oxbow Reservoir to augment future eagle-perching opportunities upon tree maturation.

IPC will survey bat activity in the train tunnel and identify frequency, season, and species of bat use. IPC will then construct an agency-approved entrance barrier to protect bat habitat in the train tunnel. The barrier will restrict human access to the tunnel but permit unobstructed access for bats.

IPC will institute a wildlife I&E program to educate the public, recreators, and IPC personnel about the value and sensitivities of wildlife resources and how to avoid disturbance during critical periods. The I&E program will specifically address bald eagle nesting, perching, and roosting. Public I&E efforts may include a nest-viewing station located at a safe distance from the nest and bald eagle informational displays. I&E activities will also be implemented to inform the public about the detrimental effects of disturbing wintering big game and suggested means of avoiding disturbing activities.

Enhancement measures will address winter range and riparian habitat needs with weed control, shrub and tree plantings, and habitat rehabilitation at unauthorized recreation sites (Table 22). Through annual work plans, IPC will enhance riparian and upland habitats by controlling noxious weeds as needed and planting native species. Site plans will also establish guidelines for habitat rehabilitation following significant habitat-altering events such as wildfire, landslide, and flood. Livestock grazing will not be permitted within the SMA, thus boundary fencing will be constructed and maintained annually (Table 21).

Upland enhancements will focus on improving big game winter range and include native shrub plantings at suitable locations. Shrub planting will focus on species that provide winter mule deer forage (e.g., bitterbrush). The feasibility of reestablishing native forb and grass species within nonnative annual grasslands will be evaluated. Native tree and shrub planting will be considered as a primary riparian enhancement tool on wildlife PM&E lands.

Through travel management and public I&E, vehicle travel will also be restricted to designated roads, access points, and authorized recreation sites. The SMA site plan and IPC's Interdisciplinary Team (combining policies of the HCRMP, *Historic Properties Management Plan*, Recreation Plan, and WMMP) will manage recreation such that habitat impacts are confined to areas within the authorized boundaries of dispersed and developed recreation sites. Habitat will be rehabilitated at unauthorized dispersed recreation sites. Public I&E will also be used to implement any seasonal access restrictions.

IWHP staff will develop systematic monitoring protocols to evaluate the success of management actions, progress toward SMA goals and objectives, and PM&E compliance. IPC will specifically monitor the extent of noxious weed populations and evaluate the effectiveness of weed control and subsequent habitat

rehabilitation. Likewise, IPC will develop protocols for evaluating the effectiveness of habitat enhancement actions such as riparian vegetation plantings.

Monitoring will also be designed to detect and address recreation-site expansion and degradation of adjacent wildlife habitat within the SMA. The recreation sites within the SMA will be inspected at one- or two-year intervals. Upon detection, recreation impacts outside authorized areas will be curtailed with appropriate management actions and impacted habitat will be rehabilitated. Protecting habitat from unacceptable recreation access might include fencing, boulder barricades, and I&E signage. IWHP staff will also regularly patrol the SMA to evaluate and enforce travel and access restrictions designed to protect wildlife and habitat. The Interdisciplinary Team will adapt SMA management actions as necessary based on monitoring results.

### 4.2.3. Cottonwood Creek WMA (Idaho)

IPC proposes to dedicate for wildlife mitigation approximately 214 acres (5 acres of riparian and 208 acres of upland habitat; Table 14) of currently owned parcels along the Idaho shoreline of Brownlee Reservoir as the Cottonwood Creek WMA (Figure 3). These parcels are near the Cottonwood Creek and Brownlee Reservoir confluence and adjoin extensive IDL lands, which are in turn adjacent to IDFG lands. Several of these currently owned parcels are also contiguous to the 1,971 acres of private lands associated with Cottonwood Creek that IPC has proposed to acquire and include in the Cottonwood Creek WMA (see section 2.1.2; Table 3).

The Cottonwood Creek WMA parcels benefit many high-value wildlife resources: particularly, crucial winter range is provided for big game and upland game birds (Table 19). Riparian and upland habitats support many high-value wildlife resources including neotropical migrant birds and river otter (Tables 18 and 19). Snake River goldenweed, a TECS plant species, also likely occurs in upland habitats at this site (Table 17). Other high-value plant communities present are aspen and cottonwood stands associated with springs (Table 16).

These parcels are unfenced and receive no direct management from IPC other than irregular encroachment monitoring (Table 20). However, incidental and unauthorized livestock grazing occurs through the management of adjacent public and private lands. No other land uses, other than transient recreation (e.g., hunting and fishing), are known to occur. Considering the numerous existing wildlife values and the current lack of active resource management, there will be three primary goals for these WMA lands:

- 1) Protect and enhance upland and riparian habitat
- 2) Enhance big game winter range
- 3) Manage livestock grazing

IPC proposes that, upon IPC's acquisition, this relatively small and isolated parcel be incorporated into the management of the surrounding private lands in Cottonwood Creek (Table 3). A single site plan will then be developed for this currently owned parcel and the newly acquired parcels. The site plan will specify WMA goals and coordinate the protection and enhancement of wildlife resources among all parcels within the proposed Cottonwood Creek WMA.

The WMA plan will have provisions for managing vegetation (e.g., riparian restoration, weed control), recreation, refuse, fencing, access/travel, and I&E. Detailed management direction will be incorporated into the site plan following an initial and comprehensive WMA inventory and evaluation of site-specific resource needs and potential. Management actions will then be planned and implemented through the IWHP's annual work planning process. Monitoring, evaluation, and compliance will also be components of the site plan and implemented through the annual work planning process.

The WMA will be managed by IPC to protect and enhance wildlife resources according to site potential while preventing impacts from recreation and livestock grazing. Protection measures will focus on I&E to prevent human disturbance to TECS plant and animal species and wintering big game (Table 21). The efficacy of livestock grazing within the WMA as a habitat management tool will be evaluated. Nonetheless, boundary fencing will be constructed and maintained annually.

On currently owned lands, enhancement measures will primarily address winter range needs with weed control, shrub plantings, and habitat rehabilitation at unauthorized recreation sites (Table 22). When considering the private lands targeted for acquisition, riparian habitat enhancement activities will also be needed. Upland enhancements will focus on improving big game winter range and include native shrub plantings at suitable locations. Shrub planting will focus on species that provide winter mule deer forage (e.g., sagebrush and bitterbrush). The feasibility of reestablishing native forb and grass species within nonnative annual grasslands will be evaluated. Native tree and shrub planting will be considered as a primary riparian enhancement tool. Site plans will also establish guidelines for habitat rehabilitation following significant habitat-altering events such as wildfire, landslide, and flood.

Through travel management and public I&E, vehicle travel will also be restricted to designated roads, access points, and authorized recreation sites (e.g., sportsman accesses). The WMA site plan and IWHP staff (combining policies of the HCRMP, *Historic Properties Management Plan: Hells Canyon Complex*, Recreation Plan, and WMMP) will manage recreation such that habitat impacts are confined to areas

within authorized boundaries. Habitat will be rehabilitated at unauthorized dispersed recreation sites. Public I&E will also be used to inform recreators about the value of wildlife resources and to implement any seasonal access restrictions.

IWHP staff will develop systematic monitoring protocols to evaluate the progress toward WMA goals and objectives, success of management actions, and compliance with FERC PM&E orders. IPC will specifically monitor the extent of noxious weed populations and evaluate the effectiveness of weed control and any subsequent habitat rehabilitation efforts. Likewise, IPC will develop protocols for evaluating the effectiveness of habitat enhancement actions such as riparian and upland vegetation plantings.

Monitoring will also be designed to detect and address recreation site-expansion and degradation of adjacent wildlife habitat. Authorized recreation sites within the WMA will be inspected at one- or two-year intervals. Upon detection, recreation impacts outside designated areas will be curtailed with appropriate management actions, and impacted habitat will be rehabilitated. Protecting habitat from unacceptable recreation access might include fencing, boulder barricades, and I&E signage. IWHP staff will also regularly patrol the WMA to evaluate and enforce access restrictions designed to protect wildlife and habitat. IWHP staff will adapt WMA management actions as necessary based on monitoring results.

## 4.2.4. Farewell Bend SMA (Idaho)

IPC proposes to designate approximately 420 acres of currently owned lands along the Idaho shoreline of Brownlee Reservoir between approximately river mile 328.0 and 338.5 as the Farewell Bend SMA (Figure 3). Of the 420 SMA acres, approximately 289 acres (58 acres of riparian, 218 acres of upland habitat, and 13 acres of nonhabitat; Table 14) will be dedicated to wildlife mitigation (Table 12). These lands are contiguous to public lands administered by the BLM, which are managed to include both recreation (Weiser Sand Dunes) and wildlife resource values.

These parcels benefit many high-value wildlife resources. The relatively extensive riparian habitats (i.e., *Emergent Herbaceous Wetland* and *Scrub-shrub Wetland*; Table 13) benefit waterfowl, shorebirds, and neotropical migrants (Table 19). This SMA supports relatively extensive waterfowl use within the HCC (Holthuijzen 1999, Rocklage et al. 2001). Upland habitats in this SMA are also in proximity to southern Idaho ground squirrel and burrowing owl habitat (Table 18). Other high-value riparian habitats are springs, willows, and cottonwoods (Table 16). High-value upland habitats present are shrublands, winter range, and grasslands (Table 16).

Several authorized and unauthorized dispersed recreation sites (approximately 130 acres; Table 12) exist within the SMA. These areas of human use will be excluded from the wildlife PM&E acreages (Table 3).

Unauthorized livestock grazing also likely occurs. IPC's current land management on these parcels includes limited amounts of dispersed recreation administration and surveying and encroachment monitoring (Table 20).

The Farewell Bend SMA supports a diversity of high-value wildlife resources. These resources are also in close proximity to extensive dispersed recreation. Thus, protection and enhancement measures are needed to prevent and offset resource conflicts. There will be four resource goals during the next license period:

- 1) Protect and enhance riparian habitat
- 2) Protect reproducing waterfowl from human disturbance
- 3) Enhance waterfowl habitat
- 4) Contain dispersed recreation sites within authorized boundaries

The wildlife PM&E lands within the SMA will be managed by IPC to protect and enhance wildlife resources according to the site potential while preventing impacts from recreation and any livestock grazing. The SMA site plan will have provisions for managing vegetation (e.g., riparian restoration, weed control), recreation, refuse, fencing, access/travel, and I&E. Detailed management direction will be incorporated into the site plan following an initial SMA inventory and detailed evaluation of site-specific resource needs and potential. Management actions will then be planned and implemented through the IWHP's annual work planning process. Monitoring, evaluation, and compliance will also be components of the site plan and will be implemented through the annual work planning process.

Wildlife protection measures will focus on preventing human disturbance to reproducing waterfowl and containing dispersed recreation impacts to authorized sites (Table 21). I&E methods will be the primary tool for preventing human disturbance and expansion of recreation sites into wildlife habitat. Enhancement measures will target the expansion of high-quality riparian habitat to the maximum site potential (Table 22). Riparian habitat expansion will include the rehabilitation of unauthorized recreation sites and preventing the unauthorized expansion of authorized recreation sites. IPC will enhance riparian habitat by controlling noxious weeds as needed and planting native woody riparian species (e.g., coyote willow and black cottonwood).

Livestock grazing will not be permitted within the SMA, thus boundary fencing will be constructed and maintained annually. IPC will assess the feasibility of installing water-control structures in suitable backwater channels to delay water elevation changes during reservoir drafting. Site plans will also establish guidelines for habitat rehabilitation following significant habitat-altering events such as wildfire, landslide, and flood.

IPC proposes to encourage waterfowl production through habitat management and protection (Tables 21 and 22). Protecting and enhancing riparian habitats will provide the cover and food necessary for waterfowl nesting and brood rearing. Extending the duration of flooded backwater areas with water-control structures, if feasible, will also enhance the availability of shallow-water habitat during reservoir drafting. Seasonal and habitat-specific access restrictions will also be considered to protect waterfowl from human disturbance during the critical brood-rearing period.

With travel management and public I&E, on- and off-road vehicle travel will be restricted to designated roads, access points, and authorized recreation sites. The SMA site plan and IPC's Interdisciplinary Team (combining policies of the HCRMP, *Historic Properties Management Plan: Hells Canyon Complex*, Recreation Plan, and WMMP) will manage recreation such that riparian habitat impacts are confined to areas within authorized boundaries. Public I&E will inform recreators about the value of wildlife resources and riparian habitat. Seasonal access restrictions will also be implemented with the I&E program.

IWHP staff will develop systematic monitoring protocols to evaluate the success of management actions and compliance with SMA goals and objectives. IPC will specifically monitor the extent of noxious weed populations and evaluate the effectiveness of weed control and subsequent habitat rehabilitation efforts. Likewise, IPC will develop protocols for evaluating the effectiveness of riparian habitat enhancement. Management actions will be adapted as necessary, based on monitoring results.

Monitoring will be designed to detect and address recreation-site expansion and degradation of adjacent habitat. The extent of dispersed sites will likely be inspected at one- or two-year intervals. Upon detection, site expansion will be curtailed with appropriate management actions, and impacted habitat will be rehabilitated. Fencing, boulder barricades, and I&E signage will be used to eliminate unacceptable recreation access. IWHP staff will also regularly patrol the SMA to evaluate and enforce access and travel restrictions designed to protect wildlife and habitat.

### 4.2.5. Powder River WMA (Oregon)

IPC proposes to dedicate for wildlife mitigation approximately 503 acres (140 acres of riparian, 356 acres of upland habitat, and 7 acres of nonhabitat; Table 14) of currently owned parcels along the shoreline of the Powder River Arm of the Brownlee Reservoir as the Powder River WMA (Figure 3). These parcels are scattered along the shoreline from the Powder River confluence to the western end of the Powder River Pool. Several of these parcels are contiguous to extensive public lands administered by the BLM to include wildlife values. Many of these currently owned IPC parcels are also contiguous to the 10,695-acre Daly Creek Ranch that IPC has proposed to acquire and include in the Powder River WMA (see

section 2.1.2). The ranch is base property for the Ruth Gulch and Daly Creek BLM grazing allotments. Combining these multiple land holdings into a single WMA would afford the opportunity to cooperatively create a relatively large and unique area with coordinated management dedicated to wildlife habitat protection and enhancement.

IPC's parcels benefit many high-value wildlife resources. IPC ownership nearly rings the Powder River Pool and provides some of the most significant riparian habitat within the HCC, including a relatively extensive patch of cottonwoods trees (Table 16) (i.e., *Forested Wetland*) at the confluence of Eagle Creek and the Powder River. The relatively extensive riparian habitats benefit TECS species and high-value species including amphibians, aquatic furbearers, nesting raptors, waterfowl, neotropical migrant birds, and shorebirds (Tables 18–19). The pool also has some of the heaviest use by wintering and reproducing waterfowl within the HCC (Holthuijzen 1999, Rocklage et al. 2001).

Of special importance are the two bald eagle night roosts (Isaacs et al. 1992) and great blue heron rookery (Pope 2001) (Table 19). The *Shrubland*, *Grassland*, and *Grazing Land/Pasture* cover types (Table 13) provide crucial winter range for big game and upland game birds (Table 19). Many parcels are associated with the Summit Ridge mule deer migration corridor across the Powder River (Edelmann 2002). High-value habitats and plant communities present are cottonwood, willow, and springs (Table 16). IPC also owns an agricultural field near the shoreline of the Powder River Pool that provides food for wintering waterfowl, deer, and other wildlife species.

IPC actively manages many aspects of the Powder River WMA parcels (Table 20). IPC has several grazing leases and a farming lease on a subset of these parcels. Weed control and forage utilization monitoring are incorporated into the leases. IPC also recently constructed a sportsman's access site to control wheeled vehicle access to the upstream end of the Powder River Pool. IPC routinely conducts encroachment monitoring because this area is popular for the construction of fishing platforms. Although IPC has issued grazing leases on some of the WMA parcels, many parcels adjacent to BLM and other private lands are unfenced. Thus, unauthorized grazing likely occurs along the shoreline of the Powder River Arm.

The Powder River WMA supports a diversity of high-value and unique wildlife resources within the HCC. These resources are also in proximity to developed recreation sites (i.e., Hewitt and Holcolm parks) and authorized dispersed recreation sites (e.g., fishing platforms). Protection and enhancement measures are needed to prevent and offset resource conflicts. Consequently, there will be several resource goals during the next license period:

- 1) Protect and enhance upland and riparian habitat
- 2) Protect the two bald eagle night roosts
- 3) Protect the heron rookery
- 4) Protect the mule deer migration corridor
- 5) Enhance waterfowl habitat for wintering and reproduction
- 6) Enhance big game winter range
- 7) Control recreation access where incompatible with wildlife management
- 8) Manage livestock grazing

A single site plan will be developed for the currently owned parcels and, if acquired by IPC, the Daly Creek Ranch. The site plan will specify WMA goals and coordinate the protection and enhancement of wildlife resources among all parcels comprising the proposed Powder River WMA.

The WMA will be managed to protect and enhance wildlife resources according to site potential while providing compatible types and levels of recreation and traditional land uses (e.g., livestock grazing). The WMA plan will have provisions for managing vegetation (e.g., riparian restoration, weed control), food plots, recreation, livestock grazing, refuse, fencing, travel/access, and I&E. The site plan will also establish guidelines for habitat rehabilitation following significant habitat-altering events such as wildfire, landslide, and flood.

Detailed management direction will be incorporated into the site plan following an initial WMA inventory and evaluation of resource protection and enhancement needs. Specific management actions will then be planned and implemented with the IWHP's annual work planning process.

Protection measures will emphasize the prevention of human disturbance (e.g., from recreation) to bald eagle roosts, the heron rookery, nesting and brood-rearing waterfowl, and wintering big game (Table 21). Selected areas surrounding the Powder River Pool will be seasonally closed to human access and recreation to protect heron and waterfowl reproduction. Closure boundaries and timing will be established during site plan preparation.

Existing riparian habitat will also be protected from livestock grazing and recreation impacts on all WMA parcels. That is, livestock will be excluded from riparian habitats in parcels surrounding the Powder River and Powder River Pool. The compatibility of livestock grazing within WMA parcels along the Powder River Arm will be evaluated in coordination with the adjacent BLM grazing allotments and the IWHP Workgroup. If determined to be compatible, grazing stipulations such as timing, duration, and stocking rate will be incorporated into the WMA site plan to protect upland and riparian habitats from overgrazing.

If the Daly Creek Ranch is acquired, the compatibility of a grazing program will also be assessed for the deeded lands.

An access/travel and sportsman's access program will be developed as part of the WMA plan to manage recreation in a manner compatible with protecting wildlife resources. Developed recreation sites will not be permitted in riparian habitats on WMA parcels. Sportsman's access points will be located to prevent riparian impacts. Only recreational activities (e.g., hunting, fishing, wildlife viewing) that do not result in habitat destruction will be permitted within riparian areas. Through travel and access management and public I&E, motorized vehicle travel will also be restricted to designated roads and sportsman's accesses. Public I&E will also be used to inform recreators about the value of wildlife resources and to implement seasonal access restrictions.

In addition to protection, riparian habitats in parcels surrounding the Powder River Pool will be enhanced by controlling noxious weeds as needed, rehabilitating degraded riparian areas, and converting irrigated pastures into woody riparian habitat (Table 3). Special emphasis will be placed on the heron rookery, bald eagle roosts, and waterfowl habitat. *Forested Wetlands* comprising the rookery and eagle roosts will be encouraged to expand to the maximum site potential. *Emergent Herbaceous Wetland* and *Scrub-shrub Wetland* cover types will also be encouraged to expand to the maximum site potential for waterfowl winter and brood-rearing habitat. Protecting and enhancing riparian habitats will provide the cover and food necessary for waterfowl nesting and brood rearing. Native tree and shrub planting will be considered as a primary riparian enhancement and rehabilitation tool (Table 22).

Upland enhancements will focus on improving big game winter range and include native shrub plantings that provide winter mule deer forage (e.g., big sagebrush and bitterbrush; Table 22). The feasibility of reestablishing native forb and grass species within nonnative annual grasslands will be evaluated. Irrigated agricultural fields will also be converted to food plots and permanent cover to support wintering and nesting waterfowl and upland game birds (Table 3).

IWHP staff will develop systematic monitoring protocols to evaluate the success of management actions, progress toward WMA goals and objectives, and PM&E compliance. IPC will develop protocols for evaluating the effectiveness of habitat enhancement actions such as riparian vegetation plantings. IPC will specifically monitor the extent of noxious weed populations and evaluate the effectiveness of weed control and habitat rehabilitation efforts. If livestock grazing is permitted, its effects on habitat will be monitored (e.g., forage utilization and residual stubble heights).

Monitoring will also be designed to detect and address habitat degradation from human uses and access. Upon detection, human use impacts will be curtailed with appropriate management actions (e.g., fencing, boulder barricades, and I&E signage) and impacted habitat will be rehabilitated. IWHP staff will regularly patrol the WMA to evaluate and enforce access and travel restrictions. Management actions will be adapted as necessary based on monitoring results.

### 4.2.6. Rocking-M WMA (Idaho)

IPC proposes to dedicate approximately 63 acres (1 acre of riparian, 61 acres of upland habitat, and 1 acre of nonhabitat; Table 14) of currently owned parcels along the Idaho shoreline of Brownlee Reservoir as the Rocking-M WMA (Figure 3). IPC lands labeled as Rocking-M WMA are generally adjacent to IDFG's Rocking M Wildlife Conservation Easement, which is more than 35,000 acres of private and BLM habitat managed for fish and wildlife. The Rocking M Ranch is currently for sale. The conservation easement is attached in perpetuity to only a portion of the ranch.

Although small, scattered, and situated along the reservoir shoreline, many of these currently owned Rocking-M WMA parcels are contiguous to the 2,902 acres of the Rocking M Ranch that IPC has proposed to acquire and include in the Rocking-M WMA (see section 2.1.2). Of the 2,902 acres proposed for IPC acquisition, approximately 1,386 of those acres are not included in the IDFG conservation easement (Table 3). IPC's acquisition of the Rocking M Ranch lands not included in the conservation easement would augment the overall value of the wildlife conservation easement.

The currently owned Rocking-M WMA lands primarily provide winter range for big game and upland game birds (Table 19). However, TECS habitat also occurs for the southern Idaho ground squirrel and Snake River goldenweed (Table 17). High-value habitats and plant communities present are *Scrub-shrub Wetland*, willow, shrublands, and grasslands (Table 16).

Several dispersed recreation sites are associated with the currently owned WMA parcels along the Brownlee shoreline. Transient recreation (e.g., hunting and fishing) also likely occurs on these parcels. Washington County's Rock Creek and Dennett Creek roads pass through or along some of these parcels. Active management of these parcels includes encroachment monitoring (Table 20). These parcels are unfenced, and livestock grazing occurs incidental to the management of adjacent private and public lands.

The overall value of these currently owned parcels for wildlife is relatively small when considered alone. However, their value increases significantly when considered in combination with IPC's proposed acquisition of the adjacent private lands and the juxtaposition of IDFG's adjoining wildlife conservation easement lands. Considering the intermingling of IPC, BLM and conservation easement lands, IPC proposes to manage Rocking-M WMA lands (i.e., currently owned and future acquisition lands) in coordination with the IDFG's adjacent Rocking M Wildlife Conservation Easement. Consequently, there will be four goals of the WMA during the new license term:

- 1) Protect and enhance upland and riparian habitat
- 2) Enhance big game winter range
- 3) Manage livestock grazing
- 4) Contain recreation sites within authorized boundaries

A single site plan will be developed for the currently owned parcels and, upon IPC acquisition, the newly acquired portions of the Rocking M Ranch. The site plan will specify WMA goals and coordinate the protection and enhancement of wildlife resources among all parcels comprising the proposed WMA.

The WMA will be managed to protect and enhance wildlife resources according to site potential while providing compatible types and levels of recreation and traditional land uses (e.g., livestock grazing). The WMA site plan will have provisions for managing vegetation (e.g., riparian restoration and weed control), recreation, livestock grazing, refuse, fencing, travel/access, and I&E. Site plans will also establish guidelines for habitat rehabilitation as needed following wildfire, landslide, and flood.

Detailed management direction will be incorporated into the site plan following an initial WMA inventory and evaluation of resource protection and enhancement needs. Specific management actions will be planned and implemented with the IWHP's annual work planning process.

Protection measures will emphasize the prevention of human disturbance (e.g., from recreation) to wintering big game (Table 21). Livestock and unauthorized recreation sites will be excluded from existing riparian vegetation along the shoreline of Brownlee Reservoir. The compatibility of livestock grazing in other areas of the WMA will also be evaluated in coordination with the adjacent conservation easement and the IWHP Workgroup. If determined to be compatible, grazing stipulations such as timing, duration, and stocking rate will be incorporated into the WMA site plan to protect upland and riparian habitats from overgrazing. If the proposed portions of the Rocking M Ranch are acquired, the compatibility of a grazing program will also be assessed for the deeded lands.

A travel and sportsman's access program will be developed as part of the WMA plan to manage recreation in a manner compatible with protecting wildlife resources. Developed recreation sites will not be permitted in riparian habitats on WMA parcels. Sportsman's access points will be located so as not to impact riparian vegetation. Only recreational activities (e.g., hunting, fishing, wildlife viewing) that do not result in habitat destruction will be permitted within riparian areas. Through travel and access management and public I&E, motorized vehicle travel will be restricted to designated roads and sportsman's accesses. Public I&E will also be used to inform recreators about the value of wildlife resources and to implement any seasonal access restrictions. These provisions will be especially meaningful if the proposed portions of the Rocking M Ranch are acquired.

In addition to protection, riparian habitats in parcels along the Brownlee Reservoir shoreline will be enhanced by controlling noxious weeds as needed, rehabilitating selected riparian areas, and converting irrigated pastures to woody riparian habitat (Tables 3 and 22). Riparian habitats will be encouraged to expand to the maximum site potential. Native tree and shrub planting will be considered as a primary riparian enhancement and rehabilitation tool (Table 22).

Upland enhancements will focus on improving big game winter range and include native shrub plantings at suitable locations. Winter mule deer forage species (e.g., big sagebrush and bitterbrush) will be prioritized for shrub planting (Table 22). IPC will evaluate the feasibility of reestablishing native forb and grass species within nonnative annual grasslands.

IWHP staff will develop systematic monitoring protocols to evaluate the success of management actions and compliance with FERC PM&E measures. IPC will develop protocols for evaluating the effectiveness of habitat enhancement actions such as riparian vegetation plantings. IPC will specifically monitor the extent of noxious weed populations and evaluate the effectiveness of weed control and habitat rehabilitation efforts. If livestock grazing is compatible with WMA goals, forage utilization will be monitored.

Monitoring will also be designed to detect and address any degradation to wildlife habitat from human use and access. Upon detection, human-use impacts will be curtailed with appropriate management actions, and impacted habitat will be rehabilitated. Protecting habitat from unacceptable human access might include fencing, boulder barricades, and I&E signage. IWHP staff will also regularly patrol the WMA to evaluate and enforce access and travel restrictions. Management actions will be adapted as necessary based on monitoring results.

# 4.2.7. Spring SMA (Oregon)

IPC proposes to designate approximately 370 acres of currently owned parcels distributed along the Oregon shoreline of Brownlee Reservoir as the Spring SMA (Figure 3). Of the 370 SMA acres, 362 acres (4 acres of riparian, 345 acres of upland habitat, and 13 acres of nonhabitat; Table 14) will be dedicated to wildlife mitigation. These parcels are contiguous to extensive public lands administered by the BLM.

Spring SMA parcels benefit wintering big game and upland game birds (Table 19). Springs and associated *Scrub-shrub Wetland* are also present and provide neotropical migrant bird and aquatic furbearer habitat (Tables 16 and 19). A Columbian sharp-tailed grouse (Table 18) was observed and sage grouse habitat has been mapped at this site (Table 19). Snake River goldenweed, a TECS species, has been documented to occur here (Table 17).

Several dispersed recreation sites (approximately 8 acres) occur in the SMA along the Brownlee shoreline, and the BLM's Spring Recreation Site adjoins the SMA. Baker County's Snake River Road passes through the SMA, and gravel storage is provided for road maintenance. These areas of human use will be excluded from the wildlife PM&E acreages (Table 12). Unauthorized livestock grazing also likely occurs. IPC's current land management on these parcels includes limited amounts of dispersed recreation administration, encroachment monitoring, and some weed control (Table 20).

The Spring SMA supports a diversity of high-value wildlife resources. These resources are also near dispersed and developed recreation sites. Thus, protection and enhancement measures are needed to prevent and offset resource conflicts. Consequently, there will be five resource goals during the next license period:

- 1) Protect and enhance upland and riparian habitat
- 2) Protect wintering big game from human disturbance
- 3) Enhance big game winter range
- 4) Contain dispersed and developed recreation sites within authorized boundaries
- 5) Manage livestock grazing

The SMA will be managed to protect and enhance wildlife resources while containing recreation impacts to authorized sites. The SMA plan will have provisions for managing vegetation (e.g., riparian restoration, weed control), recreation, refuse, fencing, travel, and I&E. Detailed management direction will be incorporated into the site plan following an initial SMA inventory and evaluation of resource protection needs. Specific management actions will then be planned and implemented through the IWHP's annual work planning process.

IPC will enhance upland and riparian habitat, according to the site potential, by controlling noxious weeds, as needed, and planting native shrubs at suitable locations. IPC proposes to enhance winter range with habitat management and protection. For winter range enhancements, shrub planting will focus on big sagebrush and bitterbrush to provide winter mule deer forage (Table 22). Site plans will also establish guidelines for habitat rehabilitation following events such as wildfire, landslide, and flood. Protecting and enhancing upland and riparian habitats will provide the cover and food necessary for wintering big game.

SMA boundaries will be fenced and maintained annually to control livestock grazing. The compatibility of livestock grazing with SMA goals will be evaluated in coordination with the adjacent BLM grazing allotment and the IWHP Workgroup. If determined to be compatible, grazing stipulations such as timing, duration, and stocking rate will be incorporated into the SMA site plan to protect upland and riparian habitats from overgrazing.

IPC will implement a public I&E campaign informing recreators about the detrimental effects of disturbing wintering big game and suggesting ways to avoid disturbing activities. Seasonal access restrictions will be evaluated for certain habitats to protect big game from human disturbance during harsh winters. The I&E efforts will also be used to implement any seasonal access restrictions.

Through travel/access management and public I&E, on- and off-road vehicle travel will be restricted to designated roads and authorized recreation sites. IPC will manage recreation such that habitat impacts are confined to areas within defined and authorized boundaries. Gravel storage will only continue at the current location.

IWHP staff will develop systematic monitoring protocols to evaluate the success of management actions within the SMA and compliance with FERC PM&Es. IPC will monitor the extent of noxious weed populations and evaluate the effectiveness of weed control and habitat rehabilitation efforts. Likewise, IPC will develop protocols and establish success criteria for evaluating the effectiveness of habitat enhancement actions such as upland and riparian shrub plantings.

Monitoring will be designed to detect and address recreation-site expansion and degradation of adjacent habitat. The extent of recreation sites will likely be inspected at one- or two-year intervals. Upon detection, site expansion will be curtailed with appropriate management actions and impacted habitat will be rehabilitated. Protecting habitat from unacceptable recreation access might include fencing, boulder barricades, and I&E signage. IWHP staff will regularly patrol the SMA to evaluate and enforce access, travel, and livestock restrictions implemented to protect wildlife and habitat. Management actions will be adapted as necessary based on monitoring results.

# 4.2.8. Sturgill Creek WMA (Idaho)

IPC proposes to dedicate for wildlife mitigation a 36-acre (1 acre of riparian and 35 acres of upland habitat; Table 14) parcel of currently owned land along the Idaho shoreline of Brownlee Reservoir (Figure 3). This parcel is near the Sturgill Creek confluence and adjoins the BLM grazing allotment that is attached to the private property in Sturgill Creek. The parcel benefits wintering big game and upland game birds (Table 19). Snake River goldenweed, a TECS species, has also been documented nearby (Table 17). Although the Sturgill Creek WMA parcel is small, it is near approximately 6,325 acres of private land in Sturgill Creek that IPC has proposed to acquire (see section 2.1.2). This currently owned parcel and the newly acquired parcels would be designated at the Sturgill Creek WMA.

The parcel receives almost no active management. Noxious weeds are intermittently treated during control efforts directed at neighboring lands. Otherwise, IPC does not actively manage this parcel. This unfenced parcel is grazed by cattle incidental to livestock management on adjacent public and private

parcels. Considering the current absence of resource management on this parcel, IPC's will have three goals here during the new license period:

- 1) Protect and enhance upland and riparian habitat
- 2) Enhance big game winter range
- 3) Manage livestock grazing

The overall value of this currently owned parcel is relatively small when considered alone. However, its value increases when considered in combination with IPC's proposed acquisition of the adjacent private lands. Consequently, IPC proposes that, upon acquisition, this relatively small and isolated parcel be incorporated into the management, upon acquisition, of the private lands in Sturgill Creek (Table 3). A single site plan and set of management goals will be developed for the currently owned parcel and the newly acquired private lands. The site plan will specify overall WMA goals and coordinate the protection and enhancement of wildlife resources for the entire Sturgill Creek WMA.

Assuming a successful acquisition, the WMA will be managed to protect and enhance wildlife resources according to site potential while providing compatible types and levels of recreation and traditional land uses (e.g., livestock grazing). The WMA plan will have provisions for managing vegetation (e.g., riparian restoration, weed control), food plots, recreation, livestock grazing, refuse, fencing, travel/access, and I&E. The site plan will also establish guidelines for habitat rehabilitation following significant habitat-altering events such as wildfire, landslide, and flood.

Detailed management direction will be incorporated into the site plan following an initial WMA inventory and evaluation of resource protection and enhancement needs. Specific management actions will be planned and implemented with the IWHP's annual work planning process.

Protection measures will emphasize the prevention of impacts to upland and riparian habitats from livestock grazing and recreation. If private lands are acquired, livestock will be excluded from riparian habitats along Sturgill Creek. The compatibility of livestock grazing elsewhere in the WMA will be evaluated in coordination with the adjacent BLM grazing allotments and the IWHP Workgroup. If determined to be compatible, grazing stipulations such as timing, duration, and stocking rate will be incorporated into the WMA site plan to protect upland and riparian habitats from overgrazing. Boundary and pasture fencing will also be constructed and maintained to manage livestock grazing.

A travel and sportsman's access program will be developed as part of the WMA site plan to manage recreation in a manner compatible with protecting wildlife resources. Developed recreation sites will not be permitted in riparian habitats. Sportsman's access points will be located so as not to impact riparian vegetation. Only recreational activities (e.g., hunting, fishing, wildlife viewing) that do not result in

habitat destruction will be permitted within riparian areas. Through travel and access management and public I&E, motorized vehicle travel will also be restricted to designated roads and sportsman's accesses. Public I&E will also be used to inform recreators about the value of wildlife resources and to implement any seasonal access restrictions necessary to protect habitat and wildlife (Table 21).

In addition to protection, riparian habitats will be enhanced by rehabilitating degraded riparian areas and converting portions of irrigated pastures to woody riparian habitat (Table 3). Riparian habitat will be encouraged to expand to the maximum site potential. The primary riparian enhancement and rehabilitation tools will be native shrub and tree plantings and noxious weed control.

Upland enhancements will focus on improving big game winter range and include native shrub plantings at suitable locations (Table 22). Shrub planting will prioritize species that provide winter mule deer forage (e.g., big sagebrush and bitterbrush). The feasibility of reestablishing native forb and grass species within nonnative annual grasslands will be evaluated. A portion of the irrigated agricultural fields will also be converted to food plots and permanent cover to support wintering big game (Table 3).

IWHP staff will develop systematic monitoring protocols to evaluate the success of management actions and compliance with WMA goals and objectives. IPC will develop protocols for evaluating the effectiveness of habitat enhancement actions such as riparian vegetation plantings. IPC will specifically monitor the extent of noxious weed populations, the effectiveness of weed control, and the need for habitat rehabilitation. If livestock grazing is compatible with WMA goals, forage utilization will be monitored

Monitoring will also be designed to detect and address habitat degradation from human use and access. Upon detection, human-use impacts will be curtailed with appropriate management actions, and impacted habitat will be rehabilitated. Protecting habitat from unacceptable human access might include fencing, boulder barricades, and I&E signage. IWHP staff will also regularly patrol the WMA to evaluate and enforce access and travel restrictions. Management actions will be adapted as necessary based on monitoring results.

### 4.2.9. Wildhorse SMA (Idaho)

IPC proposes to designate approximately 99 acres of currently owned lands at the confluence of the Wildhorse River and Oxbow Reservoir in Idaho as the Wildhorse SMA (Figure 3). Of the 99 SMA acres, 89 acres (14 acres of riparian and 75 acres of upland habitat; Table 14) will be dedicated to wildlife mitigation (Table 12). These parcels are contiguous to the IDFG's Cecil D. Andrus WMA and extensive public lands administered by the BLM. IPC's parcels benefit many high-value wildlife resources including the bald eagle, amphibians, aquatic furbearers, neotropical migrant birds, big game, and upland

game birds (Tables 18 and 19). TECS species including the western toad, trumpeter swan, bald eagle, plumbeus vireo, and yellow warbler have been documented at this site (Table 18). Of special importance is the bald eagle perch within McCormick Park (IPC unpublished data). The SMA is within crucial winter range and contains riparian and upland habitats. High-value cottonwood and willow communities are present along the Wildhorse River (Table 16).

McCormick Park (10 acres), an IPC developed recreation site, is located within this SMA. Weed control associated with park and road maintenance occurs on a portion of the SMA. A special use permit has been granted to the neighboring landowner for an access road. An undetermined level of unauthorized livestock grazing occurs on portions of the SMA because not all of the parcels are fenced (Table 20).

The Wildhorse SMA supports a diversity of high-value wildlife resources. These resources are also near a developed recreation site. Thus, protection and enhancement measures are needed to prevent and offset potential resource conflicts. The following are SMA goals during the next license period:

- 1) Protect and enhance eagle-perching opportunities
- 2) Protect wintering big game from human disturbance
- 3) Protect and enhance riparian habitat such that all suitable sites are occupied
- 4) Enhance upland habitat for mule deer winter range
- 5) Contain the recreation site within authorized boundaries

The wildlife PM&E lands within the SMA will be managed to protect and enhance wildlife resources according to the site potential while preventing recreation impacts. The SMA plan will have provisions for managing vegetation (e.g., riparian restoration, weed control), recreation, refuse, fencing, access/travel, and I&E. Detailed management direction will be incorporated into the site plan following an initial SMA inventory and evaluation of site-specific resource needs and potential. The site plan will also establish guidelines for habitat rehabilitation following significant habitat-altering events such as wildfire, landslide, and flood. Specific management actions will be planned and implemented through the IWHP's annual work planning process.

Protection measures will emphasize the prevention of human disturbance (e.g., from recreation) to perching bald eagles and wintering big game (Table 21). Public I&E will be used to inform recreators about the value of wildlife resources. The I&E program will inform recreators and IPC personnel about the detrimental effects of disturbing wintering big game and suggest avoidances. A travel and sportsman's access program will be developed as part of the WMA site plan to manage recreation in a manner compatible with protecting wildlife resources. Through travel and access management and public I&E, motorized vehicles will be restricted to designated roads. Public I&E will also be used to inform

recreators about the value of wildlife resources and to implement any seasonal access restrictions that might be necessary to protect wildlife resources.

Existing riparian habitat will be protected from recreation impacts (Table 21). Riparian habitat will also be enhanced with the elimination of livestock grazing within the SMA (Table 22). Thus, boundary fencing will be constructed and maintained annually. Restricted driving of cattle travel across the SMA will be permitted to access other lands. The SMA site plan and IPC's Interdisciplinary Team (combining policies of the HCRMP, *Historic Properties Management Plan: Hells Canyon Complex*, Recreation Plan, and WMMP) will manage recreation such that riparian habitat impacts are confined to areas within the authorized boundary of McCormick Park.

In addition to protection, riparian habitats along Oxbow Reservoir and Wildhorse River will be enhanced by controlling noxious weeds, as needed, and rehabilitating degraded areas. Special emphasis will be placed on bald eagle perch trees. *Forested Wetland* will be encouraged to expand to the maximum site potential. The mature trees within McCormick Park, which provide bald eagle perching, are beginning to die. Thus, tree plantings will be coordinated with the management of McCormick Park so that new trees will be available upon maturity to replace the existing eagle perch trees. Native tree and shrub planting will be considered as a primary riparian enhancement and rehabilitation tool (Table 22).

Upland enhancements will focus on improving big game winter range and include native shrub plantings (e.g., big sagebrush and bitterbrush) at suitable locations for winter mule deer forage (Table 22). The feasibility of reestablishing native forb and grass species within nonnative annual grasslands will be evaluated.

IWHP staff will develop systematic monitoring protocols to evaluate the success of management actions and compliance with PM&E measures. IPC will specifically monitor the extent of noxious weed populations and evaluate the effectiveness of weed control and habitat rehabilitation efforts. Likewise, IPC will develop protocols for evaluating the effectiveness of habitat enhancements such as riparian vegetation plantings.

Monitoring will be designed to detect and address degradation of wildlife habitat within the SMA from recreation. Recreation-site expansion will likely be inspected at one- or two-year intervals. Upon detection, recreation impacts will be curtailed with appropriate management actions, and impacted habitat will be rehabilitated. Habitat will be protected from unacceptable recreation access with fencing, boulder barricades, and I&E signage. IWHP staff will also regularly patrol the SMA to evaluate and enforce access restrictions designed to protect wildlife and habitat. The Interdisciplinary Team will adapt SMA management actions as necessary based on monitoring results.

# 5. SUMMARY OF THE IWHP

FERC requested that IPC explain how the IWHP relates to the HCRMP and how it will be implemented. The IWHP will tier from the HCRMP and serve as the mechanism for implementing wildlife PM&Es during the new HCC license period. The IWHP will comprise three primary PM&E elements as specified in the HCC FLA: 1) protection and enhancement of wildlife habitat on IPC-owned PM&E lands (i.e., both currently owned and newly acquired lands), 2) cooperative management of non-IPC lands (i.e., stateowned Snake River islands), and 3) cooperative mountain quail habitat enhancement and reintroduction.

Wildlife PM&E lands will be administered by the IWHP and hierarchically managed through the WMMP, site-specific management plans (site plans), annual work plans, and monitoring plans. IPC's cooperative management efforts will similarly be administered by the IWHP, cooperative management plans, annual work plans, and monitoring plans. The IWHP Workgroup will form the consultation mechanism and provide input and recommendations to IPC as part of the management planning processes.

FERC directed IPC to develop options for meeting the targeted 22,761 upland acres and 821 riparian acres of wildlife PM&E lands according to TRWG recommendations (Table 1). IPC first evaluated and selected, as wildlife PM&E lands a subset of currently owned lands in Hells Canyon that have high-value wildlife resources as described by the TRWG. IPC then developed a large list of private land options in Hells Canyon for acquisition (Table 2). Considering real estate, geography, and wildlife data, IPC then ranked the relative PM&E value and acquisition priority of each private land option. On-site properties near HCC reservoirs received both the highest PM&E and acquisition rankings. IPC then selected a preferred options subset of private properties with high rankings that were specifically recommended by the TRWG for acquisition (Table 3).

Combining the preferred acquisition options with currently owned lands, IPC proposes to protect and manage approximately 24,884 acres of wildlife PM&E lands (Table 3). This acreage includes 1004 acres of riparian habitat and 23,564 acres of upland habitat.

IPC-owned PM&E lands will be grouped into logical management segments and classified as either a WMA or SMA under the HCRMP. A WMA will be dedicated to the protection and enhancement of wildlife resources with incompatible human uses and activities eliminated. An SMA will be designed to protect highly valuable and sensitive natural resources that are associated with potentially incompatible human uses and activities (e.g., a developed recreation area).

In Oregon, IPC proposes to establish and actively manage the Powder River WMA. The Power River WMA will be composed of the Daly Creek Ranch acquisition (10,695 acres) and currently owned IPC lands near the Powder River (503 acres; Table 3). IPC will also establish and manage the Copperfield SMA (1,079 acres) and Spring SMA (362 acres) in Oregon (Table 3).

IPC proposes that WMA-designated lands in Idaho be assembled into four groupings: 1) Andrus WMA (356 acres), 2) Cottonwood Creek WMA (2,184 acres), 3) Rocking-M WMA (2,966 acres), and 4) Sturgill Creek WMA (6,361 acres; Table 3). IPC's Andrus WMA lands adjoin IDFG's Cecil D. Andrus WMA and would be managed contractually by IDFG. IPC would provide IDFG with assistance and annual funding to manage these parcels. The newly formed Cottonwood Creek WMA and Sturgill Creek WMA, situated between the Andrus WMA and Rocking-M WMA, would be actively managed by IPC. Additionally in Idaho, IPC proposes to dedicate and manage lands within the Farewell Bend SMA (289 acres) and Wildhorse SMA (89 acres) for wildlife PM&Es (Table 3).

Lastly, FERC requested that IPC detail protection measures listed in the FLA that will be implemented through the IWHP. Site plans will be developed for each WMA and SMA. Site plans will address the unique setting, assemblage of resources, objectives, human uses, and protection and enhancement needs of a WMA or SMA. Correspondingly, site plans will have site-specific PM&E objectives and priorities, protection and enhancement measures, implementation schedules, management practices, monitoring and evaluation procedures, and adaptive management mechanisms.

Site-specific objectives will direct annual work plans and budgets for each WMA and SMA. The annual work plans will in turn direct on-the-ground management actions to maintain desirable conditions (i.e., habitat protection) and to reduce undesirable conditions (i.e., habitat enhancement). Specific protection and enhancement measures will be developed in consultation with the IWHP Workgroup during inception of the IWHP and preparation of WMA and SMA site plans. Weed control, riparian rehabilitation, livestock fencing, road maintenance, recreation restrictions, spring development, mountain quail surveys, and mule deer population monitoring are examples of typical protection and enhancement needs on currently owned and newly acquired IPC lands. Site plans will be adapted and updated periodically during the life of the new license as resource needs change and new information becomes available.

# 6. COST ESTIMATES

Cost estimates cannot be developed at this time with a high level of precision or accuracy. Detailed cost estimates will be available once targeted parcels are acquired and inventoried, and subsequent management planning and consultation efforts proceed.

Cost estimates presented here are intended for planning purposes only and for guidance with relative magnitudes. In the absence of an initiated IWHP and detailed site plans, advertised parcel prices and Capital/O&M assumptions were used to derive updated estimate costs. The following assumptions were applied to estimate costs:

- 1) New land acquisitions will occur during year 1 (seller asking prices are presented).
- Major new Capital infrastructure construction and new equipment purchases will occur during years 2–5.
- Minor new Capital infrastructure construction and new equipment purchase will occur during years 6–30.
- 4) Infrastructure and equipment repair and maintenance will not occur during year 1.
- Ninety percent of labor costs will focus on IWHP planning and initiation (Capital) and only 10% of labor costs will focus on O&M activities during year 1.
- Labor costs will be split (50%) between site plan development (Capital) and O&M activities during years 2–5.
- Ninety percent of labor costs will focus O&M activities and only 10% of labor costs will focus on Capital activities during years 6–30.
- Only a limited amount of protection and enhancement activities will be initiated (\$10/acre/year O&M) during year 1.
- A large proportion of protection and enhancement efforts (\$40/acre/year O&M) will be initiated during years 2–5.
- 10) The efficiency of ongoing protection and enhancement efforts (\$30/acre/year O&M) will increase during years 6–30.

Tables 23 and 24 display IPC's cost estimates for proposed wildlife PM&E lands designated as WMA and SMA, respectively. Table 25 summarizes costs estimates from Tables 23 and 24.

# 7. TR-1 CONSULTATION

In preparing the response to TR-1, FERC required that IPC consult with agencies and Native American tribes (Appendix F). FERC directed IPC to consult with the designated agencies and Native American tribes both before and after preparing responses to sections (a)–(c) of TR-1. Prior to preparing responses,

IPC conducted a consultation meeting on July 8, 2004. FERC-designated agencies and tribes were invited to attend the meeting in a letter dated June 2, 2004 (Appendix G).

At the consultation meeting, IPC presented an overview of HCC AIR: TR-1 and then discussed preliminary concepts for addressing sections (a)–(c). Appendix H contains the meeting agenda. The meeting sign-in sheet documents attendance by agency and tribal personnel (Appendix I). IPC prepared a PowerPoint presentation outlining the preliminary AIR concepts. The PowerPoint presentation (minus private owner names and maps of suggested acquisitions) was made available to agencies and tribes for viewing after the meeting at <u>ipchydro.org</u>.

IPC also sent a follow-up letter dated July 16, 2004, formally requesting written comments on sections (a)–(c) of TR-1 (Appendix J). In the letter, IPC specifically requested that agencies and tribes provide alternatives or additional recommendations for private lands that IPC should evaluate for acquisition, per section (a)(iii).

Written comments (Appendix K) in response to IPC's July 16, 2004, request were received from the following entities:

- 11) Bureau of Land Management
- 12) Idaho Department of Fish and Game
- 13) Nez Perce Tribe
- 14) Oregon Department of Fish and Wildlife
- 15) Shoshone-Paiute Tribes
- 16) U.S. Fish and Wildlife Service
- 17) U.S. Forest Service

IPC provided the information requested in TR-1 following review of written comments from agencies and tribes. IPC specifically considered and analyzed parcels recommended by the consulted agencies and tribes (see section 2.1.2). Appendix E lists the parcel recommendations and a justification for IPC's acquisition rankings.

In TR-1, FERC directs IPC to respond to comments from consulted entities for sections (a) to (c) of the AIR. As an attachment to the transmittal letter dated December 6, 2004 (Appendix L), IPC submitted the draft TR-1 report to the FERC-designated agencies and tribes for review and comment. Comments were due to IPC on January 6, 2004. Comments were received by the deadline from the following entities:

1) Bureau of Land Management

- 2) Idaho Department of Fish and Game
- 3) Oregon Department of Fish and Wildlife
- 4) U.S. Forest Service

IPC delineated and numbered individual comments from each agency and then developed corresponding responses. Comments are in Appendix M and IPC's responses are in Table 26.

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Table 1.Desirable characteristics of wildlife mitigation lands and high-value wildlife resources<br/>prioritized by the TRWG for protection and enhancement to mitigate for HCC impacts to<br/>wildlife<sup>1</sup>.

Resource	Desirable Feature/Species
Habitat Location	On site
Landscape size	Large blocks of habitat
Landscape arrangement	Contiguous blocks of habitat
Habitat juxtaposition	Maximum habitat diversity
Riparian habitat	Emergent herbaceous wetlands
	Forested wetlands
	Scrub-shrub wetlands
	Springs
	Cottonwood stands
	Aspen groves
	Willow stands
Upland habitat	Forested uplands
	Shrublands
Jpland habitat	Grasslands
	Pine stands
	Big game winter range
Wildlife species	TECS species
	Waterfowl
	Big game
	Upland game birds
	Sage grouse
	Sharp-tailed grouse
	Aquatic furbearers
	Amphibians
	Neotropical migrants

<sup>1</sup> See Appendix A for more detailed description of TRWG conceptual PM&E measures.

Table 2.Mitigation value and acquisition priority rankings of private properties evaluated to meet IPC's targeted acres of wildlife PM&E lands.<br/>Rankings followed TRWG recommendations.

Map <sup>1</sup> Code	Private Property Owner	State	On site/ Off site	General Area	Nearest Reservoir	Acreage	Mitigation Value	Acquisition Priority
1	ALEX FINKE	Oregon	On site	Upstream <sup>2</sup>	Brownlee	4353	High	High
2	ALTA GOLD	Oregon	On site	Upstream	Hells Canyon	293	High	Medium
3	ALVIN BLOODSWORTH	Oregon	Off site	Imnaha River	Hells Canyon	775	Low	Low
4	ANDERSEN RANCHES	Oregon	On site	Imnaha River	Hells Canyon	681	Medium	Low
5	ANTHONY AZEVEDO	Idaho	On site	Upstream	Brownlee	186	High	Medium
6	ARLEY HAENER	Idaho	On site	Downstream <sup>3</sup>	Hells Canyon	171	Medium	Low
7	ASH GROVE CEMENT CO	Oregon	On site	Upstream	Brownlee	521	High	High
8	BAN RAC LLC	Idaho	On site	Downstream	Hells Canyon	10,743	Medium	Low
9	BENITA THOMPSON	Oregon	On site	Upstream	Oxbow	612	High	High
10	BIG ROCK CREEK GRAZING ASSOC	Idaho	On site	Upstream	Brownlee	319	High	Medium
11	BLAIN PETTY	Oregon	On site	Upstream	Brownlee	878	High	Medium
12	BRAD DENSON	Oregon	On site	Upstream	Hells Canyon	240	High	Medium
13	BRUCE HAM	Oregon	Off site	Imnaha River	Hells Canyon	125	Low	Low
14	CARNEL UPTON	Idaho	On site	Upstream	Brownlee	3489	High	Medium
15	CHARLES SLYTER	Idaho	On site	Upstream	Brownlee	2523	High	Medium
16	CLYDE RAMSEY	Oregon	On site	Upstream	Brownlee	449	High	Medium
17	DALY CREEK RANCH	Oregon	On site	Upstream	Brownlee	10,695	High	High
18	DAN FORSEA	Oregon	On site	Upstream	Brownlee	6159	High	High
19	DAN MOYLE	Idaho	On site	Upstream	Brownlee	1677	High	Medium
20	DARREL LEE BROWN	Idaho	On site	Upstream	Oxbow	634	High	Medium
21	DARREL MALLERY	Oregon	On site	Upstream	Oxbow	2263	High	High
22	DAVID BARBER	Oregon	On site	Upstream	Brownlee	939	High	Medium
23	DAVID G MOORE	Oregon	On site	Upstream	Oxbow	19,714	High	High
24	DAVID JACKSON	Oregon	Off site	Imnaha River	Hells Canyon	392	Low	Low
25	DAVID, KENNETH E TRUSTEE	Idaho	On site	Downstream	Hells Canyon	121	Medium	Low
26	DEBRA TATE	Idaho	On site	Upstream	Hells Canyon	161	High	Medium

Map <sup>1</sup> Code	Private Property Owner	State	On site/ Off site	General Area	Nearest Reservoir	Acreage	Mitigation Value	Acquisition Priority
27	DELBERT & LEWIS GARNET	Oregon	On site	Imnaha River	Hells Canyon	2712	Medium	Low
28	DERRELL WITTY	Oregon	Off site	Imnaha River	Hells Canyon	765	Low	Low
29	DIANNE BRAUSE	Oregon	On site	Upstream	Brownlee	848	High	High
30	DOBBINS, JAMES M	Idaho	On site	Downstream	Hells Canyon	509	Medium	Low
31	DON FRITZ	Idaho	On site	Downstream	Hells Canyon	258	Medium	Low
32	DUANE JOHNSON	Oregon	Off site	Imnaha River	Hells Canyon	148	Low	Low
33	DWIGHT MADDOX	Idaho	On site	Upstream	Brownlee	161	High	Medium
34	EAGLE VALLEY AG INC	Oregon	On site	Upstream	Brownlee	1968	High	High
35	EDITH RYNEARSON	Oregon	On site	Upstream	Brownlee	137	High	High
36	ESTHER SMITH	Idaho	On site	Upstream	Brownlee	912	High	Low
37	EUGENE GOERTZEN	Oregon	Off site	Imnaha River	Hells Canyon	831	Low	Low
38	EVERGREEN LAND AND CATTLE	Idaho	On site	Downstream	Hells Canyon	14,905	Medium	Low
39	FENCE CREEK CATTLE CO	Oregon	Off site	Imnaha River	Hells Canyon	8660	Low	Low
40	FLYING U RANCH	Idaho	On site	Downstream	Hells Canyon	16,482	Medium	Low
41	FLYING Y PARTNERSHIP	Idaho	On site	Upstream	Oxbow	543	High	Medium
42	FOLEY, MICHAEL G	Idaho	On site	Downstream	Hells Canyon	166	Medium	Low
43	FRAN BUTCHART JR	Oregon	On site	Upstream	Brownlee	105	High	High
44	GAZELLE LAND & TIMBER	Oregon	On site	Imnaha River	Hells Canyon	5317	Medium	Low
45	GEORGIA PACIFIC CORP	Oregon	On site	Upstream	Brownlee	200	High	Medium
46	GERALD WITHERRITE	Oregon	Off site	Imnaha River	Hells Canyon	232	Low	Low
47	GERTRUDE SUTTON	Idaho	On site	Upstream	Brownlee	2731	High	Medium
48	GORDON HUDSON TRUST	Oregon	On site	Imnaha River	Hells Canyon	456	Medium	Low
49	HAFF, KENNETH	Idaho	On site	Downstream	Hells Canyon	764	Medium	Low
50	HALL, BOB D	Idaho	On site	Downstream	Hells Canyon	737	Medium	Low
51	HANS FINKE	Oregon	On site	Upstream	Brownlee	179	High	High
52	HAROLD STEINER	Idaho	On site	Upstream	Brownlee	562	High	Medium
53	HC & SUSAN FINKE	Oregon	On site	Upstream	Brownlee	278	High	High
54	HECKMAN RANCHES	Idaho	On site	Downstream	Hells Canyon	26,687	Medium	Low
55	HELENA SCHMIDT	Idaho	On site	Upstream	Oxbow	102	High	Medium

Map <sup>1</sup> Code	Private Property Owner	State	On site/ Off site	General Area	Nearest Reservoir	Acreage	Mitigation Value	Acquisition Priority
56	HELMOUT FAMILY REV TRUST	Idaho	On site	Downstream	Hells Canyon	482	Medium	Low
57	HITCHCOCK	Idaho	On site	Downstream	Hells Canyon	2401	Medium	Low
58	HUBBARD TRUST	Oregon	Off site	Imnaha River	Hells Canyon	4424	Low	Low
59	IRA HASKETT	Oregon	On site	Upstream	Oxbow	188	High	High
60	JACK CORNING	Oregon	On site	Upstream	Brownlee	4606	High	Medium
61	JANICE MILLS	Oregon	On site	Upstream	Hells Canyon	158	High	Medium
62	JAYO, STEVEN	Idaho	On site	Downstream	Hells Canyon	4456	Medium	Low
63	JEANNE WALLACE	Idaho	On site	Upstream	Brownlee	1131	High	Medium
64	JOHN BINFORD	Oregon	On site	Upstream	Hells Canyon	344	High	Medium
65	JOHN CARROLL	Idaho	On site	Downstream	Hells Canyon	130	Medium	Low
66	JOHNSON, KARL	Idaho	On site	Downstream	Hells Canyon	2539	Medium	Low
67	JOSEPH BERLAND	Oregon	Off site	Imnaha River	Hells Canyon	1551	Low	Low
68	JOY TRUST	Oregon	Off site	Imnaha River	Hells Canyon	196	Low	Low
69	KENNETH SHADE	Idaho	On site	Upstream	Oxbow	124	High	Medium
70	KILLAM PROPERTIES	Oregon	Off site	Imnaha River	Hells Canyon	504	Low	Low
71	KOVACH, JOHN REV LIV TRUST	Idaho	On site	Downstream	Hells Canyon	123	Medium	Low
72	LILLIE ROBINSON	Oregon	Off site	Imnaha River	Hells Canyon	1507	Low	Low
73	LORILYN QUILLIAM	Idaho	On site	Upstream	Oxbow	545	High	Medium
74	LOWN-DUCKETT HOLDINGS	Oregon	Off site	Imnaha River	Hells Canyon	229	Low	Low
75	MAC MILLAN, DONALD S JR ETUX	Idaho	On site	Downstream	Hells Canyon	116	Medium	Low
76	MALHEUR MINNING CORP	Oregon	On site	Upstream	Brownlee	244	High	Medium
77	MARJORIE MOYLE	Idaho	On site	Upstream	Brownlee	4815	High	Medium
78	MARK THORN	Oregon	Off site	Imnaha River	Hells Canyon	480	Low	Low
79	MARVIN BRASHLER	Oregon	On site	Upstream	Brownlee	833	High	Medium
80	MCCLARAN RANCH	Oregon	On site	Imnaha River	Hells Canyon	3657	Medium	Low
81	MICHAEL SMITH	Oregon	Off site	Imnaha River	Hells Canyon	597	Low	Low
82	MILLS, DANIEL R	Idaho	On site	Downstream	Hells Canyon	126	Medium	Low
83	MONTY SIDDOWAY	Oregon	Off site	Imnaha River	Hells Canyon	1579	Low	Low
84	MOORES BROTHERS RANCH	Oregon	Off site	Imnaha River	Hells Canyon	556	Low	Low

Map <sup>1</sup> Code	Private Property Owner	State	On site/ Off site	General Area	Nearest Reservoir	Acreage	Mitigation Value	Acquisition Priority
85	NICHOLAS BOKIDES	Idaho	On site	Upstream	Hells Canyon	905	High	Medium
86	NORMAN FITZSIMMONS	Idaho	On site	Downstream	Hells Canyon	1229	Medium	Low
87	NORMAN LOVELL	Oregon	Off site	Imnaha River	Hells Canyon	858	Low	Low
88	OX RANCH	Idaho	On site	Upstream	Oxbow	15,556	High	High
89	PARADISE FLATS TRUST	Idaho	On site	Upstream	Oxbow	244	High	Medium
90	PAT PALMER	Idaho	On site	Upstream	Brownlee	5044	High	Medium
91	PHILLIP KETSCHER	Oregon	Off site	Imnaha River	Hells Canyon	432	Low	Low
92	RAHN HOSTETTER	Oregon	Off site	Imnaha River	Hells Canyon	159	Low	Low
93	RENEE SWEET	Oregon	On site	Upstream	Brownlee	123	High	High
94	REX WINEGAR	Idaho	On site	Upstream	Brownlee	642	High	Medium
95	RICHARD A MURRAY	Oregon	On site	Upstream	Brownlee	178	High	High
96	ROBERT THOMAS	Oregon	On site	Upstream	Hells Canyon	1100	High	Medium
97	ROCKING M CATTLE CO	Idaho	On site	Upstream	Brownlee	18,736	High	High
98	ROGER GULICK	Oregon	On site	Upstream	Brownlee	760	High	Medium
99	RONALD LAWRENCE	Idaho	On site	Upstream	Brownlee	1971	High	High
100	RONALD MATZ	Oregon	On site	Upstream	Hells Canyon	150	High	Medium
101	ROUTSON RANCH	Idaho	On site	Upstream	Brownlee	3637	High	Medium
102	RUSSELL, DAWN E.	Idaho	On site	Downstream	Hells Canyon	159	Medium	Low
103	SATRAPE, DEAN A	Idaho	On site	Downstream	Hells Canyon	111	Medium	Low
104	SCHAEFFER TRUST	Oregon	Off site	Imnaha River	Hells Canyon	1789	Low	Low
105	SCHOREDER, NED R	Idaho	On site	Downstream	Hells Canyon	1793	Medium	Low
106	SNAKE RIVER PROPERTIES	Oregon	On site	Upstream	Brownlee	805	High	High
107	SNAKE RIVER SHEEP CO %SOULEN	Idaho	On site	Upstream	Brownlee	6325	High	High
108	SPENCER RANCH INC	Idaho	On site	Downstream	Hells Canyon	20,900	Medium	Low
109	STAN GULICK	Oregon	On site	Upstream	Brownlee	2958	High	Medium
110	STEAMBARGE JAMES ETAL	Idaho	On site	Downstream	Hells Canyon	152	Medium	Low
111	STEINBERG, RICHARD W	Idaho	On site	Downstream	Hells Canyon	127	Medium	Low
112	STEPHEN DENNIS	Oregon	On site	Upstream	Hells Canyon	312	High	Medium
113	THEODORE BOKIDES	Oregon	On site	Upstream	Brownlee	3839	High	Medium

Map <sup>1</sup> Code	Private Property Owner	State	On site/ Off site	General Area	Nearest Reservoir	Acreage	Mitigation Value	Acquisition Priority
114	TIPPET RANCH	Oregon	Off site	Imnaha River	Hells Canyon	486	Low	Low
115	TURNER BROS LAND & LIVESTOCK	Oregon	On site	Upstream	Brownlee	376	High	Medium
116	UNION PACIFIC RAILROAD	Idaho	On site	Upstream	Brownlee	197	High	Medium
117	WADEAN HOLCOMB	Oregon	On site	Upstream	Brownlee	3904	High	High
118	WALTER MARLETT	Oregon	On site	Upstream	Brownlee	1723	High	Medium
119	WAYNE SMITH	Oregon	Off site	Imnaha River	Hells Canyon	4767	Low	Low
120	WILD HORSE RANCH C/O JOHN DYER	Idaho	On site	Upstream	Oxbow	420	High	Medium
121	WILLIAM GRACE	Oregon	On site	Upstream	Brownlee	222	High	Medium
122	WILLIAM HALL	Oregon	Off site	Imnaha River	Hells Canyon	112	Low	Low
123	WILLIAM STEVENSON	Idaho	On site	Upstream	Brownlee	5869	High	Medium
124	WRIGHT, LAVERN E	Idaho	On site	Downstream	Hells Canyon	2592	Medium	Low
125	YOUNG FAMILY TRUST	Oregon	Off site	Imnaha River	Hells Canyon	1788	Low	Low
126	NEZ PERCE TIBE	Idaho	Off site	Nez Perce Co.	Hells Canyon	2265	Low	Low
127	WALLANE CORPORATION	Oregon	Off site	Joseph Creek	Hells Canyon	10,493	Low	Low
128	JEANNE WALLACE	Idaho	Off site	Hogg Creek	Brownlee	161	Low	Low
129	MAJORIE MOYLE	Idaho	Off site	Hogg Creek	Brownlee	630	Low	Low
130	MAURICE SYME	Idaho	Off site	Hogg Creek	Brownlee	160	Low	Low
131	PAT PALMER	Idaho	Off site	Hogg Creek	Brownlee	561	Low	Low
132	REX WINEGAR	Idaho	Off site	Hogg Creek	Brownlee	280	Low	Low
133	WARREN PRICE	Idaho	Off site	Hogg Creek	Brownlee	328	Low	Low
134	WESTLAKE ISLAND	Oregon	On site	Weiser	Brownlee	139	Medium	Low
135	MCREA ISLAND	Idaho	On site	Weiser	Brownlee	41	Medium	Low
136	HABBERSTAD, JOHN	Oregon	On site	Upstream	Hells Canyon	139	Medium	Low
137	THOMAS, ROBERT SON LLC	Oregon	On site	Upstream	Hells Canyon	134	Medium	Low

<sup>1</sup> Map codes correspond to property location on Figure 2.
 <sup>2</sup> Within the rim-to-rim study area upstream of Hells Canyon Dam.
 <sup>3</sup> Within the rim-to-rim study area downstream of Hells Canyon Dam.

Table 3.Summary of IPC's preferred options for meeting the targeted 22,761 upland acres and 821 riparian acres of wildlife PM&E lands.<br/>Table 4 lists cover types comprising riparian, upland, and nonhabitat categories.

Management Segment	Current Ownership	Existing Riparian Acres	Rehabilitated Riparian Acres	Retained Upland Acres	Converted Food-plot Acres	Existing Nonhabitat Acres	Total Acres
Idaho							
Andrus WMA	IPC	12.0	0.0	338.6	0.0	4.9	355.5
Cottonwood Creek WMA	IPC	5.0	0.0	208.4	0.0	0.1	213.6
Cottonwood Creek WMA	Ronald Lawrence	44.0 <sup>1</sup>	0.0	1925.1	0.0	1.6	1970.7
Farewell Bend SMA	IPC	57.6	0.0	218.1	0.0	13.1	288.8
Rocking-M WMA	IPC	0.8	0.0	61.7	0.0	1.0	63.4
Rocking-M WMA	Rocking M Cattle Co.	107.0 <sup>1</sup>	10.0 <sup>2</sup>	2761.1	0.0	24.5	2902.5 <sup>3</sup>
Sturgill Creek WMA	IPC	0.9	0.0	35.2	0.0	0.0	36.1
Sturgill Creek WMA	Snake River Sheep Co.	311.1 <sup>1</sup>	20.0 <sup>4</sup>	5937.3	50.0 <sup>5</sup>	6.9	6325.3
Wildhorse SMA	IPC	13.9	0.0	74.6	0.0	0.2	88.7
	Idaho Total	552.4	30.0	11,560.0	50.0	52.3	12,244.6
Oregon							
Copperfield SMA	IPC	55.3	0.0	1011.2	0.0	12.4	1078.9
Powder River WMA	IPC	140.3	40.0	276.3	40.0	6.8	503.4
Powder River WMA	Daly Creek Ranch	132.0 <sup>1</sup>	50.0 <sup>6</sup>	10,371.6	75.0 <sup>7</sup>	66.3	10,694.9
Spring SMA	IPC	3.9	0.0	344.9	0.0	13.0	361.8
	Oregon Total	331.4	90.0 <sup>8</sup>	12,003.9	115.0	98.5	12,639.0
	Grand Total	883.8	120.0	23,563.9	165.0	150.8	24,883.6

<sup>1</sup> NLCD resolution tends to under represent actual acres of riparian cover types, thus corrected acreage estimates are reported (see Table 5).

<sup>2</sup> Approximately 10 acres of existing irrigated pasture (i.e., upland habitat) will be converted to woody riparian habitat during the license term. The WMA site plan will specify actual acres to be converted.

<sup>3</sup> Approximately 1386 of the proposed acquisition are lands not included in the Rocking M Wildlife Conservation Easement.

<sup>4</sup> Approximately 20 acres of existing irrigated pasture (i.e., upland habitat) will be converted to woody riparian habitat during the license term. The WMA site plan will specify actual acres to be converted.

<sup>5</sup> Approximately 50 acres of existing irrigated pasture (i.e., upland habitat) will be converted to food plots for wintering big game during the license term. The WMA site plan will specify actual acres to be converted.

<sup>6</sup> Approximately 50 acres of existing irrigated pasture (i.e., upland habitat) will be converted to woody riparian habitat during the license term.

<sup>7</sup> Approximately 75 acres of existing irrigated agricultural fields (i.e., upland habitat) will be converted to food plots for waterfowl and upland game birds during the license term.

<sup>8</sup> Approximately 90 acres of existing irrigated agricultural fields and pasture (i.e., upland habitat) will be converted to woody riparian habitat during the license term.

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Table 4.	Cover types and wildlife habitat categories for analyzing habitat characteristics of currently
	owned IPC lands and of future land acquisition options to mitigate for HCC impacts to wildlife
	habitat.

Cover-type Code	Cover-type	Wildlife Habitat Category	Data Source
4	Agriculture (Cultivated)	Upland	IPC
В	Barrenland	Nonhabitat	IPC
BR	Bare Rock/Sand/Clay	Nonhabitat	NLCD
CI	Commercial/Industrial/Transportation	Nonhabitat	NLCD
CTS	Cliff/Talus Slope	Nonhabitat	IPC
D	Disturbed	Nonhabitat	IPC
DF	Deciduous Forest	Riparian	NLCD
DH	Desertic Herbland	Upland	IPC
DS	Desertic Shrubland	Upland	IPC
DW	Desertic Woodland	Upland	IPC
EF	Evergreen Forest	Upland	NLCD
EHW	Emergent Herbaceous Wetland	Riparian	IPC <sup>1</sup>
EW	Emergent Herbaceous Wetlands	Riparian	NLCD
F	Forbland	Upland	IPC
FA	Fallow	Nonhabitat	NLCD
FO	Forested/Orchard	Upland	IPC
FU	Forested Upland	Upland	IPC
FW	Forested Wetland	Riparian	IPC
G	Grassland	Upland	IPC
GP	Grazing Land/Pasture	Upland	IPC
GR	Grassland/Herbaceous	Upland	NLCD
1	Industrial	Nonhabitat	IPC
IS	Perennial Ice/Snow	Nonhabitat	NLCD
LM	Lotic (Moving Water)	Nonhabitat	IPC
LS	Lentic (Standing Water)	Nonhabitat	IPC
MF	Mixed Forest	Upland	NLCD
OW	Open Water	Nonhabitat	NLCD
OR	Orchards/Vineyards/Other	Upland	NLCD
PH	Pasture/Hay	Upland	NLCD
PR	Parks/Recreation	Nonhabitat	IPC
QR	Quarries/Strip Mines/Gravel Pits	Nonhabitat	NLCD
R	Residential	Nonhabitat	IPC
RC	Row Crops	Upland	NLCD
RD	Roads	Nonhabitat	IPC
RH	High Intensity Residential	Nonhabitat	NLCD
RL	Low Intensity Residential	Nonhabitat	NLCD
S	Shrubland	Upland	IPC
SBW	Shore & Bottomland Wetland	Nonhabitat	IPC
SG	Small Grains	Upland	NLCD
SH	Shrubland	Upland	NLCD
SS	Shrub Savanna	Upland	IPC
SSW	Scrub-shrub Wetland	Riparian	IPC
TR	Transitional	Nonhabitat	NLCD
TS	Tree Savanna	Upland	IPC
U	Urban	Nonhabitat	IPC
UR	Urban/Residential Grasses	Nonhabitat	NLCD
			NLCD <sup>2</sup>
WO	Open Water	Nonhabitat	
WW	Woody Wetlands	Riparian	NLCD

<sup>1</sup> IPC cover-type map for the HCC (Holmstead 2001).
 <sup>2</sup> National Land Cover Data (http://www.epa.gov/mrlc/nlcd.html).

## Table 5.Correction factors for adjusting the underestimation of riparian habitat and the overestimation<br/>of upland habitat and nonhabitat by the NLCD.

	Holmstea	ad (2001)	NL	CD	Correction Factor <sup>1, 2</sup>
Wildlife Habitat Category	Acres	%	Acres	%	Ratio <sup>3</sup>
Nonhabitat	29,816.91	24.91%	21,388.60	17.89%	1.3921
Riparian	2565.93	2.14%	162.57	0.14%	15.7616
Upland	87,310.48	72.95%	97,976.27	81.97%	0.8899
Sum	119,693.32	100.00%	119,527.44	100.00%	1.0000

<sup>1</sup> Habitat category correction factors = % acres of Holmsted divided by % acres of NLCD.

<sup>2</sup> To apply the correction factor to a property, the estimate for riparian habitat occurring on the property is increased by multiplying the NLCD acreage by the riparian correction factor. The estimate of upland habitat is then decreased by the acreage converted to riparian habitat.

<sup>3</sup> Total acres between the two methods differ slightly because Holmstead (2001) are stored in a GIS in vector format, whereas the NLCD are stored in a grid format. Consequently, ratios were calculated with the standardized % of the total acres for each covertype data source.

Table 6.Composition of upland and riparian habitats, number of noncontiguous parcels, and elevations of private properties evaluated to meet<br/>IPC's targeted acres of wildlife PM&E lands on site in Idaho. See Table 4 for cover types comprising upland and riparian habitats.

			Elevation					
	Private Property Owner	<u> </u>	(meters above	mean sea level)	_			Total Acres
Map Code		Number of Noncontiguous Parcels	Minimum	Maximum	Uncorrected Riparian Acres	Upland Acres	Nonhabitat Acres	
5	ANTHONY AZEVEDO	2	633.0	769.7	3.9	171.6	10.9	186.4
6	ARLEY HAENER	1	1273.0	1425.0	0.0	170.9	0.0	170.9
8	BAN RAC LLC	3	355.0	1644.0	239.2	10,488.9	15.3	10,743.4
10	BIG ROCK CREEK GRAZING ASSOC	1	1154.0	1344.8	1.7	317.2	0.0	318.9
14	CARNEL UPTON	3	633.0	1231.3	3.4	3482.1	3.4	3488.9
15	CHARLES SLYTER	2	897.0	1455.5	2.7	2517.1	3.1	2522.8
19	DAN MOYLE	2	834.6	1391.7	0.0	1675.7	1.5	1677.2
20	DARREL LEE BROWN	1	841.7	1437.9	8.1	625.8	0.0	633.9
25	DAVID, KENNETH E TRUSTEE	1	1261.0	1495.0	0.2	120.7	0.0	120.9
26	DEBRA TATE	1	1119.3	1315.7	0.0	160.3	0.7	161.0
30	DOBBINS, JAMES M	5	1184.0	1359.0	9.3	500.0	0.0	509.3
31	DON FRITZ	2	1161.0	1550.0	3.7	253.9	0.0	257.6
33	DWIGHT MADDOX	1	862.0	1117.7	0.0	161.1	0.0	161.1
36	ESTHER SMITH	4	637.4	1236.6	2.3	907.1	2.5	911.9
38	EVERGREEN LAND AND CATTLE	3	308.0	1505.0	435.2	14,434.4	35.9	14,905.4
40	FLYING U RANCH	15	320.0	1510.0	979.5	15,501.5	1.0	16,481.9
41	FLYING Y PARTNERSHIP	1	1173.1	1360.4	0.2	542.9	0.0	543.1
42	FOLEY, MICHAEL G	1	1376.0	1453.0	1.6	163.9	0.2	165.7
47	GERTRUDE SUTTON	1	1120.0	1639.0	2.4	2728.2	0.2	2730.9
49	HAFF, KENNETH	2	1201.0	1782.0	6.2	757.6	0.0	763.8
50	HALL, BOB D	4	1084.0	1502.0	20.9	715.9	0.0	736.7
52	HAROLD STEINER	1	1386.4	1596.3	0.0	561.2	0.7	561.9

			Elev	ation				
		-	(meters above	mean sea level)	_			
Map Code	Private Property Owner	Number of Noncontiguous Parcels	Minimum	Maximum	Uncorrected Riparian Acres	Uncorrected Upland Acres	Nonhabitat Acres	Total Acres
54	HECKMAN RANCH	43	297.0	1517.0	647.8	25,913.3	125.4	26,686.5
55	HELENA SCHMIDT	1	1060.6	1278.2	0.7	101.0	0.0	101.7
56	HELMOUT FAMILY REV TRUST	1	1331.0	1676.0	4.1	478.3	0.0	482.3
57	HITCHCOCK	4	630.0	1502.0	30.6	2370.5	0.0	2401.1
62	JAYO, STEVEN	5	471.0	1619.0	146.9	4276.5	32.3	4455.7
63	JEANNE WALLACE	4	742.0	1216.0	0.0	1126.0	4.5	1130.5
65	JOHN CARROLL	1	1226.0	1532.0	0.2	129.6	0.0	129.8
66	JOHNSON, KARL	9	445.0	1429.0	47.9	2460.1	31.4	2539.4
69	KENNETH SHADE	1	1274.4	1472.5	4.2	119.5	0.0	123.8
71	KOVACH, JOHN REV LIV TRUST	1	1474.0	1703.0	0.8	121.7	0.0	122.5
73	LORILYN QUILLIAM	4	905.5	1191.4	45.8	499.4	0.0	545.2
75	MAC MILLAN, DONALD S JR ETUX	1	1374.0	1423.0	0.0	115.8	0.0	115.8
77	MARJORIE MOYLE	2	766.0	1250.0	1.6	4806.5	6.8	4814.9
82	MILLS, DANIEL R	2	432.0	1645.0	0.8	125.0	0.0	125.9
85	NICHOLAS BOKIDES	1	1177.0	1499.5	0.2	904.3	0.9	905.4
86	NORMAN FITZSIMMONS	6	536.0	1405.0	24.2	1204.5	0.0	1228.7
88	OX RANCH	21	517.5	1536.0	301.2	15,177.7	76.9	15,555.8
89	PARADISE FLATS TRUST	2	1313.1	1415.8	0.0	243.6	0.0	243.6
90	PAT PALMER	4	713.0	1330.9	4.9	5036.8	1.8	5043.5
94	REX WINEGAR	1	911.4	1172.5	0.4	641.1	0.4	642.0
97	ROCKING M CATTLE CO <sup>1</sup>	15	632.0	1788.8	20.7	18,681.4	34.1	18,736.2
99	RONALD LAWRENCE <sup>2</sup>	5	648.5	1603.0	7.6	1961.4	1.6	1970.7
101	ROUTSON RANCH	1	771.2	1264.0	7.6	3628.1	1.8	3637.5
102	RUSSELL, DAWN E.	1	970.0	1259.0	13.6	145.4	0.0	159.0

			Elev	ation				
		-	(meters above	mean sea level)	_			
Map Code	Private Property Owner	Number of Noncontiguous Parcels	Minimum	Maximum	Uncorrected Riparian Acres	Uncorrected Upland Acres	Nonhabitat Acres	Total Acres
103	SATRAPE, DEAN A	1	1325.0	1367.0	6.5	104.7	0.0	111.2
105	SCHOREDER, NED R	1	1125.0	1408.0	88.8	1704.6	0.0	1793.3
107	SNAKE RIVER SHEEP CO %SOULEN <sup>3</sup>	2	670.4	1747.0	28.8	6289.6	6.9	6325.3
108	SPENCER RANCH INC	4	298.0	1522.0	344.7	20,515.8	39.6	20,900.1
110	STEAMBARGE, JAMES ETAL	1	1217.0	1658.0	1.1	151.3	0.0	152.4
111	STEINBERG, RICHARD W	1	1385.0	1512.0	8.9	117.7	0.0	126.6
116	UNION PACIFIC RAILROAD	1	633.0	781.2	2.0	194.5	0.9	197.4
120	WILD HORSE RANCH C/O JOHN DYER	1	1075.1	1359.6	0.0	420.1	0.2	420.3
123	WILLIAM STEVENSON	11	633.0	1458.3	4.2	5858.0	7.2	5869.4
124	WRIGHT, LAVERNE E	6	455.0	1496.0	86.4	2505.3	0.0	2591.7
135	MCREA ISLAND	1	636.5	639.0	10.2	29.8	1.0	41.0

<sup>1</sup> Landowner of Dennett Creek property targeted for purchase by IPC as a preferred acquisition option.

<sup>2</sup> Landowner of Cottonwood Creek property targeted for purchase by IPC as a preferred acquisition option.
 <sup>3</sup> Landowner of Sturgill Creek property targeted for purchase by IPC as a preferred acquisition option.

Table 7.Composition of upland and riparian habitats, number of noncontiguous parcels, and elevations of private properties evaluated to meet<br/>IPC's targeted acres of wildlife PM&E lands on site in Oregon. See Table 4 for cover types comprising upland and riparian habitats.

				ation mean sea level)				
Map Code	Private Property Owner	Number of Noncontiguous Parcels	Minimum Maximum		Uncorrected Riparian Acres	Uncorrected Upland Acres	Nonhabitat Acres	Total Acres
1	ALEX FINKE	1	633.0	1356.0	48.9	4270.3	34.2	4353.4
2	ALTA GOLD	1	533.9	1046.4	6.4	255.5	31.2	293.1
4	ANDERSEN RANCHES	3	340.0	1410.0	8.6	671.5	0.9	681.0
7	ASH GROVE CEMENT CO	1	1219.0	1872.0	0.0	506.4	14.3	520.7
9	BENITA THOMPSON	4	694.2	1404.3	6.3	605.7	0.2	612.2
11	BLAIN PETTY	1	633.0	730.6	8.8	806.2	63.1	878.1
12	BRAD DENSON	2	860.7	1176.4	0.0	240.0	0.0	240.0
16	CLYDE RAMSEY	1	633.0	687.0	8.1	404.4	36.0	448.6
17	DALY CREEK RANCH	2	632.0	1794.0	108.6	10,519.5	66.7	10,694.9
18	DAN FORSEA	5	632.0	1891.0	10.4	6114.7	33.6	6158.7
21	DARREL MALLERY	3	694.8	1336.2	7.4	2255.2	0.0	2262.6
22	DAVID BARBER	2	633.0	1446.2	4.4	932.0	2.8	939.2
23	DAVID G MOORE	11	540.4	1411.2	155.6	19,482.8	75.4	19,713.9
27	DELBERT & LEWIS GARNET	12	376.0	1561.0	60.4	2581.6	70.5	2712.5
29	DIANNE BRAUSE	1	632.0	1143.0	12.1	825.1	11.2	848.4
34	EAGLE VALLEY AG INC	4	632.0	1539.0	9.3	1955.4	3.2	1967.9
35	EDITH RYNEARSON	2	632.0	818.0	1.4	134.1	1.2	136.7
43	FRAN BUTCHART JR	2	859.0	1334.0	0.4	102.4	1.8	104.6
44	GAZELLE LAND & TIMBER	10	475.0	1588.0	93.5	5153.1	70.5	5317.2
45	GEORGIA PACIFIC CORP	1	863.3	1357.0	0.0	199.8	0.0	199.8
48	GORDON HUDSON TRUST	1	452.0	930.0	22.9	433.0	0.0	456.0
51	HANS FINKE	1	632.0	743.5	1.2	177.9	0.2	179.4
53	HC & SUSAN FINKE	2	697.7	991.1	0.0	272.9	5.5	278.4
59	IRA HASKETT	1	550.9	814.4	19.5	166.3	2.3	188.2
60	JACK CORNING	6	634.0	1743.8	4.5	4593.9	8.1	4606.5

				ation mean sea level)				
Map Code	Private Property Owner	Number of Noncontiguous Parcels	Minimum	Maximum	Uncorrected Riparian Acres	Uncorrected Upland Acres	Nonhabitat Acres	Total Acres
61	JANICE MILLS	1	1184.2	1431.9	0.0	158.0	0.0	158.0
64	JOHN BINFORD	1	516.7	1021.0	13.8	295.2	35.3	344.2
76	MALHEUR MINNING CORP	1	634.2	697.6	0.4	241.6	1.9	244.0
79	MARVIN BRASHLER	1	702.0	919.0	0.0	828.1	5.1	833.2
80	MCCLARAN RANCH	13	314.0	1451.0	78.4	3552.9	26.1	3657.4
93	RENEE SWEET	1	678.0	961.0	2.1	120.5	0.0	122.6
95	RICHARD A MURRAY	2	634.0	655.4	83.4	89.1	6.0	178.5
96	ROBERT THOMAS	2	627.4	1145.5	0.7	1097.5	2.1	1100.3
98	ROGER GULICK	2	912.6	1172.6	0.0	760.0	0.0	760.0
100	RONALD MATZ	1	739.5	1003.3	0.0	149.4	0.2	149.6
106	SNAKE RIVER PROPERTIES	2	632.0	1367.0	10.1	790.8	4.2	805.2
109	STAN GULICK	5	636.1	1180.4	6.0	2947.5	4.2	2957.7
112	STEPHEN DENNIS	2	1120.2	1436.7	0.0	311.8	0.0	311.8
113	THEODORE BOKIDES	1	633.0	1097.3	1.0	3806.2	31.7	3838.9
115	TURNER BROS LAND & LIVESTOCK	1	633.0	841.7	3.1	372.3	0.1	375.5
117	WADEAN HOLCOMB	3	632.0	1206.0	23.7	3878.6	1.8	3904.1
118	WALTER MARLETT	2	633.0	1484.3	3.9	1711.2	8.0	1723.0
121	WILLIAM GRACE	1	633.0	733.7	1.1	213.4	7.0	221.5
134	WESTLAKE ISLAND	1	633.0	640.0	22.8	113.6	2.1	138.5
136	HABBERSTAD, JOHN	1	928.2	1195.0	0.0	138.3	0.7	139.0
137	THOMAS, ROBERT SON LLC	1	830.2	1133.1	0.0	133.6	0.0	133.6

<sup>1</sup> Landowner of Daly Creek property targeted for purchase by IPC as a preferred acquisition option.

Table 8.	Composition of upland and riparian habitats, number of noncontiguous parcels, and elevations of private properties evaluated to meet
	IPC's targeted acres of wildlife PM&E lands off site in Idaho and Oregon.

	Eleva (meters above i							
Map Code	Private Property Owner	Number of Noncontiguous Parcels	Minimum	Maximum	Uncorrected Riparian Acres	Uncorrected Upland Acres	Nonhabitat Acres	Total Acres
Idaho								
126	NEZ PERCE TRIBE	1	46.7	142.8	50.1	2213.9	0.0	2264.7
128	JEANNE WALLACE	3	725.5	829.0	0.0	160.5	0.0	160.5
129	MAJORIE MOYLE	1	695.5	804.6	0.2	629.4	0.0	629.6
130	MAURICE SYME	1	678.0	764.5	0.0	159.9	0.0	159.9
131	PAT PALMER	2	694.0	891.0	0.9	560.2	0.4	561.5
132	REX WINEGAR	2	685.0	751.5	0.0	279.9	0.0	279.9
133	WARREN PRICE	1	730.0	806.6	0.0	327.7	0.3	327.9
Oregon								
3	ALVIN BLOODSWORTH	2	1353.0	1676.0	7.0	768.3	0.0	775.3
13	BRUCE HAM	1	520.0	744.0	0.0	122.8	2.4	125.2
24	DAVID JACKSON	1	1324.0	1474.0	2.7	389.5	0.0	392.2
28	DERRELL WITTY	2	1161.0	1443.0	3.1	761.7	0.0	764.9
32	DUANE JOHNSON	1	940.0	1283.0	0.0	147.9	0.0	147.9
37	EUGENE GOERTZEN	2	1305.0	1494.0	5.6	825.4	0.2	831.1
39	FENCE CREEK CATTLE CO	4	421.0	1522.0	87.6	8540.8	31.5	8659.9
46	GERALD WITHERRITE	1	538.0	843.0	2.4	207.7	21.8	231.9
58	HUBBARD TRUST	3	556.0	1427.0	27.4	4333.5	62.7	4423.7
67	JOSEPH BERLAND	1	1088.0	1449.0	7.9	1542.2	0.4	1550.6
68	JOY TRUST	2	652.0	1594.0	0.9	195.5	0.0	196.4
70	KILLAM PROPERTIES	1	467.0	905.0	1.8	475.9	25.8	503.5
72	LILLIE ROBINSON	1	1245.0	1550.0	4.9	1502.0	0.0	1506.9
74	LOWN-DUCKETT HOLDINGS	1	602.0	777.0	3.8	222.8	2.8	229.4
78	MARK THORN	1	1527.0	1757.0	0.7	261.7	217.4	479.8
81	MICHAEL SMITH	1	529.0	924.0	39.8	556.4	1.2	597.4

				ation mean sea level)				
Map Code	Private Property Owner	Number of Noncontiguous Parcels	Minimum	Maximum	Uncorrected Riparian Acres	Uncorrected Upland Acres	Nonhabitat Acres	Total Acres
83	MONTY SIDDOWAY	3	644.0	1449.0	24.4	1554.2	0.4	1579.0
84	MOORES BROTHERS RANCH	1	1007.0	1582.0	0.7	555.4	0.0	556.1
87	NORMAN LOVELL	4	535.0	1166.0	5.2	826.1	26.8	858.2
91	PHILLIP KETSCHER	1	1291.0	1380.0	3.0	428.6	0.2	431.8
92	RAHN HOSTETTER	1	1537.0	1754.0	0.0	104.8	54.4	159.2
104	SCHAEFFER TRUST	3	1118.0	1428.0	9.6	1776.7	2.2	1788.5
114	TIPPET RANCH	1	1460.0	1545.0	9.8	475.9	0.0	485.7
119	WAYNE SMITH	1	975.0	1509.0	116.3	4647.2	3.1	4766.6
122	WILLIAM HALL	1	482.0	637.0	1.2	103.4	7.8	112.4
125	YOUNG FAMILY TRUST	3	1263.0	1430.0	12.0	1775.4	0.7	1788.2
127	WALLANE CORPORATION	2	405.0	1468.0	119.8	10,347.9	25.0	10,492.7

Table 9.	Big game and upland game bird habitat acreages on private properties evaluated to meet IPC's targeted acres of wildlife PM&E lands.
	Data are from IPC technical reports in the HCC FLA (see Appendix B for a list of technical reports).

Map Code	Private Property Owner	Sheep Winter Range	Sheep Movement Corridor	Sheep Current Habitat	Elk Crucial Winter	Elk Noncrucial Winter	Deer Crucial Winter Range	Deer Noncrucial Winter Range	Sage Grouse Habitat	Sharp-tailec Grouse Habitat	Mountain Quail Habitat
1	ALEX FINKE	3040.9	0.0	3720.1	0.0	3976.0	3685.8	0.0	0.0	0.0	3.399
2	ALTA GOLD	279.0	268.7	0.0	48.3	0.0	293.1	0.0	0.0	0.0	7.889
3	ALVIN BLOODSWORTH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	ANDERSEN RANCHES	212.6	0.0	92.5	0.0	12.4	92.5	0.0	0.0	0.0	0.0
5	ANTHONY AZEVEDO	0.9	0.0	0.0	186.3	0.0	186.3	0.0	27.0	0.0	3.0
6	ARLEY HAENER	0.4	0.0	0.0	169.4	0.0	0.0	169.4	0.0	0.0	0.0
7	ASH GROVE CEMENT CO	138.0	0.0	57.5	0.0	12.1	64.1	0.0	0.0	0.0	0.0
8	BAN RAC LLC	7274.1	0.0	3403.6	10,446.7	296.8	0.0	10,446.7	0.0	0.0	7.18
9	BENITA THOMPSON	132.7	0.0	133.7	142.6	0.0	293.7	0.0	0.0	0.0	0.0
10	BIG ROCK CREEK GRAZING ASSOC	0.0	0.0	0.0	0.0	318.9	0.0	0.0	179.3	211.1	0.0
11	BLAIN PETTY	0.0	0.0	0.0	60.3	178.1	723.6	0.0	0.0	0.0	5.2
12	BRAD DENSON	165.4	167.3	72.7	240.0	0.0	240.0	0.0	0.0	0.0	0.0
13	BRUCE HAM	113.2	0.0	0.0	0.0	3.9	125.2	0.0	0.0	0.0	0.0
14	CARNEL UPTON	0.0	0.0	0.0	3397.1	0.0	3044.7	347.3	773.7	0.0	2.0
15	CHARLES SLYTER	377.7	0.0	0.0	2454.9	68.0	2198.0	0.0	1828.5	782.3	0.0
16	CLYDE RAMSEY	0.0	0.0	0.0	112.0	132.5	208.5	0.0	0.0	0.0	2.1
17	DALY CREEK RANCH	1739.7	0.0	453.9	5440.5	1380.7	10,416.7	0.0	0.0	0.0	1.9
18	DAN FORSEA	2643.0	0.0	1988.7	18.4	1293.8	4146.4	0.0	0.0	0.0	8.2
19	DAN MOYLE	184.3	0.0	0.0	311.8	1365.4	410.2	570.5	682.1	916.1	0.0
20	DARREL LEE BROWN	451.2	0.0	0.0	0.0	633.9	633.9	0.0	76.8	0.0	0.0
21	DARREL MALLERY	86.7	0.0	1381.2	1139.9	0.0	1255.4	0.0	0.0	0.0	0.0
22	DAVID BARBER	93.6	0.0	0.0	0.0	638.2	939.2	0.0	664.2	0.0	0.0
23	DAVID G MOORE	4383.8	76.5	6937.0	9698.6	0.0	9605.1	0.0	0.0	0.0	65.9
24	DAVID JACKSON	1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Map Code	Private Property Owner	Sheep Winter Range	Sheep Movement Corridor	Sheep Current Habitat	Elk Crucial Winter	Elk Noncrucial Winter	Deer Crucial Winter Range	Deer Noncrucial Winter Range	Sage Grouse Habitat	Sharp-tailec Grouse Habitat	Mountain Quail Habitat
25	DAVID, KENNETH E TRUSTEE	81.7	0.0	120.7	120.7	0.0	0.0	120.7	0.0	0.0	0.0
26	DEBRA TATE	10.3	0.0	161.0	0.0	0.0	0.0	0.0	4.2	0.0	0.0
27	DELBERT & LEWIS GARNET	1710.3	0.0	744.0	0.0	1508.1	2041.1	581.9	0.0	0.0	0.0
28	DERRELL WITTY	358.6	0.0	0.0	0.0	234.7	0.0	0.0	0.0	0.0	0.0
29	DIANNE BRAUSE	747.3	0.0	813.1	0.0	812.4	848.3	0.0	0.0	0.0	9.2
30	DOBBINS, JAMES M	4.7	0.0	0.0	0.0	509.3	0.0	0.0	0.0	0.0	0.0
31	DON FRITZ	84.0	0.0	0.0	257.6	0.0	0.0	257.6	0.0	0.0	0.0
32	DUANE JOHNSON	136.4	0.0	0.0	0.0	147.8	81.2	66.7	0.0	0.0	0.0
33	DWIGHT MADDOX	57.4	0.0	0.0	161.1	0.0	161.1	0.0	57.1	0.0	0.0
34	EAGLE VALLEY AG INC	1806.3	0.0	1557.1	0.0	865.3	1967.8	0.0	0.0	0.0	8.1
35	EDITH RYNEARSON	59.9	0.0	56.5	0.0	53.0	136.7	0.0	0.0	0.0	1.3
36	ESTHER SMITH	0.0	0.0	0.0	911.9	0.0	911.9	0.0	529.5	324.1	0.7
37	EUGENE GOERTZEN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
38	EVERGREEN LAND AND CATTLE	7727.3	0.0	16.2	14878.3	0.0	27.2	14,878.3	0.0	0.0	43.6
39	FENCE CREEK CATTLE CO	5132.1	0.0	0.0	0.0	3010.3	3869.4	2565.0	0.0	0.0	
40	FLYING U RANCH	9160.1	0.0	0.0	13606.3	2875.7	0.0	13,706.0	0.0	0.0	7.1
41	FLYING Y PARTNERSHIP	150.8	0.0	0.0	0.0	543.1	0.0		387.3	0.0	0.0
42	FOLEY, MICHAEL G	17.7	0.0		21.5	144.2	0.0	21.5	0.0	0.0	0.0
43	FRAN BUTCHART JR	85.8	0.0	104.6	0.0	104.6	104.6	0.0	0.0	0.0	0.0
44	GAZELLE LAND & TIMBER	3348.3	0.0	387.6	0.3	3333.5	1663.6	2746.2	0.0	0.0	0.0
45	GEORGIA PACIFIC CORP	199.4	0.0	0.0	0.0	0.0	199.8	0.0	0.0	0.0	0.0
46	GERALD WITHERRITE	201.7	0.0	0.0	0.0	0.0	231.9	0.0	0.0	0.0	0.0
47	GERTRUDE SUTTON	0.0	0.0	0.0	0.0	155.9	0.0	0.0	951.0	1337.8	0.0
48	GORDON HUDSON TRUST	328.3	0.0	455.9	0.0	203.2	260.4	195.5	0.0	0.0	0.1
49	HAFF, KENNETH	124.1	0.0	0.0	698.5	65.2	0.0	698.5	0.0	0.0	0.0
50	HALL, BOB D	357.1	0.0	0.0	616.2	120.7	0.0	616.2	0.0	0.0	0.0
51	HANS FINKE	0.0	0.0	0.0	0.0	0.0	179.3	0.0	0.0	0.0	0.0

Map Code	Private Property Owner	Sheep Winter Range	Sheep Movement Corridor	Sheep Current Habitat	Elk Crucia Winter	Elk I Noncrucial Winter	Deer Crucial Winter Range	Deer Noncrucial Winter Range	Sage Grouse Habitat	Sharp-tailed Grouse Habitat	l Mountain Quail Habitat
52	HAROLD STEINER	0.0	0.0	0.0	0.0	0.0	0.0	0.0	99.3	179.2	0.0
53	HC & SUSAN FINKE	276.8	0.0	277.0	0.0	278.4	278.2	0.0	0.0	0.0	0.0
54	HECKMAN RANCHES	8063.1	0.0	86.1	13,209.6	13,489.8	0.0	21,742.4	0.0	0.0	0.0
55	HELENA SCHMIDT	29.0	0.0	0.0	0.0	40.6	0.0	0.0	47.1	0.0	0.0
56	HELMOUT FAMILY REV TRUST	72.8	0.0	0.0	322.5	159.8	0.0	322.5	0.0	0.0	0.0
57	HITCHCOCK	683.3	0.0	0.0	2343.5	57.5	0.0	2343.5	0.0	0.0	0.0
58	HUBBARD TRUST	3831.2	0.0	0.0	0.0	2631.0	3508.0	915.6	0.0	0.0	0.0
59	IRA HASKETT	176.0	0.0	130.3	0.0	0.0	188.1	0.0	0.0	0.0	23.6
60	JACK CORNING	347.6	0.0	0.0	2611.2	641.6	3186.8	0.0	0.0	0.0	0.0
61	JANICE MILLS	17.8	158.0	0.0	158.0	0.0	158.0	0.0	0.0	0.0	0.0
62	JAYO, STEVEN	3092.1	0.0	0.0	0.0	4241.7	0.0	4241.7	0.0	0.0	0.0
63	JEANNE WALLACE	0.0	0.0	0.0	1050.6	79.9	474.6	247.1	592.2	750.8	0.0
64	JOHN BINFORD	318.6	285.6	58.6	151.4	0.0	205.4	0.0	0.0	0.0	13.8
65	JOHN CARROLL	88.2	0.0	0.0	122.8	0.0	0.0	122.8	0.0	0.0	0.0
66	JOHNSON, KARL	1104.9	0.0	0.0	0.0	0.0	0.0	2080.5	0.0	0.0	0.0
67	JOSEPH BERLAND	213.3	0.0	0.0	0.0	6.2	0.0	0.0	0.0	0.0	0.0
68	JOY TRUST	42.6	0.0	0.0	0.0	0.0	0.0	37.1	0.0	0.0	0.0
69	KENNETH SHADE	11.1	0.0	0.0	0.0	123.8	0.0	0.0	40.1	0.0	0.0
70	KILLAM PROPERTIES	274.4	0.0	0.0	0.0	36.5	443.1	60.4	0.0	0.0	0.0
71	KOVACH, JOHN REV LIV TRUST	20.5	0.0	0.0	122.5	0.0	0.0	122.5	0.0	0.0	0.0
72	LILLIE ROBINSON	226.4	0.0	0.0	0.0	0.0	0.0	60.1	0.0	0.0	0.0
73	LORILYN QUILLIAM	318.0	0.0	0.0	0.0	545.2	336.2	0.0	111.2	0.0	0.0
74	LOWN-DUCKETT HOLDINGS	94.4	0.0	0.0	0.0	0.0	223.2	6.2	0.0	0.0	0.0
75	MAC MILLAN, DONALD S JR ETUX	67.9	0.0	0.0	58.8	56.9	0.0	58.8	0.0	0.0	0.0
76	MALHEUR MINNING CORP	0.0	0.0	0.0	74.7	125.3	91.9	0.0	0.0	0.0	0.4
77	MARJORIE MOYLE	90.8	0.0	0.0	2325.0	2489.9	1523.3	1111.0	1997.4	616.9	0.0
78	MARK THORN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Map Code	Private Property Owner	Sheep Winter Range	Sheep Movement Corridor	Sheep Current Habitat	Elk Crucial Winter	Elk Noncrucial Winter	Deer Crucial Winter Range	Deer Noncrucial Winter Range	Sage Grouse Habitat	Sharp-tailed Grouse Habitat	Mountain Quail Habitat
79	MARVIN BRASHLER	0.0	0.0	0.0	0.0	0.0	833.2	0.0	0.0	0.0	0.0
80	MCCLARAN RANCH	1472.9	0.0	2610.8	170.2	1913.9	1601.3	1009.6	0.0	0.0	0.0
81	MICHAEL SMITH	185.7	0.0	597.3	265.5	331.8	579.0	18.2	0.0	0.0	0.0
82	MILLS, DANIEL R	43.4	0.0	42.1	111.9	14.0	0.0	125.9	0.0	0.0	0.0
83	MONTY SIDDOWAY	250.4	0.0	299.7	73.1	226.6	0.0	299.7	0.0	0.0	0.0
84	MOORES BROTHERS RANCH	492.2	0.0	0.0	0.0	0.0	0.0	304.0	0.0	0.0	0.0
85	NICHOLAS BOKIDES	0.9	0.0	529.7	0.8	0.0	0.0	0.0	130.1	0.0	0.0
86	NORMAN FITZSIMMONS	585.9	0.0	0.0	121.3	432.5	0.0	796.0	0.0	0.0	0.0
87	NORMAN LOVELL	716.3	0.0	0.0	0.0	6.3	784.2	74.0	0.0	0.0	0.0
88	OX RANCH	3155.9	0.0	0.0	4985.1	2724.2	6186.6	0.0	6626.1	0.0	62.7
89	PARADISE FLATS TRUST	0.7	0.0	0.0	0.0	150.2	0.0	0.0	149.8	0.0	0.0
90	PAT PALMER	137.8	0.0	0.0	1884.8	1906.1	1730.0	641.8	2268.9	2066.4	0.0
91	PHILLIP KETSCHER	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
92	RAHN HOSTETTER	7.4	0.0	0.0	0.0	26.8	0.0	0.0	0.0	0.0	0.0
93	RENEE SWEET	120.8	0.0	92.3	0.0	0.0	122.6	0.0	0.0	0.0	2.0
94	REX WINEGAR	0.0	0.0	0.0	642.0	0.0	642.0	0.0	497.1	597.8	
95	RICHARD A MURRAY	5.5	0.0	0.0	0.0	0.0	178.5	0.0	0.0	0.0	0.0
96	ROBERT THOMAS	577.2	277.6	0.0	825.0	0.0	431.8	0.0	0.0	0.0	0.7
97	ROCKING M CATTLE CO	5915.5	0.0	0.0	10,401.0	5798.7	12,495.9	0.0	7429.2	5343.3	5.1
98	ROGER GULICK	105.7	0.0	760.0	682.9	0.0	540.6	0.0	0.0	0.0	0.0
99	RONALD LAWRENCE	1214.4	0.0	0.0	1872.0	98.9	1971.0	0.0	767.4	0.0	4.3
100	RONALD MATZ	35.2	127.2	0.0	111.9	0.0	149.6	0.0	0.0	0.0	0.0
101	ROUTSON RANCH	806.5	0.0	0.0	545.3	3092.2	2424.3	0.0	2157.7	2490.7	0.0
102	RUSSELL, DAWN E.	89.3	0.0	0.0	159.0	0.0	0.0	159.0	0.0	0.0	0.0
103	SATRAPE, DEAN A	0.0	0.0	0.0	0.0	111.3	0.0	0.0	0.0	0.0	0.0
104	SCHAEFFER TRUST	131.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
105	SCHOREDER, NED R	39.3	0.0	0.0	183.6	20.9	0.0	183.6	0.0	0.0	0.0

Map Code	Private Property Owner	Sheep Winter Range	Sheep Movement Corridor	Sheep Current Habitat	Elk Crucial Winter	Elk Noncrucial Winter	Deer Crucial Winter Range	Deer Noncrucial Winter Range	Sage Grouse Habitat	Sharp-tailed Grouse Habitat	Mountain Quail Habitat
106	SNAKE RIVER PROPERTIES	549.9	0.0	322.1	0.4	14.2	805.2	0.0	0.0	0.0	9.5
107	SNAKE RIVER SHEEP CO %SOULEN	4560.1	0.0	0.0	4676.8	1648.3	5506.3	0.0	1800.5	1787.2	9.7
108	SPENCER RANCH INC	12,709.5	0.0	0.0	20,530.6	320.0	12.6	20,613.3	0.0	0.0	20.4
109	STAN GULICK	564.7	0.0	1544.4	2081.7	60.0	1263.0	0.0	0.0	0.0	4.3
110	STEAMBARGE JAMES ETAL	16.0	0.0	0.0	152.4	6.6	0.0	152.4	0.0	0.0	0.0
111	STEINBERG, RICHARD W	11.3	0.0	0.0	66.6	22.8	0.0	66.6	0.0	0.0	0.0
112	STEPHEN DENNIS	22.1	238.4	0.0	312.0	0.0	312.0	0.0	0.0	0.0	0.0
113	THEODORE BOKIDES	12.7	0.0	0.0	247.2	0.0	3390.1	0.0	0.0	0.0	0.7
114	TIPPET RANCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
115	TURNER BROS LAND & LIVESTOCK	0.0	0.0	0.0	0.0	0.0	66.1	0.0	161.8	0.0	1.7
116	UNION PACIFIC RAILROAD	0.0	0.0	0.0	88.0	0.0	88.0	0.0	7.0	0.0	0.0
117	WADEAN HOLCOMB	1066.0	0.0	0.0	1357.9	0.0	1835.5	0.0	0.0	0.0	19.9
118	WALTER MARLETT	327.2	0.0	0.0	0.0	690.5	1711.0	0.0	577.9	0.0	2.8
119	WAYNE SMITH	1055.6	0.0	0.0	0.0	2053.7	0.0	524.3	0.0	0.0	0.0
120	WILD HORSE RANCH C/O JOHN DYER	123.3	0.0	0.0	0.0	307.9	4.5	0.0	11.3	0.0	0.0
121	WILLIAM GRACE	0.0	0.0	0.0	0.0	61.6	33.6	0.0	59.8	0.0	0.0
122	WILLIAM HALL	0.0	0.0	0.0	0.0	2.3	112.4	0.0		0.0	0.0
123	WILLIAM STEVENSON	1257.5	0.0	0.0	5869.1	0.0	5252.9	537.8	2338.9	0.0	2.6
124	WRIGHT, LAVERN E	384.6	0.0	0.0	1142.5	1327.6	0.0	1865.0	0.0	0.0	0.0
125	YOUNG FAMILY TRUST	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
127	WALLANE CORPORATION	7994.7	0.0	0.0	7181.0	3199.4	0.0	10,123.6	0.0	0.0	0.0
128	JEANNE WALLACE	0.0	0.0	0.0	160.6	0.0	0.0	160.6	13.7	39.4	0.0
129	MAJORIE MOYLE	0.0	0.0	0.0	629.9	0.0	0.0	629.9	0.0	203.9	0.0
130	MAURICE SYME	0.0	0.0	0.0	159.9	0.0	0.0	159.9	22.0	0.0	0.0
131	PAT PALMER	0.0	0.0	0.0	561.8	0.0	0.0	561.8	0.0	49.2	0.0

Map Code	Private Property Owner	Sheep Winter Range	Sheep Movement Corridor	Sheep Current Habitat	Elk Crucial Winter	Elk Noncrucial Winter	Deer Crucial Winter Range	Deer Noncrucial Winter Range	Sage Grouse Habitat	Sharp-tailed Grouse Habitat	d Mountain Quail Habitat
132	REX WINEGAR	0.0	0.0	0.0	280.0	0.0	0.0	280.0	0.3	71.8	0.0
133	WARREN PRICE	0.0	0.0	0.0	328.0	0.0	0.0	328.0	38.2	156.6	0.0
134	WESTLAKE ISLAND	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
135	MCREA ISLAND	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
136	HABBERSTAD, JOHN	133.3	0.0	0.2	101.3	0.0	0.0	0.0	0.0	0.0	0.0
137	THOMAS, ROBERT SON LLC	116.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Table 10. TECS species documented on private properties that were evaluated to meet IPC's targeted acres of wildlife PM&E lands. Data are from IPC technical reports in the HCC FLA, Idaho Conservation Data Center (ICDC), and Oregon Natural Heritage Information Center (ONHIC). ICDC and ONHIC both use point occurrences that are buffered to create a polygon according to a precision value that indicates the quality of the location data. Thus, the species listed may occur on the property or in the vicinity.

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Code	Private Property Owner	IPC	ONHIC	ICDC
1	ALEX FINKE	Western toad	Snake River goldenweed	None Documented
2	ALTA GOLD	None Documented	Bald eagle, western small-footed myotis	None Documented
3	ALVIN BLOODSWORTH	IN BLOODSWORTH None Documented Ferruginous hawk, Lewis's woodpecker, Spalding's campion, Swainson's hawk, white-tailed jackrabbit		None Documented
			Bull trout (Columbia River population), Chinook salmon (Snake River ESU, fall run), Chinook salmon (Snake River ESU, spring/summer run), Lewis's woodpecker, steelhead (Snake River Basin ESU), white-tailed	
4	ANDERSEN RANCHES	None Documented	jackrabbit	None Documented
5	ANTHONY AZEVEDO	None Documented	Gray wolf	Southern Idaho ground squirrel
6	ARLEY HAENER	None Documented	None Documented	None Documented
7	ASH GROVE CEMENT CO	None Documented	Snake River goldenweed	None Documented
8	BAN RAC LLC	None Documented	Fee's lipfern	White-headed Woodpecker, North American wolverine, mountain quail, broad-fruit mariposa
9	BENITA THOMPSON	None Documented	Bull trout (Columbia River population)	None Documented
10	BIG ROCK CREEK GRAZING ASSOC	None Documented	None Documented	Southern Idaho ground squirrel
11	BLAIN PETTY	None Documented	Gray wolf	Southern Idaho ground squirrel
12	BRAD DENSON	None Documented	None Documented	Cusick's camas
40	BRUCE HAM	None Documented	Bull trout (Columbia River population), Chinook salmon (Snake River ESU, spring/summer run), Fee's lipfern, Macfarlane's four-o'clock, Siskiyou caddisfly, steelhead (Snake River Bacin ESU)	None Documented
13	BRUCE HAM	None Documented	(Snake River Basin ESU)	
14	CARNEL UPTON	Burrowing owl	Gray wolf	Tolmie's Onion, southern Idaho ground squirrel, long-billed curlew
15	CHARLES SLYTER	None Documented	Gray wolf	Southern Idaho ground squirrel
16	CLYDE RAMSEY	None Documented	Gray wolf	Southern Idaho ground squirrel
17	DALY CREEK RANCH	Burrowing owl, river otter	None Documented	None Documented

Map Code	Private Property Owner	IPC	ONHIC	ICDC
18	DAN FORSEA	-		None Documented
		Peregrine falcon	Bald eagle, Snake River goldenweed	
19		None Documented	None Documented	Southern Idaho ground squirrel
20	DARREL LEE BROWN	None Documented	None Documented	None Documented
21	DARREL MALLERY	None Documented	Bull trout (Columbia River population)	None Documented
22	DAVID BARBER	None Documented	Gray wolf, Snake River goldenweed	Southern Idaho ground squirrel
23	DAVID G MOORE	Burrowing owl, loggerhead shrike, olive-sided flycatcher, rufous hummingbird, solitary vireo, Swainson's thrush, western toad, yellow warbler	Bald eagle, bull trout (Columbia River population), cordilleran sedge	Cusick's camas
24	DAVID JACKSON	None Documented	Lewis's woodpecker, Peck's skipper butterfly, white- tailed jackrabbit	None Documented
25	DAVID, KENNETH E TRUSTEE	None Documented	None Documented	None Documented
26	DEBRA TATE	None Documented	None Documented	None Documented
27	DELBERT & LEWIS GARNET	None Documented	Bull trout (Columbia River population), Chinook salmon (Snake River ESU, fall run), Chinook salmon (Snake River ESU, spring/summer run), Fee's lipfern, porcupine sedge, siskiyou caddisfly, steelhead (Snake River Basin ESU), Townsend's big-eared bat, white-tailed jackrabbit	
28	DERRELL WITTY		White-tailed jackrabbit	None Documented
29	DIANNE BRAUSE	Lewis's woodpecker, Northern goshawk, solitary vireo, western toad, Wilson's warbler, yellow warbler	Snake River goldenweed	None Documented
30	DOBBINS, JAMES M	None Documented	None Documented	White-headed Woodpecker
31	DON FRITZ	None Documented	None Documented	North American Wolverine, Mountain quail
32	DUANE JOHNSON	None Documented	Lewis's woodpecker, Peck's skipper butterfly, porcupine sedge, Western yellow-billed cuckoo	None Documented
33	DWIGHT MADDOX	None Documented	None Documented	None Documented
34	EAGLE VALLEY AG INC	None Documented	Bald eagle, Snake River goldenweed	None Documented
35	EDITH RYNEARSON	None Documented	Snake River goldenweed	None Documented
36	ESTHER SMITH	None Documented	Gray wolf	Southern Idaho ground squirrel

Map	Private Property Owner	IPC	ONHIC	ICDC
Coue	Filvale Floperty Owner	IFC		
37	EUGENE GOERTZEN	None Documented	Columbian sharp-tailed grouse, Lewis's woodpecker, Swainson's hawk, western burrowing owl, white-tailed jackrabbit	None Documented
38	EVERGREEN LAND AND CATTLE	None Documented	None Documented	Broad-fruit mariposa
39	FENCE CREEK CATTLE CO	None Documented	Bull trout (Columbia River population), Chinook salmon (Snake River ESU, fall run), Chinook salmon (Snake River ESU, spring/summer run), Fee's lipfern, Lewis's woodpecker, Macfarlane's four-o'clock, porcupine sedge, siskiyou caddisfly, steelhead (Snake River Basir ESU), Western yellow-billed cuckoo, white-tailed jackrabbit	None Documented
40	FLYING U RANCH	None Documented	None Documented	Mountain quail, Broad-fruit mariposa
41	FLYING Y PARTNERSHIP	None Documented	None Documented	Northern Idaho ground squirrel, Northern goshawk, Flammulated owl, Douglas' clover
42	FOLEY, MICHAEL G	None Documented	None Documented	Mountain guail
43	FRAN BUTCHART JR	None Documented	Snake River goldenweed	None Documented
44	GAZELLE LAND & TIMBER	None Documented	Bull trout (Columbia River population), Chinook salmon (Snake River ESU, spring/summer run), Fee's lipfern, Lewis's woodpecker, Macfarlane's four-o'clock, Membrane-leaved monkeyflower, Peck's skipper butterfly, porcupine sedge, steelhead (Snake River Basin ESU), Western yellow-billed cuckoo, white-tailed jackrabbit	None Documented
45	GEORGIA PACIFIC CORP	None Documented	None Documented	Southern Idaho ground squirrel
40		New Designation	Bull trout (Columbia River population), Chinook salmon (Snake River ESU, spring/summer run), Lewis's woodpecker, porcupine sedge, steelhead (Snake River	New Democrated
46	GERALD WITHERRITE	None Documented	Basin ESU) Western yellow-billed cuckoo	None Documented
47	GERTRUDE SUTTON	None Documented	Snake River goldenweed	Southern Idaho ground squirrel
48	GORDON HUDSON TRUST	None Documented	None Documented	None Documented
49	HAFF, KENNETH	None Documented	None Documented	North American Wolverine, Mountain quail
50	HALL, BOB D	None Documented	None Documented	None Documented
51	HANS FINKE	None Documented	None Documented	None Documented
52	HAROLD STEINER	None Documented	None Documented	None Documented

Map Code	Private Property Owner	IPC	ONHIC	ICDC
53	HC & SUSAN FINKE	None Documented	Snake River goldenweed	None Documented
54	HECKMAN RANCHES	None Documented	None Documented	White-headed Woodpecker, Plumed clover, Palouse thistle, Mountain quail, Broad-fruit mariposa
55	HELENA SCHMIDT	None Documented	None Documented	Flammulated owl
56	HELMOUT FAMILY REV TRUST	None Documented	None Documented	North American Wolverine, Mountain quail
57	HITCHCOCK	None Documented	None Documented	None Documented
58	HUBBARD TRUST	None Documented	Bull trout (Columbia River population), Chinook salmon (Snake River ESU, spring/summer run), Lewis's woodpecker, Peck's skipper butterfly, porcupine sedge, siskiyou caddisfly, steelhead (Snake River Basin ESU), Western yellow-billed cuckoo	None Documented
59	IRA HASKETT	Merlin, western toad	None Documented	None Documented
60	JACK CORNING	Sage grouse	Bald eagle	None Documented
61	JANICE MILLS	None Documented	None Documented	None Documented
62	JAYO, STEVEN	None Documented	None Documented	Mountain quail, Flammulated owl, Broad-fruit mariposa, Boulder Pile Mountainsnail
63	JEANNE WALLACE	None Documented	Gray wolf	Southern Idaho ground squirrel
64	JOHN BINFORD	None Documented	Bartonberry	None Documented
65	JOHN CARROLL	None Documented	None Documented	None Documented
66	JOHNSON, KARL	None Documented	None Documented	Mountain quail, Broad-fruit mariposa
67	JOSEPH BERLAND	None Documented	White-tailed jackrabbit	
68	JOY TRUST	None Documented	Chinook salmon (Snake River ESU, spring/summer run), Lewis's woodpecker, Peck's skipper butterfly, porcupine sedge, steelhead (Snake River Basin ESU), Western burrowing owl, Western yellow-billed cuckoo, white-tailed jackrabbit	None Documented
69	KENNETH SHADE	None Documented	None Documented	Northern goshawk, Flammulated owl, Douglas' clover
70	KILLAM PROPERTIES	None Documented	Bull trout (Columbia River population), Chinook salmon (Snake River ESU, spring/summer run), Fee's lipfern, steelhead (Snake River Basin ESU)	None Documented
71	KOVACH, JOHN REV LIV TRUST	None Documented	None Documented	North American Wolverine

Map Code	Private Property Owner	IPC	ONHIC	ICDC
72	LILLIE ROBINSON	None Documented	Lewis's woodpecker, Peck's skipper butterfly, porcupine sedge, Western yellow-billed cuckoo, white-tailed jackrabbit	None Documented
12		None Documented	Jackiabbil	
73	LORILYN QUILLIAM	None Documented	None Documented	Northern goshawk, Flammulated owl, Dougla clover
74	LOWN-DUCKETT HOLDINGS	None Documented	Bull trout (Columbia River population), Chinook salmon (Snake River ESU, spring/summer run), Lewis's woodpecker, Peck's skipper butterfly, porcupine sedge, steelhead (Snake River Basin ESU), Western yellow- billed cuckoo	None Decumented
74		None Documented	billed cuckoo	None Documented
75	MAC MILLAN, DONALD S JR ETUX	None Documented	None Documented	White-headed Woodpecker, Mountain quail
76	MALHEUR MINNING CORP	None Documented	Gray wolf	Southern Idaho ground squirrel
77	MARJORIE MOYLE	Sage grouse	Gray wolf, Lewis's woodpecker, Peck's skipper butterfly, porcupine sedge, Western yellow-billed cuckoo	, Southern Idaho ground squirrel
78	MARK THORN	None Documented	None Documented	None Documented
79	MARVIN BRASHLER	None Documented	None Documented	None Documented
80	MCCLARAN RANCH	None Documented	Aristulate lipocarpha, bull trout (Columbia River population), Chinook salmon (Snake River ESU, fall run), Chinook salmon (Snake River ESU, spring/summer run), Fee's lipfern, Fringed myotis, Geyer's onion, steelhead (Snake River Basin ESU), white-tailed jackrabbit	None Documented
04			Chinook salmon (Snake River ESU, spring/summer run), Membrane-leaved monkeyflower, steelhead	New Deserves de la
81	MICHAEL SMITH	None Documented	(Snake River Basin ESU)	None Documented
82	MILLS, DANIEL R	None Documented	None Documented	North American Wolverine, Mountain quail
83	MONTY SIDDOWAY	None Documented	Chinook salmon (Snake River ESU, spring/summer run), Lewis's woodpecker, steelhead (Snake River Basin ESU), Swainson's hawk, white-tailed jackrabbit	None Documented
84	MOORES BROTHERS RANCH	None Documented	Lewis's woodpecker, Peck's skipper butterfly,porcupine sedge, Western yellow-billed cuckoo, white-tailed jackrabbit	None Documented
85	NICHOLAS BOKIDES	None Documented	None Documented	Northern goshawk
86	NORMAN FITZSIMMONS	None Documented	None Documented	None Documented

Map Code	Private Property Owner	IPC	ONHIC	ICDC
87	NORMAN LOVELL	None Documented	Bull trout (Columbia River population), Chinook salmon (Snake River ESU, spring/summer run), Lewis's woodpecker, Peck's skipper butterfly, porcupine sedge, steelhead (Snake River Basin ESU), Western yellow- billed cuckoo, white-tailed jackrabbit	None Documented
		Bald eagle, Green-tailed towhee, long-billed curlew, MacGillivray's warbler, Northern goshawk, Northern pygmy owl, Pacific mole, Red-naped sapsucker, rufous hummingbird, solitary vireo, Townsend's big-eared bat, Townsend's warbler, yellow-bellied		Townsend's Big-eared Bat, Tolmie's onion, Stalk-leaved monkeyflower, Northern pygmy- owl, Northern Idaho ground squirrel, Northern goshawk, Mountain quail, Flammulated owl,
88	OX RANCH	sapsucker, yellow warbler	Western small-footed myotis	Douglas' Clover, Cusick's camas, Coast Mole
89	PARADISE FLATS TRUST	None Documented	None Documented	Northern Idaho Ground Squirrel, Northern goshawk, Flammulated owl, Douglas' clover
90	PAT PALMER	None Documented	Gray wolf, Snake River goldenweed	Southern Idaho ground squirrel, Columbian sharp-tailed grouse
91	PHILLIP KETSCHER	None Documented	White-tailed jackrabbit	None Documented
92	RAHN HOSTETTER	None Documented	Lewis's woodpecker, Peck's skipper butterfly, porcupine sedge, Western yellow-billed cuckoo	None Documented
93	RENEE SWEET	None Documented	Snake River goldenweed	None Documented
94	REX WINEGAR	None Documented	None Documented	Southern Idaho ground squirrel
95	RICHARD A MURRAY	Swainson's hawk, Swainson's thrush, Wilson's warbler, yellow warbler, bald eagle, Great egret, long-billed curlew, MacGillivray's warbler, solitary vireo, spotted frog	Bald eagle, Columbia spotted frog	None Documented
96	ROBERT THOMAS	None Documented	Bull trout (Columbia River population)	None Documented
97	ROCKING M CATTLE CO	Sage grouse, western toad	Snake River goldenweed	Southern Idaho ground squirrel, Snake River goldenweed
98	ROGER GULICK	None Documented	None Documented	None Documented
99	RONALD LAWRENCE	Lewis's woodpecker, solitary vireo, western toad, Wilson's warbler, yellow warbler	None Documented	None Documented
100	RONALD MATZ	Olive-sided flycatcher	None Documented	Cusick's camas

Мар					
Code	Private Property Owner	IPC	ONHIC	ICDC	
101	ROUTSON RANCH	None Documented	Snake River goldenweed	Southern Idaho ground squirrel	
102	RUSSELL, DAWN E.	None Documented	None Documented	Mountain quail	
103	SATRAPE, DEAN A	None Documented	None Documented	White-headed woodpecker	
104	SCHAEFFER TRUST	None Documented	Columbian sharp-tailed grouse, Lewis's woodpecker, steelhead (Snake River ESU), Swainson's hawk, white- tailed jackrabbit	None Documented	
105	SCHOREDER, NED R	None Documented	None Documented	None Documented	
106	SNAKE RIVER PROPERTIES	Northern goshawk, western toad	Snake River goldenweed	None Documented	
107	SNAKE RIVER SHEEP CO %SOULEN	Lewis's woodpecker, MacGillivray's warbler, solitary vireo, Swainson's thrush, Wilson's warbler, yellow warbler	None Documented	Snake River goldenweed	
108	SPENCER RANCH INC	None Documented	Townsend's big-eared bat	Townsend's Big-eared Bat, Shortface Lanx, Purple Thick-leaved thelypody, Hazel's prickly phlox, Green-band mariposa lily, Broad-fruit mariposa	
109	STAN GULICK	None Documented	Bull trout (Columbia River population)	None Documented	
110	STEAMBARGE JAMES ETAL	None Documented	None Documented	None Documented	
111	STEINBERG, RICHARD W	None Documented	None Documented	Mountain quail, Broad-fruit mariposa	
112	STEPHEN DENNIS	None Documented	Bartonberry, cordilleran sedge	None Documented	
113	THEODORE BOKIDES	None Documented	Biennial stanleya, gray wolf, long-billed curlew	None Documented	
113	THEODORE BOKIDES	Long-billed curlew	None Documented	None Documented	
114	TIPPET RANCH	None Documented	Lewis's woodpecker, Swainson's hawk, Western burrowing owl, white-tailed jackrabbit	None Documented	
115	TURNER BROS LAND & LIVESTOCK	None Documented	None Documented	Southern Idaho ground squirrel	
116	UNION PACIFIC RAILROAD	None Documented	None Documented	Southern Idaho ground squirrel, shining flatsedge	
117	WADEAN HOLCOMB	MacGillivray's warbler, western toad, Wilson's warbler, yellow warbler,	Bald eagle	None Documented	
118	WALTER MARLETT	Western toad	Snake River goldenweed	Southern Idaho ground squirrel	

Map Code	Private Property Owner	IPC	ONHIC	ICDC
119	WAYNE SMITH	None Documented	White-tailed jackrabbit	None Documented
120	WILD HORSE RANCH C/O JOHN DYER	I None Documented	None Documented	Tolmie's Onion, Flammulated owl
121	WILLIAM GRACE	None Documented	Gray wolf	Southern Idaho ground squirrel
122	WILLIAM HALL	None Documented	Bull trout (Columbia River population), Chinook salmon (Snake River ESU, spring/summer run), Fee's lipfern, Macfarlane's four-o'clock, steelhead (Snake River Basin ESU)	None Documented
123	WILLIAM STEVENSON	Bald eagle, bank swallow, grasshopper sparrow, Peregrine falcon, rosy finch, yellow warbler	Gray wolf	Tolmie's Onion, southern Idaho ground squirrel, long-billed curlew
124	WRIGHT, LAVERN E	None Documented	None Documented	Plumed clover
125	YOUNG FAMILY TRUST	None Documented	White-tailed jackrabbit	None Documented
127	WALLANE CORPORATION	None Documented	Steelhead (Snake River Basin ESU), black-chinned hummingbird	None Documented
128	JEANNE WALLACE	None Documented	None Documented	Southern Idaho ground squirrel
129	MAJORIE MOYLE	None Documented	None Documented	Southern Idaho ground squirrel
130	MAURICE SYME	None Documented	None Documented	Southern Idaho ground squirrel
131	PAT PALMER	None Documented	None Documented	Southern Idaho ground squirrel
132	REX WINEGAR	None Documented	None Documented	Southern Idaho ground squirrel
133	WARREN PRICE	None Documented	None Documented	Southern Idaho ground squirrel
134	WESTLAKE ISLAND	None Documented	None Documented	Southern Idaho ground squirrel
135	MCREA ISLAND	None Documented	None Documented	Southern Idaho ground squirrel
136	HABBERSTAD, JOHN	None Documented	Wallowa primrose	None Documented
137	THOMAS, ROBERT SON LLC	None Documented	Wallowa primrose	None Documented

Table 11.	High-value wildlife resources documented (+ is present, – is absent) on private properties that were evaluated to meet IPC's targeted
	acres of wildlife PM&E lands. Data are from IPC technical reports in the HCC FLA (see Appendix B for a list of technical reports).

				Neotropical Migrant Habitat <sup>1</sup>			
Map Code	Private Property Owner	High-value wildlife resources	Raptor nests	Riparian	Forested	Grassland	Shrubland
1	ALEX FINKE	None Documented	None Documented	+	+	+	+
2	ALTA GOLD	Eagle roost, bats	None Documented	+	+	+	+
3	ALVIN BLOODSWORTH	None Documented	None Documented	-	-	+	+
4	ANDERSEN RANCHES	None Documented	None Documented	+	+	+	+
5	ANTHONY AZEVEDO	None Documented	None Documented	+	-	-	+
6	ARLEY HAENER	None Documented	None Documented	_	+	-	-
7	ASH GROVE CEMENT CO	None Documented	None Documented	-	+	+	+
8	BAN RAC LLC	None Documented	None Documented	+	+	+	+
9	BENITA THOMPSON	None Documented	None Documented	_	+	+	+
10	BIG ROCK CREEK GRAZING ASSOC	None Documented	None Documented	+	-	+	+
11	BLAIN PETTY	None Documented	None Documented	+	-	+	+
12	BRAD DENSON	None Documented	None Documented	_	+	+	+
13	BRUCE HAM	None Documented	None Documented	_	-	+	+
14	CARNEL UPTON	None Documented	None Documented	+	-	+	+
15	CHARLES SLYTER	None Documented	Golden eagle, Red-tailed hawk	+	_	+	+
16	CLYDE RAMSEY	None Documented		+	_	+	+
17	DALY CREEK RANCH	Eagle roost, aquatic furbearers	Great-horned owl, Red-tailed hawk	+	+	+	+
18	DAN FORSEA	None Documented	None Documented	+	+	+	+
19	DAN MOYLE	None Documented	None Documented	_	+	+	+
20	DARREL LEE BROWN	None Documented	None Documented	_	+	+	+
21	DARREL MALLERY	None Documented	None Documented	+	+	+	+
22	DAVID BARBER	None Documented	None Documented	+	-	+	+
23	DAVID G MOORE	Eagle roost, aquatic	None Documented	+	+	+	+

					Neotropical M	igrant Habitat <sup>1</sup>	
Map Code	Private Property Owner	High-value wildlife resources	Raptor nests	Riparian	Forested	Grassland	Shrubland
		furbearers					
24	DAVID JACKSON	None Documented	None Documented	+	+	+	+
25	DAVID, KENNETH E TRUSTEE	None Documented	None Documented	-	+	+	+
26	DEBRA TATE	None Documented	None Documented	-	+	-	-
27	DELBERT & LEWIS GARNET	None Documented	None Documented	+	+	+	+
28	DERRELL WITTY	None Documented	None Documented	+	+	+	+
29	DIANNE BRAUSE	None Documented	American kestrel	+	+	+	+
30	DOBBINS, JAMES M	None Documented	None Documented	+	+	+	+
31	DON FRITZ	None Documented	None Documented	+	+	+	+
32	DUANE JOHNSON	None Documented	None Documented	-	+	+	+
33	DWIGHT MADDOX	None Documented	None Documented	-	-	+	+
34	EAGLE VALLEY AG INC	None Documented	None Documented	+	+	+	+
35	EDITH RYNEARSON	None Documented	None Documented	+	-	+	+
36	ESTHER SMITH	None Documented	None Documented	+	-	+	+
37	EUGENE GOERTZEN	None Documented	None Documented	+	-	+	+
38	EVERGREEN LAND AND CATTLE	Bats	None Documented	+	+	+	+
39	FENCE CREEK CATTLE CO	None Documented	None Documented	+	+	+	+
40	FLYING U RANCH	None Documented	None Documented	+	+	+	+
41	FLYING Y PARTNERSHIP	None Documented	None Documented	-	+	+	+
42	FOLEY, MICHAEL G	None Documented	None Documented	+	-	+	+
43	FRAN BUTCHART JR	None Documented	None Documented	-	+	+	+
44	GAZELLE LAND & TIMBER	None Documented	None Documented	+	+	+	+
45	GEORGIA PACIFIC CORP	None Documented	None Documented	-	-	+	+
46	GERALD WITHERRITE	None Documented	None Documented	+	+	+	+
47	GERTRUDE SUTTON	None Documented	None Documented	+	+	+	+
48	GORDON HUDSON TRUST	None Documented	None Documented	+	+	+	+
49	HAFF, KENNETH	None Documented	None Documented	+	+	+	+

					Neotropical Migrant Habitat <sup>1</sup>				
Map Code	Private Property Owner	High-value wildlife resources	Raptor nests	Riparian	Forested	Grassland	Shrubland		
50	HALL, BOB D	None Documented	None Documented	+	+	+	+		
51	HANS FINKE	None Documented	None Documented	+	_	+	+		
52	HAROLD STEINER	None Documented	None Documented	-	+	+	+		
53	HC & SUSAN FINKE	None Documented	None Documented	-	_	+	+		
54	HECKMAN RANCHES	None Documented	None Documented	+	+	+	+		
55	HELENA SCHMIDT	None Documented	None Documented	-	+	+	+		
56	HELMOUT FAMILY REV TRUST	None Documented	None Documented	+	+	+	+		
57	HITCHCOCK	None Documented	None Documented	+	+	+	+		
58	HUBBARD TRUST	None Documented	None Documented	+	+	+	+		
59	IRA HASKETT	None Documented	None Documented	+	+	+	+		
60	JACK CORNING	None Documented	None Documented	+	+	+	+		
61	JANICE MILLS	None Documented	None Documented	-	+	+	+		
62	JAYO, STEVEN	None Documented	None Documented	+	+	+	+		
63	JEANNE WALLACE	None Documented	None Documented	-	_	+	+		
64	JOHN BINFORD	Bats	None Documented	+	+	+	+		
65	JOHN CARROLL	None Documented	None Documented	-	+	+	+		
66	JOHNSON, KARL	None Documented	None Documented	+	+	+	+		
67	JOSEPH BERLAND	None Documented	None Documented	+	+	+	+		
68	JOY TRUST	None Documented	None Documented	-	+	+	+		
69	KENNETH SHADE	None Documented	None Documented	+	+	+	+		
70	KILLAM PROPERTIES	None Documented	None Documented	+	+	+	+		
71	KOVACH, JOHN REV LIV TRUST	None Documented	None Documented	-	+	+	+		
72	LILLIE ROBINSON	None Documented	None Documented	+	+	+	+		
73	LORILYN QUILLIAM	None Documented	None Documented	+	+	+	+		
74	LOWN-DUCKETT HOLDINGS	None Documented	None Documented	+	+	+	+		
75	MAC MILLAN, DONALD S JR ETUX	None Documented	None Documented	-	_	+	+		
76	MALHEUR MINNING CORP	None Documented	None Documented	_	-	+	+		

					Neotropical M	ligrant Habitat <sup>1</sup>	
Map Code	Private Property Owner	High-value wildlife resources	Raptor nests	Riparian	Forested	Grassland	Shrubland
77	MARJORIE MOYLE	None Documented	None Documented	+	+	+	+
78	MARK THORN	None Documented	None Documented	_	+	+	+
79	MARVIN BRASHLER	None Documented	Great-horned owl	_	+	+	+
80	MCCLARAN RANCH	None Documented	None Documented	+	+	+	+
81	MICHAEL SMITH	None Documented	None Documented	+	+	+	+
82	MILLS, DANIEL R	None Documented	None Documented	_	+	+	+
83	MONTY SIDDOWAY	None Documented	None Documented	+	+	+	+
84	MOORES BROTHERS RANCH	None Documented	None Documented	_	+	+	+
85	NICHOLAS BOKIDES	None Documented	Cooper's hawk, Golden eagle, Long-eared owl, Western screech owl	_	+	+	+
86	NORMAN FITZSIMMONS	None Documented	None Documented	+	+	+	+
87	NORMAN LOVELL	None Documented	None Documented	+	+	+	+
88	OX RANCH	Eagle roost	None Documented	+	+	+	+
89	PARADISE FLATS TRUST	None Documented	None Documented	_	+	+	+
90	PAT PALMER	None Documented	None Documented	+	+	+	+
91	PHILLIP KETSCHER	None Documented	None Documented	+	+	+	+
92	RAHN HOSTETTER	None Documented	None Documented	_	+	-	+
93	RENEE SWEET	None Documented	None Documented	+	-	+	+
94	REX WINEGAR	None Documented	None Documented	_	+	+	+
95	RICHARD A MURRAY	Eagle roost, Great blue heron rookery	Great-horned owl, American kestrel	+	_	_	_
96	ROBERT THOMAS	None Documented	None Documented	_	+	+	+
97	ROCKING M CATTLE CO	None Documented	None Documented	+	+	+	+
98	ROGER GULICK	None Documented	None Documented	_	_	+	+
99	RONALD LAWRENCE	None Documented	Cooper's hawk	+	+	+	+
100	RONALD MATZ	Eagle roost	None Documented	_	+	+	+
101	ROUTSON RANCH	None Documented	None Documented	+	_	+	+

					Neotropical M	Neotropical Migrant Habitat <sup>1</sup> Forested Grassland Shr + +				
Map Code	Private Property Owner	High-value wildlife resources	Raptor nests	Riparian	Forested	Grassland	Shrubland			
102	RUSSELL, DAWN E.	None Documented	None Documented	+	+	+	+			
103	SATRAPE, DEAN A	None Documented	None Documented	+	-	+	+			
104	SCHAEFFER TRUST	None Documented	None Documented	+	+	+	+			
105	SCHOREDER, NED R	None Documented	None Documented	+	+	+	+			
106	SNAKE RIVER PROPERTIES	None Documented	Common barn owl	+	+	+	+			
107	SNAKE RIVER SHEEP CO %SOULEN	None Documented	Golden eagle	+	+	+	+			
108	SPENCER RANCH INC	None Documented	None Documented	+	+	+	+			
109	STAN GULICK	None Documented	None Documented	+	-	+	+			
110	STEAMBARGE JAMES ETAL	None Documented	None Documented	+	+	+	+			
111	STEINBERG, RICHARD W	None Documented	None Documented	+	+	+	+			
112	STEPHEN DENNIS	None Documented	None Documented	-	+	+	+			
113	THEODORE BOKIDES	None Documented	None Documented	_	_	+	+			
114	TIPPET RANCH	None Documented	None Documented	+	-	+	+			
115	TURNER BROS LAND & LIVESTOCK	None Documented	None Documented	+	-	+	+			
116	UNION PACIFIC RAILROAD	None Documented	None Documented	-	-	+	+			
117	WADEAN HOLCOMB	None Documented	None Documented	+	+	+	+			
118	WALTER MARLETT	None Documented	None Documented	+	_	+	+			
119	WAYNE SMITH	None Documented	None Documented	+	+	+	+			
120	WILD HORSE RANCH C/O JOHN DYER	None Documented	None Documented	_	+	+	+			
121	WILLIAM GRACE	None Documented	None Documented	-	-	+	+			
122	WILLIAM HALL	None Documented	None Documented	+	_	+	+			
123	WILLIAM STEVENSON	None Documented	Red-tailed hawk	+	+	+	+			
124	WRIGHT, LAVERN E	None Documented	None Documented	+	+	+	+			
125	YOUNG FAMILY TRUST	None Documented	None Documented	+	+	+	+			
127	WALLANE CORPORATION	None Documented	None Documented	+	+	+	+			
128	JEANNE WALLACE	None Documented	None Documented	_	_	+	+			
129	MAJORIE MOYLE	None Documented	None Documented	_	_	+	+			

					Neotropical M	igrant Habitat <sup>1</sup>	
Map Code	Private Property Owner	High-value wildlife resources	Raptor nests	Riparian	Forested	Grassland	Shrubland
130	MAURICE SYME	None Documented	None Documented	-	-	+	+
131	PAT PALMER	None Documented	None Documented	-	-	+	+
132	REX WINEGAR	None Documented	None Documented	-	-	+	+
133	WARREN PRICE	None Documented	None Documented	-	-	+	+
134	WESTLAKE ISLAND	None Documented	None Documented	+	-	_	-
135	MCREA ISLAND	None Documented	None Documented	+	-	+	-
136	HABBERSTAD, JOHN	None Documented	None Documented	-	+	+	+
137	THOMAS, ROBERT SON LLC	None Documented	None Documented	_	+	+	+

<sup>1</sup>Cover-type data were used to predict the presence of habitat for neotropical migrant birds.

## Table 12.Acreages of land-use designations of currently owned IPC lands proposed as WMAs and<br/>SMAs for HCC wildlife mitigation.

Management Segment	Total	Idaho	Oregon	Wildlife PM&E Land	Recreation Site	Other Land Uses
Andrus WMA	355.5	355.5	0.0	355.5	0.0	0.0
Copperfield SMA	1113.7	51.7	1062	1078.9	21.4	13.5 <sup>1</sup>
Cottonwood Creek WMA	213.6	213.6	0.0	213.6	0.0	0.0
Farewell Bend SMA	419.6	419.6	0.0	288.8	130.8	0.0
Powder River WMA	503.4	0.0	503.4	503.4	0.0	0.0
Rocking-M WMA	63.4	63.4	0.0	63.4	0.0	0.0
Spring SMA	369.7	0.0	369.7	361.8	7.9	0.0
Sturgill Creek WMA	36.1	36.1	0.0	36.1	0.0	0.0
Wildhorse SMA	98.8	98.8	0.0	88.7	10.1 <sup>1</sup>	0.0
Sum	3173.8	1238.7	1935.1	2990.2	170.2	13.5

<sup>1</sup> Oxbow airfield

<sup>2</sup> McCormick Park

		SM	4				WMA			
Cover-type Code <sup>1</sup>	Copperfield	Farewell Bend	Spring	Wildhorse	Andrus	Cottonwood Creek	Rocking-M	Powder River	Sturgill Creek	Sum
A	0.0	25.2	0.0	0.0	0.0	0.0	19.0	49.8	0.0	94.1
В	0.0	<0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	<0.1
BR	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4
CTS	3.4	1.9	3.3	0.0	3.8	0.0	0.0	<0.1	0.0	12.3
D	0.1	1.8	1.6	0.0	0.8	0.0	0.0	0.1	0.0	4.4
DF	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4
DH	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.4
DS	0.0	0.0	24.2	0.0	0.0	0.0	0.2	0.0	0.0	24.4
EF	10.6	0.0	0.0	0.0	1.4	0.0	0.2	0.0	0.0	11.9
EHW	0.0	40.0	0.0	0.0	0.0	0.0	0.0	79.1	0.0	119.1
F	0.0	25.0	28.3	0.0	0.0	0.0	0.0	0.1	0.0	53.4
FO	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0
FU	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0
FW	24.4	0.0	0.0	11.1	0.0 5.2	2.4	0.0	24.6	0.0	68.1
G	24.4	0.0 6.0	0.4 195.7	33.2	5.2 156.5	2.4 29.0	0.0 8.6	113.2	32.8	819.7
GP	0.0	0.0	0.0	0.0	<0.1	0.0	0.0 1.9	88.8	0.0	90.7
GR	45.2	0.0	0.0	0.0	<0.1 19.6	<0.1	0.0	00.0 0.5	0.0	90.7 65.3
GR	45.2 1.4					<0.1 0.0				65.3 2.4
		0.0	0.0	0.0	0.0		0.0	1.1	0.0	
LS	3.9	0.0	2.7	0.0	0.0	0.0	0.0	1.1	0.0	5.3
MF	3.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.4
PH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.2
PR	0.0	0.0	2.5	<0.1	0.3	0.0	0.0	<0.1	0.0	2.8
R	3.2	0.0	0.0	0.2	0.1	0.1	0.8	1.4	0.0	5.8
S	193.6	66.1	2.0	26.4	32.2	85.0	6.1	7.4	2.0	420.8
SBW	0.0	9.5	5.4	0.0	0.0	0.1	0.2	1.0	0.0	16.1
SH	71.5	0.0	0.0	0.0	30.3	0.0	0.0	9.6	0.0	111.4
SS	435.4	95.8	94.8	14.9	98.6	94.4	25.3	86.7	0.4	946.3
SSW	30.4	17.6	3.5	2.9	6.8	2.6	0.8	36.6	0.9	102.1
TS	3.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.8
Unknown	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.1	0.0	2.1
Sum	1078.9	288.8	361.8	88.7	355.5	213.6	63.4	503.4	36.1	2990.2

Table 13. Cover-type acreages of wildlife PM&E lands within designated WMAs and SMAs for currently owned IPC lands.

<sup>1</sup> See Table 4 for code definitions.

	Wild	Ilife Habitat Categor	<b>y</b> <sup>1</sup>			
Management Segment	Minimum Elevation (m)	Maximum Elevation (m)	Riparian	Upland	Nonhabitat	Sum <sup>2</sup>
Andrus WMA	632.0	963.7	12.0	338.6	4.9	355.5
Copperfield SMA	515.8	866.6	55.3	1011.2	12.4	1078.9
Cottonwood Creek WMA	632.0	834.0	5.0	208.4	0.1	213.6
Farewell Bend SMA	633.0	711.9	57.6	218.1	13.1	288.8
Powder River WMA	632.0	792.9	140.3	356.3	6.9	503.4
Rocking-M WMA	513.0	691.0	0.8	61.7	1.0	63.4
Spring SMA	633.0	957.2	3.9	344.9	13.0	361.8
Sturgill Creek WMA	638.6	747.6	0.9	35.2	0.0	36.1
Wildhorse SMA	549.0	674.2	13.9	74.6	0.2	88.7
Sum			289.3	2649.3	51.6	2990.2

Table 14. Acreages of wildlife habitat categories for wildlife PM&E lands within WMAs and SMAs.

<sup>1</sup> See Table 4 for cover types comprising the Wildlife Habitat Categories. <sup>2</sup> Acreage sum includes only wildlife PM&E lands within the total area of a WMA and SMA. See Table 12 for total acres of currently owned IPC lands within WMAs and SMAs.

Table 15. Summary of wildlife values within proposed WMAs and SMAs. Figure 3 displays juxtaposition of IPC parcels comprising proposed WMAs and SMAs and adjacent public lands. Public lands adjacent to SMAs and WMS are assumed to provide large blocks of protected and managed wildlife habitat.

Management Segment	Geographic Distribution	Proximity to HCC Reservoir (km)	Total Acres	Wildlife PM&E Acres	Significant High Priority Habitats	Significant High Priority Species	Contiguous Public Lands
Andrus WMA	Brownlee Reservoir	<1	355.5	355.5	Winter range	TECS, big game, upland game birds	IDFG, BLM
Copperfield SMA	Oxbow and Hells Canyon Reservoirs	<1	1113.7	1078.9	Riparian, winter range, pine stand	TECS <sup>1</sup> , big game, upland game birds, neotropical migrants	BLM, USFS <sup>2</sup>
Cottonwood Creek WMA	Brownlee Reservoir	<1	213.6	213.6	Winter range	TECS, big game, upland game birds, aquatic furbearers	BLM, IDL, IDFG
Farewell Bend SMA	Brownlee Reservoir	<1	419.6	288.8	Riparian, willow stands	TECS, waterfowl, neotropical migrants	BLM
Powder River WMA	Brownlee Reservoir	<1	503.4	503.4	Riparian, cottonwood and willow stands, winter range	TECS <sup>3</sup> , waterfowl, aquatic furbearers, neotropical migrants, big game, upland game birds	BLM
Rocking-M WMA	Brownlee Reservoir	<1	63.4	63.4	Winter range	TECS, big game, upland game birds	BLM, IDFG
Spring SMA	Brownlee Reservoir	<1	369.7	361.8	Winter range	Big game, upland game birds	BLM
Sturgill Creek WMA	Brownlee Reservoir	<1	36.1	36.1	Winter range	Big game, upland game birds	BLM
Wildhorse SMA	Oxbow Reservoir	<1	98.8	88.7	Riparian, winter range	TECS <sup>4</sup> , big game, upland game birds, neotropical migrants	IDFG, BLM⁵
Sum			3173.8	2990.2			

<sup>1</sup> A bald eagle nest and perch sites occur.

<sup>2</sup> USFS lands are contiguous to the BLM lands that adjoin the Copperfield SMA.

<sup>3</sup> Two bald eagle roosts and a great blue heron rookery occur.

<sup>4</sup> A bald eagle roost occurs.

<sup>5</sup> BLM lands that adjoin the Wildhorse SMA are contiguous to the IDFG lands and managed as part of the Cecil D. Andrus WMA.

 Table 16.
 TRWG-specified high-value wildlife habitats documented (+ is present, – is absent) on IPC's currently owned lands within proposed WMAs and SMAs. Data are from Holmstead (2001) and IPC site visits conducted during 2004.

High-value cover type/habitat	Andrus WMA	Copperfield SMA	Cottonwood Creek WMA	Farewell Bend SMA	Powder River WMA	Rocking-M WMA	Spring SMA	Sturgill Creek WMA	Wildhorse SMA
Riparian									
Emergent Herbaceous Wetland	+	_	_	+	+	_	-	_	_
Forested Wetland	+	+	_	-	+	-	+	-	+
Scrub-shrub Wetland	+	+	+	+	+	+	+	+	+
Spring	-	+	+	+	+	-	+	-	-
Cottonwood Stand	+	+	+	+	+	_	-	_	+
Aspen Grove	-	+	+	_	-	_	-	_	-
Willow Stand	-	+	_	+	+	+	-	_	+
Upland									
Forested Upland	_	+	_	-	_	-	-	-	-
Shrubland	+	+	+	+	+	+	+	_	+
Grassland	+	+	+	+	+	+	+	+	+
Pine Stand	-	+	_	-	-	-	-	-	-
Winter Range	+	+	+	+	+	+	+	+	+

Table 17. Threatened, endangered, candidate, and special status (TECS) species documented (+ is present, – is absent) on currently owned IPC lands within proposed WMAs and SMAs. Data provided by the Idaho Conservation Data Center (ICDC) and the Oregon Natural Heritage Information Center (ONHIC).

Species	Andrus WMA	Copperfield SMA	Cottonwood Creek WMA	Farewell Bend SMA	Powder River WMA	Rocking-M WMA	Spring SMA	Sturgill Creek WMA	Wildhorse SMA
Animals									
Bald eagle	_	+	_	_	+	_	-	_	+
Bull trout	_	+	_	_	+	_	-	-	-
Columbia spotted frog	-	-	_	-	-	_	-	_	-
Flammulated owl	+	-	_	_	-	_	-	-	-
Gray wolf	_	-	_	+	-	_	+		-
Southern Idaho ground squirrel	_	-	_	+	_	+	-	_	_
Plants									
Cordilleran sedge	-	+	_	-	-	_	-	-	-
Cusick's camas	-	+	_	-	-	_	-	_	-
Shining flatsedge	_	-	_	+	-	-	-	-	-
Snake River goldenweed	+1	-	+1	-	-	+	+	+1	_

<sup>1</sup> Snake River goldenweed has been documented nearby, thus suitable habitat might occur.

 Table 18.
 TECS species documented (+ is present, - is absent) on currently owned IPC lands within the proposed WMAs and SMAs. Data are from IPC technical reports in the HCC FLA (see Appendix B for a list of technical reports).

Taxon	Andrus WMA C	opperfield SMA		Farewell Bend SMA	Powder River WMA	Rocking-M WMA	Spring SMA	Sturgill Creek WMA	Wildhorse WMA
Amphibians									
Columbia spotted frog	-	_	-	_	+	_	_	-	_
Tailed frog	+	-	-	-	-	-	-	-	-
Western toad	-	+	-	-	+	-	-	-	+
Birds									
Trumpeter swan	-	-	-	-	-	-	-	-	+
Great egret	-	-	-	-	+	-	-	-	-
Columbian sharp-tailed grouse	-	-	-	-	-	-	+	-	-
Northern goshawk	-	+	-	-	-	-	-	-	-
Merlin	-	-	_	-	_	-	-	-	+1
Prairie falcon	_	-	-	-	-	-	+	-	-
Peregrine falcon	_	-	_	-	+2	-	-	-	_
Bald eagle	_	+	-	-	_	-	-	-	+
Burrowing owl	_			+1	_	_	_	_	_
Northern pygmy owl	_	+	-	_	_	-	-	-	_
Flammulated owl	_	_	_	_	_	_	_	_	+1
Calliope hummingbird	_	+	-	-	-	-	-	-	-
Rufous hummingbird	_	+	-	-	-	-	-	-	-
Vaux's swift	-	+	_	_	_	-	-	-	_
Olive-sided flycatcher	_	+1	_	_	_	_	_	_	_
Dusky flycatcher	+	-	-	-	-	-	-	-	-
Willow flycatcher	_	-	_	_	+	-	-	-	_
Bank swallow	_	_	_	+1	_	_	_	-	_

Taxon	Andrus WMA	Copperfield SMA	Cottonwood WMA	Farewell Bend SMA	Powder River WMA	Rocking-M WMA	Spring SMA	Sturgill Creek WMA	Wildhorse WMA
Birds (continued)									
Loggerhead shrike	_	_	-	-	-	-	-	-	-
Plumbeus vireo	-	-	-	-	-	-	-	-	+
Yellow warbler	-	+	+	-	-	-	-	-	+
MacGillivray's warbler	_	+	+1	-	-	-	-	-	-
Wilson's warbler	-	+	_	-	_	-	-	_	-
Black-throated sparrow	_	+	-	-	_	-	-	-	-
Mammals									
S. Idaho ground squirrel	_	_	_	+	_	_	_	_	-
River otter	_	_	+	_	+	-	_	_	-

<sup>1</sup> Documented within 100 m of SMA or WMA

<sup>2</sup>Observed foraging

Wildlife Resource	Andrus WMA	Copperfield SMA	Cottonwood Creek WMA	Farewell Bend SMA	Powder River WMA	Rocking-M WMA	Spring SMA	Sturgill Creek WMA	Wildhorse SMA
Bald eagle nest	_	+	_	_	_	_	_	_	_
Bald eagle roost	-	+	_	-	+	-	-	-	-
Bats	-	+	-	_	-	_	-	_	-
Bighorn sheep winter range	+	+	-	_	-	_	-	_	-
Aquatic furbearers									
Beaver	+	-	-	_	-	_	+	_	+
Mink	-	_	_	_	-	_	-	_	+
Muskrat	-	_	_	_	+	_	-	_	-
Elk winter range	+	_	+	+	-	+	-	+	+
Herptiles	+	+	+	+	+	_	+	+	+
Southern Idaho ground squirrel	_	_	_	+	_	_	_	_	_
Medium-sized mammals	+	+	+	+	+	_	-	_	+
Mountain quail habitat	+	+	+	+	+	+	+	+	+
Mule deer winter range	+	+	+	+	+	+	+	+	+
Neotropical Migrant bird habitat <sup>1</sup>									
Riparian	+	+	+	+	+	_	+	_	+
Shrubland	+	+	+	+	+	+	+	+	+
Tree-dwelling	+	+	+	-	+	-	-	-	+
Grassland	+	+	+	+	+	+	+	+	+
Nesting colonial waterbirds	-	_	-	-	+	-	-	-	-
Nesting raptors	+	_	+	-	+	-	-	-	-
Sage grouse habitat	+	_	+	_	_	_	+	_	_

Table 19. TRWG-specified high-value wildlife resources documented (+ is present, – is absent) on currently owned IPC lands within proposed WMAs and SMAs. Data are from IPC technical reports in the HCC FLA (see Appendix B for a list of technical reports).

Wildlife Resource	Andrus WMA	Copperfield SMA	Cottonwood Creek WMA	Farewell Bend SMA	Powder River WMA	Rocking-M WMA	Spring SMA	Sturgill Creek WMA	Wildhorse SMA
Sharp-tailed grouse habitat	_	-	-	-	-	-	-	-	_
Shorebirds	-	-	-	+	+	_	-	_	-
Small mammals	+	+	+	+	+	+	+	+	+
Upland game birds	+	+	+	+	+	+	+	+	+
Waterfowl brood rearing	-	_	-	+	+	-	-	_	-
Wintering waterfowl	-	-	-	+	+	-	-	_	-

<sup>1</sup> The presence of specific cover types was used to evaluate potential habitat for neotropical migrants: riparian-dependent birds (FW and SSW), shrubland-dependent birds (S, SS, DS), tree dwellers (e.g., Lewis's Woodpecker and Vaux's swift; FW, FU, TS, and DW), and grassland-dependent birds (G).

Table 20.	Current management practices and potential site constraints (+ is present, – is absent) on currently owned IPC lands within proposed
	WMAs and SMAs.

Practice/Constraint	Andrus WMA	Copperfield SMA	Cottonwood Creek WMA	Farewell Bend SMA	Powder River WMA	Rocking-M WMA	Spring SMA	Sturgill Creek WMA	Wildhorse SMA
Current Management Pract	i <b>ce</b> <sup>1, 2</sup>								
Developed recreation	_	-	_	_	_	_	-	-	+
Dispersed recreation	+	+	_	+	-	-	+	-	-
Sportsman's access	-	-	-	-	+	_	-	_	-
Grazing lease	-	-	_	-	+	_	-	_	-
Agricultural lease	-	_	_	_	+	_	-	_	-
Weed control	+	+	-	-	+	-	+	+	+
Encroachment monitoring	+	+	+	+	+	+	+	_	+
Special use permit for road access	_	_	_	_	_	_	-	_	+
Potential Management Con	straint <sup>2, 3</sup>								
Road gravel removal and storage	+	_	_	_	_	_	+	_	_
Unauthorized grazing use (open range)	_	+	+	_	+	+	+	+	+
Unauthorized agricultural use	_	_	_	_	_	+	-	_	-
Use and enjoyment easement	_	_	_	_	+	_	_	_	_

<sup>1</sup> Land and human uses that currently receive some level of active IPC management.

<sup>2</sup> Current management practices and potential constraints will be specifically addressed during site planning and eliminated if in conflict with SMA or WMA goals.

<sup>3</sup> Land and human uses for which IPC currently does not actively authorize, manage, or prevent.

Table 21. PM&E measures (+ is proposed, – is not proposed) to protect wildlife resources from human disturbance through access management on currently owned IPC lands within proposed WMAs and SMAs.

Specific PM&E Measure	Andrus WMA	Copperfield SMA	Cottonwood Creek WMA	Farewell Bend SMA	Powder River WMA	Rocking-M WMA	Spring SMA	Sturgill Creek WMA	Wildhorse SMA
Educate through the Wildlife Information and Education Program	+	+	+	+	+	+	+	+	+
Seasonally limit facility O&M near bald eagle nests	_	+	_	_	_	_	_	_	_
Seasonally limit O&M activities near bald eagle roosts	_	+	_	_	+	_	_	_	_
Seasonally limit public access near bald eagle nest	_	+	-	_	_	_	_	_	_
Seasonally limit public access near bald eagle roosts	_	+	_	_	+	_	_	_	_
Limit public access to bat hibernacula	_	+	_	_		_	_	_	_
Seasonally limit public access near heron rookery	-	_	_	_	+	_	_	_	-
Discourage wintering big game disturbance	+	+	+	-	+	+	+	+	+
Contain recreation site boundaries	-	+	-	+	+	-	+	_	+
Seasonally limit public access in waterfowl production areas	_	_	_	+	+	_	_	_	_

Table 22.	PM&E measures (+ is proposed, – is not proposed) to enhance wildlife habitat from human and land uses on currently owned IPC
	lands within proposed WMAs and SMAs.

Specific PM&E Measure	Andrus WMA	Copperfield SMA	Cottonwood Creek WMA	Farewell Bend SMA	Powder River WMA	Rocking-M WMA	Spring SMA	Sturgill Creek WMA	Wildhorse SMA
Establish riparian trees in suitable habitats	-	+	_	+	+	+	+	_	+
Establish riparian shrubs in suitable habitats	-	+	_	+	+	+	+	_	+
Establish bitterbrush in suitable habitats	+	+	+	_	+	+	+	+	+
Establish sagebrush in suitable habitats	+	_	+	_	+	+	+	+	+
Rehabilitate unauthorized recreation sites	+	+	+	+	+	+	+	+	+
Eliminate livestock grazing	-	_	_	+	+1	_	+	_	+
Create impoundments for waterfowl brood rearing	-	_	_	+	_	_	-	_	-
Implement noxious weed control efforts	+	+	+	+	+	+	+	+	+

<sup>1</sup> Livestock grazing will be eliminated in riparian habitats surrounding the Powder River Pool.

		C	apital				O&M			
PM&E Action	Year 1 <sup>1</sup>	Year 2–5 <sup>2</sup>	Year 6–30 <sup>3</sup>	Total	Year 1 <sup>4</sup>	Year 2–5 <sup>5</sup>	Year 6–30 <sup>6</sup>	Total	Grand Total	
Andrus WMA (3	56 Acres)									
Purchase	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Infrastructure	\$0	\$100,000	\$100,000	\$200,000	\$0	\$10,000	\$50,000	\$60,000	\$260,000	
Equipment	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
O&M	\$0	\$0	\$0	\$0	\$3555	\$56,880	\$266,625	\$327,060	\$327,060	
Labor	\$4500	\$10,000	\$12,500	\$27,000	\$500	\$10,000	\$112,500	\$123,000	\$150,000	
Subtotal	\$4500	\$110,000	\$112,500	\$227,000	\$4055	\$76,880	\$429,125	\$510,060	\$737,060	
Cottonwood Cre	ek WMA (2184 Acr	res)								
Purchase	\$2,200,000	\$0	\$0	\$2,200,000	\$0	\$0	\$0	\$0	\$2,200,000	
Infrastructure	\$50,000	\$500,000	\$500,000	\$1,050,000	\$0	\$10,000	\$50,000	\$60,000	\$1,110,000	
Equipment	\$10,000	\$100,000	\$500,000	\$610,000	\$0	\$10,000	\$50,000	\$60,000	\$670,000	
O&M	\$0	\$0	\$0	\$0	\$21,842	\$349,478	\$1,638,180	\$2,009,500	\$2,009,500	
Labor	\$45,000	\$100,000	\$125,000	\$270,000	\$5000	\$100,000	\$1,125,000	\$1,230,000	\$1,500,000	
Subtotal	\$2,305,000	\$700,000	\$1,125,000	\$4,130,000	\$26,842	\$469,478	\$2,863,180	\$3,359,500	\$7,489,500	
Powder River W	MA (11,198 Acres)									
Purchase	\$3,000,000	\$0	\$0	\$3,000,000	\$0	\$0	\$0	\$0	\$3,000,000	
Infrastructure	\$200,000	\$500,000	\$500,000	\$1,200,000	\$0	\$50,000	\$500,000	\$550,000	\$1,750,000	
Equipment	\$100,000	\$100,000	\$500,000	\$700,000	\$0	\$50,000	\$100,000	\$150,000	\$850,000	
O&M	\$0	\$0	\$0	\$0	\$111,983	\$1,791,723	\$8,398,700	\$10,302,406	\$10,302,406	
Labor	\$135,000	\$300,000	\$375,000	\$810,000	\$15,000	\$300,000	\$3,375,000	\$3,690,000	\$4,500,000	
Subtotal	\$3,435,000	\$900,000	\$1,375,000	\$5,710,000	\$126,983	\$2,191,723	\$12,373,700	\$14,692,406	\$20,402,406	

Table 23.	Updated cost estimate to implement IPC's PM&E measures to protect and manage wildlife habitat on currently owned and newly
	acquired IPC lands designated as WMAs under the HCRM.

		C	apital						
PM&E Action	Year 1 <sup>1</sup>	Year 2–5 <sup>2</sup>	Year 6–30 <sup>3</sup>	Total	Year 1 <sup>4</sup>	Year 2–5 <sup>5</sup>	Year 6–30 <sup>6</sup>	Total	- Grand Total
Rocking-M WMA	A (2966 Acres)								
Purchase	\$5,093,200	\$0	\$0	\$5,093,200	\$0	\$0	\$0	\$0	\$5,093,200
Infrastructure	\$100,000	\$500,000	\$500,000	\$1,100,000	\$0	\$50,000	\$500,000	\$550,000	\$1,650,000
Equipment	\$50,000	\$100,000	\$500,000	\$650,000	\$0	\$50,000	\$100,000	\$150,000	\$800,000
O&M	\$0	\$0	\$0	\$0	\$29,659	\$474,547	\$2,224,438	\$2,728,645	\$2,728,645
Labor	\$90,000	\$200,000	\$250,000	\$540,000	\$10,000	\$200,000	\$2,250,000	\$2,460,000	\$3,000,000
Subtotal	\$5,333,200	\$800,000	\$1,250,000	\$7,383,200	\$39,659	\$774,547	\$5,074,438	\$5,888,645	\$13,271,845
Sturgill Creek W	/MA (6361 Acres)								
Purchase	\$3,850,000	\$0	\$0	\$3,850,000	\$0	\$0	\$0	\$0	\$3,850,000
Infrastructure	\$50,000	\$500,000	\$500,000	\$1,050,000	\$0	\$10,000	\$50,000	\$60,000	\$1,110,000
Equipment	\$10,000	\$100,000	\$500,000	\$610,000	\$0	\$10,000	\$50,000	\$60,000	\$670,000
O&M	\$0	\$0	\$0	\$0	\$63,614	\$1,017,830	\$4,771,077	\$5,852,521	\$5,852,521
Labor	\$90,000	\$200,000	\$250,000	\$540,000	\$10,000	\$200,000	\$2,250,000	\$2,460,000	\$3,000,000
Subtotal	\$4,000,000	\$800,000	\$1,250,000	\$6,050,000	\$73,614	\$1,237,830	\$7,121,077	\$8,432,521	\$14,482,521
WMA Total	\$15,077,700	\$3,310,000	\$5,112,500	\$23,500,200	\$271,154	\$4,750,458	\$27,861,520	\$32,883,132	\$56,383,332

<sup>1</sup> Assumes that land acquisitions will occur within first year after new license issuance. Seller's asking prices are listed.

<sup>2</sup> Assumes that major new infrastructure construction and new equipment purchases will occur during years 2–5 after new license issuance.

<sup>3</sup> Assumes that only minor new infrastructure construction and new equipment purchase will occur during years 6–30 after license new issuance.

<sup>4</sup> Assumes that primarily only IWHP planning and initiation will occur during first year after new license issuance. Only a small proportion of protection and enhancement efforts will be initiated during the first year. Consequently, \$10/acre/year will be spent on O&M during year 1.

<sup>5</sup> Assumes that relatively large proportion of protection and enhancement efforts will be initiated during years 2–5 after new license issuance. Consequently, \$40/acre/year will be spent on O&M during years 2–5.

<sup>6</sup> Assumes that relative efficiency of protection and enhancement efforts increases during years 6–30 after new license issuance. Consequently, \$30/acre/year will be spent on O&M during years 6–30.

		Сар	ital				O&M			
PM&E Action	Year 1	Year 2–5 <sup>1</sup>	Year 6–30 <sup>2</sup>	Total	Year 1 <sup>3</sup>	Year 2–5 <sup>4</sup>	Year 6–30 <sup>5</sup>	Total	Grand Total	
Copperfield SMA	(1079 Acres)									
Purchase	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Infrastructure	\$0	\$100,000	\$500,000	\$600,000	\$0	\$10,000	\$50,000	\$60,000	\$660,000	
Equipment	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
O&M	\$0	\$0	\$0	\$0	\$10,789	\$172,618	\$809,147	\$992,553	\$992,553	
Labor	\$22,500	\$50,000	\$62,500	\$135,000	\$2500	\$50,000	\$562,500	\$615,000	\$750,000	
Subtotal	\$22,500	\$150,000	\$562,500	\$735,000	\$13,289	\$232,618	\$1,421,647	\$1,667,553	\$2,402,553	
Farewell Bend SM	IA (289 Acres)									
Purchase	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Infrastructure	\$0	\$100,000	\$500,000	\$600,000	\$0	\$10,000	\$50,000	\$60,000	\$660,000	
Equipment	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
O&M	\$0	\$0	\$0	\$0	\$2,888	\$46,212	\$216,621	\$265,722	\$265,722	
Labor	\$22,500	\$50,000	\$62,500	\$135,000	\$2500	\$50,000	\$562,500	\$615,000	\$750,000	
Subtotal	\$22,500	\$150,000	\$562,500	\$735,000	\$5388	\$106,212	\$829,121	\$940,722	\$1,675,722	
Spring SMA (362	Acres)									
Purchase	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Infrastructure	\$0	\$100,000	\$100,000	\$200,000	\$0	\$10,000	\$10,000	\$20,000	\$220,000	
Equipment	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
O&M	\$0	\$0	\$0	\$0	\$3618	\$57,891	\$271,362	\$332,871	\$332,871	
Labor	\$18,000	\$40,000	\$50,000	\$108,000	\$2000	\$40,000	\$450,000	\$492,000	\$600,000	
Subtotal	\$18,000	\$140,000	\$150,000	\$308,000	\$5618	\$107,891	\$731,362	\$844,871	\$1,152,871	

## Table 24. Updated cost estimate to implement IPC's PM&E measures to protect and manage wildlife habitat on currently owned IPC lands designated as SMAs under the HCCRMP.

	Capital				0&M				
PM&E Action	Year 1	Year 2–5 <sup>1</sup>	Year 6–30 <sup>2</sup>	Total	Year 1 <sup>3</sup>	Year 2–5 <sup>4</sup>	Year 6–30 <sup>5</sup>	Total	Grand Total
Wildhorse SMA (8	9 Acres)								
Purchase	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Infrastructure	\$0	\$100,000	\$100,000	\$200,000	\$0	\$10,000	\$10,000	\$20,000	\$220,000
Equipment	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
O&M	\$0	\$0	\$0	\$0	\$887	\$14,193	\$66,532	\$81,612	\$81,612
Labor	\$22,500	\$50,000	\$62,500	\$135,000	\$2500	\$50,000	\$562,500	\$615,000	\$750,000
Subtotal	\$22,500	\$150,000	\$162,500	\$335,000	\$3387	\$74,193	\$639,032	\$716,612	\$1,051,612
SMA Total	\$85,500	\$590,000	\$1,437,500	\$2,113,000	\$27,682	\$520,914	\$3,621,161	\$4,169,758	\$6,282,758

<sup>1</sup> Assumes that major new infrastructure construction and new equipment purchases will occur during years 2-5 after new license issuance.

<sup>2</sup>Assumes that only minor new infrastructure construction and new equipment purchase will occur during years 6-30 after license new issuance.

<sup>3</sup>Assumes that primarily only IWHP planning and initiation will occur during first year after new license issuance. Only a small proportion of protection and enhancement efforts will be initiated during the first year. Consequently, \$10/acre/year will be spent on O&M during year 1.

<sup>4</sup>Assumes that relatively large proportion of protection and enhancement efforts will be initiated during years 2-5 after new license issuance. Consequently, \$40/acre/year will be spent on O&M during years 2-5.

<sup>5</sup>Assumes that relative efficiency of protection and enhancement efforts increases during years 6-30 after new license issuance. Consequently, \$30/acre/year will be spent on O&M during years 6-30.

		Ca	pital		O&M				
PM&E Action	Year 1	Year 2–5	Year 6–30	Total	Year 1	Year 2–5	Year 6–30	Total	Grand Total
WMA (23,065 Ac	res)								
Purchase	\$14,143,200	\$0	\$0	\$14,143,200	\$0	\$0	\$0	\$0	\$14,143,200
Infrastructure	\$400,000	\$2,100,000	\$2,100,000	\$4,600,000	\$0	\$130,000	\$1,150,000	\$1,280,000	\$5,880,000
Equipment	\$170,000	\$400,000	\$2,000,000	\$2,570,000	\$0	\$120,000	\$300,000	\$420,000	\$2,990,000
O&M	\$0	\$0	\$0	\$0	\$230,654	\$3,690,458	\$17,299,020	\$21,220,132	\$21,220,132
Labor	\$364,500	\$810,000	\$1,012,500	\$2,187,000	\$40,500	\$810,000	\$9,112,500	\$9,963,000	\$12,150,000
Subtotal	\$15,077,700	\$3,310,000	\$5,112,500	\$23,500,200	\$271,154	\$4,750,458	\$27,861,520	\$32,883,132	\$56,383,332
SMA (1818 Acres	s)								
Purchase	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Infrastructure	\$0	\$400,000	\$1,200,000	\$1,600,000	\$0	\$40,000	\$120,000	\$160,000	\$1,760,000
Equipment	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
O&M	\$0	\$0	\$0	\$0	\$18,182	\$290,914	\$1,363,661	\$1,672,758	\$1,672,758
Labor	\$85,500	\$190,000	\$237,500	\$513,000	\$9500	\$190,000	\$2,137,500	\$2,337,000	\$2,850,000
Subtotal	\$85,500	\$590,000	\$1,437,500	\$2,113,000	\$27,682	\$520,914	\$3,621,161	\$4,169,758	\$6,282,758
WMA and SMA									
Total	\$15,163,200	\$3,900,000	\$6,550,000	\$25,613,200	\$298,836	\$5,271,372	\$31,482,682	\$37,052,889	\$62,666,089

 Table 25.
 Summary of WMA and SMA cost estimates presented in Tables 23 and 24, respectively.

Table 26. IPC responses to agency comments on the draft report for AIR TR-1. Agency comments are in Appendix M.

Comment Number	IPC Response
Bureau of Lar	nd Management
BLM 01	IPC disagrees with the BLM's unwillingness to consider partial acreage credit for PM&E efforts on grazing allotments, especially considering the extensive discussions in Blair (2001) and that other state and federal agencies agree with the concept (see section 2.1.1). Regardless, IPC hopes that the BLM will be willing to coordinate management activities on their lands with IPC's management of PM&E lands.
BLM 02	It is impractical at this time to identify team members, roles and responsibilities, and a meeting schedule for IWHP consultation. Much uncertainty exists about when the IWHP will be implemented. IPC proposes that roles and responsibilities will be developed upon creation of the IWHP Workgroup (see section 1.6). Therefore, IPC cannot change the final TR-1 response according to this comment.
BLM 03	For TR-1, participation by agencies and tribes in the prioritization and selection of private properties for acquisition has been accomplished. In TR-1, FERC directed IPC to consult with designated agencies and tribes to develop options for meeting the targeted 23,582 acres of wildlife PM&E lands. IPC has developed an extensive list of acquisition options to meet this FERC request following consultation with agencies and tribes. The list of options directly resulted from TR-1 consultation and TRWG recommendations (see section 2.1.1). Agencies and tribes contributed to the TRWG recommendations. Section 7 of the final TR-1 response describes participation by the agencies and tribes, and Appendix A provides the TRWG recommendations.
	IPC prioritized the mitigation and acquisition value of each property by applying screening criteria recommended by the TRWG. From the extensive list of options, IPC then developed a set of preferred acquisition options that reflects input and participation from agencies and tribes. Considering the imminent FERC filing deadline, IPC is unable to provide a clearer picture of how agencies and tribes might further participate in the prioritization and selection of parcels for the TR-1 final response.
	IPC has also proposed the creation of the IWHP Workgroup (see section 1.6) as the consultation mechanism for establishing management goals, and implementing the development of monitoring and adaptive management decisions. IPC anticipates that FERC will designate entities that will participate in the IWHP Workgroup. IPC believes that the TR-1 response adequately describes the current development of the proposed conceptual approach for agency and tribal participation in the IWHP. IPC anticipates that additional details will be developed in consultation with FERC-designated entities upon initiation of the IWHP.

Comment Number	IPC Response
BLM 04	Sections 1.4 and 1.5 describe IPC's current development of the annual work plan and monitoring processes. As described in section 1.5, IWHP staff will conduct
	monitoring efforts and prepare monitoring reports at appropriate time intervals. Detailed monitoring protocols and procedures will be developed in consultation with
	FERC-designated entities (i.e., IWHP Workgroup). Monitoring reports will be submitted to the IWHP workgroup and provide information necessary to apply adaptive
	management principles to future annual work plans. IPC proposes that annual work plan and monitoring processes, including a monitoring/adaptive management
	feedback loop among the three monitoring combinations, will be detailed during implementation of the IWHP and in consultation with the IWHP Workgroup.
	Consequently, IPC is unable at this time to include additional monitoring and adaptive management details in the final TR-1 response.
BLM 05	The "0s" are simply a labeling error that will be corrected in the final TR-1 response.
BLM 06	In TR-1, FERC directed IPC to develop options for meeting the targeted acreage (22,761 acres of upland habitat and 821 acres of riparian habitat) of PM&E lands
	identified in the FLA. Because IPC will be required to protect and manage only a subset of the properties evaluated in TR-1, IPC developed a screening method to
	prioritize and rank potential properties for acquisition and management. The screening method systematically applies criteria recommended by the TRWG. Although a
	subjective (i.e., qualitative) interpretation, IPC's prioritization method relies on quantitative data presented in the FLA about the spatial distribution of HCC impacts, not
	merely subjective proximity to the HCC. Most HCC terrestrial impacts are related to the HCC reservoirs and especially Brownlee Reservoir (Edelmann et al. 2002).
	Consequently, an important element for IPC's prioritization method relies on proximity to HCC impacts, which is the application of the TRWG recommendation that
	prioritizes on-site mitigation. The TRWG prioritized on-site acquisition so that mitigation efforts would be directed at the impacted resources. On site (i.e., rim-to-rim
	study area) is a relatively coarse focus of where impacts will occur during the next license period. IPC further refined the TRWG recommendation for on-site mitigation
	by emphasizing properties adjacent to the HCC reservoirs, which are areas with the greatest resource needs directly related to HCC impacts. Consequently, off-site
	properties and on-site properties more distant to HCC impacts received lower mitigation and acquisition rankings. A prioritization method cannot be accomplished
	without screening criteria; consequently, not all of the properties should and can receive a high ranking.
	IPC agrees that other locations downstream of the HCC reservoirs, including tributaries, have desirable habitat characteristics. IPC's resource evaluations confirm that
	medium- and low-ranking properties have important resource values. Of the 137 properties evaluated, each has some accounting of high-value resources identified by
	the TRWG. In the context of the HCC, however, some properties have a greater potential for addressing resource needs relative to documented HCC impacts, which is

why the TRWG prioritized on-site mitigation. A medium and low ranking does not discount a property's resource values. Rather, medium and low rankings reflect the likelihood that a property can directly address the needs of specific resources impacted by the HCC (e.g., existing winter range impacted by the HCC). More importantly, high-ranking properties not only have desirable TRWG-identified resource values (see section 2.2), but also provide opportunities to directly contribute to the needs of a resource impacted by the HCC. Of the 23,582 impacted acres identified in the FLA, only 6 of those acres occur downstream of Hells Canyon Dam, and none occur off site. In AIR OP-1(g), IPC also estimated that only a maximum of about 30 acres of riparian habitat would be impacted by any of the alternative

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Comment Number	IPC Response
	operational scenarios evaluated downstream of Hells Canyon Dam. A 36-acre impact downstream represents a minute fraction (<1%) of the 23,576 impacted acres
	related to the reservoirs. Furthermore, the HCC does not impact any big game winter range downstream of Hells Canyon Dam. High-value wildlife and botanical
	resources downstream of Hells Canyon are also well protected on the predominately public lands managed by the USFS and BLM.
	In accordance with TRWG recommendations, IPC believes that, in addition to their important resource values, properties with high rankings deserve initial attempts for
	acquisition because they provide greater opportunities to directly mitigate for HCC impacts. Nonetheless, medium- and low-ranking properties were retained for
	consideration in the event that high-ranking properties are unavailable to meet the targeted acreage of PM&E lands. Thus, IPC contends that the screening criteria are
	well justified and that the resulting property rankings reflect each property's resource and mitigation values. The acquisition of properties upstream of Hells Canyon
	Dam will satisfy terrestrial mitigation needs by facilitating the protection and management of the targeted 23,582 acres of PM&E lands. For the final TR-1 response,
	IPC will retain the method for prioritizing properties and the resulting ranks in Table 2.
BLM 07	The pursuit of properties in their order of ranking reflects their mitigation value according to the TR-1 prioritization criteria. In the FLA, IPC documented 23,582 impacted
	acres related to the HCC reservoirs. Correspondingly, private property adjacent to the HCC reservoirs received a high mitigation ranking (see Table 2 and Figure 2).
	IPC is also proposing to protect terrestrial resources adjacent to HCC reservoirs by establishing SMAs (see sections 3 and 4). IPC disagrees with the BLM's
	characterization that IPC's prioritization method eliminates acquisition of properties adjacent to "Project reservoirs." In fact, the prioritization method emphasizes the
	acquisition of properties adjacent to the HCC reservoirs. IPC does agree that properties downstream of Hells Canyon Dam are de-emphasized because they are
	distant from HCC impacts. Because of the availability of properties is uncertain in the future, however, IPC purposefully did not eliminate from consideration those
	properties with medium and low rankings.
	IPC agrees that properties downstream of the HCC reservoirs have desirable characteristics identified by the TRWG. IPC's resource evaluations confirm that medium-

IPC agrees that properties downstream of the HCC reservoirs have desirable characteristics identified by the TRWG. IPC's resource evaluations confirm that mediumand low-ranking properties have important resource values (see IPC response to BLM 06). Of the 23,582 impacted acres identified in the FLA, only 6 of those acres occur downstream of Hells Canyon Dam, and none occur off site. In HCC AIR OP-1(g), IPC also estimated that only a maximum of about 30 acres of riparian habitat would be impacted by any of the alternative operational scenarios evaluated. A 36-acre impact downstream represents a minute fraction (<1%) of the 23,576 impacted acres related to the reservoirs. Furthermore, the HCC does not impact any big game winter range downstream of Hells Canyon Dam. High-value wildlife and botanical resources downstream of Hells Canyon are also well protected on the predominately public lands managed by the USFS and BLM.

IPC contends that the screening criteria are well justified and that the resulting property rankings reflect each property's resource and mitigation values. Acquiring properties upstream of Hells Canyon Dam will satisfy terrestrial mitigation needs by facilitating the protection and management of the targeted 23,582 acres of PM&E lands. In accordance with TRWG recommendations, IPC believes that high-ranking parcels deserve initial attempts for acquisition because they provide greater

Comment Number	IPC Response
	opportunities to directly mitigate for HCC impacts. IPC does not advocate substituting a high-ranking property with a low-ranking property simply because of proximity
	to public lands downstream of Hells Canyon Dam. For the final TR-1 response, IPC will retain the method for prioritizing properties and the resulting ranks in Table 2.
BLM 08	In the FLA, IPC documented 23,576 impacted acres related to the HCC reservoirs. Correspondingly, private properties adjacent to HCC reservoirs received high mitigation and acquisition rankings (see Table 2 and Figure 2). IPC is also proposing to protect and manage terrestrial resources by establishing WMAs and SMAs, which are situated along the HCC reservoir (see sections 3 and 4). IPC agrees that properties downstream of the HCC reservoirs also have desirable characteristics identified by the TRWG. Downstream of Hells Canyon Dam, however, IPC documented that Proposed Operations would impact only 6 acres of terrestrial resources (Edelmann et al 2002) (see IPC response to BLM 06). IPC's resource evaluations confirm that medium- and low-ranking properties have important resource values (see section 2.1), but medium and low rankings reflect the likelihood that a property can directly address the needs of specific resources impacted by the HCC (e.g., existing winter range impacted by the HCC). More importantly, high-ranking properties have both desirable TRWG-identified resource values and provide opportunities to directly contribute to the needs of a resource impacted by the HCC. Thus, IPC contends that prioritizing the acquisition of properties upstream of Hells Canyon Dam is well justified. For the final TR-1 response, IPC will retain the method for prioritizing properties and the resulting ranks in Table 2.
BLM 09	IPC looks forward for the opportunity to review the agency's unified position and PM&E counterproposal.

BLM 10 The agencies have yet to provide a draft of the PM&E counterproposal in the spirit of open communication. Contrary to the BLM's comment, IPC has not yet even received an informative proposal overview, other than the vague language in this comment. The agencies suggest that their exhaustive effort would provide value and clarity to IPC's PM&E proposal. Thus, it would seem incumbent on the agencies to share their counterproposal with IPC.

Idaho Department of Fish and Game

- IDFG 01 IPC recognizes that the Rocking M Ranch parcels along Dennett Creek are currently afforded protection under the conservation easement. However, as stated in section 4.2.6, IPC is proposing to enhance riparian habitat. Inferred from IDFG's comment, Dennett Creek is still in need of significant restoration even though it is currently protected under the IDFG conservation easement. An overlap in protection through IPC acquisition appears to be an appropriate mechanism to achieve the needed restoration to enhance wildlife values.
- IDFG 02 IPC evaluated the parcel referenced by IDFG. IPC chose not to include this approximately 640-acre parcel as a preferred option because it does not benefit big game relative to HCC impacts to winter range. In contrast, the parcel along lower Dennett creek provides low-elevation, crucial winter range for mule deer. As indicated by IDFG's comment, the 640-acre parcel primarily provides seasonal transition range for big game. The HCC does not impact transition range. Riparian habitats are

Comment Number	IPC Response
	comparatively rare in Hells Canyon but are extremely important to wildlife resources. Thus, IPC is especially focused on protecting and enhancing riparian habitat to
	meet the target of 821 acres of riparian habitat for PM&E lands. The 640-acre parcel appears to have less opportunity than lower Dennett Creek for riparian habitat
	enhancements. Overall, the parcel along lower Dennett Creek has the resource characteristics prioritized by the TRWG and offers PM&E opportunities to directly
	address HCC impacts. Notwithstanding, IPC recognizes that acquisition of the referenced 640-acre parcel would protect the overall resource integrity of the Rocking M
	Wildlife Conservation Easement and assist with management goals.
IDFG 03	IPC agrees with IDFG that the dispersed recreation sites referenced by IDFG currently do not significantly conflict with wintering wildlife. The necessity of management
	actions (e.g., I&E) to prevent future disturbance to wintering big game, nevertheless, should be evaluated when developing management direction for these lands.
	As indicated in section 3.2.2, only authorized recreation sites (i.e., developed and undeveloped) will be permitted in SMAs and WMAs, and unauthorized recreation
	sites on PM&E lands will be rehabilitated to wildlife habitat. Existing recreation sites that will be authorized in coordination with the IWHP have been designated only for
	SMAs (Figure 3). These authorized recreation sites would be included in an SMA boundary but not designated as wildlife PM&E lands (see section 3.2.2). Authorized
	recreation sites (e.g., boat ramps, sportsman's accesses, and camping areas) have not yet been identified for WMAs. As stated in various locations in the TR-1
	response, the establishment and management of recreation, access, and other land uses on WMAs will be developed following implementation of the IWHP.
	IPC delineated the Andrus WMA parcels to exclude most of the areas with dispersed recreation sites. Most dispersed recreation sites occur downslope of Highway 71,
	with the mouth of Dukes Creek being the notable exception. IPC used the highway as the downslope boundary when delineating the referenced Andrus WMA parcels.
	Thus, acreage for most of the dispersed recreation sites along Highway 71 are not included as Andrus WMA lands. IPC envisions that a sportsman's access could be
	established at the existing dispersed recreation site at the mouth of Dukes Creek.
	IPC believes that the IDFG-referenced statement in section 4.2.1 is valid to address unacceptable human disturbances that might originate from recreation sites in the
	future (e.g., Woodhead Park and dispersed recreation sites downslope of Highway 71) near but outside of the Andrus WMA lands. More importantly, management
	planning must address unauthorized recreation sites that might arise on PM&E lands in the future.
IDFG 04	IPC proposes in section 1.6 to coordinate the IWHP with consulting entities, neighbors, and other stakeholders and constituents. Thus, IPC welcomes the opportunity to
	further discuss the coordinated management (e.g., roles and responsibilities, land uses, and access) of IPC PM&E lands adjacent to the Cecil D. Andrus WMA.

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IDFG 05	IPC proposes in section 1.6 to coordinate the IWHP with consulting entities, neighbors, and other stakeholders and constituents. Thus, IPC welcomes the opportunity to further discuss issues about access to IPC PM&E lands. IPC appreciates the need to coordinate management objectives such that access plans are compatible between IPC PM&E lands and the Cecil D. Andrus WMA.
IDFG 06	IPC appreciates IDFG's comment about SMA staffing levels to control unauthorized human uses and disturbance. Section 4.2.4 states that IWHP staff will regularly patrol the Farewell Bend SMA to enforce access restrictions. IPC understands that physical barriers are not effective in all situations. However, IPC believes that physical barriers should not be categorically dismissed by IDFG as a management tool for this SMA. When combined with regular patrolling, barriers will likely be effective in many situations where properly located relative to the railroad bed, water features, and the public access road. Barrier use, staffing levels, and patrol frequency will be established in the site plan upon implementation of the IWHP and development of the SMA site plan. IPC anticipates that IDFG will participate on the IWHP Workgroup and in developing the site plan.
IDFG 07	IPC recognizes the value of coordinated management among landowners, especially for intermingled property ownerships such and the Rocking M Ranch. Consequently, IPC proposes in section 1.6 to coordinate the IWHP with consulting entities, neighbors, and other stakeholders and constituents. IPC specifically proposes in section 4.2.6 to coordinate management of Rocking M WMA lands with IDFG's Rocking M Wildlife Conservation Easement. Thus, IPC anticipates coordinating the management of Rocking-M WMA lands with the BLM and IDL.
IDFG 08	IPC would welcome the opportunity to coordinate livestock issues with the Rocking M Wildlife Conservation Easement. IPC states in section 4.2.6 that the compatibility of livestock grazing will be evaluated in coordination with the adjacent conservation easement and the IWHP Workgroup. IPC would also be sensitive to stakeholder obligations relative to livestock grazing and seek mutually agreeable solutions (e.g., adjusting riparian habitat conversion of former hay fields) within limits of FERC orders and mandated PM&Es.
IDFG 09	IPC recognizes the value of coordinated management among landowners, especially for intermingled property ownerships such and the Rocking M Ranch. Consequently, IPC proposes in section 1.6 to coordinate the IWHP with consulting entities, neighbors, and other stakeholders and constituents. IPC specifically proposes in section 4.2.6 to coordinate management, which includes travel and access management, of Rocking-M WMA lands with IDFG's Rocking M Wildlife Conservation Easement.

Comment Number	IPC Response
IDFG 10	IPC recognizes that enforcement of recreational use and access are important priorities when implementing a travel management plan. In addition to a public I&E
	program, IPC states in section 4.2.8 that IWHP staff will regularly patrol the WMA to evaluate and enforce access and travel restrictions. Furthermore, management
	actions will be adapted as necessary based on monitoring results. Adaptations would include additional enforcement if warranted by monitoring data.
IDFG 11	IPC recognizes the value of coordinated management issues among adjoining landowners. IPC proposes in the section 1.6 to coordinate the IWHP with consulting
	entities, neighbors, and other stakeholders and constituents.
IDFG 12	As indicated in the TR-1 response, IPC agrees that the small and scattered parcels designated as Cottonwood Creek, Sturgill Creek, and Rocking-M WMAs would offer
	limited mitigation value when considered alone. It is possible that IPC would seek to dispose of these lands if the priority properties that correspond to these currently owned lands are not acquired.
IDFG 13	IPC appreciates IDFG's support for land acquisition and protection to mitigate HCC impacts. However, IDFG's request for additional dialogue regarding acreage
	figures proposed as PM&E lands is beyond the scope of TR-1.
IDFG 14	In TR-1, FERC did not request mitigation or management plans for proposed PM&E lands. Thus, no plans are included in the final TR-1 response. IPC proposes that
	the WMMP and site plans for WMAs and SMAs, which include currently owned IPC lands, will be developed during implementation of the IWHP. IPC expects that
	IDFG will participate in developing these plans. IPC proposes in section 1.6 that workgroup functions will be developed during IWHP development. IPC anticipates that
	IDFG's participation will adhere to those workgroup protocols and procedures.
	Through the IWHP (section 1.1), IPC proposed to develop the WMMP (section 1.2) and site plans to protect and enhance resources on the SMAs and WMAs (section
	1.3). The management actions of the WMMP and site plans will be implemented through annual work plans (section 1.4). Monitoring is an important component of the
	IWHP and will document benefits achieved by active IPC management of PM&E lands (see section 1.5).
	IPC does not agree that HEP or HEP-like methods, which provide estimates of habitat units, will provide appropriate guidance for managing the complexities of natural
	resources on PM&E lands. Rather, IPC believes that the characterization of HEP provided by the Independent Scientific Review Panel of the Northwest Power
	Planning Council regarding a review of the Albeni Falls Wildlife Mitigation Project (Memorandum of December 11, 2001, by Rick Williams, IDRP Chair) also applies to
	the IWHP. In relevant part, the memorandum states, "We suggest that effort put into long-term repetition of HEP analyses will not be very useful and that use of HEP
	analyses and their associated Habitat Units (HUs) to guide land management may lead to damaging or counterproductive management practices." The memorandum
	also states, "We have noted before that the HEP procedure was a reasonable way to assess loss and mitigation, but the continued use of HEP over the life of a land

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	purchase seems to be a poor use of money and effort and likely route to counterproductive management of land." Consequently, the final TR-1 response does not
	recommend the use of HEP and habitat units as a management or monitoring tool.
	Furthermore, IPC understands that IDFG does not employ HEP when evaluating habitat management actions on the Cecil D. Andrus WMA or the Rocking M Wildlife
	Conservation Easement. Thus, HEP would not facilitate the coordination of land management activities and effectiveness monitoring among IDFG, IPC, and other land
	management stewards. IPC proposes in section 1.5 that scientifically sound monitoring procedures be developed to evaluate the effectiveness of habitat management
	actions and guide the application of adaptive management principals.
Oregon Depa	artment of Fish and Wildlife
ODFW 01	IPC's TR-1 response provides the additional information requested by FERC. The final TR-1 response will not be modified to address this comment.
ODFW 02	IPC's TR-1 response provides the additional information requested by FERC. FERC did not request information (chemical analyses or equivalent habitat function) referenced in this comment. Moreover, FERC requested options for acquiring the targeted acreage (22,761 acres of upland habitat and 821 acres of riparian habitat) of PM&E lands. IPC provided these options. The final TR-1 response will not be modified to address this comment.
ODFW 03	FERC requested options for acquiring the targeted acreage (22,761 acres of upland habitat and 821 acres of riparian habitat) of PM&E lands. IPC provided these options. The final TR-1 response will not be modified to address this comment.
ODFW 04	IPC appreciates ODFW's support for the IWHP. IPC seeks mitigation credit for protecting and enhancing (i.e., managing) the currently owned lands that are proposed for inclusion in SMAs and WMAs. IPC agrees that these lands support valuable terrestrial resources and that protection is warranted (see sections 3.2 and 3.3). Thus, these lands have been proposed for protection through the IWHP. These lands are now largely unmanaged for terrestrial resources, and will remain largely unmanaged without an IWHP designation. Without inclusion in the IWHP, these lands can also be subject to disposal and land uses that do not prioritize terrestrial resources. Dedicated wildlife PM&E lands will not be disposed during the next license term. Thus, IPC places a high value on habitat protection. Descriptions of these lands clearly demonstrate their values (see sections 3.3 and 4.2). However, FERC did not request estimates of habitat units and function for these lands. Consequently, the final TR-1 response will not provide the information requested in this comment.
ODFW 05	Section 3.1.1 defines the function of an SMA relative to the IWHP. While protection levels remain the same between the HCRMP and IWHP, SMAs that incorporate wildlife PM&E lands will receive active management and enhancements through the IWHP. If not protected by the IWHP, ODFW should recognize that all currently

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	owned IPC parcels proposed as PM&E lands will be potentially threatened by disposal and land uses that do not prioritize terrestrial resources. IPC accordingly places
	significant value on habitat protection. Notwithstanding, IPC is also proposing to manage these lands to provide enhancements. IPC directs ODFW to section 4.2
	where management objectives are specified for each SMA and WMA.
ODFW 06	IPC has proposed to establish the IWHP Workgroup to facilitate consultation with FERC-designated entities according to FERC regulations. IPC welcomes active
	participation in the development of management plans for IWHP SMAs and WMAs in Oregon. IPC proposes in section 1.6 that workgroup functions will be developed
	during IWHP development. IPC anticipates that ODFW's participation will be consistent with those workgroup protocols and procedures.
ODFW 07	IPC agrees that ODFW policies and rules, habitat enhancement actions, public access issues, authorized land uses, and development constraints should be addressed during management planning. Thus, IPC proposes to develop site plans for each SMA and WMA. The function of site plans is well described in section 1.3. Essentially, IPC proposes that site plans will consider the unique setting of each WMA and SMA and appropriately address site-specific management needs and constraints within the broader context of the WMMP. The IWHP Workgroup will provide input to management planning. IPC welcomes ODFW's participation on the workgroup and specific input on these issues. IPC anticipates that these issues will be addressed and resolved according to the overriding mission of PM&E lands, which is compliance with FERC ordered mitigation requirements. As stated in the TR-1 response, these issues will be addressed after implementation of the IWHP and
ODFW 08	acquisition/designation of PM&E lands. IPC agrees with ODFW that management planning should establish desired future conditions and monitoring protocols to evaluate management effectiveness and
	PM&E compliance. These concepts, except for applying HEP, are addressed in section 1 and elsewhere in the final TR-1 response. IPC does not agree that HEP or HEP-like methods will provide appropriate guidance for managing the complexities of natural resources on PM&E lands. Rather, IPC believes that the characterization of HEP provided by the Independent Scientific Review Panel of the Northwest Power Planning Council regarding a review of the Albeni Falls Wildlife Mitigation Project (Memorandum of December 11, 2001, by Rick Williams, IDRP Chair) also applies to the IWHP. In relevant pats, the memorandum states, "We suggest that effort put into long-term repetition of HEP analyses will not be very useful and that use of HEP analyses and their associated Habitat Units (HUs) to guide land management may lead to damaging or counterproductive management practices." The memorandum also states, "We have noted before that the HEP procedure was a reasonable way to assess loss and mitigation, but the continued use of HEP over the life of a land purchase seems to be a poor use of money and effort and likely route to counterproductive management of land." Consequently, the final TR-1 response does not recommend the use of HEP as a management actions and guide the application of adaptive management principals.

Comment Number	IPC Response
ODFW 09	In TR-1, FERC did not request mitigation or management plans for proposed PM&E lands. Thus, no plans are included in the final TR-1 response. IPC proposes that
	the WMMP and site plans for WMAs and SMAs will be developed during implementation of the IWHP. IPC expects that ODFW will participate in the development of
	these plans.
ODFW 10	In TR-1, FERC directed IPC to develop options for meeting the targeted acreage (22,761 acres of upland habitat and 821 acres of riparian habitat) of PM&E lands
	identified in the FLA. Because IPC will be required to protect and manage only a subset of the properties evaluated in TR-1, IPC developed a screening method to
	prioritize and rank potential properties for acquisition and management. The screening method systematically applies criteria recommended by the TRWG. IPC's
	prioritization method relies on quantitative data presented in the FLA about the spatial distribution of HCC impacts, not merely subjective proximity to the HCC. Most
	HCC wildlife impacts are related to the HCC reservoirs and especially Brownlee Reservoir (Edelmann et al. 2002). Consequently, an important element for IPC's
	prioritization method relies on proximity to HCC impacts, which is the application of the TRWG recommendation that prioritizes on-site mitigation. The TRWG
	recommended on-site mitigation so that mitigation efforts would be directed at the impacted resources. The TRWG recommended that off-site mitigation be pursued
	only when mitigation requirements cannot be met onsite. IPC's resource evaluations demonstrated that mitigation requirements could be met on site. On site (i.e., rim-
	to-rim study area) is a relatively coarse focus of where impacts will occur during the next license period. IPC further refined the TRWG recommendation for on-site
	mitigation by emphasizing properties adjacent to the HCC reservoirs, which are areas with the greatest resource needs directly related to HCC impacts. Consequently,
	off-site properties and on-site properties more distant to HCC impacts received lower mitigation and acquisition rankings.

A prioritization method is meaningless without screening criteria, which means not all of the properties can receive a high ranking. Thus, off-site properties received a low mitigation priority. IPC disagrees with ODFW that off-site properties have a high potential for mitigating HCC impacts, especially when compared to the many suitable properties available on site. In fact, ODFW recommended many of the high-ranking properties occurring on site in Oregon (See Section 7 and Appendices J and K).

IPC agrees that other locations off site and downstream of the HCC reservoirs have desirable habitat characteristics. IPC's resource evaluations confirm that mediumand low-ranking properties have important resource values. Of the 137 properties evaluated, each has some accounting of high-value resources identified by the TRWG. In the context of the HCC, however, some properties have a greater potential for addressing resource needs relative to documented HCC impacts, which is why the TRWG prioritized on-site mitigation. A medium and low ranking does not discount a property's resource values. Rather, medium and low rankings reflect the likelihood that a property can directly address the needs of specific resources impacted by the HCC (e.g., existing winter range impacted by the HCC). More importantly, high-ranking properties not only have desirable TRWG-identified resource values but also provide opportunities to directly contribute to the needs of a resource impacted by the HCC. Of the 23,582 impacted acres identified in the FLA, only 6 of those acres occur downstream of Hells Canyon Dam, and none occur off

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	site. Furthermore, the HCC does not impact big game winter range off site or downstream of Hells Canyon Dam. Impacts to mule deer winter range associated with
	Brownlee Reservoir contributed the most (17,000 impacted acres) to the target of 23,582 acres of PM&E lands.
	In accordance with TRWG recommendations, IPC believes that, in addition to their important resource values, properties with high rankings deserve initial attempts for acquisition because they provide greater opportunities to directly mitigate for HCC impacts. Nonetheless, medium- and low-ranking properties were retained for consideration in the event that high-ranking properties are unavailable to meet the targeted acreage of PM&E lands. Thus, IPC contends that the screening criteria are well justified and that the resulting property rankings reflect each property's resource and mitigation values. Prioritizing the acquisition of properties adjacent to the HCC reservoirs, especially Brownlee, will facilitate the protection and management of the targeted 23,582 acres of PM&E lands. For the final TR-1 response, IPC will retain the method for prioritizing properties and the resulting ranks in Table 2.
ODFW 11	IPC will include the Patterson property in the final TR-1 response within this response to ODFW's comment. According to the prioritization method, the property receives a low ranking for mitigation value, because it is off site, and thus a low acquisition priority. This property was not recommended during the first stage of TR-1 consultation (See Section 7 and Appendices J and K). Considering the late notification about this property, IPC is unable to conduct the resource evaluations that were done for the other property options.
ODFW 12	IPC agrees with ODFW's priority for acquiring base properties with attached grazing allotments. However, the BLM does not support crediting IPC mitigation efforts on grazing allotments. Please refer to section 7, BLM 01 comment, and IPC's response. Therefore, IPC does not propose PM&E measures for grazing allotments on federal land (see section 2.1.1).
ODFW 13	IPC appreciates ODFW's support for acquisition of the Daly Creek Ranch and establishment of the Powder River WMA. Daly Creek Ranch is one of IPC's preferred acquisition options.
ODFW 14	IPC proposes to include the parcels northeast of Hewitt Park in the Powder River WMA (Figure 3). These parcels contain valuable riparian and upland habitats within crucial mule deer winter range. They are also within the mule migration corridor identified in Edelmann (2002). Anticipating that these parcels would be included in the Powder River WMA, IPC has been actively managing the vegetation and livestock on a portion of these parcels to benefit wildlife habitat. Inclusion of these parcels within the Powder River WMA will provide greater active wildlife management through the IWHP and protection from IPC land disposal and future development. A local cattle rancher has approached IPC to sell a portion of these parcels that have irrigated pasture and riparian habitat. IPC is specifically proposing to enhance existing riparian habitat on these parcels and expand riparian vegetation into the irrigated pasture. An important portion of the shoreline where deer swim the Powder River during migration would also be protected under the IWHP. Human development would be prevented on these shoreline lands, and thus provide the only linkage of

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	protected private property between public lands north and south of the Powder River along this portion of the migration corridor (Figure 3). Although not contiguous to
	the proposed WMA lands along the Powder River Pool, these lands are critical to maintaining the integrity of the mule deer migration corridor. Specifically, the
	bottleneck in the migration corridor where it crosses the Powder River is very important. These lands are not essential for operation of the HCC. IPC will likely dispose
	of these lands if they do not contribute value to the IWHP.
	The Copperfield SMA is composed of three components: 1) the largest group of parcels at Oxbow, Oregon; 2) the group of parcels to the north along the shoreline of

Hells Canyon Reservoir and along Bob Creek, a perennial stream; and 3) the group of parcels to the south along Oxbow Reservoir (Figure 3). The northern component is approximately 150 acres and contains valuable riparian and upland habitats within crucial low-elevation mule deer winter range. The southern component is approximately 80 acres and likewise contains riparian and upland habitats within crucial low-elevation mule deer winter range. Although these parcels are not contiguous to the largest Copperfield SMA component, both have individual habitat value and are contiguous to wildlife habitats on BLM lands, which adds to the overall value of both IPC and public lands in the area. Inclusion of these habitats in the Copperfield SMA will provide active wildlife management through the IWHP and protection from IPC land disposal and future development. These lands are not necessary for operation of the HCC, and IPC will likely lease or dispose of these lands if they do not contribute value to the IWHP.

In the TR-1 response, IPC has presented the current level of detail available for PM&E measures on these lands. Sections 2.2, 3.2, 3.3, and 4.2 provide descriptions of the proposed SMAs and WMAs according to FERC's request. As stated in the TR-1 response, IPC proposes to develop detailed site plans for each SMA and WMA during implementation of the IWHP. Preparation of site plans will follow after a thorough resource inventory of the proposed parcels. Inventories will identify resource needs and guide management actions. Site plans will be prepared in consultation with the IWHP Workgroup. As requested by FERC, the final TR-1 response provides acreage estimates and contribution of each proposed SMA and WMA to the targeted acreage of PM&E lands. However, FERC did not request that IPC estimate or discuss the proposed PM&E lands relative to function and quality of lost and impacted habitat resulting from HCC operations. IPC did characterize each proposed SMA and WMA according to TRWG identified resource needs as specified in TR-1. The final TR-1 response does not provide information requested by ODFW in this comment beyond those characteristics requested by FERC.

ODFW 15 IPC welcomes ODFW participation through the IWHP Workgroup in developing management actions for these issues on PM&E lands. IPC proposes to develop site plans for each SMA and WMA. The function of site plans is well described in section 1.3. Essentially, IPC proposes that site plans will consider the unique setting of each WMA and SMA and appropriately address site-specific management needs and constraints within the broader context of the WMMP. The IWHP Workgroup will provide input to management planning. IPC anticipates that these issues will be addressed and resolved according to the overriding mission of PM&E lands, which is compliance with FERC ordered mitigation requirements. As stated in the TR-1 response, these issues will be addressed after implementation of the IWHP and acquisition/designation of PM&E lands.

Comment Number	IPC Response
ODFW 16	IPC appreciates ODFW's support.
ODFW 17	IPC appreciates ODFW's support.
ODFW 18	IPC appreciates ODFW's support.
ODFW 19	IPC appreciates ODFW's comment about SMA staffing levels to control unauthorized human uses and disturbance. Section 4.2.2 indicates that IWHP staff will regularly patrol the Copperfield SMA to enforce access restrictions. Actual staffing levels and patrol frequency will be established in the site plan upon implementation of the IWHP.
ODFW 20	IPC appreciates ODFW's support.
ODFW 21	IPC appreciates ODFW's support.
ODFW 22	IPC appreciates ODFW's comment about SMA staffing levels to control unauthorized human uses and disturbance. Section 4.2.7 indicates that IWHP staff will regularly patrol the Spring SMA to enforce access restrictions. Actual staffing levels and patrol frequency will be established in the site plan upon implementation of the IWHP.
ODFW 23	IPC welcomes ODFW participation through the IWHP Workgroup in developing plans for PM&E lands. IPC proposes that the IWHP Workgroup (see section 1.6) will be the consultation mechanism for obtaining input for the WMMP (see section 1.2), site plans (see section 1.3), and annual work plans (see section 1.4). Vegetation plantings will be designed after resource inventories have been conducted. IPC indicated in the TR-1 response that detailed management direction will be incorporated into site plans following initial SMA and WMA inventories and detailed evaluation of site-specific resource needs and potential. Management actions will then be planned and implemented through the IWHP's annual work planning process (see section 1.4). Plans will be developed according to the overriding mission of PM&E lands, which is compliance with FERC ordered mitigation requirements. As stated in the TR-1 response, plans will not be developed until implementation of the IWHP and acquisition/designation of PM&E lands.
ODFW 24	IPC anticipates that land acquisition and management will be a focal topic for terrestrial issues within the HCC Settlement Workgroup. Like ODFW, IPC is committed to the establishment of the IWHP. However, settlement issues are beyond the scope of TR-1.

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ODFW 25	Acquisition of PM&E lands and initiation of the IWHP prior to license issuance is beyond the scope of TR-1.
U.S. Forest S	
0.3. Forest 3	
USFS 01	In the FLA, IPC documented 23,576 impacted acres related to the HCC reservoirs, including Hells Canyon Reservoir. Correspondingly, private property (e.g., the OX
	Ranch) upslope of Hells Canyon Reservoir received a high acquisition ranking (see Table 2 and Figure 2). IPC is also proposing to protect and manage terrestrial
	resources by establishing the Copperfield SMA, which is largely situated along Hells Canyon Reservoir (see sections 3.3.2 and 4.2.2). Downstream of Hells Canyon
	Dam, however, IPC documented that Proposed Operations would impact only 6 acres of terrestrial resources (Edelmann et al 2002). In AIR OP-1(g), IPC also
	estimated that a maximum of only about 30 acres of riparian habitat would be impacted by any of the additional operational scenarios evaluated. Furthermore, the
	HCC does not impact any big game winter range downstream of Hells Canyon Dam. A 36-acre impact downstream represents a minute fraction (<1%) of the 23,576
	impacted acres related to the reservoirs. High-value wildlife and botanical resources downstream of Hells Canyon are also well protected on the predominately public
	lands, which are managed by the USFS and BLM. Thus, IPC contends that prioritizing the acquisition of properties upstream of Hells Canyon Dam is well justified. For
	the final TR-1 response, IPC will retain the method for prioritizing properties and the resulting ranks in Table 2.

- USFS 02 IPC appreciates the USFS support for the IWHP concepts for habitat acquisition.
- USFS 03 It is impractical at this time to identify team members, roles and responsibilities, and a meeting schedule for IWHP consultation. Much uncertainty exists about when the IWHP will be implemented. IPC proposes that roles and responsibilities will be developed upon creation of the IWHP Workgroup. Therefore, the USFS's requested information is not provided in the final TR-1 response.
- USFS 04 Sections 1.4 and 1.5 describe IPC's current development of the annual work plan and monitoring processes. As described in section 1.5, IWHP staff will conduct monitoring efforts and prepare monitoring reports at appropriate time intervals. Detailed monitoring protocols and procedures will be developed in consultation with FERC-designated entities (i.e., IWHP Workgroup). Monitoring reports will be submitted to the IWHP workgroup and provide information necessary to apply adaptive management principles to future annual work plans. IPC proposes that annual work plan and monitoring processes, including a monitoring/adaptive management feedback loop among the three monitoring combinations, will be detailed during implementation of the IWHP and in consultation with the IWHP Workgroup. Consequently, IPC is currently unable to include additional monitoring and adaptive management details in the final TR-1 response.
- USFS 05 The "0s" are simply a labeling error that will be corrected in the final TR-1 response.

Comment Number	IPC Response
USFS 06	In TR-1, FERC directed IPC to develop options for meeting the targeted acreage (22,761 acres of upland habitat and 821 acres of riparian habitat) of PM&E lands
	identified in the FLA. Because IPC will be required to protect and manage only a subset of the properties evaluated in TR-1, IPC developed a screening method to
	prioritize and rank potential properties for acquisition and management. The screening method systematically applies criteria recommended by the TRWG. Although
	subjective (i.e., qualitative) interpretation, IPC's prioritization method relies on quantitative data presented in the FLA about the spatial distribution of HCC impacts, not
	merely subjective proximity to the HCC. Most HCC wildlife impacts are related to the HCC reservoirs and especially Brownlee Reservoir (Edelmann et al. 2002). Of
	the 23,582 impacted acres identified in the FLA, only 6 of those acres occur downstream of Hells Canyon Dam, and none occur off site. In AIR OP-1(g), IPC also
	estimated that only a maximum of about 30 acres of riparian habitat would be impacted by any of the alternative operational scenarios evaluated. A 36-acre impact
	downstream represents a minute fraction (<1%) of the 23,576 impacted acres related to the reservoirs. Furthermore, the HCC does not impact big game winter range
	downstream of Hells Canyon Dam. High-value wildlife and botanical resources downstream of Hells Canyon are also well protected on the predominately public lands
	managed by the USFS and BLM.
	Consequently, an important element for IPC's prioritization method relies on proximity to HCC impacts, which is the application of the TRWG recommendation that
	prioritizes on-site mitigation. The TRWG recommended on-site mitigation so that mitigation efforts would be directed at the impacted resources. On site (i.e., rim-to-ri
	study area) is a relatively coarse focus of where impacts will occur during the next license period. IPC further refined the TRWG recommendation for on-site mitigatio
	by emphasizing properties adjacent to the HCC reservoirs, which are areas with the greatest resource needs directly related to HCC impacts. Consequently, off-site
	properties and on-site properties more distant to HCC impacts received lower mitigation and acquisition rankings. A prioritization method cannot be accomplished
	without screening criteria; consequently, not all of the properties should and can receive a high ranking.
	IPC agrees that other locations downstream of the HCC reservoirs, including tributaries, have desirable habitat characteristics. IPC's resource evaluations confirm that
	medium- and low-ranking properties have important resource values. Of the 137 properties evaluated, each has some accounting of high-value resources identified b
	the TRWG. In the context of the HCC, however, some properties have a greater potential for addressing resource needs relative to documented HCC impacts, which
	why the TRWG prioritized on-site mitigation. A medium and low ranking does not discount a property's resource values. Rather, medium and low rankings reflect the
	likelihood that a property can directly address the needs of specific resources impacted by the HCC (e.g., existing winter range impacted by the HCC). More
	importantly, high-ranking properties not only have desirable TRWG-identified resource values, but also provide opportunities to directly contribute to the needs of a resource impacted by the HCC.
	In accordance with TRWG recommendations, IPC believes that, in addition to their important resource values, properties with high rankings deserve initial attempts for
	acquisition because they provide greater opportunities to directly mitigate for HCC impacts. Nonetheless, medium- and low-ranking properties were retained for
	consideration in the event that high-ranking properties are unavailable to meet the targeted acreage of PM&E lands. Thus, IPC contends that the screening criteria a
	well justified and that the resulting property rankings reflect each property's resource and mitigation values. Prioritizing the acquisition of properties upstream of Hells

Comment Number	IPC Response
	Canyon Dam will satisfy mitigation needs and facilitate the protection and management of the targeted 23,582 acres of PM&E lands. For the final TR-1 response, IPC
	will retain the method for prioritizing properties and the resulting ranks in Table 2.
USFS 07	In the FLA, IPC documented 23,582 impacted acres related to the HCC reservoirs, including Hells Canyon Reservoir. Correspondingly, private property (e.g., the OX Ranch) upslope of Hells Canyon Reservoir received a high acquisition ranking (see Table 2 and Figure 2). IPC is also proposing to protect terrestrial resources by establishing the Copperfield SMA, which is largely situated along Hells Canyon Reservoir (see sections 3.3.2 and 4.2.2). Thus, private properties adjacent to Hells Canyon Reservoir are not eliminated. Because of the uncertainty of future parcel availability, IPC purposefully did not eliminate properties with medium and low rankings from consideration. However, the pursuit of properties in their order of ranking reflects their mitigation value according to the prioritization criteria. IPC does not advocate substituting a low-ranking property for a high-ranking property simply because of proximity to USFS lands downstream of Hells Canyon Dam.
	IPC's resource evaluations confirm that medium- and low-ranking properties have important resource values. A medium and low ranking does not discount a property's resource values. This is precisely why medium and low priority parcels were retained for consideration in the event that high-ranking properties are unavailable to meet the targeted acreage of PM&E lands. Rather, medium and low rankings reflect the likelihood that a property can directly address the needs of an HCC impacted resource. More importantly, high-ranking properties have desirable TRWG identified resource values and provide opportunities to directly contribute to the needs of an HCC impacted resource. In accordance with TRWG recommendations, IPC believes that high-ranking parcels deserve initial attempts for acquisition because they provide greater opportunities to directly mitigate for HCC impacts. For the final TR-1 response, IPC will retain the method for prioritizing properties and the resulting ranks in Table 2.
USFS 08	In TR-1, FERC directed IPC to develop options for meeting the targeted acreage (22,761 acres of upland habitat and 821 acres of riparian habitat) of PM&E lands identified in the FLA. Because IPC will be required to protect and manage only a subset of the properties evaluated in TR-1, IPC developed screening criteria to prioritize and rank potential properties for acquisition. Of the 137 properties evaluated, each has high-value resources identified by the TRWG. In the context of the HCC, however, some properties have a greater potential for addressing resource needs relative to documented impacts, which is why the TRWG prioritized on-site mitigation. On site (i.e., rim-to-rim study area) is a relatively coarse level representation attempting to focus mitigation efforts where impacts will occur during the next license period. In agreement with TRWG recommendations, IPC further refined the emphasis for mitigation where impacts are occurring by emphasizing areas adjacent to the HCC reservoirs (see IPC's responses to USFS 06 and USFS 07). The USFS has yet to quantify and document for IPC another estimate of HCC impacts to terrestrial resources.
	Thus, IPC contends that the screening criteria are well justified and that the resulting property rankings reflect each property's resource and mitigation values. The acquisition of properties upstream of Hells Canyon Dam will meet the target of protecting and managing 23,582 acres of PM&E lands. For the final TR-1 response, IPC will retain the method for prioritizing properties and the resulting ranks in Table 2.

Figure 1. Hells Canyon Complex and the rim-to-rim study area for evaluating future acquisition options and currently owned IPC lands for AIR TR-1.

Figure 2. (Panel 1 of 2) Private properties evaluated as acquisition options for AIR TR-1. See Table 2 for an index to property map codes and owners.

Figure 2. (Panel 2 of 2)

Figure 3. (Panel 1 of 6) Locations of currently owned IPC parcels designated as WMAs and SMAs for HCC wildlife mitigation.

Figure 3. (Panel 2 of 6)

Figure 3. (Panel 3 of 6)

Figure 3. (Panel 4 of 6)

Figure 3. (Panel 5 of 6)

Figure 3. (Panel 6 of 6)

Appendix A. TRWG recommendations for developing HCC PM&Es to offset impacts to terrestrial resources. The "Draft Final Conceptual PM&E Measures Hells Canyon Complex" document was developed during TRWG consultation and finalized during May 2001.

### DRAFT FINAL CONCEPTUAL PM&E MEASURES HELLS CANYON COMPLEX

June 2001

### Preamble

The following Conceptual PM&E Measures were developed by the TRWG based on the Draft Impact Statements (February, 2001) and the Potential Brainstormed PM&E Measures (February 2001, finalized May 2001) that were formulated by the TRWG members during terrestrial workgroup discussion between November 2001 and May 2001. Reference is made to these two documents for specific information on impacts and brainstormed PM&E measures.

# Acquisition

Acquire lands, manage and operate them to mitigate for ongoing operational impacts.

This would include the following actions:

- Fee title acquisition, including water rights
- Fee title plus federal and state permits
- Conservation easements
- Provide O&M funds for management
- Provide funding for current and future purchases

#### Riparian and wetlands desirable for acquisition have the following characteristics:

#### would place priority on:

- on-site mitigation is preferred, but off-site mitigation will be pursued when onsite mitigation opportunities do not satisfy the desired mitigation needs.
- In-kind replacement

#### would be characterized by:

- areas associated with large contiguous parcels of land, in preference to small parcels
- specific cover types
  - 1. Emergent Herbaceous Wetland,
  - 2. Forested Wetlands [cottonwood and aspen groves],
  - 3. Scrub-Shrub Wetland [willow stands],
- springs,
- acquire water rights without lands in Oregon, and
- livestock allotments;
- consult with Tribes

#### would benefit wildlife species and associated habitat as noted by the TRWG:

- TE&S species,
- waterfowl,
- big game species,

- upland gamebird species, such as
  - 1. sage grouse
  - 2. sharp-tailed grouse, and
- aquatic furbearers
- amphibians
- neotropical migrants
- maximum habitat diversity;

#### would be evaluated at the following locations:

#### General locations, such as

- Tributaries along the Hells Canyon Complex reservoirs (Figure 1). Ownership information by creek mile is compiled in 1000 feet elevational bands (Table 1).
- All private parcels in the Hells Canyon Complex reservoir reaches (rim to rim)(Figure 2). Information on both ownership and cover type is compiled in Table 2.
- All private parcels in below Hells Canyon Dam up to the Salmon River (Figure 3).

#### Specific locations, such as

- on-site locations adjacent to the Hells Canyon Complex Reservoirs
  - 1. Powder River Pool,
  - 2. tributaries at Brownlee Reservoir (Daly Creek, Powder River, Sturgill Creek, Cottonwood),
- unimpounded reach of the Snake River below Hells Canyon Dam, including tributaries to the Snake River
  - 1. Imnaha and
  - 2. Lower Grande Ronde; and
- off-site locations, including Tribal Lands and Ceded Territories of Native American Tribes
- other off-site locations such as
  - 1. Crane Creek, Paddock,
  - 2. Seven Mile Slough/Lower Payette,
  - 3. Pine Creek,
  - 4. OX Ranch,
  - 5. Imnaha,
  - 6. Rocking M,
  - 7. Joseph Creek
  - 8. North Pine Creek,
  - 9. and other off-site lands.

#### Upland habitats desirable for acquisition have the following characteristics:

would place priority on:

- on-site mitigation is preferred, but off-site mitigation will be pursued when onsite mitigation opportunities do not satisfy the desired mitigation needs.
- In-kind replacement

#### would be characterized by:

- large contiguous parcels of land; with specific cover types
  - 1. Forested Uplands
    - i. pine stands and
    - ii. aspen groves,
  - 2. Shrublands,
  - 3. Grasslands;
- springs,
- water rights and,
- livestock allotments;
- consult with Tribes

#### would benefit wildlife species and associated habitat as noted by the TRWG:

- TE&S species,
- big game species,
- upland gamebird species
  - 1. sage grouse and
  - 2. sharp-tailed grouse,
- and maximum habitat diversity;

#### would be evaluated at the following locations:

#### General locations, such as

- Tributaries along the Hells Canyon Complex reservoirs (Figure 1). Ownership information by creek mile is compiled in 1000 feet elevational bands (Table 1).
- All private parcels in the Hells Canyon Complex reservoir reaches (rim to rim)(Figure 2). Information on both ownership and cover type is compiled in Table 2.
- All private parcels in below Hells Canyon Dam up to the Salmon River (Figure 3).

#### Specific locations, such as

- *on-site locations*, adjacent to the Hells Canyon Complex Reservoirs (Daly Creek);
- *off-site locations*, including Tribal Lands and Ceded Territories of Native American Tribes
- other off-site locations, such as
  - Lookout Mountain,

- Pine Creek, Imnaha,
- Joseph Creek,
- Red Bird Canyon,
- Sheep Mountain,
- mountains on the Idaho side of Brownlee and Oxbow Reservoirs,
- Owyhee Canyon lands, and
- (sheep) allotments
  - i. Black Lake–Sheep Rock

## **Cooperative Efforts**

Identify projects (which address PM&E needs) that involve participation and cooperative actions; facilitate ongoing involvement of various partners (including a mix of management and implementation) Participation in the cooperative actions could include one or more of the following:

•	Funding	•	Management	•	Technical expertise
•	Logistical involvement	٠	Materials	•	In-kind support

# Projects that involve participation and cooperative actions and facilitate ongoing involvement of various partners have the following characteristics:

#### would place priority on:

- on-site mitigation is preferred, but off-site mitigation will be pursued when onsite mitigation opportunities do not satisfy the desired mitigation needs.
- In-kind replacement

#### would be characterized by:

- improve, restore, enhance, and protect riparian and upland habitats, such as
  - 1. big game winter range, and
  - 2. springs;
- cooperate and develop plans such as
  - 1. develop non-motorized trails and viewing areas,
  - 2. manage soil resources,
  - 3. weed management,
  - 4. herbicide agreement,
  - 5. transmission line ROWs,
  - 6. reintroduction, conservation, and recovery plans such as
    - i. wild turkey,
    - ii. mountain quail,
    - iii. sharp-tailed grouse,
    - iv. Idaho ground squirrel,
    - v. bighorn sheep,
    - vi. other T&E species,
- manage recreation to minimize impacts to terrestrial resources
- manage artificial nesting and perching opportunities for raptors; and
- consult with Tribes.

#### would benefit wildlife species and associated habitat as noted by the TRWG:

- 1. TE&S species such as
  - 1. sage grouse,

- 2. sharp-tailed grouse,
- 3. Idaho ground squirrel,
- 4. gray wolf
- 5. bald eagles
- 6. Northern Idaho ground squirrel
- Big game species
  - 1. elk,
  - 2. mule deer, and
  - 3. bighorn sheep,
- upland gamebird species such as
  - 1. blue grouse
  - 2. ruffed grouse
  - 3. spruce grouse
  - other wildlife such as
    - 1. neotropical migrants
    - 2. otter

#### would be evaluated at the following locations:

#### General locations, such as

- Tributaries along the Hells Canyon Complex reservoirs (Figure 1). Ownership information by creek mile is compiled in 1000 feet elevational bands (Table 1).
- All private parcels in the Hells Canyon Complex reservoir reaches (rim to rim)(Figure 2). Information on both ownership and cover type is compiled in Table 2.
- All private parcels in below Hells Canyon Dam up to the Salmon River (Figure 3).

#### Specific locations, such as

- springs;
- tributaries to the Snake River, such as
  - 1. Weiser River,
  - 2. Pine Creek,
  - 3. Imnaha River,
  - 4. Wild Horse,
  - 5. Powder River,
  - 6. Indian Creek,
  - 7. Brownlee Creek;
  - 8. Grande Ronde River and tributaries (such as Joseph Creek)
- islands such as
  - 1. Gold,
  - 2. Porter,
  - 3. Huffman,
  - 4. Patch islands,

- 5. and possibly other islands between Weiser Bridge and Farewell Bend,
- private and public lands not available for acquisition, and
- areas identified in the Hells Canyon Complex Resource Management Plan.

### Develop and implement BMP/RMP for IPC-controlled lands

#### Develop and implement BMP/RMP for IPC-controlled lands

# Projects that develop and implement BMP/RMP for IPC-controlled lands have the following characteristics:

#### would place priority on:

- on-site mitigation is preferred, but off-site mitigation will be pursued when onsite mitigation opportunities do not satisfy the desired mitigation needs.
- In-kind replacement

#### would be characterized by:

- development and implementation of management plans for riparian and wetland habitats such as
  - 1. willows,
  - 2. cottonwoods, and
  - 3. aspens;
- upland habitats such as
  - 1. low-elevation uplands,
  - 2. pine stands, and
  - 3. aspen stands;
- management and reduction of impacts from
  - 1. livestock,
  - 2. recreation,
  - 3. roads, and
  - 4. transmission lines;
- weed control measures such as
  - 1. educate recreationists,
  - 2. prevent, control, and reduce weeds,
  - 3. focus on important habitat,
  - 4. no-spray zones; and
- manage erosion in vulnerable areas such as
  - 1. ,
  - 2. grazed by livestock,
  - 3. roads, and
  - 4. recreation.

- manage erosion using measures such as
  - 1. soil erosion structures;
  - 2. manage operations
- consult with Tribes

# would benefit wildlife and plant species and their associated habitats as noted by the TRWG:

- TE&S species such as
  - 1. bald eagle,
  - 2. peregrine falcon, and
  - 3. TE&S plants such as McFarland's four 0'clock
- big game species such as
  - 1. elk,
  - 2. mule deer, and
  - 3. bighorn sheep;
- upland gamebird species such as
  - 1. sage grouse
  - 2. blue grouse
  - 3. ruffed grouse
- birds of prey, and
- vegetation
  - 1 willow communities, and
  - 4. sage grouse habitat.

#### would be evaluated at the following locations:

#### General locations, such as

- Tributaries along the Hells Canyon Complex reservoirs (Figure 1). Ownership information by creek mile is compiled in 1000 feet elevational bands (Table 1).
- All private parcels in the Hells Canyon Complex reservoir reaches (rim to rim)(Figure 2). Information on both ownership and cover type is compiled in Table 2.
- All private parcels in below Hells Canyon Dam up to the Salmon River (Figure 3).

#### Specific locations, such as

- all riparian habitats,
- Barber Flats,
- slumping zones.

# Appendix B. List of technical reports in the HCC FLA that contributed data to the analyses of plant and wildlife values on IPC and other private properties that were evaluated as potential wildlife PM&E lands.

Report No.	Author(s) and year	Study Title
E.3.2-1	Turley and Holthuijzen 2000	An investigation of avian communities and avian habitat relationships in the Hells Canyon study area
E.3.2-2	Turley and Holthuijzen 2001a	Migrant shorebird use of mudflats along Brownlee Reservoir
E.3.2-3	Turley and Edelmann 2001	Spring distribution and relative abundance of upland game birds in Hells Canyon
E.3.2-6	Rocklage and Edelmann 2001	A landscape-level habitat assessment for mountain quail in Hells Canyon
E.3.2-11	Rocklage et al. 2001	Summer survey of waterfowl broods in Hells Canyon
E.3.2-13	Pope 2001	A survey of nesting colonial waterbirds in the Hells Canyon Study Area
E.3.2-15	Pope and Holthuijzen 2000	A description of the raptor community nesting in Hells Canyon
E.3.2-12	Holthuijzen 1999	Wintering waterfowl in the Hells Canyon Study Area
E.3.2-17	Isaacs et al. 1992	Habits of bald eagles wintering in northeastern Oregon and adjacent areas of Washington and Idaho
E.3.2-18	Akenson 1996	Peregrine falcon surveys in Hells Canyon
E.3.2-23	Holthuijzen 2001	A description of the small mammal community (Orders Rodentia and Insectivora) in the Hells Canyon Study Area
E.3.2-25	Turley and Holthuijzen 2001b	Medium-sized mammal resources in the Hells Canyon Study Area
E.3.2-26	Turley et al. 2001	A survey of habitat for the Idaho ground squirrel
E.3.2-27	Anderson 1998	A preliminary assessment of bats along Snake River, Hells Canyon National Recreation Area
E.3.2-28	Edelmann and Pope 2001	Distribution and relative abundance of mammalian carnivores and furbearers in Hells Canyon
E.3.2-29	Edelmann and Copeland 1999	Wolverine survey in the Seven Devils Mountains of Hells Canyon
E.3.2-30	Edelmann et al. 2001	Mule deer population survey in Hells Canyon
E.3.2-31	Christensen 2001	Delineation and assessment of big game winter range associated with the Hells Canyon Hydroelectric Complex: mule deer, elk, mountain goats, and rocky mountain bighorn sheep
E.3.2-32	Edelmann 2002	Wintering mule deer in the reservoir reach of the Hells Canyon Complex
E.3.2-33	Edelmann and Rocklage 2001	Distribution and abundance of mountain goats in Hells Canyon
E.3.2-36	Beck et al. 2001	Species occurrence and distribution of amphibians and reptiles in Hells Canyon
E.3.2-38	Turley and Holthuijzen 2002	A description of state and federal species of special concern in Hells Canyon
E.3.3-1	Holmstead 2001	Vegetation of the Snake River Corridor in Hells Canyon—Weiser, Idaho to the Salmon River
E.3.3-2	Krichbaum 2000	Inventory of rare plants and noxious weeds along the Snake River corridor in Hells Canyon - Weiser, Idaho to the Salmon River

Appendix C.	Acreages of cover types present on private properties evaluated to meet IPC's targeted
	acres of wildlife PM&E lands, on site and off site in Idaho and Oregon.

Private Property Owner	Cover Type	Wildlife Habitat	Data Source	Acres
ALEX FINKE	AGRICULTURE (CULTIVATED)	Upland	Holmstead (2001)	41.36
ALEX FINKE	BARE ROCK/SAND/CLAY	Nonhabitat	NLCD	32.65
ALEX FINKE	DECIDUOUS FOREST	Riparian	NLCD	0.60
ALEX FINKE	EMERGENT HERBACEOUS WETLAND	Riparian	Holmstead (2001)	0.07
ALEX FINKE	EMERGENT HERBACEOUS WETLANDS	Riparian	NLCD	44.03
ALEX FINKE	EVERGREEN FOREST	Upland	NLCD	93.35
ALEX FINKE	FORESTED WETLAND	Riparian	Holmstead (2001)	0.71
ALEX FINKE	GRASSLAND	Upland	Holmstead (2001)	409.47
ALEX FINKE	GRASSLANDS/HERBACEOUS	Upland	NLCD	1333.97
ALEX FINKE	MIXED FOREST	Upland	NLCD	16.87
ALEX FINKE	RESIDENTIAL	Nonhabitat	Holmstead (2001)	1.55
ALEX FINKE	SCRUB-SHRUB WETLAND	Riparian	Holmstead (2001)	2.76
ALEX FINKE	SHORE & BOTTOMLAND WETLAND	Nonhabitat	Holmstead (2001)	0.01
ALEX FINKE	SHRUB SAVANNA	Upland	Holmstead (2001)	86.79
ALEX FINKE	SHRUBLAND	Upland	NLCD	2288.48
ALEX FINKE	WOODY WETLANDS	Riparian	NLCD	0.76
ALTA GOLD	CLIFF/TALUS SLOPE	Nonhabitat	Holmstead (2001)	10.26
ALTA GOLD	EVERGREEN FOREST	Upland	NLCD	9.22
ALTA GOLD	FORESTED UPLAND	Upland	Holmstead (2001)	0.73
ALTA GOLD	FORESTED WETLAND	Riparian	Holmstead (2001)	2.51
ALTA GOLD	FORESTED/ORCHARD	Upland	Holmstead (2001)	0.40
ALTA GOLD	GRASSLAND	Upland	Holmstead (2001)	5.23
ALTA GOLD	GRASSLANDS/HERBACEOUS	Upland	NLCD	56.91
ALTA GOLD	INDUSTRIAL	Nonhabitat	Holmstead (2001)	20.94
ALTA GOLD	SCRUB-SHRUB WETLAND	Riparian	Holmstead (2001)	3.92
ALTA GOLD	SHRUB SAVANNA	Upland	Holmstead (2001)	55.67
ALTA GOLD	SHRUBLAND	Upland	Holmstead (2001)	40.81
ALTA GOLD	SHRUBLAND	Upland	NLCD	85.79
ALTA GOLD	TREE SAVANNA	Upland	Holmstead (2001)	0.72
ALVIN BLOODSWORTH	DECIDUOUS FOREST	Riparian	NLCD	6.99
ALVIN BLOODSWORTH	EVERGREEN FOREST	Upland	NLCD	0.22
ALVIN BLOODSWORTH	GRASSLANDS/HERBACEOUS	Upland	NLCD	265.97
ALVIN BLOODSWORTH	SHRUBLAND	Upland	NLCD	502.12
ANDERSEN RANCHES	DECIDUOUS FOREST	Riparian	NLCD	8.19
ANDERSEN RANCHES	DECIDUOUS FOREST	Riparian	NLCD	0.42
ANDERSEN RANCHES	EVERGREEN FOREST	Upland	NLCD	49.12
ANDERSEN RANCHES	EVERGREEN FOREST	Upland	NLCD	9.17
ANDERSEN RANCHES	GRASSLANDS/HERBACEOUS	Upland	NLCD	89.35
ANDERSEN RANCHES	GRASSLANDS/HERBACEOUS	Upland	NLCD	46.26
ANDERSEN RANCHES	MIXED FOREST	Upland	NLCD	4.06
ANDERSEN RANCHES	OPEN WATER	Nonhabitat	NLCD	0.89
ANDERSEN RANCHES	SHRUBLAND	Upland	NLCD	437.85
ANDERSEN RANCHES	SHRUBLAND	Upland	NLCD	35.72
ANTHONY AZEVEDO	CLIFF/TALUS SLOPE	Nonhabitat	Holmstead (2001)	2.44
ANTHONY AZEVEDO	DESERTIC HERBLAND	Upland	Holmstead (2001)	1.25
ANTHONY AZEVEDO	DESERTIC SHRUBLAND	Upland	Holmstead (2001)	2.46
ANTHONY AZEVEDO	EMERGENT HERBACEOUS WETLAND	Riparian	Holmstead (2001)	0.86

Private Property Owner	Cover Type	Wildlife Habitat	Data Source	Acres
ANTHONY AZEVEDO	GRASSLAND	Upland	Holmstead (2001)	3.83
ANTHONY AZEVEDO	SCRUB-SHRUB WETLAND	Riparian	Holmstead (2001)	3.04
ANTHONY AZEVEDO	SHORE & BOTTOMLAND WETLAND	Nonhabitat	Holmstead (2001)	8.47
ANTHONY AZEVEDO	SHRUB SAVANNA	Upland	Holmstead (2001)	126.37
ANTHONY AZEVEDO	SHRUBLAND	Upland	Holmstead (2001)	37.64
ARLEY HAENER	EVERGREEN FOREST	Upland	NLCD	158.40
ARLEY HAENER	GRASSLANDS/HERBACEOUS	Upland	NLCD	8.64
ARLEY HAENER	MIXED FOREST	Upland	NLCD	0.44
ARLEY HAENER	SHRUBLAND	Upland	NLCD	3.40
ASH GROVE CEMENT CO	BARE ROCK/SAND/CLAY	Nonhabitat	NLCD	14.34
ASH GROVE CEMENT CO	EVERGREEN FOREST	Upland	NLCD	347.58
ASH GROVE CEMENT CO	GRASSLANDS/HERBACEOUS	Upland	NLCD	52.25
ASH GROVE CEMENT CO	SHRUBLAND	Upland	NLCD	106.52
BAN RAC LLC	BARE ROCK/SAND/CLAY	Nonhabitat	NLCD	0.67
BAN RAC LLC	CLIFF/TALUS SLOPE	Nonhabitat	Holmstead (2001)	3.37
BAN RAC LLC	DECIDUOUS FOREST	Riparian	NLCD	0.36
BAN RAC LLC	DECIDUOUS FOREST	Riparian	NLCD	229.55
BAN RAC LLC	EMERGENT HERBACEOUS WETLANDS	Riparian	NLCD	0.89
BAN RAC LLC	EVERGREEN FOREST	Upland	NLCD	2283.11
BAN RAC LLC	FALLOW	Nonhabitat	NLCD	11.23
BAN RAC LLC	FORESTED WETLAND	Riparian	Holmstead (2001)	1.53
BAN RAC LLC	GRASSLAND	Upland	Holmstead (2001)	147.33
BAN RAC LLC	GRASSLANDS/HERBACEOUS	Upland	NLCD	23.26
BAN RAC LLC	GRASSLANDS/HERBACEOUS	Upland	NLCD	2696.19
BAN RAC LLC	SCRUB-SHRUB WETLAND	Riparian	Holmstead (2001)	6.24
BAN RAC LLC	SHRUB SAVANNA	Upland	Holmstead (2001)	15.14
BAN RAC LLC	SHRUBLAND	Upland	Holmstead (2001)	0.70
BAN RAC LLC	SHRUBLAND	Upland	NLCD	1.57
BAN RAC LLC	SHRUBLAND	Upland	NLCD	5320.16
BAN RAC LLC	TREE SAVANNA	Upland	Holmstead (2001)	1.44
BAN RAC LLC	WOODY WETLANDS	Riparian	NLCD	0.67
BENITA THOMPSON	DECIDUOUS FOREST	Riparian	NLCD	0.22
BENITA THOMPSON	EMERGENT HERBACEOUS WETLANDS	Riparian	NLCD	5.88
BENITA THOMPSON	EVERGREEN FOREST	Upland	NLCD	10.10
BENITA THOMPSON	EVERGREEN FOREST	Upland	NLCD	53.74
BENITA THOMPSON	GRASSLANDS/HERBACEOUS	Upland	NLCD	16.20
BENITA THOMPSON	GRASSLANDS/HERBACEOUS	Upland	NLCD	8.79
BENITA THOMPSON	MIXED FOREST	Upland	NLCD	2.17
BENITA THOMPSON	PASTURE/HAY	Upland	NLCD	269.99
BENITA THOMPSON	SHRUBLAND	Upland	NLCD	173.51
BENITA THOMPSON	SHRUBLAND	Upland	NLCD	71.20
BENITA THOMPSON	TRANSITIONAL	Nonhabitat	NLCD	0.22
BENITA THOMPSON	WOODY WETLANDS	Riparian	NLCD	0.22
BIG ROCK CREEK GRAZING ASSOC	DECIDUOUS FOREST	Riparian	NLCD	1.72
BIG ROCK CREEK GRAZING ASSOC	GRASSLANDS/HERBACEOUS	Upland	NLCD	33.22
BIG ROCK CREEK GRAZING ASSOC	MIXED FOREST	Upland	NLCD	0.22
BIG ROCK CREEK GRAZING ASSOC	SHRUBLAND	Upland	NLCD	283.72

Private Property Owner	Cover Type	Wildlife Habitat	Data Source	Acres
BLAIN PETTY	AGRICULTURE (CULTIVATED)	Upland	Holmstead (2001)	40.30
BLAIN PETTY	AGRICULTURE (CULTIVATED)	Upland	Holmstead (2001)	36.05
BLAIN PETTY	COMMERCIAL/INDUSTRIAL	Nonhabitat	NLCD	44.51
BLAIN PETTY	DESERTIC HERBLAND	Upland	Holmstead (2001)	4.07
BLAIN PETTY	DISTURBED	Nonhabitat	Holmstead (2001)	1.77
BLAIN PETTY	EMERGENT HERBACEOUS WETLAND	Riparian	Holmstead (2001)	0.69
BLAIN PETTY	EMERGENT HERBACEOUS WETLAND	Riparian	Holmstead (2001)	2.87
BLAIN PETTY	EVERGREEN FOREST	Upland	NLCD	0.22
BLAIN PETTY	FORESTED WETLAND	Riparian	Holmstead (2001)	1.11
BLAIN PETTY	GRASSLAND	Upland	Holmstead (2001)	21.15
BLAIN PETTY	GRASSLANDS/HERBACEOUS	Upland	NLCD	62.58
BLAIN PETTY	GRAZING LAND/PASTURE	Upland	Holmstead (2001)	1.74
BLAIN PETTY	GRAZING LAND/PASTURE	Upland	Holmstead (2001)	6.01
BLAIN PETTY	PARKS/RECREATION	Nonhabitat	Holmstead (2001)	2.88
BLAIN PETTY	PARKS/RECREATION	Nonhabitat	Holmstead (2001)	13.96
BLAIN PETTY	PASTURE/HAY	Upland	NLCD	1.73
BLAIN PETTY	SCRUB-SHRUB WETLAND	Riparian	Holmstead (2001)	2.10
BLAIN PETTY	SCRUB-SHRUB WETLAND	Riparian	Holmstead (2001)	2.01
BLAIN PETTY	SHRUB SAVANNA	Upland	Holmstead (2001)	61.85
BLAIN PETTY	SHRUB SAVANNA	Upland	Holmstead (2001)	0.07
BLAIN PETTY	SHRUBLAND	Upland	NLCD	323.56
BLAIN PETTY	SMALL GRAINS	Upland	NLCD	246.85
BRAD DENSON	EVERGREEN FOREST	Upland	NLCD	68.15
BRAD DENSON	GRASSLANDS/HERBACEOUS	Upland	NLCD	61.75
BRAD DENSON	MIXED FOREST	Upland	NLCD	4.31
BRAD DENSON	SHRUBLAND	Upland	NLCD	105.74
BRUCE HAM	EVERGREEN FOREST	Upland	NLCD	0.80
BRUCE HAM	GRASSLANDS/HERBACEOUS	Upland	NLCD	52.62
BRUCE HAM	OPEN WATER	Nonhabitat	NLCD	2.41
BRUCE HAM	SHRUBLAND	Upland	NLCD	69.37
CARNEL UPTON	AGRICULTURE (CULTIVATED)	Upland	Holmstead (2001)	9.15
CARNEL UPTON	AGRICULTURE (CULTIVATED)	Upland	Holmstead (2001)	71.22
CARNEL UPTON	BARE ROCK/SAND/CLAY	Nonhabitat	NLCD	0.44
CARNEL UPTON	DESERTIC HERBLAND	Upland	Holmstead (2001)	0.44
CARNEL UPTON	DESERTIC SHRUBLAND	Upland	Holmstead (2001)	3.08
CARNEL UPTON	EMERGENT HERBACEOUS WETLAND	Riparian	Holmstead (2001)	1.43
CARNEL UPTON	EVERGREEN FOREST	Upland	NLCD	1.10
CARNEL UPTON	GRASSLAND	Upland	Holmstead (2001)	22.79
CARNEL UPTON	GRASSLAND	Upland	Holmstead (2001)	164.76
CARNEL UPTON	GRASSLANDS/HERBACEOUS	Upland	NLCD	87.28
CARNEL UPTON	GRASSLANDS/HERBACEOUS	Upland	NLCD	447.69
CARNEL UPTON	INDUSTRIAL	Nonhabitat	Holmstead (2001)	2.98
CARNEL UPTON	SCRUB-SHRUB WETLAND	Riparian	Holmstead (2001)	1.98
CARNEL UPTON	SHRUB SAVANNA	Upland	Holmstead (2001)	42.41
CARNEL UPTON	SHRUBLAND	Upland	Holmstead (2001)	7.51
CARNEL UPTON	SHRUBLAND	•	NLCD	280.16
		Upland		
CARNEL UPTON	SHRUBLAND	Upland	NLCD	2344.00
		Upland Nonhohitot	NLCD	0.67
CHARLES SLYTER	BARE ROCK/SAND/CLAY	Nonhabitat	NLCD	3.11
CHARLES SLYTER	DECIDUOUS FOREST	Riparian	NLCD	2.45

Private Property Owner	Cover Type	Wildlife Habitat	Data Source	Acres
CHARLES SLYTER	EVERGREEN FOREST	Upland	NLCD	0.22
CHARLES SLYTER	GRASSLANDS/HERBACEOUS	Upland	NLCD	139.45
CHARLES SLYTER	GRASSLANDS/HERBACEOUS	Upland	NLCD	359.97
CHARLES SLYTER	MIXED FOREST	Upland	NLCD	0.22
CHARLES SLYTER	SHRUBLAND	Upland	NLCD	194.22
CHARLES SLYTER	SHRUBLAND	Upland	NLCD	1822.98
CHARLES SLYTER	WOODY WETLANDS	Riparian	NLCD	0.22
CLYDE RAMSEY	AGRICULTURE (CULTIVATED)	Upland	Holmstead (2001)	3.52
CLYDE RAMSEY	AGRICULTURE (CULTIVATED)	Upland	Holmstead (2001)	128.14
CLYDE RAMSEY	EMERGENT HERBACEOUS WETLAND	Riparian	Holmstead (2001)	6.03
CLYDE RAMSEY	FORBLAND	Upland	Holmstead (2001)	24.46
CLYDE RAMSEY	FORESTED WETLAND	Riparian	Holmstead (2001)	0.42
CLYDE RAMSEY	FORESTED/ORCHARD	Upland	Holmstead (2001)	0.02
CLYDE RAMSEY	GRASSLAND	Upland	Holmstead (2001)	1.22
CLYDE RAMSEY	GRASSLAND	Upland	Holmstead (2001)	68.21
CLYDE RAMSEY	GRASSLANDS/HERBACEOUS	Upland	NLCD	24.15
CLYDE RAMSEY	GRAZING LAND/PASTURE	Upland	Holmstead (2001)	11.67
CLYDE RAMSEY	INDUSTRIAL	Nonhabitat	Holmstead (2001)	31.02
CLYDE RAMSEY	LENTIC	Nonhabitat	Holmstead (2001)	2.09
CLYDE RAMSEY	PARKS/RECREATION	Nonhabitat	Holmstead (2001)	2.09
CLYDE RAMSEY	SCRUB-SHRUB WETLAND	Riparian	Holmstead (2001)	1.65
CLYDE RAMSEY	SHORE & BOTTOMLAND WETLAND	Nonhabitat	Holmstead (2001)	0.84
CLYDE RAMSEY	SHRUB SAVANNA	Upland	Holmstead (2001)	6.24
CLYDE RAMSEY	SHRUB SAVANNA	Upland	Holmstead (2001)	88.36
CLYDE RAMSEY	SHRUBLAND	Upland	NLCD	0.03
CLYDE RAMSEY	SHRUBLAND	Upland	NLCD	48.42
DALY CREEK RANCH	AGRICULTURE (CULTIVATED)	Upland	Holmstead (2001)	75.08
DALY CREEK RANCH	BARE ROCK/SAND/CLAY	Nonhabitat	NLCD	2.32
DALY CREEK RANCH	DECIDUOUS FOREST	Riparian	NLCD	0.67
DALY CREEK RANCH	DESERTIC SHRUBLAND	Upland	Holmstead (2001)	4.07
DALY CREEK RANCH	EMERGENT HERBACEOUS WETLAND	Riparian	Holmstead (2001)	70.60
DALY CREEK RANCH	EMERGENT HERBACEOUS WETLANDS	Riparian	NLCD	0.22
DALY CREEK RANCH	EVERGREEN FOREST	Upland	NLCD	313.58
DALY CREEK RANCH	FORBLAND	Upland	Holmstead (2001)	0.05
DALY CREEK RANCH	FORESTED WETLAND	Riparian	Holmstead (2001)	1.74
DALY CREEK RANCH	GRASSLAND	Upland	Holmstead (2001)	362.94
DALY CREEK RANCH	GRASSLANDS/HERBACEOUS	Upland	NLCD	732.70
DALY CREEK RANCH	GRAZING LAND/PASTURE	Upland	Holmstead (2001)	328.98
DALY CREEK RANCH	INDUSTRIAL	Nonhabitat	Holmstead (2001)	20.78
DALY CREEK RANCH	LENTIC	Nonhabitat	Holmstead (2001)	0.38
DALY CREEK RANCH	LOTIC	Nonhabitat	Holmstead (2001)	0.48
DALY CREEK RANCH	MIXED FOREST	Upland	NLCD	5.03
DALY CREEK RANCH	PASTURE/HAY	Upland	NLCD	173.88
DALY CREEK RANCH	RESIDENTIAL	Nonhabitat	Holmstead (2001)	1.85
DALY CREEK RANCH	SCRUB-SHRUB WETLAND	Riparian	Holmstead (2001)	34.75
DALY CREEK RANCH	SHORE & BOTTOMLAND WETLAND	Nonhabitat	Holmstead (2001)	0.36
DALY CREEK RANCH	SHRUB SAVANNA	Upland	Holmstead (2001)	325.97
DALY CREEK RANCH	SHRUBLAND	Upland	Holmstead (2001)	316.68
DALY CREEK RANCH	SHRUBLAND	Upland	NLCD	7880.57
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Private Property Owner	Cover Type	Wildlife Habitat	Data Source	Acres
DALY CREEK RANCH	WOODY WETLANDS	Riparian	NLCD	0.67
DAN FORSEA	BARE ROCK/SAND/CLAY	Nonhabitat	NLCD	2.67
DAN FORSEA	BARE ROCK/SAND/CLAY	Nonhabitat	NLCD	27.96
DAN FORSEA	CLIFF/TALUS SLOPE	Nonhabitat	Holmstead (2001)	0.95
DAN FORSEA	COMMERCIAL/INDUSTRIAL	Nonhabitat	NLCD	0.22
DAN FORSEA	DECIDUOUS FOREST	Riparian	NLCD	0.44
DAN FORSEA	DECIDUOUS FOREST	Riparian	NLCD	0.22
DAN FORSEA	DESERTIC HERBLAND	Upland	Holmstead (2001)	60.12
DAN FORSEA	EMERGENT HERBACEOUS WETLAND	Riparian	Holmstead (2001)	0.21
DAN FORSEA	EMERGENT HERBACEOUS WETLANDS	Riparian	NLCD	0.47
DAN FORSEA	EVERGREEN FOREST	Upland	NLCD	562.83
DAN FORSEA	EVERGREEN FOREST	Upland	NLCD	1114.58
DAN FORSEA	FORESTED WETLAND	Riparian	Holmstead (2001)	0.24
DAN FORSEA	GRASSLAND	Upland	Holmstead (2001)	440.69
DAN FORSEA	GRASSLANDS/HERBACEOUS	Upland	NLCD	143.36
DAN FORSEA	GRASSLANDS/HERBACEOUS	Upland	NLCD	647.51
DAN FORSEA	GRAZING LAND/PASTURE	Upland	Holmstead (2001)	1.45
DAN FORSEA	LOTIC	Nonhabitat	Holmstead (2001)	0.26
DAN FORSEA	MIXED FOREST	Upland	NLCD	3.17
DAN FORSEA	MIXED FOREST	Upland	NLCD	13.79
DAN FORSEA	OPEN WATER	Nonhabitat	NLCD	0.22
DAN FORSEA	PARKS/RECREATION	Nonhabitat	Holmstead (2001)	0.09
DAN FORSEA	PASTURE/HAY	Upland	NLCD	167.55
DAN FORSEA	RESIDENTIAL	Nonhabitat	Holmstead (2001)	0.32
DAN FORSEA	SCRUB-SHRUB WETLAND	Riparian	Holmstead (2001)	8.39
DAN FORSEA	SHORE & BOTTOMLAND WETLAND	Nonhabitat	Holmstead (2001)	0.91
DAN FORSEA	SHRUB SAVANNA	Upland	Holmstead (2001)	263.78
DAN FORSEA	SHRUBLAND	Upland	Holmstead (2001)	64.99
DAN FORSEA	SHRUBLAND	Upland	NLCD	1013.92
DAN FORSEA	SHRUBLAND	Upland	NLCD	1616.91
DAN FORSEA	WOODY WETLANDS	Riparian	NLCD	0.22
DAN FORSEA	WOODY WETLANDS	Riparian	NLCD	0.22
DAN MOYLE	BARE ROCK/SAND/CLAY	Nonhabitat	NLCD	1.49
DAN MOYLE	EVERGREEN FOREST	Upland	NLCD	3.84
DAN MOYLE	EVERGREEN FOREST	Upland	NLCD	16.95
DAN MOYLE	GRASSLANDS/HERBACEOUS	Upland	NLCD	535.81
DAN MOYLE	GRASSLANDS/HERBACEOUS	Upland	NLCD	48.87
DAN MOYLE	SHRUBLAND	Upland	NLCD	915.67
DAN MOYLE	SHRUBLAND	Upland	NLCD	154.58
DARREL LEE BROWN	DECIDUOUS FOREST	Riparian	NLCD	0.44
DARREL LEE BROWN	EMERGENT HERBACEOUS WETLANDS	Riparian	NLCD	7.68
DARREL LEE BROWN	EVERGREEN FOREST	Upland	NLCD	155.72
DARREL LEE BROWN	GRASSLANDS/HERBACEOUS	Upland	NLCD	88.05
		Upland	NLCD	1.78
	SHRUBLAND	Upland	NLCD	380.22
		Riparian	NLCD	0.29
	EMERGENT HERBACEOUS WETLANDS	Riparian	NLCD	7.11
DARREL MALLERY		Upland	NLCD	17.74
	EVERGREEN FOREST	Upland	NLCD	1.46
DARREL MALLERY	GRASSLANDS/HERBACEOUS	Upland	NLCD	77.54

Private Property Owner	Cover Type	Wildlife Habitat	Data Source	Acres
DARREL MALLERY	GRASSLANDS/HERBACEOUS	Upland	NLCD	5.49
DARREL MALLERY	MIXED FOREST	Upland	NLCD	1.77
DARREL MALLERY	PASTURE/HAY	Upland	NLCD	18.94
DARREL MALLERY	ROW CROPS	Upland	NLCD	33.13
DARREL MALLERY	SHRUBLAND	Upland	NLCD	1999.23
DARREL MALLERY	SHRUBLAND	Upland	NLCD	99.93
DAVID BARBER	BARE ROCK/SAND/CLAY	Nonhabitat	NLCD	2.78
DAVID BARBER	DECIDUOUS FOREST	Riparian	NLCD	3.56
DAVID BARBER	GRASSLANDS/HERBACEOUS	Upland	NLCD	96.48
DAVID BARBER	GRASSLANDS/HERBACEOUS	Upland	NLCD	117.06
DAVID BARBER	MIXED FOREST	Upland	NLCD	0.22
DAVID BARBER	MIXED FOREST	Upland	NLCD	3.75
DAVID BARBER	SHRUBLAND	Upland	NLCD	488.20
DAVID BARBER	SHRUBLAND	Upland	NLCD	226.27
DAVID BARBER	WOODY WETLANDS	Riparian	NLCD	0.89
DAVID G MOORE	BARE ROCK/SAND/CLAY	Nonhabitat	NLCD	0.44
DAVID G MOORE	BARE ROCK/SAND/CLAY	Nonhabitat	NLCD	1.60
DAVID G MOORE	CLIFF/TALUS SLOPE	Nonhabitat	Holmstead (2001)	4.93
DAVID G MOORE	COMMERCIAL/INDUSTRIAL	Nonhabitat	NLCD	3.17
DAVID G MOORE	DECIDUOUS FOREST	Riparian	NLCD	6.38
DAVID G MOORE	EMERGENT HERBACEOUS WETLANDS	Riparian	NLCD	94.85
DAVID G MOORE	EVERGREEN FOREST	Upland	NLCD	682.36
DAVID G MOORE	EVERGREEN FOREST	Upland	NLCD	620.92
DAVID G MOORE	FALLOW	Nonhabitat	NLCD	20.80
DAVID G MOORE	FORESTED UPLAND	Upland	Holmstead (2001)	5.96
DAVID G MOORE	FORESTED WETLAND	Riparian	Holmstead (2001)	9.56
DAVID G MOORE	GRASSLAND	Upland	Holmstead (2001)	357.07
DAVID G MOORE	GRASSLANDS/HERBACEOUS	Upland	NLCD	1041.96
DAVID G MOORE	GRASSLANDS/HERBACEOUS	Upland	NLCD	476.10
DAVID G MOORE	LOTIC	Nonhabitat	Holmstead (2001)	1.12
DAVID G MOORE	MIXED FOREST	Upland	NLCD	30.63
DAVID G MOORE	MIXED FOREST	Upland	NLCD	4.47
DAVID G MOORE	OPEN WATER	Nonhabitat	NLCD	42.48
DAVID G MOORE	PASTURE/HAY	Upland	NLCD	1049.22
DAVID G MOORE	ROW CROPS	Upland	NLCD	7.53
DAVID G MOORE	SCRUB-SHRUB WETLAND	Riparian	Holmstead (2001)	42.82
DAVID G MOORE	SHRUB SAVANNA	Upland	Holmstead (2001)	336.37
DAVID G MOORE	SHRUBLAND	Upland	Holmstead (2001)	104.19
DAVID G MOORE	SHRUBLAND	Upland	NLCD	12,650.95
DAVID G MOORE	SHRUBLAND	Upland	NLCD	2111.90
DAVID G MOORE	SMALL GRAINS	Upland	NLCD	1.04
DAVID G MOORE	TRANSITIONAL	Nonhabitat	NLCD	0.89
DAVID G MOORE	TREE SAVANNA	Upland	Holmstead (2001)	2.17
DAVID G MOORE	WOODY WETLANDS	Riparian	NLCD	1.98
DAVID JACKSON	DECIDUOUS FOREST	Riparian	NLCD	2.67
DAVID JACKSON	EVERGREEN FOREST	Upland	NLCD	58.00
DAVID JACKSON	GRASSLANDS/HERBACEOUS	Upland	NLCD	47.39
DAVID JACKSON	MIXED FOREST	Upland	NLCD	2.22
DAVID JACKSON	SHRUBLAND	Upland	NLCD	281.87
	DECIDUOUS FOREST	Riparian	NLCD	

Private Property Owner	Cover Type	Wildlife Habitat	Data Source	Acres
DAVID, KENNETH E TRUSTEE	EVERGREEN FOREST	Upland	NLCD	39.39
DAVID, KENNETH E TRUSTEE	GRASSLANDS/HERBACEOUS	Upland	NLCD	29.54
DAVID, KENNETH E TRUSTEE	SHRUBLAND	Upland	NLCD	51.76
DEBRA TATE	EVERGREEN FOREST	Upland	NLCD	149.13
DEBRA TATE	GRASSLANDS/HERBACEOUS	Upland	NLCD	4.18
DEBRA TATE	SHRUBLAND	Upland	NLCD	6.98
DEBRA TATE	TRANSITIONAL	Nonhabitat	NLCD	0.67
DELBERT & LEWIS GARNET	BARE ROCK/SAND/CLAY	Nonhabitat	NLCD	2.84
DELBERT & LEWIS GARNET	DECIDUOUS FOREST	Riparian	NLCD	60.43
DELBERT & LEWIS GARNET	EVERGREEN FOREST	Upland	NLCD	135.02
DELBERT & LEWIS GARNET	EVERGREEN FOREST	Upland	NLCD	0.67
DELBERT & LEWIS GARNET	GRASSLANDS/HERBACEOUS	Upland	NLCD	645.27
DELBERT & LEWIS GARNET	GRASSLANDS/HERBACEOUS	Upland	NLCD	54.93
DELBERT & LEWIS GARNET	MIXED FOREST	Upland	NLCD	4.99
DELBERT & LEWIS GARNET	OPEN WATER	Nonhabitat	NLCD	67.63
DELBERT & LEWIS GARNET	SHRUBLAND	Upland	NLCD	1698.14
DELBERT & LEWIS GARNET	SHRUBLAND	Upland	NLCD	42.53
DERRELL WITTY	DECIDUOUS FOREST	Riparian	NLCD	3.11
DERRELL WITTY	EVERGREEN FOREST	Upland	NLCD	49.39
DERRELL WITTY	GRASSLANDS/HERBACEOUS	Upland	NLCD	132.96
DERRELL WITTY	SHRUBLAND	Upland	NLCD	579.40
DIANNE BRAUSE	AGRICULTURE (CULTIVATED)	Upland	Holmstead (2001)	6.64
DIANNE BRAUSE	BARE ROCK/SAND/CLAY	Nonhabitat	NLCD	6.00
DIANNE BRAUSE	DECIDUOUS FOREST	Riparian	NLCD	0.42
DIANNE BRAUSE	EMERGENT HERBACEOUS WETLANDS	Riparian	NLCD	0.44
DIANNE BRAUSE	EVERGREEN FOREST	Upland	NLCD	23.41
DIANNE BRAUSE	FORESTED WETLAND	Riparian	Holmstead (2001)	6.00
DIANNE BRAUSE	GRASSLAND	Upland	Holmstead (2001)	63.58
DIANNE BRAUSE	GRASSLANDS/HERBACEOUS	Upland	NLCD	163.43
DIANNE BRAUSE	LENTIC	Nonhabitat	Holmstead (2001)	0.12
DIANNE BRAUSE	MIXED FOREST	Upland	NLCD	2.40
DIANNE BRAUSE	RESIDENTIAL	Nonhabitat	Holmstead (2001)	5.11
DIANNE BRAUSE	SCRUB-SHRUB WETLAND	Riparian	Holmstead (2001)	3.21
DIANNE BRAUSE	SHRUB SAVANNA	Upland	Holmstead (2001)	58.65
DIANNE BRAUSE	SHRUBLAND	Upland	Holmstead (2001)	10.24
DIANNE BRAUSE	SHRUBLAND	Upland	NLCD	496.76
DIANNE BRAUSE	WOODY WETLANDS	Riparian	NLCD	2.00
DOBBINS, JAMES M	DECIDUOUS FOREST	Riparian	NLCD	9.06
DOBBINS, JAMES M	EVERGREEN FOREST	Upland	NLCD	27.13
DOBBINS, JAMES M	EVERGREEN FOREST	Upland	NLCD	35.98
DOBBINS, JAMES M	GRASSLANDS/HERBACEOUS	Upland	NLCD	22.25
DOBBINS, JAMES M	GRASSLANDS/HERBACEOUS	Upland	NLCD	2.62
DOBBINS, JAMES M	SHRUBLAND	Upland	NLCD	372.69
DOBBINS, JAMES M	SHRUBLAND	Upland	NLCD	39.34
DOBBINS, JAMES M	WOODY WETLANDS	Riparian	NLCD	0.22
DOBBINS, JAMES M DON FRITZ	DECIDUOUS FOREST	Riparian	NLCD	0.22 3.73
DON FRITZ	EVERGREEN FOREST	Upland	NLCD	3.73 107.86
DON FRITZ	GRASSLANDS/HERBACEOUS	•		
DONTRILL		Upland	NLCD	97.24
DON FRITZ	SHRUBLAND	Upland	NLCD	48.77

Private Property Owner	Cover Type	Wildlife Habitat	Data Source	Acres
DUANE JOHNSON	GRASSLANDS/HERBACEOUS	Upland	NLCD	17.20
DUANE JOHNSON	SHRUBLAND	Upland	NLCD	118.00
DWIGHT MADDOX	EVERGREEN FOREST	Upland	NLCD	0.22
DWIGHT MADDOX	GRASSLANDS/HERBACEOUS	Upland	NLCD	53.17
DWIGHT MADDOX	MIXED FOREST	Upland	NLCD	0.44
DWIGHT MADDOX	SHRUBLAND	Upland	NLCD	107.22
EAGLE VALLEY AG INC	BARE ROCK/SAND/CLAY	Nonhabitat	NLCD	2.67
EAGLE VALLEY AG INC	CLIFF/TALUS SLOPE	Nonhabitat	Holmstead (2001)	0.43
EAGLE VALLEY AG INC	EMERGENT HERBACEOUS WETLAND	Riparian	Holmstead (2001)	0.18
EAGLE VALLEY AG INC	EMERGENT HERBACEOUS WETLANDS	Riparian	NLCD	0.42
EAGLE VALLEY AG INC	EVERGREEN FOREST	Upland	NLCD	19.22
EAGLE VALLEY AG INC	FORBLAND	Upland	Holmstead (2001)	0.32
EAGLE VALLEY AG INC	GRASSLAND	Upland	Holmstead (2001)	281.14
EAGLE VALLEY AG INC	GRASSLANDS/HERBACEOUS	Upland	NLCD	643.30
EAGLE VALLEY AG INC	MIXED FOREST	Upland	NLCD	4.05
EAGLE VALLEY AG INC	PASTURE/HAY	Upland	NLCD	52.52
EAGLE VALLEY AG INC	SCRUB-SHRUB WETLAND	Riparian	Holmstead (2001)	8.67
EAGLE VALLEY AG INC	SHORE & BOTTOMLAND WETLAND	Nonhabitat	Holmstead (2001)	0.14
EAGLE VALLEY AG INC	SHRUB SAVANNA	Upland	Holmstead (2001)	135.88
EAGLE VALLEY AG INC	SHRUBLAND	Upland	Holmstead (2001)	73.37
EAGLE VALLEY AG INC	SHRUBLAND	Upland	NLCD	20.58
EAGLE VALLEY AG INC	SHRUBLAND	Upland	NLCD	720.15
EAGLE VALLEY AG INC	SMALL GRAINS	Upland	NLCD	4.86
EDITH RYNEARSON	DISTURBED	Nonhabitat	Holmstead (2001)	0.71
EDITH RYNEARSON	EMERGENT HERBACEOUS WETLAND	Riparian	Holmstead (2001)	0.09
EDITH RYNEARSON	FORESTED WETLAND	Riparian	Holmstead (2001)	0.29
EDITH RYNEARSON	GRASSLAND	Upland	Holmstead (2001)	77.95
EDITH RYNEARSON	LENTIC	Nonhabitat	Holmstead (2001)	0.04
EDITH RYNEARSON	RESIDENTIAL	Nonhabitat	Holmstead (2001)	0.49
EDITH RYNEARSON	SCRUB-SHRUB WETLAND	Riparian	Holmstead (2001)	1.02
EDITH RYNEARSON	SHRUB SAVANNA	Upland	Holmstead (2001)	55.28
EDITH RYNEARSON	SHRUBLAND	Upland	Holmstead (2001)	0.86
ESTHER SMITH	BARE ROCK/SAND/CLAY	Nonhabitat	NLCD	0.22
ESTHER SMITH	DECIDUOUS FOREST	Riparian	NLCD	1.33
ESTHER SMITH	DESERTIC HERBLAND	Upland	Holmstead (2001)	0.03
ESTHER SMITH	DESERTIC SHRUBLAND	Upland	Holmstead (2001)	5.02
ESTHER SMITH	DISTURBED	Nonhabitat	Holmstead (2001)	2.30
ESTHER SMITH	EVERGREEN FOREST	Upland	NLCD	0.67
ESTHER SMITH	EVERGREEN FOREST	Upland	NLCD	0.07
ESTHER SMITH	FORBLAND	Upland	Holmstead (2001)	0.44
ESTHER SMITH	-		Holmstead (2001)	
ESTHER SMITH		Upland	NLCD	19.83 47.54
ESTHER SMITH	GRASSLANDS/HERBACEOUS GRASSLANDS/HERBACEOUS	Upland Upland	NLCD	133.28
ESTHER SMITH		Upland	NLCD	0.89
ESTHER SMITH	SCRUB-SHRUB WETLAND	Riparian	Holmstead (2001)	0.72
ESTHER SMITH		Upland	Holmstead (2001)	40.62
ESTHER SMITH	SHRUBLAND	Upland	Holmstead (2001)	4.47
ESTHER SMITH	SHRUBLAND	Upland	NLCD	272.24
ESTHER SMITH	SHRUBLAND	Upland	NLCD	381.62
ESTHER SMITH	WOODY WETLANDS	Riparian	NLCD	0.22

Private Property Owner	Cover Type	Wildlife Habitat	Data Source	Acres
EUGENE GOERTZEN	BARE ROCK/SAND/CLAY	Nonhabitat	NLCD	0.22
EUGENE GOERTZEN	DECIDUOUS FOREST	Riparian	NLCD	5.56
EUGENE GOERTZEN	EVERGREEN FOREST	Upland	NLCD	0.22
EUGENE GOERTZEN	GRASSLANDS/HERBACEOUS	Upland	NLCD	73.63
EUGENE GOERTZEN	SHRUBLAND	Upland	NLCD	751.51
EVERGREEN LAND AND CATTLE	BARE ROCK/SAND/CLAY	Nonhabitat	NLCD	0.44
EVERGREEN LAND AND CATTLE	CLIFF/TALUS SLOPE	Nonhabitat	Holmstead (2001)	31.08
EVERGREEN LAND AND CATTLE	DECIDUOUS FOREST	Riparian	NLCD	384.99
EVERGREEN LAND AND CATTLE	DESERTIC HERBLAND	Upland	Holmstead (2001)	12.29
EVERGREEN LAND AND CATTLE	DESERTIC SHRUBLAND	Upland	Holmstead (2001)	0.71
EVERGREEN LAND AND CATTLE	EMERGENT HERBACEOUS WETLANDS	Riparian	NLCD	0.67
EVERGREEN LAND AND CATTLE	EVERGREEN FOREST	Upland	NLCD	1745.78
EVERGREEN LAND AND CATTLE	FORESTED UPLAND	Upland	Holmstead (2001)	0.63
EVERGREEN LAND AND CATTLE	FORESTED WETLAND	Riparian	Holmstead (2001)	10.76
EVERGREEN LAND AND CATTLE	GRASSLAND	Upland	Holmstead (2001)	1093.13
EVERGREEN LAND AND CATTLE	GRASSLANDS/HERBACEOUS	Upland	NLCD	2070.68
EVERGREEN LAND AND CATTLE	GRAZING LAND/PASTURE	Upland	Holmstead (2001)	1.37
EVERGREEN LAND AND CATTLE	INDUSTRIAL	Nonhabitat	Holmstead (2001)	1.57
EVERGREEN LAND AND CATTLE	LOTIC	Nonhabitat	Holmstead (2001)	0.85
EVERGREEN LAND AND CATTLE	MIXED FOREST	Upland	NLCD	39.96
EVERGREEN LAND AND CATTLE	SCRUB-SHRUB WETLAND	Riparian	Holmstead (2001)	35.43
EVERGREEN LAND AND CATTLE	SHORE & BOTTOMLAND WETLAND	Nonhabitat	Holmstead (2001)	1.92
EVERGREEN LAND AND CATTLE	SHRUB SAVANNA	Upland	Holmstead (2001)	131.62
EVERGREEN LAND AND CATTLE	SHRUBLAND	Upland	Holmstead (2001)	11.47
EVERGREEN LAND AND CATTLE	SHRUBLAND	Upland	NLCD	9324.13
EVERGREEN LAND AND CATTLE	TREE SAVANNA	Upland	Holmstead (2001)	2.59
EVERGREEN LAND AND CATTLE	WOODY WETLANDS	Riparian	NLCD	3.34
FENCE CREEK CATTLE CO	BARE ROCK/SAND/CLAY	Nonhabitat	NLCD	10.14
FENCE CREEK CATTLE CO		Riparian	NLCD	87.55
FENCE CREEK CATTLE CO		Upland	NLCD	765.44
FENCE CREEK CATTLE CO	GRASSLANDS/HERBACEOUS	Upland	NLCD	1917.99
FENCE CREEK CATTLE CO	MIXED FOREST	Upland	NLCD	6.53
FENCE CREEK CATTLE CO		Nonhabitat	NLCD	21.39
FENCE CREEK CATTLE CO	SHRUBLAND	Upland	NLCD	5850.84
FLYING U RANCH	CLIFF/TALUS SLOPE	Nonhabitat	Holmstead (2001)	0.85

Private Property Owner	Cover Type	Wildlife Habitat	Data Source	Acres
FLYING U RANCH	DECIDUOUS FOREST	Riparian	NLCD	177.41
FLYING U RANCH	DECIDUOUS FOREST	Riparian	NLCD	791.71
FLYING U RANCH	EVERGREEN FOREST	Upland	NLCD	322.71
FLYING U RANCH	EVERGREEN FOREST	Upland	NLCD	1978.58
FLYING U RANCH	FORESTED WETLAND	Riparian	Holmstead (2001)	4.32
FLYING U RANCH	GRASSLAND	Upland	Holmstead (2001)	134.98
FLYING U RANCH	GRASSLANDS/HERBACEOUS	Upland	NLCD	132.98
FLYING U RANCH	GRASSLANDS/HERBACEOUS	Upland	NLCD	2059.26
FLYING U RANCH	LOTIC	Nonhabitat	Holmstead (2001)	0.02
FLYING U RANCH	SCRUB-SHRUB WETLAND	Riparian	Holmstead (2001)	3.94
FLYING U RANCH	SHORE & BOTTOMLAND WETLAND	Nonhabitat	Holmstead (2001)	0.15
FLYING U RANCH	SHRUB SAVANNA	Upland	Holmstead (2001)	25.07
FLYING U RANCH	SHRUBLAND	Upland	Holmstead (2001)	7.21
FLYING U RANCH	SHRUBLAND	Upland	NLCD	1993.37
FLYING U RANCH	SHRUBLAND	Upland	NLCD	8847.29
FLYING U RANCH	WOODY WETLANDS	Riparian	NLCD	0.91
FLYING U RANCH	WOODY WETLANDS	Riparian	NLCD	1.18
FLYING Y PARTNERSHIP	DECIDUOUS FOREST	Riparian	NLCD	0.19
FLYING Y PARTNERSHIP	EVERGREEN FOREST	Upland	NLCD	60.18
FLYING Y PARTNERSHIP	GRASSLANDS/HERBACEOUS	Upland	NLCD	98.39
FLYING Y PARTNERSHIP	SHRUBLAND	Upland	NLCD	384.34
FOLEY, MICHAEL G	DECIDUOUS FOREST	Riparian	NLCD	1.27
FOLEY, MICHAEL G	DECIDUOUS FOREST	Riparian	NLCD	0.28
FOLEY, MICHAEL G	FALLOW	Nonhabitat	NLCD	0.22
FOLEY, MICHAEL G	GRASSLANDS/HERBACEOUS	Upland	NLCD	145.81
FOLEY, MICHAEL G	GRASSLANDS/HERBACEOUS	Upland	NLCD	5.81
FOLEY, MICHAEL G	SHRUBLAND	Upland	NLCD	11.82
FOLEY, MICHAEL G	SHRUBLAND	Upland	NLCD	0.48
FRAN BUTCHART JR	BARE ROCK/SAND/CLAY	Nonhabitat	NLCD	1.77
FRAN BUTCHART JR	EMERGENT HERBACEOUS WETLANDS	Riparian	NLCD	0.44
FRAN BUTCHART JR	EVERGREEN FOREST	Upland	NLCD	18.71
FRAN BUTCHART JR	GRASSLANDS/HERBACEOUS	Upland	NLCD	25.88
FRAN BUTCHART JR	MIXED FOREST	Upland	NLCD	0.44
FRAN BUTCHART JR	SHRUBLAND	Upland	NLCD	57.37
GAZELLE LAND & TIMBER	BARE ROCK/SAND/CLAY	Nonhabitat	NLCD	3.72
GAZELLE LAND & TIMBER	DECIDUOUS FOREST	Riparian	NLCD	93.53
GAZELLE LAND & TIMBER	EVERGREEN FOREST	Upland	NLCD	643.74
GAZELLE LAND & TIMBER	EVERGREEN FOREST	Upland	NLCD	10.50
GAZELLE LAND & TIMBER	GRASSLANDS/HERBACEOUS	Upland	NLCD	1376.77
GAZELLE LAND & TIMBER	GRASSLANDS/HERBACEOUS	Upland	NLCD	4.19
GAZELLE LAND & TIMBER	MIXED FOREST	Upland	NLCD	15.81
GAZELLE LAND & TIMBER	OPEN WATER	Nonhabitat	NLCD	66.80
GAZELLE LAND & TIMBER	SHRUBLAND	Upland	NLCD	3096.74
GAZELLE LAND & TIMBER	SHRUBLAND	Upland	NLCD	5.40
GEORGIA PACIFIC CORP	DESERTIC SHRUBLAND	Upland	Holmstead (2001)	2.77
GEORGIA PACIFIC CORP	FORBLAND	Upland	Holmstead (2001)	0.11
GEORGIA PACIFIC CORP	GRASSLANDS/HERBACEOUS	Upland	NLCD	109.95
GEORGIA PACIFIC CORP	SHRUBLAND	Upland	NLCD	86.92
GERALD WITHERRITE	BARE ROCK/SAND/CLAY	Nonhabitat	NLCD	0.59
	DECIDUOUS FOREST	Riparian	NLCD	2.42

Private Property Owner	Cover Type	Wildlife Habitat	Data Source	Acres
GERALD WITHERRITE	EVERGREEN FOREST	Upland	NLCD	5.27
GERALD WITHERRITE	GRASSLANDS/HERBACEOUS	Upland	NLCD	45.42
GERALD WITHERRITE	OPEN WATER	Nonhabitat	NLCD	21.26
GERALD WITHERRITE	SHRUBLAND	Upland	NLCD	156.98
GERTRUDE SUTTON	COMMERCIAL/INDUSTRIAL	Nonhabitat	NLCD	0.22
GERTRUDE SUTTON	DECIDUOUS FOREST	Riparian	NLCD	2.45
GERTRUDE SUTTON	EVERGREEN FOREST	Upland	NLCD	111.19
GERTRUDE SUTTON	EVERGREEN FOREST	Upland	NLCD	144.57
GERTRUDE SUTTON	GRASSLANDS/HERBACEOUS	Upland	NLCD	15.80
GERTRUDE SUTTON	GRASSLANDS/HERBACEOUS	Upland	NLCD	362.69
GERTRUDE SUTTON	MIXED FOREST	Upland	NLCD	0.30
GERTRUDE SUTTON	SHRUBLAND	Upland	NLCD	116.60
GERTRUDE SUTTON	SHRUBLAND	Upland	NLCD	1977.07
GORDON HUDSON TRUST	DECIDUOUS FOREST	Riparian	NLCD	22.83
GORDON HUDSON TRUST	EVERGREEN FOREST	Upland	NLCD	24.97
GORDON HUDSON TRUST	GRASSLAND	Upland	Holmstead (2001)	7.35
GORDON HUDSON TRUST	GRASSLANDS/HERBACEOUS	Upland	NLCD	142.19
GORDON HUDSON TRUST	SCRUB-SHRUB WETLAND	Riparian	Holmstead (2001)	0.09
GORDON HUDSON TRUST	SHRUB SAVANNA	Upland	Holmstead (2001)	0.02
GORDON HUDSON TRUST	SHRUBLAND	Upland	NLCD	258.51
HABBERSTAD, JOHN	EVERGREEN FOREST	Upland	NLCD	4.39
HABBERSTAD, JOHN	GRASSLANDS/HERBACEOUS	Upland	NLCD	47.23
HABBERSTAD, JOHN	MIXED FOREST	Upland	NLCD	1.14
HABBERSTAD, JOHN	SHRUBLAND	Upland	NLCD	85.51
HABBERSTAD, JOHN	TRANSITIONAL	Nonhabitat	NLCD	0.66
HAFF, KENNETH	DECIDUOUS FOREST	Riparian	NLCD	6.19
HAFF, KENNETH	EVERGREEN FOREST	Upland	NLCD	354.57
		·	NLCD	227.01
HAFF, KENNETH		Upland	-	-
HAFF, KENNETH		Upland	NLCD NLCD	176.03
HALL, BOB D		Riparian		0.89
HALL, BOB D		Riparian	NLCD	19.98
HALL, BOB D		Upland	NLCD	42.88
HALL, BOB D		Upland	NLCD	162.89
HALL, BOB D	GRASSLANDS/HERBACEOUS	Upland	NLCD	128.92
HALL, BOB D	MIXED FOREST	Upland	NLCD	6.30
HALL, BOB D	MIXED FOREST	Upland	NLCD	19.56
HALL, BOB D	SHRUBLAND	Upland	NLCD	13.58
HALL, BOB D	SHRUBLAND	Upland	NLCD	341.75
HANS FINKE	GRASSLAND	Upland	Holmstead (2001)	43.35
HANS FINKE	LOTIC	Nonhabitat	Holmstead (2001)	0.09
HANS FINKE	SCRUB-SHRUB WETLAND	Riparian	Holmstead (2001)	1.22
HANS FINKE	SHORE & BOTTOMLAND WETLAND	Nonhabitat	Holmstead (2001)	0.11
HANS FINKE	SHRUB SAVANNA	Upland	Holmstead (2001)	63.65
HANS FINKE	SHRUBLAND	Upland	Holmstead (2001)	70.93
HAROLD STEINER	BARE ROCK/SAND/CLAY	Nonhabitat	NLCD	0.22
HAROLD STEINER	EVERGREEN FOREST	Upland	NLCD	296.42
HAROLD STEINER	EVERGREEN FOREST	Upland	NLCD	124.98
HAROLD STEINER	GRASSLANDS/HERBACEOUS	Upland	NLCD	11.09
HAROLD STEINER	GRASSLANDS/HERBACEOUS	Upland	NLCD	4.77
HAROLD STEINER	SHRUBLAND	Upland	NLCD	96.12

Private Property Owner	Cover Type	Wildlife Habitat	Data Source	Acres
HAROLD STEINER	SHRUBLAND	Upland	NLCD	27.80
HAROLD STEINER	TRANSITIONAL	Nonhabitat	NLCD	0.44
HC & SUSAN FINKE	BARE ROCK/SAND/CLAY	Nonhabitat	NLCD	5.48
HC & SUSAN FINKE	EVERGREEN FOREST	Upland	NLCD	1.16
HC & SUSAN FINKE	GRASSLANDS/HERBACEOUS	Upland	NLCD	44.56
HC & SUSAN FINKE	MIXED FOREST	Upland	NLCD	0.22
HC & SUSAN FINKE	SHRUBLAND	Upland	NLCD	226.98
HECKMAN RANCH	COMMERCIAL/INDUSTRIAL	Nonhabitat	NLCD	10.41
HECKMAN RANCH	DECIDUOUS FOREST	Riparian	NLCD	518.67
HECKMAN RANCH	DECIDUOUS FOREST	Riparian	NLCD	122.28
HECKMAN RANCH	EMERGENT HERBACEOUS WETLANDS	Riparian	NLCD	2.67
HECKMAN RANCH	EMERGENT HERBACEOUS WETLANDS	Riparian	NLCD	0.22
HECKMAN RANCH	EVERGREEN FOREST	Upland	NLCD	3671.27
HECKMAN RANCH	EVERGREEN FOREST	Upland	NLCD	2929.87
HECKMAN RANCH	FALLOW	Nonhabitat	NLCD	96.42
HECKMAN RANCH	FALLOW	Nonhabitat	NLCD	0.56
HECKMAN RANCH	GRASSLANDS/HERBACEOUS	Upland	NLCD	4402.41
HECKMAN RANCH	GRASSLANDS/HERBACEOUS	Upland	NLCD	556.72
HECKMAN RANCH	MIXED FOREST	Upland	NLCD	167.81
HECKMAN RANCH	MIXED FOREST	Upland	NLCD	28.99
HECKMAN RANCH	OPEN WATER	Nonhabitat	NLCD	17.53
HECKMAN RANCH	OPEN WATER	Nonhabitat	NLCD	0.52
HECKMAN RANCH	PASTURE/HAY	Upland	NLCD	2504.50
HECKMAN RANCH	SHRUBLAND	Upland	NLCD	8551.86
HECKMAN RANCH	SHRUBLAND	Upland	NLCD	3099.86
HECKMAN RANCH	WOODY WETLANDS	Riparian	NLCD	3.30
HECKMAN RANCH	WOODY WETLANDS	Riparian	NLCD	0.67
HELENA SCHMIDT	DECIDUOUS FOREST	Riparian	NLCD	0.67
HELENA SCHMIDT	EVERGREEN FOREST	Upland	NLCD	34.09
HELENA SCHMIDT	GRASSLANDS/HERBACEOUS	Upland	NLCD	34.72
HELENA SCHMIDT	MIXED FOREST	Upland	NLCD	3.56
HELENA SCHMIDT	SHRUBLAND	Upland	NLCD	28.63
HELMOUT FAMILY REV TRUST	DECIDUOUS FOREST	Riparian	NLCD	3.86
HELMOUT FAMILY REV TRUST	EVERGREEN FOREST	Upland	NLCD	257.06
HELMOUT FAMILY REV TRUST	GRASSLANDS/HERBACEOUS	Upland	NLCD	136.42
HELMOUT FAMILY REV TRUST	SHRUBLAND	Upland	NLCD	84.78
HELMOUT FAMILY REV TRUST	WOODY WETLANDS	Riparian	NLCD	0.22
HITCHCOCK	DECIDUOUS FOREST	Riparian	NLCD	30.37
HITCHCOCK	EVERGREEN FOREST	Upland	NLCD	387.25
HITCHCOCK	GRASSLANDS/HERBACEOUS	Upland	NLCD	429.73
HITCHCOCK	MIXED FOREST	Upland	NLCD	12.62
HITCHCOCK	SHRUBLAND	Upland	NLCD	1540.93
HITCHCOCK	WOODY WETLANDS	Riparian	NLCD	0.22
HUBBARD TRUST	BARE ROCK/SAND/CLAY	Nonhabitat	NLCD	0.22
HUBBARD TRUST	DECIDUOUS FOREST	Riparian	NLCD	27.42
HUBBARD TRUST	EVERGREEN FOREST	Upland	NLCD	390.55

Private Property Owner	Cover Type	Wildlife Habitat	Data Source	Acres
HUBBARD TRUST	GRASSLANDS/HERBACEOUS	Upland	NLCD	790.93
HUBBARD TRUST	MIXED FOREST	Upland	NLCD	4.92
HUBBARD TRUST	OPEN WATER	Nonhabitat	NLCD	62.52
HUBBARD TRUST	SHRUBLAND	Upland	NLCD	3147.10
IRA HASKETT	EVERGREEN FOREST	Upland	NLCD	1.49
IRA HASKETT	FORESTED UPLAND	Upland	Holmstead (2001)	5.05
IRA HASKETT	FORESTED WETLAND	Riparian	Holmstead (2001)	10.09
IRA HASKETT	GRASSLAND	Upland	Holmstead (2001)	8.85
IRA HASKETT	GRASSLANDS/HERBACEOUS	Upland	NLCD	6.75
IRA HASKETT	INDUSTRIAL	Nonhabitat	Holmstead (2001)	0.19
IRA HASKETT	MIXED FOREST	Upland	NLCD	1.41
IRA HASKETT	RESIDENTIAL	Nonhabitat	Holmstead (2001)	2.12
IRA HASKETT	SCRUB-SHRUB WETLAND	Riparian	Holmstead (2001)	9.45
IRA HASKETT	SHRUB SAVANNA	Upland	Holmstead (2001)	73.61
IRA HASKETT	SHRUBLAND	Upland	Holmstead (2001)	47.58
IRA HASKETT	SHRUBLAND	Upland	NLCD	21.59
JACK CORNING	AGRICULTURE (CULTIVATED)	Upland	Holmstead (2001)	0.88
JACK CORNING	BARE ROCK/SAND/CLAY	Nonhabitat	NLCD	0.22
JACK CORNING	DECIDUOUS FOREST	Riparian	NLCD	0.67
JACK CORNING	EMERGENT HERBACEOUS WETLAND	Riparian	Holmstead (2001)	1.95
JACK CORNING	EVERGREEN FOREST	Upland	NLCD	146.60
JACK CORNING	FORESTED WETLAND	Riparian	Holmstead (2001)	0.41
JACK CORNING	GRASSLAND	Upland	Holmstead (2001)	0.65
JACK CORNING	GRASSLANDS/HERBACEOUS	Upland	NLCD	617.08
JACK CORNING	GRAZING LAND/PASTURE	Upland	Holmstead (2001)	62.85
JACK CORNING	GRAZING LAND/PASTURE	Upland	Holmstead (2001)	2.07
JACK CORNING	INDUSTRIAL	Nonhabitat	Holmstead (2001)	6.11
JACK CORNING	LOTIC	Nonhabitat	Holmstead (2001)	0.00
JACK CORNING	LOTIC	Nonhabitat	Holmstead (2001)	0.01
JACK CORNING	MIXED FOREST	Upland	NLCD	0.89
JACK CORNING	OPEN WATER	Nonhabitat	NLCD	0.87
JACK CORNING	PASTURE/HAY	Upland	NLCD	17.21
JACK CORNING	SCRUB-SHRUB WETLAND	Riparian	Holmstead (2001)	0.48
JACK CORNING	SCRUB-SHRUB WETLAND	Riparian	Holmstead (2001)	0.33
JACK CORNING	SHRUB SAVANNA	Upland	Holmstead (2001)	30.19
JACK CORNING	SHRUB SAVANNA	Upland	Holmstead (2001)	2.51
JACK CORNING	SHRUBLAND	Upland	Holmstead (2001)	0.34
JACK CORNING	SHRUBLAND	Upland	NLCD	3712.34
JACK CORNING	SMALL GRAINS	Upland	NLCD	0.25
JACK CORNING	TRANSITIONAL	Nonhabitat	NLCD	0.23
JACK CORNING	WOODY WETLANDS		NLCD	0.67
JANICE MILLS	EVERGREEN FOREST	Riparian	NLCD	50.32
JANICE MILLS	GRASSLANDS/HERBACEOUS	Upland	NLCD	55.01
		Upland		
JANICE MILLS		Upland	NLCD	3.31
JANICE MILLS		Upland	NLCD	49.35
JAYO, STEVEN		Riparian	NLCD	145.66
JAYO, STEVEN	DECIDUOUS FOREST	Riparian	NLCD	0.44
JAYO, STEVEN	EMERGENT HERBACEOUS WETLANDS	Riparian	NLCD	0.33
JAYO, STEVEN		Upland	NLCD	443.78
JAYO, STEVEN	EVERGREEN FOREST	Upland	NLCD	18.62

Private Property Owner	Cover Type	Wildlife Habitat	Data Source	Acres
JAYO, STEVEN	FALLOW	Nonhabitat	NLCD	9.27
JAYO, STEVEN	GRASSLANDS/HERBACEOUS	Upland	NLCD	2230.97
JAYO, STEVEN	GRASSLANDS/HERBACEOUS	Upland	NLCD	19.59
JAYO, STEVEN	OPEN WATER	Nonhabitat	NLCD	23.01
JAYO, STEVEN	PASTURE/HAY	Upland	NLCD	88.07
JAYO, STEVEN	SHRUBLAND	Upland	NLCD	1437.41
JAYO, STEVEN	SHRUBLAND	Upland	NLCD	38.07
JAYO, STEVEN	WOODY WETLANDS	Riparian	NLCD	0.44
JEANNE WALLACE	BARE ROCK/SAND/CLAY	Nonhabitat	NLCD	2.71
JEANNE WALLACE	BARE ROCK/SAND/CLAY	Nonhabitat	NLCD	1.78
JEANNE WALLACE	GRASSLANDS/HERBACEOUS	Upland	NLCD	28.19
JEANNE WALLACE	GRASSLANDS/HERBACEOUS	Upland	NLCD	103.19
JEANNE WALLACE	MIXED FOREST	Upland	NLCD	0.44
JEANNE WALLACE	SHRUBLAND	Upland	NLCD	293.61
JEANNE WALLACE	SHRUBLAND	Upland	NLCD	700.59
JEANNE WALLACE (Off site)	GRASSLANDS/HERBACEOUS	Upland	NLCD	10.59
JEANNE WALLACE (Off site)	SHRUBLAND	Upland	NLCD	149.95
JOHN BINFORD	CLIFF/TALUS SLOPE	Nonhabitat	Holmstead (2001)	33.55
JOHN BINFORD	EVERGREEN FOREST	Upland	NLCD	10.51
JOHN BINFORD	FORBLAND	Upland	Holmstead (2001)	0.26
JOHN BINFORD	FORESTED WETLAND	Riparian	Holmstead (2001)	8.20
JOHN BINFORD	GRASSLAND	Upland	Holmstead (2001)	70.10
JOHN BINFORD	GRASSLANDS/HERBACEOUS	Upland	NLCD	41.57
JOHN BINFORD	LOTIC	Nonhabitat	Holmstead (2001)	0.29
JOHN BINFORD	MIXED FOREST	Upland	NLCD	0.22
JOHN BINFORD	RESIDENTIAL	Nonhabitat	Holmstead (2001)	1.42
JOHN BINFORD	SCRUB-SHRUB WETLAND	Riparian	Holmstead (2001)	5.60
JOHN BINFORD	SHRUB SAVANNA	Upland	Holmstead (2001)	58.51
JOHN BINFORD	SHRUBLAND	Upland	Holmstead (2001)	38.55
JOHN BINFORD	SHRUBLAND	Upland	NLCD	75.46
JOHN CARROLL	DECIDUOUS FOREST	Riparian	NLCD	0.23
JOHN CARROLL	EVERGREEN FOREST	Upland	NLCD	24.17
JOHN CARROLL	GRASSLANDS/HERBACEOUS	Upland	NLCD	71.75
JOHN CARROLL	SHRUBLAND	Upland	NLCD	33.64
JOHNSON, KARL	DECIDUOUS FOREST	Riparian	NLCD	0.36
JOHNSON, KARL	EMERGENT HERBACEOUS WETLANDS	Riparian	NLCD	0.20
JOHNSON, KARL	EVERGREEN FOREST	Upland	NLCD	15.31
JOHNSON, KARL	GRASSLANDS/HERBACEOUS	Upland	NLCD	1.51
JOHNSON, KARL	SHRUBLAND	Upland	NLCD	9.03
JOHNSON, KARL	DECIDUOUS FOREST	Riparian	NLCD	45.90
JOHNSON, KARL	EMERGENT HERBACEOUS WETLANDS	Riparian	NLCD	0.53
JOHNSON, KARL	EVERGREEN FOREST	Upland	NLCD	889.47
JOHNSON, KARL	FALLOW	Nonhabitat	NLCD	31.38
JOHNSON, KARL	GRASSLANDS/HERBACEOUS	Upland	NLCD	440.99
JOHNSON, KARL	GRASSLANDS/HERBACEOUS GRASSLANDS/HERBACEOUS	•	NLCD	440.99 0.88
		Upland		
JOHNSON, KARL	SHRUBLAND	Upland	NLCD	1001.38
JOHNSON, KARL	SHRUBLAND	Upland	NLCD	2.27
JOHNSON, KARL		Upland	NLCD	99.26
JOHNSON, KARL	WOODY WETLANDS	Riparian	NLCD	0.91
JOSEPH BERLAND	BARE ROCK/SAND/CLAY	Nonhabitat	NLCD	0.44

Private Property Owner	Cover Type	Wildlife Habitat	Data Source	Acres
JOSEPH BERLAND	DECIDUOUS FOREST	Riparian	NLCD	7.91
JOSEPH BERLAND	EVERGREEN FOREST	Upland	NLCD	97.53
JOSEPH BERLAND	GRASSLANDS/HERBACEOUS	Upland	NLCD	200.81
JOSEPH BERLAND	MIXED FOREST	Upland	NLCD	1.33
JOSEPH BERLAND	SHRUBLAND	Upland	NLCD	1242.53
JOY TRUST	DECIDUOUS FOREST	Riparian	NLCD	0.86
JOY TRUST	EVERGREEN FOREST	Upland	NLCD	0.64
JOY TRUST	GRASSLANDS/HERBACEOUS	Upland	NLCD	58.88
JOY TRUST	SHRUBLAND	Upland	NLCD	135.99
KENNETH SHADE	DECIDUOUS FOREST	Riparian	NLCD	4.23
KENNETH SHADE	EVERGREEN FOREST	Upland	NLCD	82.93
KENNETH SHADE	GRASSLANDS/HERBACEOUS	Upland	NLCD	6.56
KENNETH SHADE	SHRUBLAND	Upland	NLCD	30.05
KILLAM PROPERTIES	BARE ROCK/SAND/CLAY	Nonhabitat	NLCD	4.23
KILLAM PROPERTIES	DECIDUOUS FOREST	Riparian	NLCD	1.78
KILLAM PROPERTIES	EVERGREEN FOREST	Upland	NLCD	20.79
KILLAM PROPERTIES	GRASSLANDS/HERBACEOUS	Upland	NLCD	45.82
KILLAM PROPERTIES	OPEN WATER	Nonhabitat	NLCD	21.61
KILLAM PROPERTIES	SHRUBLAND	Upland	NLCD	409.32
KOVACH, JOHN REV LIV TRUST	DECIDUOUS FOREST	Riparian	NLCD	0.81
KOVACH, JOHN REV LIV TRUST	EVERGREEN FOREST	Upland	NLCD	35.67
KOVACH, JOHN REV LIV TRUST	GRASSLANDS/HERBACEOUS	Upland	NLCD	25.08
KOVACH, JOHN REV LIV TRUST	SHRUBLAND	Upland	NLCD	60.97
LILLIE ROBINSON	DECIDUOUS FOREST	Riparian	NLCD	4.89
LILLIE ROBINSON	EVERGREEN FOREST	Upland	NLCD	122.93
LILLIE ROBINSON	GRASSLANDS/HERBACEOUS	Upland	NLCD	244.45
LILLIE ROBINSON	MIXED FOREST	Upland	NLCD	26.90
LILLIE ROBINSON	SHRUBLAND	Upland	NLCD	1107.73
LORILYN QUILLIAM	DECIDUOUS FOREST	Riparian	NLCD	1.56
LORILYN QUILLIAM	EMERGENT HERBACEOUS WETLANDS	Riparian	NLCD	44.04
LORILYN QUILLIAM	EVERGREEN FOREST	Upland	NLCD	151.95
LORILYN QUILLIAM	GRASSLANDS/HERBACEOUS	Upland	NLCD	111.21
LORILYN QUILLIAM	MIXED FOREST	Upland	NLCD	1.33
LORILYN QUILLIAM	SHRUBLAND	Upland	NLCD	234.90
LORILYN QUILLIAM	WOODY WETLANDS	Riparian	NLCD	0.22
LOWN-DUCKETT HOLDINGS	DECIDUOUS FOREST	Riparian	NLCD	3.78
LOWN-DUCKETT HOLDINGS	EVERGREEN FOREST	Upland	NLCD	6.58
LOWN-DUCKETT HOLDINGS	GRASSLANDS/HERBACEOUS	Upland	NLCD	105.12
LOWN-DUCKETT HOLDINGS	MIXED FOREST	Upland	NLCD	0.06
LOWN-DUCKETT HOLDINGS	OPEN WATER	Nonhabitat	NLCD	2.79
OWN-DUCKETT HOLDINGS	SHRUBLAND	Upland	NLCD	111.07
MAC MILLAN, DONALD S JR ETUX	EVERGREEN FOREST	Upland	NLCD	0.67
MAC MILLAN, DONALD S JR ETUX	EVERGREEN FOREST	Upland	NLCD	0.69
MAC MILLAN, DONALD S JR ETUX	GRASSLANDS/HERBACEOUS	Upland	NLCD	37.39

Private Property Owner	Cover Type	Wildlife Habitat	Data Source	Acres
MAC MILLAN, DONALD S JR ETUX	GRASSLANDS/HERBACEOUS	Upland	NLCD	54.79
MAC MILLAN, DONALD S JR ETUX	SHRUBLAND	Upland	NLCD	22.21
MALHEUR MINNING CORP	AGRICULTURE (CULTIVATED)	Upland	Holmstead (2001)	8.76
MALHEUR MINNING CORP	FORBLAND	Upland	Holmstead (2001)	18.26
MALHEUR MINNING CORP	FORESTED/ORCHARD	Upland	Holmstead (2001)	1.56
MALHEUR MINNING CORP	GRASSLAND	Upland	Holmstead (2001)	102.98
MALHEUR MINNING CORP	GRASSLANDS/HERBACEOUS	Upland	NLCD	10.57
MALHEUR MINNING CORP	GRAZING LAND/PASTURE	Upland	Holmstead (2001)	2.95
MALHEUR MINNING CORP	RESIDENTIAL	Nonhabitat	Holmstead (2001)	1.93
MALHEUR MINNING CORP	SCRUB-SHRUB WETLAND	Riparian	Holmstead (2001)	0.39
MALHEUR MINNING CORP	SHRUB SAVANNA	•	· · · ·	55.30
	SHRUBLAND	Upland	Holmstead (2001)	
MALHEUR MINNING CORP		Upland	Holmstead (2001)	39.48
MALHEUR MINNING CORP	SHRUBLAND	Upland	NLCD	1.78
MARJORIE MOYLE	BARE ROCK/SAND/CLAY	Nonhabitat	NLCD	5.92
MARJORIE MOYLE	DECIDUOUS FOREST	Riparian	NLCD	1.33
MARJORIE MOYLE	DECIDUOUS FOREST	Riparian	NLCD	0.22
MARJORIE MOYLE	EVERGREEN FOREST	Upland	NLCD	1.61
MARJORIE MOYLE	EVERGREEN FOREST	Upland	NLCD	10.19
MARJORIE MOYLE	GRASSLANDS/HERBACEOUS	Upland	NLCD	1021.61
MARJORIE MOYLE	GRASSLANDS/HERBACEOUS	Upland	NLCD	145.49
MARJORIE MOYLE	MIXED FOREST	Upland	NLCD	2.22
MARJORIE MOYLE	SHRUBLAND	Upland	NLCD	3151.82
MARJORIE MOYLE	SHRUBLAND	Upland	NLCD	473.11
MARJORIE MOYLE	SMALL GRAINS	Upland	NLCD	0.44
MARJORIE MOYLE	TRANSITIONAL	Nonhabitat	NLCD	0.89
MARJORIE MOYLE (Off site)	COMMERCIAL/INDUSTRIAL	Nonhabitat	NLCD	0.16
MARJORIE MOYLE (Off site)	SHRUBLAND	Upland	NLCD	564.15
MARJORIE MOYLE (Off site)	GRASSLANDS/HERBACEOUS	Upland	NLCD	59.1
MARJORIE MOYLE (Off site)	PASTURE/HAY	Upland	NLCD	5.04
MARJORIE MOYLE (Off site)	SMALL GRAINS	Upland	NLCD	1.11
MARK THORN	DECIDUOUS FOREST	Riparian	NLCD	0.67
MARK THORN	EVERGREEN FOREST	Upland	NLCD	129.27
MARK THORN	GRASSLANDS/HERBACEOUS	Upland	NLCD	76.38
MARK THORN	MIXED FOREST	Upland	NLCD	2.03
MARK THORN	PASTURE/HAY	Upland	NLCD	10.23
MARK THORN	ROW CROPS	Upland	NLCD	0.22
MARK THORN	SHRUBLAND	Upland	NLCD	43.60
MARK THORN	TRANSITIONAL	Nonhabitat	NLCD	217.43
MAURICE SYME	GRASSLANDS/HERBACEOUS	Upland	NLCD	8.78
MAURICE SYME	SHRUBLAND	Upland	NLCD	151.11
MARVIN BRASHLER	BARE ROCK/SAND/CLAY	Nonhabitat	NLCD	0.89
MARVIN BRASHLER	COMMERCIAL/INDUSTRIAL	Nonhabitat	NLCD	4.00
MARVIN BRASHLER	EVERGREEN FOREST	Upland	NLCD	1.78
MARVIN BRASHLER	GRASSLAND	Upland	Holmstead (2001)	6.85
MARVIN BRASHLER	GRASSLANDS/HERBACEOUS	Upland	NLCD	42.04
MARVIN BRASHLER	GRASSLANDS/HERBACEOUS	Upland	NLCD	42.04 21.89
MARVIN BRASHLER	LOW INTENSITY RESIDENTIAL	Nonhabitat	NLCD	0.22
MARVIN BRASHLER	MIXED FOREST	Upland	NLCD	0.22
MARVIN BRASHLER	PASTURE/HAY	Upland	NLCD	221.30

Private Property Owner	Cover Type	Wildlife Habitat	Data Source	Acres
MARVIN BRASHLER	PASTURE/HAY	Upland	NLCD	10.49
MARVIN BRASHLER	SHRUB SAVANNA	Upland	Holmstead (2001)	19.71
MARVIN BRASHLER	SHRUBLAND	Upland	Holmstead (2001)	18.11
MARVIN BRASHLER	SHRUBLAND	Upland	NLCD	200.23
MARVIN BRASHLER	SHRUBLAND	Upland	NLCD	285.44
MCCLARAN RANCH	BARE ROCK/SAND/CLAY	Nonhabitat	NLCD	9.99
MCCLARAN RANCH	BARE ROCK/SAND/CLAY	Nonhabitat	NLCD	0.22
MCCLARAN RANCH	DECIDUOUS FOREST	Riparian	NLCD	78.25
MCCLARAN RANCH	DECIDUOUS FOREST	Riparian	NLCD	0.14
MCCLARAN RANCH	EVERGREEN FOREST	Upland	NLCD	156.85
MCCLARAN RANCH	EVERGREEN FOREST	Upland	NLCD	1.20
MCCLARAN RANCH	GRASSLANDS/HERBACEOUS	Upland	NLCD	481.83
MCCLARAN RANCH	GRASSLANDS/HERBACEOUS	Upland	NLCD	87.31
MCCLARAN RANCH	LOW INTENSITY RESIDENTIAL	Nonhabitat	NLCD	1.27
MCCLARAN RANCH	MIXED FOREST	Upland	NLCD	6.03
MCCLARAN RANCH	OPEN WATER	Nonhabitat	NLCD	14.17
MCCLARAN RANCH	OPEN WATER	Nonhabitat	NLCD	0.44
MCCLARAN RANCH	SHRUBLAND	Upland	NLCD	2785.70
MCCLARAN RANCH	SHRUBLAND	Upland	NLCD	34.01
MCRAE ISLAND	EMERGENT HERBACEOUS WETLAND	Riparian	Holmstead (2001)	0.89
MCRAE ISLAND	FORSTED WETLAND	Riparian	Holmstead (2001)	4.44
MCRAE ISLAND	GRASSLAND	Upland	Holmstead (2001)	29.80
MCRAE ISLAND	SCRUB-SHRUB WETLAND	Riparian	Holmstead (2001)	4.88
MCRAE ISLAND	SHORE & BOTTOMLANDS WETLAND	Nonhabitat	Holmstead (2001)	1.00
MICHAEL SMITH	BARE ROCK/SAND/CLAY	Nonhabitat	NLCD	1.20
MICHAEL SMITH	DECIDUOUS FOREST	Riparian	NLCD	39.79
MICHAEL SMITH	EVERGREEN FOREST	Upland	NLCD	27.83
MICHAEL SMITH	GRASSLANDS/HERBACEOUS	Upland	NLCD	50.71
MICHAEL SMITH	MIXED FOREST	Upland	NLCD	4.89
MICHAEL SMITH	SHRUBLAND	Upland	NLCD	4.08
MILLS, DANIEL R	DECIDUOUS FOREST	·	NLCD	472.90
MILLS, DANIEL R MILLS, DANIEL R	DECIDUOUS FOREST	Riparian	NLCD	0.03
		Riparian		
MILLS, DANIEL R	EMERGENT HERBACEOUS WETLANDS	Riparian	NLCD	0.22
MILLS, DANIEL R		Upland	NLCD	0.20
MILLS, DANIEL R		Upland	NLCD	56.55
MILLS, DANIEL R	GRASSLANDS/HERBACEOUS	Upland	NLCD	4.95
MILLS, DANIEL R	GRASSLANDS/HERBACEOUS	Upland	NLCD	13.94
MILLS, DANIEL R	SHRUBLAND	Upland	NLCD	8.04
MILLS, DANIEL R	SHRUBLAND	Upland	NLCD	41.37
MONTY SIDDOWAY		Riparian	NLCD	24.40
MONTY SIDDOWAY	EVERGREEN FOREST	Upland	NLCD	120.72
MONTY SIDDOWAY	GRASSLANDS/HERBACEOUS	Upland	NLCD	204.85
MONTY SIDDOWAY	MIXED FOREST	Upland	NLCD	1.80
MONTY SIDDOWAY	PASTURE/HAY	Upland	NLCD	3.74
MONTY SIDDOWAY	SHRUBLAND	Upland	NLCD	1223.08
MONTY SIDDOWAY	TRANSITIONAL	Nonhabitat	NLCD	0.36
MOORES BROTHERS RANC	H DECIDUOUS FOREST	Riparian	NLCD	0.67
MOORES BROTHERS RANC	H EVERGREEN FOREST	Upland	NLCD	24.67
MOORES BROTHERS RANC	H GRASSLANDS/HERBACEOUS	Upland	NLCD	263.22
MOORES BROTHERS RANC	H MIXED FOREST	Upland	NLCD	7.30

Private Property Owner	Cover Type	Wildlife Habitat	Data Source	Acres
MOORES BROTHERS RANCH	SHRUBLAND	Upland	NLCD	260.25
NEZ PERCE TRIBE	DECIDUOUS FOREST	Riparian	NLCD	50.83
NEZ PERCE TRIBE	EVERGREEN FOREST	Upland	NLCD	213.89
NEZ PERCE TRIBE	MIXED FOREST	Upland	NLCD	0.22
NEZ PERCE TRIBE	SHRUBLAND	Upland	NLCD	1589.39
NEZ PERCE TRIBE	GRASSLANDS/HERBACEOUS	Upland	NLCD	410.36
NICHOLAS BOKIDES	DECIDUOUS FOREST	Riparian	NLCD	0.22
NICHOLAS BOKIDES	EVERGREEN FOREST	Upland	NLCD	691.70
NICHOLAS BOKIDES	GRASSLANDS/HERBACEOUS	Upland	NLCD	82.59
NICHOLAS BOKIDES	MIXED FOREST	Upland	NLCD	7.19
NICHOLAS BOKIDES	SHRUBLAND	Upland	NLCD	122.84
NICHOLAS BOKIDES	TRANSITIONAL	Nonhabitat	NLCD	0.89
NORMAN FITZSIMMONS	DECIDUOUS FOREST	Riparian	NLCD	13.74
NORMAN FITZSIMMONS	DECIDUOUS FOREST	Riparian	NLCD	9.97
NORMAN FITZSIMMONS	EVERGREEN FOREST	Upland	NLCD	204.14
NORMAN FITZSIMMONS	EVERGREEN FOREST	Upland	NLCD	33.74
NORMAN FITZSIMMONS	GRASSLANDS/HERBACEOUS	Upland	NLCD	239.69
NORMAN FITZSIMMONS	GRASSLANDS/HERBACEOUS	Upland	NLCD	19.07
NORMAN FITZSIMMONS	SHRUBLAND	Upland	NLCD	572.96
NORMAN FITZSIMMONS	SHRUBLAND	Upland	NLCD	134.48
NORMAN FITZSIMMONS	SMALL GRAINS	Upland	NLCD	0.44
NORMAN FITZSIMMONS	WOODY WETLANDS	Riparian	NLCD	0.46
NORMAN LOVELL	BARE ROCK/SAND/CLAY	Nonhabitat	NLCD	3.86
NORMAN LOVELL	DECIDUOUS FOREST	Riparian	NLCD	5.22
NORMAN LOVELL	EVERGREEN FOREST	Upland	NLCD	27.18
NORMAN LOVELL	GRASSLANDS/HERBACEOUS	Upland	NLCD	381.09
NORMAN LOVELL	OPEN WATER	Nonhabitat	NLCD	22.97
NORMAN LOVELL	SHRUBLAND	Upland	NLCD	417.88
OX RANCH	BARE ROCK/SAND/CLAY	Nonhabitat	NLCD	4.00
OX RANCH	BARE ROCK/SAND/CLAY	Nonhabitat	NLCD	1.54
OX RANCH	CLIFF/TALUS SLOPE	Nonhabitat	Holmstead (2001)	66.02
OX RANCH	COMMERCIAL/INDUSTRIAL	Nonhabitat	NLCD	0.44
OX RANCH	DECIDUOUS FOREST	Riparian	NLCD	12.45
OX RANCH	DECIDUOUS FOREST	Riparian	NLCD	4.66
OX RANCH	EMERGENT HERBACEOUS WETLANDS	Riparian	NLCD	203.47
OX RANCH	EMERGENT HERBACEOUS WETLANDS	Riparian	NLCD	14.85
OX RANCH	EVERGREEN FOREST	Upland	NLCD	1875.25
OX RANCH	EVERGREEN FOREST	Upland	NLCD	829.38
OX RANCH	FORESTED WETLAND	Riparian	Holmstead (2001)	22.84
OX RANCH	GRASSLAND	Upland	Holmstead (2001)	783.06
OX RANCH	GRASSLANDS/HERBACEOUS	Upland	NLCD	572.41
OX RANCH	GRASSLANDS/HERBACEOUS	Upland	NLCD	1401.27
OX RANCH	GRAZING LAND/PASTURE	Upland	Holmstead (2001)	5.28
OX RANCH	LOTIC	Nonhabitat	Holmstead (2001)	0.00
OX RANCH	MIXED FOREST	Upland	NLCD	63.13
OX RANCH	MIXED FOREST	Upland	NLCD	12.80
OX RANCH	PARKS/RECREATION	Nonhabitat	Holmstead (2001)	2.43
OX RANCH	PASTURE/HAY	Upland	NLCD	211.13
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OX RANCH	PASTURE/HAY	Upland	NLCD	143.31

Private Property Owner	Cover Type	Wildlife Habitat	Data Source	Acres
OX RANCH	ROW CROPS	Upland	NLCD	0.67
OX RANCH	SCRUB-SHRUB WETLAND	Riparian	Holmstead (2001)	41.13
OX RANCH	SHORE & BOTTOMLAND WETLAND	Nonhabitat	Holmstead (2001)	0.44
OX RANCH	SHRUB SAVANNA	Upland	Holmstead (2001)	240.69
OX RANCH	SHRUBLAND	Upland	Holmstead (2001)	93.60
OX RANCH	SHRUBLAND	Upland	NLCD	4523.08
OX RANCH	SHRUBLAND	Upland	NLCD	4420.63
OX RANCH	SMALL GRAINS	Upland	NLCD	0.89
OX RANCH	TRANSITIONAL	Nonhabitat	NLCD	0.89
OX RANCH	TRANSITIONAL	Nonhabitat	NLCD	0.46
OX RANCH	TREE SAVANNA	Upland	Holmstead (2001)	1.17
OX RANCH	WOODY WETLANDS	Riparian	NLCD	0.67
OX RANCH	WOODY WETLANDS	Riparian	NLCD	1.11
PARADISE FLATS TRUST	EVERGREEN FOREST	Upland	NLCD	88.01
PARADISE FLATS TRUST	GRASSLANDS/HERBACEOUS	Upland	NLCD	7.47
PARADISE FLATS TRUST	SHRUBLAND	Upland	NLCD	148.10
PAT PALMER	BARE ROCK/SAND/CLAY	Nonhabitat	NLCD	0.44
PAT PALMER	BARE ROCK/SAND/CLAY	Nonhabitat	NLCD	0.44
PAT PALMER	DECIDUOUS FOREST	Riparian	NLCD	3.80
PAT PALMER	EMERGENT HERBACEOUS WETLANDS	Riparian	NLCD	1.11
PAT PALMER	EVERGREEN FOREST	Upland	NLCD	0.44
PAT PALMER	EVERGREEN FOREST	Upland	NLCD	41.49
PAT PALMER	GRASSLANDS/HERBACEOUS	Upland	NLCD	551.56
PAT PALMER	GRASSLANDS/HERBACEOUS	Upland	NLCD	657.48
PAT PALMER	MIXED FOREST	Upland	NLCD	2.45
PAT PALMER	SHRUBLAND	Upland	NLCD	1329.05
PAT PALMER	SHRUBLAND	Upland	NLCD	2452.63
PAT PALMER	SMALL GRAINS	Upland	NLCD	1.71
PAT PALMER	TRANSITIONAL	Nonhabitat	NLCD	0.89
PAT PALMER (Off site)	BARE ROCK/SAND/CLAY	Nonhabitat	NLCD	0.44
PAT PALMER (Off site)	EVERGREEN FOREST	Upland	NLCD	0.44
PAT PALMER (Off site)	SHRUBLAND	Upland	NLCD	480.13
PAT PALMER (Off site)	GRASSLANDS/HERBACEOUS	Upland	NLCD	79.81
PAT PALMER (Off site)	EMERGENT HERBACEOUS WETLANDS	Riparian	NLCD	0.88
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PHILLIP KETSCHER PHILLIP KETSCHER	BARE ROCK/SAND/CLAY	Nonhabitat	NLCD	0.22
		Riparian	NLCD	3.02
PHILLIP KETSCHER		Upland	NLCD	9.81
PHILLIP KETSCHER	GRASSLANDS/HERBACEOUS	Upland	NLCD	37.69
PHILLIP KETSCHER	SHRUBLAND	Upland	NLCD	381.09
RAHN HOSTETTER	EVERGREEN FOREST	Upland	NLCD	76.28
RAHN HOSTETTER	GRASSLANDS/HERBACEOUS	Upland	NLCD	0.07
RAHN HOSTETTER	MIXED FOREST	Upland	NLCD	0.22
RAHN HOSTETTER	SHRUBLAND	Upland	NLCD	28.20
RAHN HOSTETTER	TRANSITIONAL	Nonhabitat	NLCD	54.38
RENEE SWEET	EMERGENT HERBACEOUS WETLAND	Riparian	Holmstead (2001)	0.16
RENEE SWEET	EVERGREEN FOREST	Upland	NLCD	1.38
RENEE SWEET	GRASSLAND	Upland	Holmstead (2001)	14.06
RENEE SWEET	GRASSLANDS/HERBACEOUS	Upland	NLCD	25.53
RENEE SWEET	SCRUB-SHRUB WETLAND	Riparian	Holmstead (2001)	1.95
RENEE SWEET	SHRUB SAVANNA	Upland	Holmstead (2001)	25.84

Private Property Owner	Cover Type	Wildlife Habitat	Data Source	Acres
RENEE SWEET	SHRUBLAND	Upland	Holmstead (2001)	3.74
RENEE SWEET	SHRUBLAND	Upland	NLCD	49.91
REX WINEGAR	BARE ROCK/SAND/CLAY	Non-Nonhabitat	NLCD	0.44
REX WINEGAR	DECIDUOUS FOREST	Riparian	NLCD	0.44
REX WINEGAR	EVERGREEN FOREST	Upland	NLCD	14.46
REX WINEGAR	GRASSLANDS/HERBACEOUS	Upland	NLCD	50.08
REX WINEGAR	SHRUBLAND	Upland	NLCD	576.58
REX WINEGAR (Off site)	GRASSLANDS/HERBACEOUS	Upland	NLCD	34.31
REX WINEGAR (Off site)	SHRUBLAND	Upland	NLCD	245.55
RICHARD A MURRAY	AGRICULTURE (CULTIVATED)	Upland	Holmstead (2001)	42.27
RICHARD A MURRAY	DISTURBED	Nonhabitat	Holmstead (2001)	2.42
RICHARD A MURRAY	EMERGENT HERBACEOUS WETLAND	Riparian	Holmstead (2001)	2.42
RICHARD A MURRAY	EMERGENT HERBACEOUS WETLAND	Riparian	Holmstead (2001)	32.04
RICHARD A MURRAY	FORESTED WETLAND	Riparian	Holmstead (2001)	1.48
RICHARD A MURRAY	FORESTED WETLAND	Riparian	Holmstead (2001)	37.55
RICHARD A MURRAY	GRAZING LAND/PASTURE	Upland	Holmstead (2001)	11.90
RICHARD A MURRAY	GRAZING LAND/PASTURE	Upland	Holmstead (2001)	34.94
RICHARD A MURRAY	INDUSTRIAL	Nonhabitat	Holmstead (2001)	0.21
RICHARD A MURRAY	INDUSTRIAL	Nonhabitat	Holmstead (2001)	1.02
RICHARD A MURRAY	LENTIC	Nonhabitat	Holmstead (2001)	0.26
RICHARD A MURRAY	LOTIC	Nonhabitat	Holmstead (2001)	0.32
RICHARD A MURRAY	SCRUB-SHRUB WETLAND	Riparian	Holmstead (2001)	9.87
RICHARD A MURRAY	SHORE & BOTTOMLAND WETLAND	Nonhabitat	Holmstead (2001)	1.79
ROBERT THOMAS	CLIFF/TALUS SLOPE	Nonhabitat	Holmstead (2001)	2.14
ROBERT THOMAS	EVERGREEN FOREST	Upland	NLCD	78.54
ROBERT THOMAS	EVERGREEN FOREST	Upland	NLCD	2.63
ROBERT THOMAS	GRASSLAND	Upland	Holmstead (2001)	42.83
ROBERT THOMAS	GRASSLANDS/HERBACEOUS	Upland	NLCD	72.47
ROBERT THOMAS	GRASSLANDS/HERBACEOUS	Upland	NLCD	110.86
ROBERT THOMAS	MIXED FOREST	Upland	NLCD	3.80
ROBERT THOMAS	SCRUB-SHRUB WETLAND	Riparian	Holmstead (2001)	0.70
ROBERT THOMAS	SHRUB SAVANNA	Upland	Holmstead (2001)	14.88
ROBERT THOMAS	SHRUBLAND	Upland	Holmstead (2001)	0.87
ROBERT THOMAS	SHRUBLAND	Upland	NLCD	667.30
ROBERT THOMAS	SHRUBLAND	Upland	NLCD	103.27
ROCKING M CATTLE CO	BARE ROCK/SAND/CLAY	Nonhabitat	NLCD	12.56
ROCKING M CATTLE CO	DECIDUOUS FOREST	Riparian	NLCD	15.33
ROCKING M CATTLE CO	EMERGENT HERBACEOUS WETLANDS	Riparian	NLCD	2.00
ROCKING M CATTLE CO	EVERGREEN FOREST	Upland	NLCD	1959.75
ROCKING M CATTLE CO	GRASSLANDS/HERBACEOUS	Upland	NLCD	3629.88
ROCKING M CATTLE CO	MIXED FOREST	Upland	NLCD	16.05
ROCKING M CATTLE CO	OPEN WATER	Nonhabitat	NLCD	21.34
ROCKING M CATTLE CO	SHRUBLAND	Upland	NLCD	13,075.76
ROCKING M CATTLE CO	TRANSITIONAL	Nonhabitat	NLCD	0.22
ROCKING M CATTLE CO	WOODY WETLANDS	Riparian	NLCD	3.34
ROCKING M CATTLE CO (Proposed Acquisition Portion)	BARE ROCK/SAND/CLAY	Nonhabitat	NLCD	9.27
ROCKING M CATTLE CO (Proposed Acquisition Portion)	DECIDUOUS FOREST	Riparian	NLCD	5.67
ROCKING M CATTLE CO (Proposed Acquisition Portion)	EMERGENT HERBACEOUS WETLANDS	Riparian	NLCD	1.11

Private Property Owner	Cover Type	Wildlife Habitat	Data Source	Acres
ROCKING M CATTLE CO (Proposed Acquisition Portion)	EVERGREEN FOREST	Upland	NLCD	216.53
ROCKING M CATTLE CO (Proposed Acquisition Portion)	GRASSLANDS/HERBACEOUS	Upland	NLCD	613.95
ROCKING M CATTLE CO (Proposed Acquisition Portion)	MIXED FOREST	Upland	NLCD	2.00
ROCKING M CATTLE CO (Proposed Acquisition Portion)	OPEN WATER	Nonhabitat	NLCD	15.19
ROCKING M CATTLE CO (Proposed Acquisition Portion)	SHRUBLAND	Upland	NLCD	2038.76
ROGER GULICK	GRASSLANDS/HERBACEOUS	Upland	NLCD	22.29
ROGER GULICK	GRASSLANDS/HERBACEOUS	Upland	NLCD	2.49
ROGER GULICK	SHRUBLAND	Upland	NLCD	612.59
ROGER GULICK	SHRUBLAND	Upland	NLCD	122.59
RONALD LAWRENCE	BARE ROCK/SAND/CLAY	Nonhabitat	NLCD	1.56
RONALD LAWRENCE	DECIDUOUS FOREST	Riparian	NLCD	1.80
RONALD LAWRENCE	EVERGREEN FOREST	Upland	NLCD	130.60
RONALD LAWRENCE	FORBLAND	Upland	Holmstead (2001)	1.13
RONALD LAWRENCE	FORESTED WETLAND	Riparian	Holmstead (2001)	2.36
RONALD LAWRENCE	GRASSLAND	Upland	Holmstead (2001)	42.81
RONALD LAWRENCE	GRASSLANDS/HERBACEOUS	Upland	NLCD	309.30
RONALD LAWRENCE	GRAZING LAND/PASTURE	Upland	Holmstead (2001)	0.14
RONALD LAWRENCE	MIXED FOREST	Upland	NLCD	5.98
RONALD LAWRENCE	PARKS/RECREATION	Nonhabitat	Holmstead (2001)	0.06
RONALD LAWRENCE	RESIDENTIAL	Nonhabitat	Holmstead (2001)	0.03
RONALD LAWRENCE	SCRUB-SHRUB WETLAND	Riparian	Holmstead (2001)	2.78
RONALD LAWRENCE	SHRUB SAVANNA	Upland	Holmstead (2001)	103.28
RONALD LAWRENCE	SHRUBLAND	Upland	Holmstead (2001)	92.57
RONALD LAWRENCE	SHRUBLAND	Upland	NLCD	1275.63
RONALD LAWRENCE	WOODY WETLANDS	Riparian	NLCD	0.67
RONALD MATZ	BARE ROCK/SAND/CLAY	Nonhabitat	NLCD	0.16
RONALD MATZ	EVERGREEN FOREST	Upland	NLCD	9.90
RONALD MATZ	GRASSLAND	Upland	Holmstead (2001)	3.03
RONALD MATZ	GRASSLANDS/HERBACEOUS	Upland	NLCD	54.21
RONALD MATZ	MIXED FOREST	Upland	NLCD	2.89
RONALD MATZ	SHRUB SAVANNA	Upland	Holmstead (2001)	0.03
RONALD MATZ	SHRUBLAND	Upland	NLCD	79.37
ROUTSON RANCH	BARE ROCK/SAND/CLAY	Nonhabitat	NLCD	0.89
ROUTSON RANCH	DECIDUOUS FOREST	Riparian	NLCD	7.60
ROUTSON RANCH	EVERGREEN FOREST	Upland	NLCD	3.09
ROUTSON RANCH	GRASSLANDS/HERBACEOUS	Upland	NLCD	647.54
ROUTSON RANCH	MIXED FOREST	Upland	NLCD	1.78
ROUTSON RANCH	SHRUBLAND	Upland	NLCD	2975.69
ROUTSON RANCH	TRANSITIONAL	Nonhabitat	NLCD	0.89
	DECIDUOUS FOREST		NLCD	
RUSSELL, DAWN E.		Riparian		13.57
RUSSELL, DAWN E.	EVERGREEN FOREST	Upland	NLCD	55.96
RUSSELL, DAWN E.	GRASSLANDS/HERBACEOUS	Upland	NLCD	42.12
RUSSELL, DAWN E.		Upland	NLCD	47.32
SATRAPE, DEAN A		Riparian	NLCD	5.82
SATRAPE, DEAN A		Riparian	NLCD	0.67
SATRAPE, DEAN A	EVERGREEN FOREST	Upland	NLCD	2.98

Private Property Owner	Cover Type	Wildlife Habitat	Data Source	Acres
SATRAPE, DEAN A	EVERGREEN FOREST	Upland	NLCD	0.49
SATRAPE, DEAN A	GRASSLANDS/HERBACEOUS	Upland	NLCD	9.40
SATRAPE, DEAN A	SHRUBLAND	Upland	NLCD	81.04
SATRAPE, DEAN A	SHRUBLAND	Upland	NLCD	10.83
SCHAEFFER TRUST	BARE ROCK/SAND/CLAY	Nonhabitat	NLCD	2.24
SCHAEFFER TRUST	DECIDUOUS FOREST	Riparian	NLCD	9.58
SCHAEFFER TRUST	EVERGREEN FOREST	Upland	NLCD	47.06
SCHAEFFER TRUST	GRASSLANDS/HERBACEOUS	Upland	NLCD	248.72
SCHAEFFER TRUST	MIXED FOREST	Upland	NLCD	1.04
SCHAEFFER TRUST	SHRUBLAND	Upland	NLCD	1479.88
SCHOREDER, NED R	DECIDUOUS FOREST	Riparian	NLCD	4.98
SCHOREDER, NED R	EVERGREEN FOREST	Upland	NLCD	65.45
SCHOREDER, NED R	GRASSLANDS/HERBACEOUS	Upland	NLCD	23.64
SCHOREDER, NED R	SHRUBLAND	Upland	NLCD	110.40
SCHOREDER, NED R	DECIDUOUS FOREST	Riparian	NLCD	5.34
SCHOREDER, NED R	EVERGREEN FOREST	Upland	NLCD	8.84
SCHOREDER, NED R	GRASSLANDS/HERBACEOUS	Upland	NLCD	6.39
SCHOREDER, NED R	SHRUBLAND	Upland	NLCD	114.56
SCHOREDER, NED R	DECIDUOUS FOREST	Riparian	NLCD	64.79
SCHOREDER, NED R	DECIDUOUS FOREST	Riparian	NLCD	13.21
SCHOREDER, NED R	EVERGREEN FOREST	Upland	NLCD	234.66
SCHOREDER, NED R	EVERGREEN FOREST	Upland	NLCD	14.04
SCHOREDER, NED R	GRASSLANDS/HERBACEOUS	Upland	NLCD	45.92
SCHOREDER, NED R	GRASSLANDS/HERBACEOUS	Upland	NLCD	13.21
SCHOREDER, NED R	SHRUBLAND	Upland	NLCD	926.19
SCHOREDER, NED R	SHRUBLAND	Upland	NLCD	141.28
SCHOREDER, NED R	WOODY WETLANDS	Riparian	NLCD	0.44
SNAKE RIVER PROPERTIES	BARE ROCK/SAND/CLAY	Nonhabitat	NLCD	0.45
SNAKE RIVER PROPERTIES	CLIFF/TALUS SLOPE	Nonhabitat	Holmstead (2001)	0.46
SNAKE RIVER PROPERTIES	EVERGREEN FOREST	Upland	NLCD	17.89
SNAKE RIVER PROPERTIES	FORBLAND	Upland	Holmstead (2001)	0.54
SNAKE RIVER PROPERTIES	FORESTED WETLAND	Riparian	Holmstead (2001)	0.66
SNAKE RIVER PROPERTIES	GRASSLAND	Upland	Holmstead (2001)	219.97
SNAKE RIVER PROPERTIES	GRASSLANDS/HERBACEOUS	Upland	NLCD	127.94
SNAKE RIVER PROPERTIES	GRAZING LAND/PASTURE	Upland	Holmstead (2001)	0.93
SNAKE RIVER PROPERTIES	LOTIC	Nonhabitat	Holmstead (2001)	0.20
SNAKE RIVER PROPERTIES	MIXED FOREST	Upland	NLCD	2.45
SNAKE RIVER PROPERTIES	RESIDENTIAL	Nonhabitat	Holmstead (2001)	1.83
SNAKE RIVER PROPERTIES	SCRUB-SHRUB WETLAND	Riparian	Holmstead (2001)	9.45
SNAKE RIVER PROPERTIES	SHORE & BOTTOMLAND WETLAND	Nonhabitat	Holmstead (2001)	1.31
SNAKE RIVER PROPERTIES	SHRUB SAVANNA	Upland	Holmstead (2001)	200.29
SNAKE RIVER PROPERTIES	SHRUBLAND	Upland	Holmstead (2001)	56.60
SNAKE RIVER PROPERTIES	SHRUBLAND	Upland	NLCD	164.21
SNAKE RIVER SHEEP CO %SOULEN	BARE ROCK/SAND/CLAY	Nonhabitat	NLCD	5.78
SNAKE RIVER SHEEP CO %SOULEN	CLIFF/TALUS SLOPE	Nonhabitat	Holmstead (2001)	1.08
SNAKE RIVER SHEEP CO %SOULEN	DECIDUOUS FOREST	Riparian	NLCD	8.64
SNAKE RIVER SHEEP CO %SOULEN	DESERTIC SHRUBLAND	Upland	Holmstead (2001)	1.09

Private Property Owner	Cover Type	Wildlife Habitat	Data Source	Acres
SNAKE RIVER SHEEP CO %SOULEN	EMERGENT HERBACEOUS WETLANDS	Riparian	NLCD	5.97
SNAKE RIVER SHEEP CO %SOULEN	EVERGREEN FOREST	Upland	NLCD	463.94
SNAKE RIVER SHEEP CO %SOULEN	FORESTED WETLAND	Riparian	Holmstead (2001)	3.71
SNAKE RIVER SHEEP CO %SOULEN	GRASSLAND	Upland	Holmstead (2001)	50.25
SNAKE RIVER SHEEP CO %SOULEN	GRASSLANDS/HERBACEOUS	Upland	NLCD	1623.56
SNAKE RIVER SHEEP CO %SOULEN	MIXED FOREST	Upland	NLCD	42.19
SNAKE RIVER SHEEP CO %SOULEN	SCRUB-SHRUB WETLAND	Riparian	Holmstead (2001)	6.01
SNAKE RIVER SHEEP CO %SOULEN	SHRUB SAVANNA	Upland	Holmstead (2001)	94.29
SNAKE RIVER SHEEP CO %SOULEN	SHRUBLAND	Upland	Holmstead (2001)	77.42
SNAKE RIVER SHEEP CO %SOULEN	SHRUBLAND	Upland	NLCD	3936.89
SNAKE RIVER SHEEP CO %SOULEN	WOODY WETLANDS	Riparian	NLCD	4.52
SPENCER RANCH INC	DECIDUOUS FOREST	Riparian	NLCD	15.25
SPENCER RANCH INC	EVERGREEN FOREST	Upland	NLCD	88.23
SPENCER RANCH INC	GRASSLANDS/HERBACEOUS	Upland	NLCD	239.76
SPENCER RANCH INC	MIXED FOREST	Upland	NLCD	1.11
SPENCER RANCH INC	SHRUBLAND	Upland	NLCD	303.51
SPENCER RANCH INC	BARE ROCK/SAND/CLAY	Nonhabitat	NLCD	5.64
SPENCER RANCH INC	CLIFF/TALUS SLOPE	Nonhabitat	Holmstead (2001)	18.98
SPENCER RANCH INC	DECIDUOUS FOREST	Riparian	NLCD	23.71
SPENCER RANCH INC	DECIDUOUS FOREST	Riparian	NLCD	279.17
SPENCER RANCH INC	DESERTIC HERBLAND	Upland	Holmstead (2001)	0.03
SPENCER RANCH INC	EMERGENT HERBACEOUS WETLANDS	Riparian	NLCD	0.22
SPENCER RANCH INC	EVERGREEN FOREST	Upland	NLCD	250.83
SPENCER RANCH INC	EVERGREEN FOREST	Upland	NLCD	2548.15
SPENCER RANCH INC	FORESTED WETLAND	Riparian	Holmstead (2001)	8.00
SPENCER RANCH INC	GRASSLAND	Upland	Holmstead (2001)	496.03
SPENCER RANCH INC	GRASSLANDS/HERBACEOUS	Upland	NLCD	120.70
SPENCER RANCH INC	GRASSLANDS/HERBACEOUS	Upland	NLCD	3619.86
SPENCER RANCH INC	LOTIC	Nonhabitat	Holmstead (2001)	0.06
SPENCER RANCH INC	MIXED FOREST	Upland	NLCD	3.66
SPENCER RANCH INC	MIXED FOREST	Upland	NLCD	79.65
SPENCER RANCH INC	OPEN WATER	Nonhabitat	NLCD	2.22
SPENCER RANCH INC	OPEN WATER	Nonhabitat	NLCD	11.12
SPENCER RANCH INC	SCRUB-SHRUB WETLAND	Riparian	Holmstead (2001)	12.76
SPENCER RANCH INC	SHORE & BOTTOMLAND WETLAND	Nonhabitat	Holmstead (2001)	1.36
SPENCER RANCH INC	SHRUB SAVANNA	Upland	Holmstead (2001)	19.24
SPENCER RANCH INC	SHRUBLAND	Upland	Holmstead (2001)	0.70
SPENCER RANCH INC	SHRUBLAND	Upland	NLCD	1073.92
SPENCER RANCH INC	SHRUBLAND	Upland	NLCD	11,670.36
SPENCER RANCH INC	TRANSITIONAL	Nonhabitat	NLCD	0.22
SPENCER RANCH INC	TREE SAVANNA	Upland	Holmstead (2001)	0.11
SPENCER RANCH INC	WOODY WETLANDS	Riparian	NLCD	3.78

Private Property Owner	Cover Type	Wildlife Habitat	Data Source	Acres
SPENCER RANCH INC	WOODY WETLANDS	Riparian	NLCD	1.78
STAN GULICK	BARE ROCK/SAND/CLAY	Nonhabitat	NLCD	0.00
STAN GULICK	CLIFF/TALUS SLOPE	Nonhabitat	Holmstead (2001)	3.14
STAN GULICK	COMMERCIAL/INDUSTRIAL	Nonhabitat	NLCD	1.08
STAN GULICK	EMERGENT HERBACEOUS WETLANDS	Riparian	NLCD	1.43
STAN GULICK	EVERGREEN FOREST	Upland	NLCD	0.67
STAN GULICK	EVERGREEN FOREST	Upland	NLCD	0.33
STAN GULICK	FORESTED WETLAND	Riparian	Holmstead (2001)	0.19
STAN GULICK	GRASSLAND	Upland	Holmstead (2001)	279.58
STAN GULICK	GRASSLANDS/HERBACEOUS	Upland	NLCD	38.65
STAN GULICK	GRASSLANDS/HERBACEOUS	Upland	NLCD	1.92
STAN GULICK	MIXED FOREST	Upland	NLCD	0.67
STAN GULICK	PASTURE/HAY	Upland	NLCD	257.08
STAN GULICK	SCRUB-SHRUB WETLAND	Riparian	Holmstead (2001)	4.36
STAN GULICK	SHRUB SAVANNA	Upland	Holmstead (2001)	14.41
STAN GULICK	SHRUBLAND	Upland	Holmstead (2001)	2.57
STAN GULICK	SHRUBLAND	Upland	NLCD	2101.51
STAN GULICK	SHRUBLAND	Upland	NLCD	250.12
STEAMBARGE, JAMES ETAL	DECIDUOUS FOREST	Riparian	NLCD	1.11
STEAMBARGE, JAMES ETAL	EVERGREEN FOREST	Upland	NLCD	99.05
STEAMBARGE, JAMES ETAL	GRASSLANDS/HERBACEOUS	Upland	NLCD	31.71
STEAMBARGE, JAMES ETAL	SHRUBLAND	Upland	NLCD	20.49
STEINBERG, RICHARD W	DECIDUOUS FOREST	Riparian	NLCD	8.92
STEINBERG, RICHARD W	EVERGREEN FOREST	Upland	NLCD	5.07
STEINBERG, RICHARD W	EVERGREEN FOREST	Upland	NLCD	31.77
STEINBERG, RICHARD W	GRASSLANDS/HERBACEOUS	Upland	NLCD	0.22
STEINBERG, RICHARD W	GRASSLANDS/HERBACEOUS	Upland	NLCD	8.50
STEINBERG, RICHARD W	SHRUBLAND	Upland	NLCD	2.16
STEINBERG, RICHARD W	SHRUBLAND	Upland	NLCD	69.96
STEPHEN DENNIS	EVERGREEN FOREST	Upland	NLCD	109.84
STEPHEN DENNIS	GRASSLANDS/HERBACEOUS	Upland	NLCD	83.26
STEPHEN DENNIS	MIXED FOREST	Upland	NLCD	1.81
STEPHEN DENNIS	SHRUBLAND	Upland	NLCD	116.94
THEODORE BOKIDES	BARE ROCK/SAND/CLAY	Nonhabitat	NLCD	12.94
THEODORE BOKIDES	BARE ROCK/SAND/CLAY	Nonhabitat	NLCD	0.41
THEODORE BOKIDES	CLIFF/TALUS SLOPE	Nonhabitat	Holmstead (2001)	1.78
THEODORE BOKIDES		Nonhabitat	NLCD	3.91
THEODORE BOKIDES	DESERTIC HERBLAND	Upland	Holmstead (2001)	1.69
THEODORE BOKIDES	DESERTIC SHRUBLAND	Upland	Holmstead (2001)	62.67
THEODORE BOKIDES	EMERGENT HERBACEOUS WETLAND	Riparian	Holmstead (2001)	0.32
THEODORE BOKIDES	EVERGREEN FOREST	Upland	NLCD	0.89
THEODORE BOKIDES	GRASSLAND	Upland	Holmstead (2001)	74.67
THEODORE BOKIDES	GRASSLAND	Upland	Holmstead (2001)	200.36
THEODORE BOKIDES	GRASSLANDS/HERBACEOUS	•	NLCD	
THEODORE BOKIDES	GRASSLANDS/HERBACEOUS GRASSLANDS/HERBACEOUS	Upland	NLCD	164.58 0.16
THEODORE BOKIDES	PARKS/RECREATION	Upland Nonhabitat		0.16 8.84
			Holmstead (2001)	
THEODORE BOKIDES		Nonhabitat	NLCD	3.78
THEODORE BOKIDES	SCRUB-SHRUB WETLAND	Riparian	Holmstead (2001)	0.69
THEODORE BOKIDES	SHRUB SAVANNA	Upland	Holmstead (2001)	2.64
THEODORE BOKIDES	SHRUB SAVANNA	Upland	Holmstead (2001)	58.83

Private Property Owner	Cover Type	Wildlife Habitat	Data Source	Acres
THEODORE BOKIDES	SHRUBLAND	Upland	NLCD	3172.23
THEODORE BOKIDES	SHRUBLAND	Upland	NLCD	63.48
THEODORE BOKIDES	SMALL GRAINS	Upland	NLCD	4.03
THOMAS, ROBORT SON LLC	EVERGREEN FOREST	Upland	NLCD	15.01
THOMAS, ROBORT SON LLC	GRASSLANDS/HERBACEOUS	Upland	NLCD	22.96
THOMAS, ROBORT SON LLC	MIXED FOREST	Upland	NLCD	1.8
THOMAS, ROBORT SON LLC	SHRUBLAND	Upland	NLCD	93.78
TIPPET RANCH	DECIDUOUS FOREST	Riparian	NLCD	9.76
TIPPET RANCH	EVERGREEN FOREST	Upland	NLCD	0.22
TIPPET RANCH	GRASSLANDS/HERBACEOUS	Upland	NLCD	111.50
TIPPET RANCH	MIXED FOREST	Upland	NLCD	0.20
TIPPET RANCH	SHRUBLAND	Upland	NLCD	363.80
TURNER BROS LAND & LIVESTOCK	DESERTIC SHRUBLAND	Upland	Holmstead (2001)	12.34
TURNER BROS LAND & LIVESTOCK	EMERGENT HERBACEOUS WETLAND	Riparian	Holmstead (2001)	1.40
TURNER BROS LAND & LIVESTOCK	FORBLAND	Upland	Holmstead (2001)	1.09
TURNER BROS LAND & LIVESTOCK	GRASSLAND	Upland	Holmstead (2001)	58.43
TURNER BROS LAND & LIVESTOCK	GRASSLANDS/HERBACEOUS	Upland	NLCD	2.9
IURNER BROS LAND & IVESTOCK	LENTIC	Nonhabitat	Holmstead (2001)	0.0
FURNER BROS LAND & LIVESTOCK	SCRUB-SHRUB WETLAND	Riparian	Holmstead (2001)	1.7
TURNER BROS LAND & LIVESTOCK	SHORE & BOTTOMLAND WETLAND	Nonhabitat	Holmstead (2001)	0.0
TURNER BROS LAND & LIVESTOCK	SHRUB SAVANNA	Upland	Holmstead (2001)	234.2
TURNER BROS LAND & LIVESTOCK	SHRUBLAND	Upland	Holmstead (2001)	47.6
TURNER BROS LAND & LIVESTOCK	SHRUBLAND	Upland	NLCD	15.6
JNION PACIFIC RAILROAD	AGRICULTURE (CULTIVATED)	Upland	Holmstead (2001)	18.80
JNION PACIFIC RAILROAD	DESERTIC SHRUBLAND	Upland	Holmstead (2001)	12.2
JNION PACIFIC RAILROAD	EMERGENT HERBACEOUS WETLAND	Riparian	Holmstead (2001)	1.9
JNION PACIFIC RAILROAD	FORBLAND	Upland	Holmstead (2001)	6.02
JNION PACIFIC RAILROAD	GRASSLAND	Upland	Holmstead (2001)	74.7
JNION PACIFIC RAILROAD		Nonhabitat	Holmstead (2001)	0.5
JNION PACIFIC RAILROAD	SHORE & BOTTOMLAND WETLAND	Nonhabitat	Holmstead (2001)	0.3
JNION PACIFIC RAILROAD	SHRUB SAVANNA	Upland	Holmstead (2001)	76.7
JNION PACIFIC RAILROAD	SHRUBLAND	Upland	Holmstead (2001)	5.9
WADEAN HOLCOMB	AGRICULTURE (CULTIVATED)	Upland	Holmstead (2001)	38.7
WADEAN HOLCOMB	BARE ROCK/SAND/CLAY	Nonhabitat	NLCD	1.3
WADEAN HOLCOMB	EMERGENT HERBACEOUS WETLAND			0.0
VADEAN HOLCOMB	EVERGREEN FOREST	Riparian Upland	Holmstead (2001) NLCD	2.6
		Upland		
	FORESTED WETLAND	Riparian	Holmstead (2001)	5.1 202.0
	GRASSLAND	Upland	Holmstead (2001)	292.9
	GRASSLANDS/HERBACEOUS	Upland	NLCD	48.4
	GRASSLANDS/HERBACEOUS	Upland	NLCD	72.8
WADEAN HOLCOMB	GRAZING LAND/PASTURE	Upland	Holmstead (2001)	66.0
WADEAN HOLCOMB	INDUSTRIAL	Nonhabitat	Holmstead (2001)	0.2

Private Property Owner	Cover Type	Wildlife Habitat	Data Source	Acres
WADEAN HOLCOMB	RESIDENTIAL	Nonhabitat	Holmstead (2001)	0.09
WADEAN HOLCOMB	SCRUB-SHRUB WETLAND	Riparian	Holmstead (2001)	18.56
WADEAN HOLCOMB	SHORE & BOTTOMLAND WETLAND	Nonhabitat	Holmstead (2001)	0.10
WADEAN HOLCOMB	SHRUB SAVANNA	Upland	Holmstead (2001)	69.32
WADEAN HOLCOMB	SHRUBLAND	Upland	Holmstead (2001)	10.59
WADEAN HOLCOMB	SHRUBLAND	Upland	NLCD	824.09
WADEAN HOLCOMB	SHRUBLAND	Upland	NLCD	2452.98
WALLANE COPR	OPEN WATER	Nonhabitat	NLCD	0.89
WALLANE COPR	BARE ROCK/SAND/CLAY	Nonhabitat	NLCD	6.94
WALLANE COPR	DECIDUOUS FOREST	Riparian	NLCD	119.57
WALLANE COPR	EVERGREEN FOREST	Upland	NLCD	1748.01
WALLANE COPR	MIXED FOREST	Upland	NLCD	23.28
WALLANE COPR	SHRUBLAND	Upland	NLCD	6989.58
WALLANE COPR	GRASSLANDS/HERBACEOUS	Upland	NLCD	1523.99
WALLANE COPR	SMALL GRAINS	Upland	NLCD	63.05
WALLANE COPR	FALLOW	Upland	NLCD	17.22
WALLANE COPR	WOODY WETLANDS	Riparian	NLCD	0.22
WALTER MARLETT	BARE ROCK/SAND/CLAY	Nonhabitat	NLCD	0.44
WALTER MARLETT	BARE ROCK/SAND/CLAY	Nonhabitat	NLCD	1.11
WALTER MARLETT	DECIDUOUS FOREST	Riparian	NLCD	0.63
WALTER MARLETT	DECIDUOUS FOREST	Riparian	NLCD	0.22
WALTER MARLETT	DESERTIC HERBLAND	Upland	Holmstead (2001)	6.16
WALTER MARLETT	DISTURBED	Nonhabitat	Holmstead (2001)	2.03
WALTER MARLETT	FORBLAND	Upland	Holmstead (2001)	1.95
WALTER MARLETT	GRASSLAND	Upland	Holmstead (2001)	277.59
WALTER MARLETT	GRASSLANDS/HERBACEOUS	Upland	NLCD	121.59
WALTER MARLETT	GRASSLANDS/HERBACEOUS	Upland	NLCD	271.99
WALTER MARLETT	MIXED FOREST	Upland	NLCD	0.22
WALTER MARLETT	MIXED FOREST	Upland	NLCD	0.67
WALTER MARLETT	RESIDENTIAL	Nonhabitat	Holmstead (2001)	4.34
WALTER MARLETT	SCRUB-SHRUB WETLAND	Riparian	Holmstead (2001)	2.80
WALTER MARLETT	SHORE & BOTTOMLAND WETLAND	Nonhabitat	Holmstead (2001)	0.06
WALTER MARLETT	SHRUB SAVANNA	Upland	Holmstead (2001)	34.98
WALTER MARLETT	SHRUBLAND	Upland	Holmstead (2001)	84.30
WALTER MARLETT	SHRUBLAND	Upland	NLCD	454.68
WALTER MARLETT	SHRUBLAND	Upland	NLCD	457.02
WALTER MARLETT	WOODY WETLANDS	Riparian	NLCD	0.22
WARREN PRICE	COMMERCIAL/INDUSTRIAL	Nonhabitat	NLCD	0.06
WARREN PRICE	BARE ROCK/SAND/CLAY	Nonhabitat	NLCD	0.22
WARREN PRICE	EVERGREEN FOREST	Upland	NLCD	0.22
WARREN PRICE	SHRUBLAND	Upland	NLCD	244.86
WARREN PRICE	GRASSLANDS/HERBACEOUS	Upland	NLCD	36.52
WARREN PRICE	PASTURE/HAY	Upland	NLCD	45.96
WARREN PRICE	SMALL GRAINS	Upland	NLCD	0.1
WAYNE SMITH	BARE ROCK/SAND/CLAY	Nonhabitat	NLCD	3.13
WAYNE SMITH	DECIDUOUS FOREST	Riparian	NLCD	116.30
WAYNE SMITH	EVERGREEN FOREST	Upland	NLCD	642.13
WATNE SMITH	GRASSLANDS/HERBACEOUS	Upland	NLCD	847.16
WATNE SMITH	MIXED FOREST	Upland	NLCD	12.90
		opialia		12.00

AGRICULTURE (CULTIVATED) EMERGENT HERBACEOUS WETLAND FORESTED WETLAND SCRUB-SHRUB WETLAND SHORE & BOTTOMLAND WETLAND EVERGREEN FOREST GRASSLANDS/HERBACEOUS MIXED FOREST SHRUBLAND TRANSITIONAL CLIFF/TALUS SLOPE DESERTIC HERBLAND DESERTIC SHRUBLAND DISTURBED EMERGENT HERBACEOUS WETLAND	Upland Riparian Riparian Nonhabitat Upland Upland Upland Upland Nonhabitat Nonhabitat Upland Upland	Holmstead (2001) Holmstead (2001) Holmstead (2001) Holmstead (2001) NLCD NLCD NLCD NLCD NLCD Holmstead (2001) Holmstead (2001)	113.55 3.20 2.04 17.58 2.14 201.45 65.27 2.05 151.29 0.22 4.43
FORESTED WETLAND SCRUB-SHRUB WETLAND SHORE & BOTTOMLAND WETLAND EVERGREEN FOREST GRASSLANDS/HERBACEOUS MIXED FOREST SHRUBLAND TRANSITIONAL CLIFF/TALUS SLOPE DESERTIC HERBLAND DESERTIC SHRUBLAND DISTURBED	Riparian Riparian Nonhabitat Upland Upland Upland Upland Nonhabitat Nonhabitat Upland	Holmstead (2001) Holmstead (2001) NLCD NLCD NLCD NLCD NLCD NLCD	2.04 17.58 2.14 201.45 65.27 2.05 151.29 0.22
SCRUB-SHRUB WETLAND SHORE & BOTTOMLAND WETLAND EVERGREEN FOREST GRASSLANDS/HERBACEOUS MIXED FOREST SHRUBLAND TRANSITIONAL CLIFF/TALUS SLOPE DESERTIC HERBLAND DESERTIC SHRUBLAND DISTURBED	Riparian Nonhabitat Upland Upland Upland Upland Nonhabitat Nonhabitat Upland	Holmstead (2001) Holmstead (2001) NLCD NLCD NLCD NLCD NLCD NLCD Holmstead (2001)	17.58 2.14 201.45 65.27 2.05 151.29 0.22
SHORE & BOTTOMLAND WETLAND EVERGREEN FOREST GRASSLANDS/HERBACEOUS MIXED FOREST SHRUBLAND TRANSITIONAL CLIFF/TALUS SLOPE DESERTIC HERBLAND DESERTIC SHRUBLAND DISTURBED	Nonhabitat Upland Upland Upland Upland Nonhabitat Nonhabitat Upland	Holmstead (2001) NLCD NLCD NLCD NLCD NLCD NLCD Holmstead (2001)	2.14 201.45 65.27 2.05 151.29 0.22
EVERGREEN FOREST GRASSLANDS/HERBACEOUS MIXED FOREST SHRUBLAND TRANSITIONAL CLIFF/TALUS SLOPE DESERTIC HERBLAND DESERTIC SHRUBLAND DISTURBED	Upland Upland Upland Upland Nonhabitat Nonhabitat Upland	NLCD NLCD NLCD NLCD NLCD Holmstead (2001)	201.45 65.27 2.05 151.29 0.22
GRASSLANDS/HERBACEOUS MIXED FOREST SHRUBLAND TRANSITIONAL CLIFF/TALUS SLOPE DESERTIC HERBLAND DESERTIC SHRUBLAND DISTURBED	Upland Upland Upland Nonhabitat Nonhabitat Upland	NLCD NLCD NLCD NLCD Holmstead (2001)	65.27 2.05 151.29 0.22
MIXED FOREST SHRUBLAND TRANSITIONAL CLIFF/TALUS SLOPE DESERTIC HERBLAND DESERTIC SHRUBLAND DISTURBED	Upland Upland Nonhabitat Nonhabitat Upland	NLCD NLCD NLCD Holmstead (2001)	2.05 151.29 0.22
SHRUBLAND TRANSITIONAL CLIFF/TALUS SLOPE DESERTIC HERBLAND DESERTIC SHRUBLAND DISTURBED	Upland Nonhabitat Nonhabitat Upland	NLCD NLCD Holmstead (2001)	151.29 0.22
TRANSITIONAL CLIFF/TALUS SLOPE DESERTIC HERBLAND DESERTIC SHRUBLAND DISTURBED	Nonhabitat Nonhabitat Upland	NLCD Holmstead (2001)	0.22
CLIFF/TALUS SLOPE DESERTIC HERBLAND DESERTIC SHRUBLAND DISTURBED	Nonhabitat Upland	Holmstead (2001)	
DESERTIC HERBLAND DESERTIC SHRUBLAND DISTURBED	Upland		4.43
DESERTIC SHRUBLAND DISTURBED	·	Holmstead (2001)	
DISTURBED	Upland	· /	6.86
		Holmstead (2001)	5.13
EMERGENT HERBACEOUS WETLAND	Nonhabitat	Holmstead (2001)	2.57
	Riparian	Holmstead (2001)	1.15
FORBLAND	Upland	Holmstead (2001)	13.62
GRASSLAND	Upland	Holmstead (2001)	60.03
SHRUB SAVANNA	Upland	Holmstead (2001)	112.29
SHRUBLAND	Upland	Holmstead (2001)	15.43
DECIDUOUS FOREST	Riparian	NLCD	1.21
GRASSLANDS/HERBACEOUS	Upland	NLCD	27.96
MIXED FOREST	Upland	NLCD	0.02
OPEN WATER	Nonhabitat	NLCD	7.78
SHRUBLAND	Upland	NLCD	75.41
BARE ROCK/SAND/CLAY	Nonhabitat	NLCD	0.44
BARE ROCK/SAND/CLAY	Nonhabitat	NLCD	3.13
CLIFF/TALUS SLOPE	Nonhabitat	Holmstead (2001)	0.78
COMMERCIAL/INDUSTRIAL	Nonhabitat	NLCD	0.89
DECIDUOUS FOREST	Riparian	NLCD	1.56
DESERTIC HERBLAND	· · · ·	Holmstead (2001)	1.93
	•	. ,	0.43
DISTURBED			0.57
EMERGENT HERBACEOUS WETLAND			0.06
	•		0.96
			12.27
			5.14
		. ,	22.50
			144.55
			1198.22
			0.68
			2.59
		. ,	2.59 1.36
			117.82
			116.99
			813.27 3423.24
<pre>\$ \$ E \$ P \$ \$ E \$ \$ 0 \$ C E E E E E E F \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$</pre>	SHRUB SAVANNA SHRUBLAND DECIDUOUS FOREST GRASSLANDS/HERBACEOUS MIXED FOREST OPEN WATER SHRUBLAND BARE ROCK/SAND/CLAY BARE ROCK/SAND/CLAY CLIFF/TALUS SLOPE COMMERCIAL/INDUSTRIAL DECIDUOUS FOREST DESERTIC HERBLAND DESERTIC SHRUBLAND	SHRUB SAVANNAUplandSHRUB LANDUplandDECIDUOUS FORESTRiparianGRASSLANDS/HERBACEOUSUplandMIXED FORESTUplandOPEN WATERNonhabitatSHRUBLANDUplandBARE ROCK/SAND/CLAYNonhabitatBARE ROCK/SAND/CLAYNonhabitatCLIFF/TALUS SLOPENonhabitatCOMMERCIAL/INDUSTRIALNonhabitatDESERTIC HERBLANDUplandDESERTIC SHRUBLANDUplandDISTURBEDNonhabitatEVERGREEN FORESTUplandEVERGREEN FORESTUplandEVERGREEN FORESTUplandEVERGREEN FORESTUplandEVERGREEN FORESTUplandGRASSLANDS/HERBACEOUS WETLANDRiparianEVERGREEN FORESTUplandGRASSLANDS/HERBACEOUSUplandGRASSLANDS/HERBACEOUSUplandGRASSLANDS/HERBACEOUSUplandMIXED FORESTUplandSHORE & BOTTOMLAND WETLANDNonhabitatSHRUB SAVANNAUplandSHRUBLANDUplandSHRUBLANDUpland	SHRUB SAVANNAUplandHolmstead (2001)SHRUBLANDUplandHolmstead (2001)DECIDUOUS FORESTRiparianNLCDGRASSLANDS/HERBACEOUSUplandNLCDMIXED FORESTUplandNLCDOPEN WATERNonhabitatNLCDSHRUBLANDUplandNLCDBARE ROCK/SAND/CLAYNonhabitatNLCDBARE ROCK/SAND/CLAYNonhabitatNLCDCLIFF/TALUS SLOPENonhabitatNLCDDECIDUOUS FORESTRiparianNLCDDECIDUOUS FORESTRiparianNLCDDECIDUOUS FORESTRiparianNLCDDESERTIC HERBLANDUplandHolmstead (2001)DISTURBEDNonhabitatHolmstead (2001)DISTURBEDNonhabitatHolmstead (2001)EVERGREEN FORESTUplandHolmstead (2001)EVERGREEN FORESTUplandNLCDEVERGREEN FORESTUplandHolmstead (2001)GRASSLANDS/HERBACEOUSUplandHolmstead (2001)GRASSLANDS/HERBACEOUSUplandNLCDGRASSLANDS/HERBACEOUSUplandNLCDGRASSLANDS/HERBACEOUSUplandNLCDGRASSLANDS/HERBACEOUSUplandNLCDSCRUB-SHRUB WETLANDRiparianHolmstead (2001)SHRUB SAVANNAUplandHolmstead (2001)SHRUB SAVANNAUplandHolmstead (2001)SHRUB SAVANNAUplandHolmstead (2001)SHRUBLANDWETLANDNonhabitatSHRUBLANDUplandHolmstead (2001)

Private Property Owner	Cover Type	Wildlife Habit	at Data Source	Acres
WRIGHT, LAVERNE E	DECIDUOUS FOREST	Riparian	NLCD	71.76
WRIGHT, LAVERNE E	DECIDUOUS FOREST	Riparian	NLCD	11.79
WRIGHT, LAVERNE E	EVERGREEN FOREST	Upland	NLCD	264.08
WRIGHT, LAVERNE E	EVERGREEN FOREST	Upland	NLCD	101.84
WRIGHT, LAVERNE E	GRASSLANDS/HERBACEOUS	Upland	NLCD	543.27
WRIGHT, LAVERNE E	GRASSLANDS/HERBACEOUS	Upland	NLCD	160.42
WRIGHT, LAVERNE E	MIXED FOREST	Upland	NLCD	4.25
WRIGHT, LAVERNE E	SHRUBLAND	Upland	NLCD	711.14
WRIGHT, LAVERNE E	SHRUBLAND	Upland	NLCD	600.75
WRIGHT, LAVERNE E	WOODY WETLANDS	Riparian	NLCD	0.67
WRIGHT, LAVERNE E	DECIDUOUS FOREST	Riparian	NLCD	2.20
WRIGHT, LAVERNE E	EVERGREEN FOREST	Upland	NLCD	48.67
WRIGHT, LAVERNE E	GRASSLANDS/HERBACEOUS	Upland	NLCD	38.76
WRIGHT, LAVERNE E	SHRUBLAND	Upland	NLCD	32.07
YOUNG FAMILY TRUST	BARE ROCK/SAND/CLAY	Nonhabitat	NLCD	0.75
YOUNG FAMILY TRUST	DECIDUOUS FOREST	Riparian	NLCD	12.04
YOUNG FAMILY TRUST	EVERGREEN FOREST	Upland	NLCD	105.94
YOUNG FAMILY TRUST	GRASSLANDS/HERBACEOUS	Upland	NLCD	198.70
YOUNG FAMILY TRUST	MIXED FOREST	Upland	NLCD	5.93
YOUNG FAMILY TRUST	SHRUBLAND	Upland	NLCD	1464.84

## Appendix D. Summarization and discussion of how each property recommended by agencies and tribes during TR-1 consultation might contribute toward PM&E needs identified by the TRWG. See Appendix K for the actual written recommendations.

Recommendation	Location <sup>1</sup>	Approximate Private Acres	Contiguous Public Lands <sup>1</sup>	Nearest HCC Reservoir <sup>1</sup>	Significant High-priority habitat/species <sup>2</sup>	Discussion <sup>3</sup>
				Bureau of Land	Management	
Boise DO 1,Blue Creek	Adams Co, ID	120	IDL, BLM	Hells Canyon, <1 km	Big game and upland game bird winter range, riparian, neotropical migrant birds, Cusick' camas, cordilleran sedge	These private parcels are owned by IPC. IPC chose not to dedicate these parcels to wildlife mitigation because of perpetual grazing easement by OX Ranch. The grazing easement will severely limit IPC's ability to manage this area for wildlife mitigation
Boise DO 2, Sturgill Creek Ranch	Washington Co, ID (Map Code 107)	6325	IDL, BLM, USFS	Brownlee, <1 km	Big game and upland game bird winter range, riparian, neotropical migrant birds, golden eagle nest, Snake River goldenweed, sharp-tailed and sage grouse habitat	See section 2.2.4 for detailed discussion.
Boise DO 3, Rocking M Ranch	Washington Co, ID (Map Code 97)	18,736	IDL, BLM, USFS	Brownlee, <1 km	Big game and upland game bird winter range, riparian, neotropical migrant birds, western toad, Snake River goldenweed, southern Idaho ground squirrel sharp-tailed and sage grouse habitat	See section 2.2.3 for detailed discussion.
Boise DO 4, Sutton, Palmer	Washington Co, ID (Map Codes 47 and 90)	7775	IDL, BLM, USFS	Brownlee, 5-10 km	Big game and upland game bird winter range, riparian, neotropical migrant birds, sharp-tailed and sage grouse habitat	The recommended properties provide PM&E needs identified by the TRWG: 1) relatively large, 2) contiguous to public lands, 3) on site, 4) near an HCC reservoir, and 5) benefit various high-priority habitats or species. However, these properties were not specifically recommended by the TRWG for IPC acquisition.
Boise DO 5, Palmer	Washington Co, ID (Map Code 90)	5044	IDL, BLM	Brownlee, 3-5 km	Big game and upland game bird winter range, riparian, neotropical migrant birds, sharp-tailed and sage grouse habitat	The recommended property provides PM&E needs identified by the TRWG: 1) relatively large, 2) contiguous to public lands, 3) on site, 4) near an HCC reservoir, and 5) benefits various high-priority habitats or species. However, the property was not specifically recommended by the TRWG for IPC acquisition.

Recommendation	Location <sup>1</sup>	Approximate Private Acres	Contiguous Public Lands <sup>1</sup>	Nearest HCC Reservoir <sup>1</sup>	Significant High-priority habitat/species <sup>2</sup>	Discussion <sup>3</sup>
Boise DO 6, Robert Rouston	Washington Co, ID (Map Code 101)	3637	IDL, BLM	Brownlee, 3-5 km	Big game and upland game bird winter range, sharp-tailed and sage grouse habitat, riparian, neotropical migrant birds, Snake River goldenweed, southern Idaho ground squirrel	The recommended property provides PM&E needs identified by the TRWG: 1) relatively large, 2) contiguous to public lands, 3) on site, 4) near an HCC reservoir, and 5) benefits various high-priority habitats or species. However, the property was not specifically recommended by the TRWG for IPC acquisition.
Boise DO 7, Winegar	Washington Co, ID (Map Code 94)	642	BLM	Brownlee, 1-3 km	Big game and upland game bird winter range, sharp-tailed and sage grouse habitat, riparian, neotropical migrant birds, southern Idaho ground squirrel	The recommended property provides PM&E needs identified by the TRWG: 1) relatively large, 2) contiguous to public lands, 3) on site, 4) near an HCC reservoir, and 5) benefits various high-priority habitats or species. However, the property was not specifically recommended by the TRWG for IPC acquisition.
Boise DO 8, Stevenson	Washington Co, ID (Map Code 123)	5869	IDL, BLM	Brownlee, <1 km	Big game and upland game bird winter range, sage grouse habitat, riparian, neotropical migrant birds, Red-tailed hawk nest, Tolmie's onion, plumed clover, southern Idaho ground squirrel, long-billed curlew	The recommended property provides PM&E needs identified by the TRWG: 1) relatively large, 2) contiguous to public lands, 3) on site, 4) near an HCC reservoir, and 5) benefits various high-priority habitats or species. However, the property was not specifically recommended by the TRWG for IPC acquisition.
Boise DO 9, Hog Creek	Washington Co, ID (Map Codes 128– 133)	2120	BLM	Brownlee, 5-10 km	Big game and upland game bird winter range, sharp-tailed and sage grouse habitat, riparian, neotropical migrant birds, southern Idaho ground squirrel	The recommended properties provide PM&E needs identified by the TRWG: 1) relatively large, 2) contiguous to public lands, 3) on site, 4) near an HCC reservoir, and 5) benefit various high-priority habitats or species. However, the properties were not specifically recommended by the TRWG for IPC acquisition.
Baker FO Property #1, Daly Creek	Baker Co, OR (Map Code 17)	10,695	BLM	Brownlee, <1 km	Big game and upland game bird winter range, riparian, waterfowl neotropical migrant birds, red-tailed hawk nest, burrowing owl, river otter	See section 2.2.2 for detailed discussion.
Baker FO Property #2, Morgan/Fox/Connor Creek	Baker Co, OR (Map Codes 18, 29, and 53)	7285	BLM	Brownlee, <1 km	Big game and upland game bird winter range, riparian, neotropical migrant birds, bald eagle, yellow warbler, Snake River goldenweed,	The recommended properties provide PM&E needs identified by the TRWG: 1) relatively large, 2) contiguous to public lands, 3) on site, 4) near an HCC reservoir, and 5) benefit various high-priority habitats or species. These properties were also specifically recommended by the TRWG for IPC acquisition.

Recommendation	Location <sup>1</sup>	Approximate Private Acres	Contiguous Public Lands <sup>1</sup>	Nearest HCC Reservoir <sup>1</sup>	Significant High-priority habitat/species <sup>2</sup>	Discussion <sup>3</sup>
Baker FO Parcel #3, Holbrook Creek	Baker Co, OR (No Map Code)	25	BLM	Hells Canyon, <1 km	Undetermined	This very small parcel was recommended by the BLM for improving recreation access not wildlife mitigation. This parcel does not meet any of the wildlife mitigation needs identified by the TRWG. Developing reacreation access sites should not be priority criteria for recommending wildlife PM&E lands.
Baker FO Parcel #4, Sag Road	Baker Co, OR (Map Code 23)	18	BLM	Brownlee, <1 km	Undetermined	This very small parcel was recommended by the BLM for improving reacreation access not wildlife mitigation. This parcel does not meet any of the wildlife mitigation needs identified by the TRWG. Developing reacreation access sites should not be priority criteria for recommending wildlife PM&E lands.
Baker FO Parcel #5, Swede's	Baker Co, OR (Map Code 106)	10	BLM	Brownlee, <1 km	Undetermined	This very small parcel was recommended by the BLM for improving reacreation access not wildlife mitigation. This parcel does not meet any of the wildlife mitigation needs identified by the TRWG. Developing reacreation access sites should not be priority criteria for recommending wildlife PM&E lands.
Baker FO Parcel #6, Hibbard Creek	Baker Co, OR (No Map Code)	2	BLM	Brownlee, <1 km	Undetermined	This very small parcel was recommended by the BLM for improving reacreation access not wildlife mitigation. This parcel does not meet any of the wildlife mitigation needs identified by the TRWG. Developing reacreation access sites should not be priority criteria for recommending wildlife PM&E lands.
Baker FO Parcel #7, Cobb Rapids	Malheur Co, OR (Map Code 115)	4	BLM	Brownlee, <1 km	Undetermined	This very small parcel was recommended by the BLM for improving reacreation access not wildlife mitigation. This parcel does not meet any of the wildlife mitigation needs identified by the TRWG. Developing reacreation access sites should not be priority criteria for recommending wildlife PM&E lands.
Baker FO Parcel #8	Baker Co, OR (Map Codes 64 and 96)	132	BLM	Hells Canyon, <1 km	Big game and upland game bird winter range, riparian, neotropical migrant birds, bats, barton berry, bull trout	The recommended properties provide many of the PM&E needs identified by the TRWG: 1) contiguous to public lands, 2), 3) near an HCC reservoir, and 4) benefit various high-priority habitats or species. However, the recommended parcels are not very large, and the TRWG did not specifically recommended them for IPC acquisition.

Recommendation	Location <sup>1</sup>	Approximate Private Acres	Contiguous Public Lands <sup>1</sup>	Nearest HCC Reservoir <sup>1</sup>	Significant High-priority habitat/species <sup>2</sup>	Discussion <sup>3</sup>
Baker FO Parcel #9	Baker Co, OR (Map Code 23)	242	BLM	Oxbow, <1 km	Big game and upland game bird winter range, riparian, neotropical migrant birds, bald eagle nest, cordilleran sedge,	The recommended properties provide many of the PM&E needs identified by the TRWG: 1) contiguous to public lands, 2) on site, 3) near an HCC reservoir, and 4) benefit various high-priority habitats or species. However, the recommended parcels are not very large, but are components of larger ownerships. These parcels also span IPC and Pine Valley Ranch property. The TRWG recommended the entire Pine Valley Ranch for IPC acquisition, and IPC is dedicating the IPC parcel to wildlife mitigation.
Baker FO Parcel #10	Baker Co, OR (No Map Code)	16	BLM	Brownlee, <1 km	Big game and upland game bird winter range, neotropical migrant birds, flammulated owl	This IPC land is not being proposed for wildlife mitigation because it is isolated and has access difficulties.
Baker FO Parcel #11	Baker Co, OR (Map Code 109)	92	BLM	Brownlee, <1 km	Big game and upland game bird winter range, neotropical migrant birds, riparian	The recommended property provides many of the PM&B needs identified by the TRWG: 1) contiguous to public lands, 2) on site, 3) near an HCC reservoir, and 4) benefit some various high-priority habitats or species. However, the recommended parcel is not very large, but is components of a larger ownership. TRWG did not specifically recommend it for IPC acquisition.
Cottonwood FO Property #1, Wolf Creek	Idaho Co, ID (Map Code 40)	16,482	IDL, BLM	Hells Canyon, >10 km	Big game and upland game bird winter range, neotropical migrant birds, riparian, mountain quail, broad-fruit mariposa	The recommended property provides many of the PM&E needs identified by the TRWG: 1) relatively large, 2) contiguous to public lands, 3) on site, and 4) benefits various high-priority habitats or species. Although on site, the parcel is relatively distant from the nearest HCC Dam and the majority of impacted habitats. The property was also not specifically recommended by the TRWG for IPC acquisition.
Cottonwood FO Property #2, Cottonwood Creek	Nez Perce Co, ID (No Map Code)	2200	IDL, BLM	Hells Canyon, >10 km	Undetermined	This property has been purchased by the Nez Perce Tribe apparently for conservation purposes. Therefore, wildlife values are already protected here.
Cottonwood FO Property #3, Dry Creek	Idaho Co, ID (Map Code 38)	14,905	BLM	Hells Canyon, >10 km	Big game and upland game bird winter range, neotropical migrant birds, riparian, bats broad-fruit mariposa	The recommended property provides many of the PM&B needs identified by the TRWG: 1) relatively large, 2) contiguous to public lands, 3) on site, and 4) benefits various high-priority habitats or species. Although on site, the parcel is relatively distant from the nearest HCC Dam and the majority of impacted habitats. The property was also not specifically recommended by the TRWG for IPC acquisition.

**Burns-Paiute Tribe** 

None recommended

Recommendation	Location <sup>1</sup>	Approximate Private Acres	Contiguous Public Lands <sup>1</sup>	Nearest HCC Reservoir <sup>1</sup>	Significant High-priority habitat/species <sup>2</sup>	Discussion <sup>3</sup>				
Confederated Tribes of the Umatilla										
				None recom	mended					
			Confe	derated Tribes of	f the Warm Springs					
				None recom	mended					
			Idal	no Department o	f Fish and Game					
Lawrence Property	Washington Co, ID (Map Code 99)	1971	IDL, BLM, USFS	Brownlee, <1 km	Big game and upland game bird winter range, neotropical migrant birds, riparian, sage grouse habitat, Lewis's woodpecker, solitary vireo, Wilson's warbler, western toad	See section 2.2.1 for detailed discussion.				
Soulen Property	Washington Co, ID (Map Code 107)	6325	IDL, BLM, USFS	Brownlee, <1 km	Big game and upland game bird winter range, riparian, neotropical migrant birds, golden eagle nest, Snake River goldenweed, sharp-tailed and sage grouse habitat	See section 2.2.4 for detailed discussion.				
Rocking M Ranch	Washington Co, ID (Map Code 97)	18,736	IDL, BLM, USFS	Brownlee, <1 km	Big game and upland game bird winter range, riparian, neotropical migrant birds, western toad, Snake River goldenweed, southern Idaho ground squirrel sharp-tailed and sage grouse habitat	See section 2.2.3 for detailed discussion.				

Recommendation	Location <sup>1</sup>	Approximate Private Acres	Contiguous Public Lands <sup>1</sup>	Nearest HCC Reservoir <sup>1</sup>	Significant High-priority habitat/species <sup>2</sup>	Discussion <sup>3</sup>
				Nez Perce	e Tribe	
Wallane Corporation	Wallowa Co, OR (Map Code 127)	10,493	BLM, USFS	Hells Canyon, >10 km	Big game and upland game bird winter range, riparian, neotropical migrant birds, black- chinned hummingbird, steelhead	The recommended property provides many of the PM&E needs identified by the TRWG: 1) relatively large, 2) contiguous to public lands, and 3) benefits various high- priority habitats or species. However, the property is off site, distant from the nearest HCC Dam, and not associated with HCC impacted habitats. The property was also not specifically recommended by the TRWG for IPC acquisition.
Getta Creek	Idaho Co, ID (Map Code 8)	10,743	BLM	Hells Canyon, >10 km	Big game and upland game bird winter range, riparian, neotropical migrant birds, white- headed woodpecker, wolverine, mountain quail, boad-fruit mariposa, Fee's lipfern	The recommended property provides many of the PM&E needs identified by the TRWG: 1) relatively large, 2) contiguous to public lands, 3) on site, and 4) benefits various high-priority habitats or species. Although on site, the parcel is relatively distant from the nearest HCC Dam and the majority of impacted habitats. The property was also not specifically recommended by the TRWG for IPC acquisition.
				<b>D</b>		
			Oreg	on Department o	f Fish and Wildlife	
Daly Creek Ranch	Baker Co, OR (Map Code 17)	10,695	BLM	Brownlee, <1 km	Big game and upland game bird winter range, riparian, waterfowl, neotropical migrant birds, red-tailed hawk nest, burrowing owl, river otter	See section 2.2.2 for detailed discussion.
Fox Creek	Baker Co, OR (Map Code 29)	848	BLM	Brownlee, <1 km	Big game and upland game bird winter range, riparian, neotropical migrant birds, yellow warbler, kestrel nest, Snake River goldenweed	The recommended property provides PM&E needs identified by the TRWG: 1) relatively large, 2) contiguous to public lands, 3) on site, 4) near an HCC reservoir, and 5) benefit various high-priority habitats or species. These properties were also specifically recommended by the TRWG for IPC acquisition.
McGraw Creek	Baker Co, OR (Map Code 136 and 137)	272	USFS	Hells Canyon, < km	Big game and upland game bird winter range, neotropical migrant birds	The recommended properties provide some of the PM&E needs identified by the TRWG. Specifically big game winter range near the HCC. However, no riparian habitat or TECS species are documented. The parcels are also small but surrounded by public land. These properties were not specifically recommended by the TRWG for IPC acquisition.

Recommendation	Location <sup>1</sup>	Approximate Private Acres	Contiguous Public Lands <sup>1</sup>	Nearest HCC Reservoir <sup>1</sup>	Significant High-priority habitat/species <sup>2</sup>	Discussion <sup>3</sup>
Soda Creek	Baker Co, OR (Map Code 18)	6159	BLM	Brownlee, <1 km	Big game and upland game bird winter range, riparian, neotropical migrant birds, peregrine falcon, bald eagle, Snake River goldenweed	The recommended property provides PM&E needs identified by the TRWG: 1) relatively large, 2) contiguous to public lands, 3) on site, 4) near an HCC reservoir, and 5) benefit various high-priority habitats or species. These properties were also specifically recommended by the TRWG for IPC acquisition.
Hibbard Creek	Baker Co, OR (Map Code 1)	4353	BLM	Brownlee, <1 km	Big game and upland game bird winter range, riparian, neotropical migrant birds, western toad, Snake River goldenweed	The recommended property provides PM&E needs identified by the TRWG: 1) relatively large, 2) contiguous to public lands, 3) on site, 4) near an HCC reservoir, and 5) benefit various high-priority habitats or species. These properties were also specifically recommended by the TRWG for IPC acquisition.
						The recommended property provides some of the PM&E needs identified by the TRWG: 1) sort of contiguous to public lands (USFWS islands), 3) on site, and 4) benefits various high-priority habitats or species.
Private Islands above Brownlee Dam	Malheur Co, OR (Map Codes 134 and 135)	180	USFWS	Brownlee, 3-5 km	Upland game birds, waterfowl, riparian, neotropical migrant birds, suthern Idaho ground squirrels	However, the islands are not very large and are relatively distant from an HCC reservoir and habitats impacted by the HCC.
Goat Island	Malheur Co, OR (No Map Code)	50	USFWS	Brownlee, >10 km	Undetermined	This island is public land administered by the U.S. Fish and Wildlife Service (personal communication, Todd Fenzel) for conservation purposes. Therefore, wildlife values are already protected here.
				Shoshone-Ban	nock Tribes	
				None recom	mended	
				Shoshone-Pai	ute Tribes	
				None recom		
				U.S. Fish and Wi	Idlife Service	
				None recom	mended	

Recommendation	Location <sup>1</sup>	Approximate Private Acres	Contiguous Public Lands <sup>1</sup>	Nearest HCC Reservoir <sup>1</sup>	Significant High-priority habitat/species <sup>2</sup>	Discussion <sup>3</sup>
U.S. Forest Service						
Hells Canyon Reservoir Area, a	Baker Co, OR; Adams Co, ID (Map Codes 2 and 64)	637	BLM, USFS	Hells Canyon, <1 km	Big game and upland game bird winter range, riparian, neotropical migrant birds, bald eagle roost, western small-footed myotis, Barrtonberry	The recommended properties provide PM&E needs identified by the TRWG: 1) relatively large, 2) contiguous to public lands, 3) on site, 4) near an HCC reservoir, and 5) benefit various high-priority habitats or species. These properties were also specifically recommended by the TRWG for IPC acquisition.
Hells Canyon Reservoir Area, b	Wallowa Co, OR (Map Code 23)	19,714	BLM, USFS	Hells Canyon, <1 km	Big game and upland game bird winter range, riparian, aquatic furbearers, neotropical migrant birds, Burrowing owl, loggerhead shrike, olive-sided flycatcher, rufous hummingbird, solitary vireo, Swainson's thrush, yellow warbler, western toad, bull trout, cordilleran sedge	The Pine Valley Ranch owns all private lands >100 acres along the USFS designated portion of Pine Creek. Pine Creek was also specifically recommended by the TRWG for IPC acquisition. Overall, the ranch provides the PM&E needs identified by the TRWG: 1) relatively large, 2) contiguous to public lands, 3) on site, 4) near an HCC reservoir, and 5) benefits various high-priority habitats or species.
Hells Canyon Reservoir Area, c	Wallowa Co, OR (Map Codes 12 61, 88, 96, 100, and 112)	See Table 2	BLM, USFS	Hells Canyon, <1 km	Big game and upland game bird winter range, riparian, neotropical migrant birds, bald eagle roost, TECS birds, bull trout, bartonberry, cordilleran sedge, Cusick's camas	With the exception of the OX Ranch, properties within this USFS recommended area are typically small and scattered (Figure 2). On the whole, the recommended properties provide PM&E needs identified by the TRWG: 1) relatively large, 2) contiguous to public lands, 3) on site, 4) near an HCC reservoir, and 5) benefit various high-priority habitats or species. Of these properties, the OX Ranch contributes disproportionately to the value of the private lands and the ranch was specifically recommended by the TRWG for IPC acquisition.
Snake River Reach, a	Wallowa Co, OR (Map Codes 38, 40, 48, 108)	See Table 2	IDL, BLM, USFS	Hells Canyon, >10 km	Big game and upland game bird winter range, riparian, neotropical migrant birds, mountain quail, Townsend's big- eared bat, broad-fruit mariposa, shortface lanx, purple thick-leaved thelypody, Hazel's prickly phlox, green-band mariposa lilly,	The recommended properties provide many of the PM&E needs identified by the TRWG: 1) relatively large, 2) contiguous to public lands, 3) on site, and 4) benefit various high-priority habitats or species. Although on site, the parcels are relatively distant from the nearest HCC Reservoir and the majority of impacted habitats. The property was also not specifically recommended by the TRWG for IPC acquisition.

Recommendation	Location <sup>1</sup>	Approximate Private Acres	Contiguous Public Lands <sup>1</sup>	Nearest HCC Reservoir <sup>1</sup>	Significant High-priority habitat/species <sup>2</sup>	Discussion <sup>3</sup>
Snake River Reach, b	Wallowa Co, OR (See Figure 2)	See Table 2	BLM, USFS	Hells Canyon, >10 km	Because of the large number of properties dispersed parcel, please refer to Tables 6–11.	The USFS did not recommend any specific property in this area. IPC characterized each of the private properties >100 acres in tables 6-11. Overall, the properties provide the PM&E needs identified by the TRWG: 1) relatively large, 2) contiguous to public lands, and 3) benefit various high-priority habitats or species. However, a key PM&E need not met is the priority for on site mitigation. IPC considers these properties to be off site. Specifically, the parcels are very distant from the HCC and the majority of impacted habitats.
Snake River Reach, c, Cow Creek	Wallowa Co, OR (See Figure 2)	See Table 2	USFS	Hells Canyon, >10 km	Because of the large number of properties dispersed parcel, please refer to Tables 6–11.	The USFS did not recommend any specific property in this area. IPC characterized each of the private properties >100 acres in tables 6-11. Overall, the properties provide the PM&E needs identified by the TRWG: 1) relatively large, 2) contiguous to public lands, and 3) benefit various high-priority habitats or species. However, a key PM&E need not met is the priority for on site mitigation. IPC considers these properties to be off site. Specifically, the parcels are very distant from the HCC and the majority of impacted habitats.
Snake River Reach, c, Lightning Creek	Wallowa Co, OR (See Figure 2)	See Table 2	USFS	Hells Canyon, >10 km	Because of the large number of properties dispersed parcel, please refer to Tables 6–11.	The USFS did not recommend any specific property in this area. IPC characterized each of the private properties >100 acres in tables 6-11. Overall, the properties provide the PM&E needs identified by the TRWG: 1) relatively large, 2) contiguous to public lands, and 3) benefit various high-priority habitats or species. However, a key PM&E need not met is the priority for on site mitigation. IPC considers these properties to be off site. Specifically, the parcels are very distant from the HCC and the majority of impacted habitats.
Snake River Reach, c, Horse Creek	Wallowa Co, OR (See Figure 2)	See Table 2	USFS	Hells Canyon, >10 km	Because of the large number of properties dispersed parcel, please refer to Tables 6–11.	The USFS did not recommend any specific property in this area. IPC characterized each of the private properties >100 acres in tables 6-11. Overall, the properties provide the PM&E needs identified by the TRWG: 1) relatively large, 2) contiguous to public lands, and 3) benefit various high-priority habitats or species. However, a key PM&E need not met is the priority for on site mitigation. IPC considers these properties to be off site. Specifically, the parcels are very distant from the HCC and the majority of impacted habitats.

Recommendation	Location <sup>1</sup>	Approximate Private Acres	Contiguous Public Lands <sup>1</sup>	Nearest HCC Reservoir <sup>1</sup>	Significant High-priority habitat/species <sup>2</sup>	Discussion <sup>3</sup>
Snake River Reach, c, Sheep Creek	Wallowa Co, OR (See Figure 2)	See Table 2	USFS	Hells Canyon, >10 km	Because of the large number of properties dispersed parcel, please refer to Tables 6–11.	The USFS did not recommend any specific property in this area. IPC characterized each of the private properties >100 acres in tables 6-11. Overall, the properties provide the PM&E needs identified by the TRWG: 1) relatively large, 2) contiguous to public lands and 3) benefit various high-priority habitats or species. However, a key PM&E need not met is the priority for or site mitigation. IPC considers these properties to be off site. Specifically, the parcels are very distant from the HCC and the majority of impacted habitats.
Snake River Reach, c, Little Sheep Creek	Wallowa Co, OR (See Figure 2)	See Table 2	USFS	Hells Canyon, >10 km	Because of the large number of properties dispersed parcel, please refer to Tables 6–11.	The USFS did not recommend any specific property in this area. IPC characterized each of the private properties >100 acres in tables 6-11. Overall, the properties provide the PM&E needs identified by the TRWG: 1) relatively large, 2) contiguous to public lands and 3) benefit various high-priority habitats or species. However, a key PM&E need not met is the priority for or site mitigation. IPC considers these properties to be off site. Specifically, the parcels are very distant from the HCC and the majority of impacted habitats.

<sup>1</sup> Locations of private lands are mapped in Figure 2 and referenced in Table 2.

<sup>2</sup> Refer to Tables 6–11 for data sources. High-value habitats and species reflect those documented for entire properties of which agencies often recommended only subsets of an ownership.

<sup>3</sup> See Appendix E for a discussion of the assigned rankings for mitigation value and acquisition priority.

Appendix E. Private parcels specifically recommended by agencies and tribes for IPC's consideration as PM&E lands. See Appendix K for the actual written recommendations. Section 2.1.2 describes prioritization system for mitigation value and acquisition priority rankings.

Recommendation	On site/Off site	General Location	Terrestrial Mitigation Value	Acquisition Priority	IPC's Justification for Rankings			
Bureau of Land Management								
Boise DO 1, Blue Creek	On site	Hells Canyon Reservoir, ID	High	Medium	Currently owned by IPC but excluded from WMA and SMA consideration because of perpetual grazing easement by OX Ranch.			
Boise DO 2, Sturgill Creek Ranch	On site	Brownlee Reservoir, ID	High	High	Recommended by the TRWG, currently for sale, and proposed by IPC as a preferred acquisition option.			
Boise DO 3, Rocking M Ranch	On site	Brownlee Reservoir, ID	High	High	The Rocking M Ranch was recommeded by the TRWG and is currently for sale. IPC has proposed to acquire the lower elevation portions of the ranch as a prefered acquisition option. The specific parcel of the ranch mapped in the BLM rocommendation is not proposed for acquisition because it is at the upper elevations of the winter range.			
Boise DO 4, Sutton, Palmer	On site	Brownlee Reservoir, ID	High	Medium	Option for on-site mitigation but not specifically recommended by the TRWG for acquisition.			
Boise DO 5, Palmer	On site	Brownlee Reservoir, ID	High	Medium	Option for on-site mitigation but not specifically recommended by the TRWG for acquisition.			
Boise DO 6, Robert Rouston	On site	Brownlee Reservoir, ID	High	Medium	Option for on-site mitigation but not specifically recommended by the TRWG for acquisition.			
Boise DO 7, Winegar	On site	Brownlee Reservoir, ID	High	Medium	Option for on-site mitigation but not specifically recommended by the TRWG for acquisition.			
Boise DO 8, Stevenson	On site	Brownlee Reservoir, ID	High	Medium	Option for on-site mitigation but not specifically recommended by the TRWG for acquisition.			
Boise DO 9, Hog Creek	On site	Brownlee Reservoir, ID	High	Medium	Option for on-site mitigation but not specifically recommended by the TRWG for acquisition.			
Baker FO #1, Daly Creek	On site	Brownlee Reservoir, OR	High	High	Recommended by the TRWG, currently for sale, and proposed by IPC as a preferred acquisition option.			
Baker FO #2, Morgan/Fox/Connor Creek	On site	Brownlee Reservoir, OR	High	High	Recommended by the TRWG, but not currently for sale, thus not currently proposed by IPC as a preferred acquisition option. These areas provide a high priortiy substitue for preferred options that might not be available for purchase in the future.			
Baker FO #3, Holbrook Creek	On site	Hells Canyon Reservoir, OR	High	Medium	Option for on-site mitigation but not specifically recommended by the TRWG for acquisition. Recommended by the BLM for recreation development not wildlife mitigation.			
Baker FO #4, Sag Road	On site	Brownlee Reservoir, OR	High	High	Option for on-site mitigation but not specifically recommended by the TRWG for acquisition. Recommended by the BLM for recreation development not wildlife mitigation.			
Baker FO #5, Swede's	On site	Brownlee Reservoir, OR	High	Medium	Option for on-site mitigation but not specifically recommended by the TRWG for acquisition. Recommended by the BLM for recreation development not wildlife mitigation.			

Recommendation	On site/Off site	General Location	Terrestrial Mitigation Value	Acquisition Priority	IPC's Justification for Rankings
Baker FO #6, Hibbard Creek	On site	Brownlee Reservoir, OR	High	High	Option for on-site mitigation but not specifically recommended by the TRWG for acquisition. Recommended by the BLM for recreation development not wildlife mitigation.
Baker FO #7, Cobb Rapids	On site	Brownlee Reservoir, OR	High	Medium	Option for on-site mitigation but not specifically recommended by the TRWG for acquisition. Recommended by the BLM for recreation development not wildlife mitigation.
Baker FO #8	On site	Hells Canyon Reservoir, OR	High	Medium	Option for on-site mitigation but not specifically recommended by the TRWG for acquisition.
Baker FO #9	On site	Oxbow Reservoir, OR	High	High	The sourthern portion was recommended by the TRWG, but not currently for sale, thus not proposed by IPC as a prefered acquisition option. A high-priority substitute if a prefered option is unavailable in the future. The northern portion is currently owned by IPC and included in the Copperfield SMA.
Baker FO #10	On site	Brownlee Reservoir, OR	High	Medium	Currently owned by IPC but excluded from SMA or WMA designation because of percieved access and management difficulties.
Baker FO #11	On site	Brownlee Reservoir, OR	High	Medium	Option for on-site mitigation but not specifically recommended by the TRWG for acquisition.
Cottonwood FO Property #1, Wolf Creek	On site	Downstream, ID	Medium	Low	Option for on-site mitigation but not specifically recommended by the TRWG for acquisition and very distant from area of most HCC impacts to wildlife populations and habitat.
Cottonwood FO Property #2, Cottonwood Creek	Off site	Downstream, ID	Low	Low	The property has been acquired by the Nez Perce Tribe. Low mitigation value for HCC impacts because it is very distant from area of impacts to wildlife populations and habitat.
Cottonwood FO Property #3, Dry Creek	On site	Downstream, ID	Medium	Low	Option for on-site mitigation but not specifically recommended by the TRWG for acquisition and very distant from area of most HCC impacts to wildlife populations and habitat.

<b>Burns-Paiute</b>	Tribe
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None recommended

#### Confederated Tribes of the Umatilla

None recommended

#### **Confederated Tribes of the Warm Springs**

None recommended

Recommendation	On site/Off site	General Location	Terrestrial Mitigation Value	Acquisition Priority	IPC's Justification for Rankings
			Idaho De	epartment of Fi	sh and Game
Lawrence Property	On site	Brownlee Reservoir, ID	High	High	Recommended by the TRWG, currently for sale, and proposed by IPC as a preferred acquisition option.
Soulen Property	On site	Brownlee Reservoir, ID	High	High	Recommended by the TRWG, currently for sale, and proposed by IPC as a preferred acquisition option.
Rocking M Ranch	On site	Brownlee Reservoir, ID	High	High	Recommended by the TRWG, currently for sale, and proposed by IPC as a preferred acquisition option.
				Nez Perce Tr	ibe
Wallane Corporation	Off site	Downstream, OR	Low	Low	Low mitigation value for HCC because it is very distant from area of impacts to wildlife populations and habitat.
					Option for on-site mitigation but not specifically recommended by the TRWG for acquisition and very distant from area of most HCC impacts to wildlife populations
Getta Creek	On site	Downstream, ID	Medium	Low	and habitat.
Getta Creek	On site	Downstream, ID		-	and habitat.
	On site On site	Downstream, ID Brownlee Reservoir, ID		-	
Daly Creek Ranch		Brownlee Reservoir,	Oregon D	epartment of Fi	sh and Wildlife Recommended by the TRWG, currently for sale, and proposed by IPC as a
Daly Creek Ranch Fox Creek	On site	Brownlee Reservoir, ID Brownlee Reservoir,	<b>Oregon D</b> High	epartment of Fi High	Ash and Wildlife Recommended by the TRWG, currently for sale, and proposed by IPC as a preferred acquisition option. Recommended by the TRWG, but not currently for sale, thus not currently
Daly Creek Ranch Fox Creek McGraw Creek	On site On site	Brownlee Reservoir, ID Brownlee Reservoir, ID Hells Canyon	<b>Oregon D</b> High High	epartment of Fi High High	Ash and Wildlife Recommended by the TRWG, currently for sale, and proposed by IPC as a preferred acquisition option. Recommended by the TRWG, but not currently for sale, thus not currently proposed by IPC as a preferred acquisition option. Option for on-site mitigation but not specifically recommended by the TRWG for
Daly Creek Ranch Fox Creek McGraw Creek Soda Creek	On site On site On site	Brownlee Reservoir, ID Brownlee Reservoir, ID Hells Canyon Reservoir, ID Brownlee Reservoir,	<b>Oregon D</b> High High High	epartment of Fi High High Medium	Ish and Wildlife Recommended by the TRWG, currently for sale, and proposed by IPC as a preferred acquisition option. Recommended by the TRWG, but not currently for sale, thus not currently proposed by IPC as a preferred acquisition option. Option for on-site mitigation but not specifically recommended by the TRWG for acquisition. Recommended by the TRWG, but not currently for sale, thus not currently
Getta Creek Daly Creek Ranch Fox Creek McGraw Creek Soda Creek Hibbard Creek Private Islands above Brownlee Dam	On site On site On site On site	Brownlee Reservoir, ID Brownlee Reservoir, ID Hells Canyon Reservoir, ID Brownlee Reservoir, ID Brownlee Reservoir,	Oregon D High High High High	epartment of Fi High High Medium High	Ish and Wildlife Recommended by the TRWG, currently for sale, and proposed by IPC as a preferred acquisition option. Recommended by the TRWG, but not currently for sale, thus not currently proposed by IPC as a preferred acquisition option. Option for on-site mitigation but not specifically recommended by the TRWG for acquisition. Recommended by the TRWG, but not currently for sale, thus not currently proposed by IPC as a preferred acquisition option. Recommended by the TRWG, but not currently for sale, thus not currently proposed by IPC as a preferred acquisition option.

#### Shoshone-Bannock Tribes

None recommended

Recommendation	On site/Off site	General Location	Terrestrial Mitigation Value	Acquisition Priority	IPC's Justification for Rankings
			SI	hoshone-Paiute	Tribes
				None recommen	nded
			U.S.	Fish and Wildlin	fe Service
				None recommen	nded
				U.S. Forest Ser	rvice
Hells Canyon Reservoir Area, a	On site	Hells Canyon Reservoir, ID and OR	High	Medium	Option for on-site mitigation but not specifically recommended by the TRWG for acquisition.
Hells Canyon Reservoir Area, b	Off site	Pine Creek, OR	High	Medium	Recommended by the TRWG, but not currently for sale, thus not proposed by IPC as a preferred acquisition option. A high-priority substitute if a prefered option is unavailable for purchase in the future.
Hells Canyon Reservoir Area, c	Off site	Hells Canyon Reservoir, ID and OR	High	Medium	Option for on-site mitigation but not specifically recommended by the TRWG for acquisition.
Snake River Reach, a	Off site	Downstream, ID and OR	Medium	Low	Option for on-site mitigation but not specifically recommended by the TRWG for acquisition. Also very distant from area of most HCC impacts to wildlife populations and habitat.
Snake River Reach, b	Off site	Imnaha River Watershed	Low	Low	Low mitigation value because it is very distant from area of HCC impacts to wildlife populations and habitat.
Snake River Reach, c, Cow Creek	Off site	Imnaha River Watershed	Low	Low	Low mitigation value because it is very distant from area of HCC impacts to wildlife populations and habitat.
Snake River Reach, c, Lightning Creek	Off site	Imnaha River Watershed	Low	Low	Low mitigation value because it is very distant from area of HCC impacts to wildlife populations and habitat.
Snake River Reach, c, Horse Creek	Off site	Imnaha River Watershed	Low	Low	Low mitigation value because it is very distant from area of HCC impacts to wildlife populations and habitat.
Snake River Reach, c, Sheep Creek	Off site	Imnaha River Watershed	Low	Low	Low mitigation value because it is very distant from area of HCC impacts to wildlife populations and habitat.
Snake River Reach, c, Little Sheep Creek	Off site	Imnaha River Watershed	Low	Low	Low mitigation value because it is very distant from area of HCC impacts to wildlife populations and habitat.

Appendix F. Agency and Native American tribes designated by FERC for HCC AIR TR-1 consultation.

# **HCC Additional Information Request TR-1**

### **Consulting Agencies and Native American Tribes**

#### List of Addressees

Karyn Wood U.S. Forest Service Wallowa-Whitman National Forest 1550 Dewey Avenue PO Box 907 Baker City, OR 97814

David Henderson Bureau of Land Management 100 Oregon Street Vale, OR 97918

Jeffery Foss U.S. Fish and Wildlife Service 1387 South Vinnell Way, Suite 368 Boise, ID 83709

Tracey Trent Idaho Department of Fish and Game 600 South Walnut PO Box 25 Boise, ID 83702

Colleen Fagan Oregon Department of Fish and Wildlife 107 20th Street La Grande, OR 97850

Rick Eichstaedt Nez Perce Tribe PO Box 305 Lapwai, ID 83540 Donald Clary Shoshone-Paiute Tribes 633 West Fifth Street Twenty-First Floor Los Angeles, CA 90071-2040

Frederick Auck Shoshone-Bannock Tribes PO Box 306 Fort Hall, ID 83203

Albert Teeman Burns-Paiute Tribe HC 71, 100 Pasigo Street Burns, OR 97720

Gary Burke Confederated Tribes of the Umatilla Indian Reservation PO Box 638 Pendleton, OR 97801

Olney Patt, Jr. Confederated Tribes of the Warm Springs PO Box C Warm Springs, OR 97761-0078

Appendix G. Example of letter dated June 2, 2002, inviting FERC-designated agencies and Native American tribes to the July 8, 2004, consultation meeting for HCC AIR TR-1. Entire distribution list is attached to the letter.



Frank Edelmann	Phone	208-388-2355
Wildlife Biologist	Fax	208-388-6902
Environmental Affairs	E-Mail	fbe2355@idahopower.com

June 2, 2004

Frederick Auck Shoshone-Bannock Tribe PO Box 306 Fort Hall, ID 83203

Re: Hells Canyon Additional Information Request TR-1.

Dear Mr. Auck:

In a letter dated May 4, 2004, the Federal Energy Regulatory Commission (FERC) issued to Idaho Power Company (IPC) a Request for Additional Information (AIR) for the Hells Canyon New License Application. The AIR is viewable online at ipchydro.org. In AIR TR-1 (Habitat Resource Management), the FERC requires that IPC consult with a number of agencies and Native American Tribes (see attached list) in order to provide the requested additional information.

In accordance with requirements of AIR TR-1, IPC requests that the Shoshone-Bannock Tribe participate in consultation regarding the information needs described in TR-1. IPC has scheduled a meeting on July 8, 2004 to receive input. The meeting will be held from 9:00 am (Mountain Time) to 4:00 pm at the IPC Corporate Headquarters (1221 West Idaho Street) in Boise, Idaho. Please notify me by June 30, 2004 if a representative of the Shoshone-Bannock Tribe will be attending the meeting. If unable to attend, please review TR-1 and submit an official letter to IPC with consultation input by July 8, 2004.

Please contact me if you have questions or need clarification.

Sincerely,

Ir Elelmon

Frank Edelmann

FBE/da Enclosure

#### HCC Additional Information Request TR-1 Consulting Agencies and Native American Tribes

#### List of Addressees

Karyn Wood U.S. Forest Service Wallowa-Whitman National Forest 1550 Dewey Avenue PO Box 907 Baker City, OR 97814

David Henderson Bureau of Land Management 100 Oregon Street Vale, OR 97918

Jeffery Foss U.S. Fish and Wildlife Service 1387 South Vinnell Way, Suite 368 Boise, ID 83709

Tracey Trent Idaho Department of Fish and Game 600 South Walnut PO Box 25 Boise, ID 83702

Colleen Fagan Oregon Department of Fish and Wildlife 107 20th Street La Grande, OR 97850 Rick Eichstaedt Nez Perce Tribe PO Box 305 Lapwai, ID 83540

Donald Clary Shoshone-Paiute Tribe 633 West Fifth Street Twenty-First Floor Los Angeles, CA 90071-2040

Frederick Auck Shoshone-Bannock Tribe PO Box 306 Fort Hall, ID 83203

Albert Teeman Burns-Paiute Tribe HC 71, 100 Pasigo Street Burns, OR 97720

Gary Burke Confederated Tribes of the Umatilla Indian Reservation PO Box 638 Pendleton, OR 97801

Olney Patt, Jr. Confederated Tribes of the Warm Springs PO Box C Warm Springs, OR 97761-0078

Appendix H. Agenda for July 8, 2004, consultation meeting for HCC AIR TR-1.

## Hells Canyon Complex Relicensing FERC Additional Information Request: TR-1 Consultation Meeting

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July 8, 2004 Idaho Power Company CHQ Auditorium Boise, Idaho

Agenda: 0900 to 1600 MDT 1. Introductions (0900-0920) 2. AIR Overview (0920-1000) -FLA Proposed PM&Es -TR-1(a) -TR-1(b) -TR-1(c) -Cost update -Consultation

3. Break (1000-1020)

4. IPC Acquisition Option: TR-1(a) (1020-1130)

5. Lunch (1130-1300)

6. Integrated Wildlife Management Program: TR-1(b) (1300-1330)

7. IPC Mitigation Parcels: TR-1(b) (1330-1430) -RMP -IWMP structure -SMAs -WMAs

8. Break (1430-1445)

9. Protection Projects: TR-1(c) (1445-1500)

10. Consultation Feedback (1500-1600) –IPC Option –Other Options

Appendix I. Sign-in sheet for the July 8, 2004, consultation meeting discussing HCC AIR TR-1.

# AIR# TR-1 Consultation Meeting Idaho Power Company July 8, 2004

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Name	Organization	Phone	E-Mail Address
JOHN V. MARTIN	13c14- Itome 5,0,	373-3821	SAME AS ALWAYS
Anna Olusiak	IDFG	257 -3363	aousiake idfg.state.id.us
Loren A. Kronemann	NPT	208-843-2162	Kneilemann la Qnesperce.org
Collecn Fagar	ODFW	541-963-2138	
Tow Holthuge	IR	200-301-2352	- Chatheijzen @ idakopower.com
Scott Grund	IDFG		Same
Chris Huck	TPCD	208-388-2949	Chuck @ Idahopower . Com
F. Edelmann	Irco	205-388-2355	
Rase Petersen	Holland turist	202-411-2481	1 rate letersen 61-14/9w/con
Tim Dykster	Consultant	208 8309910	tim dykstra @ earthlink. net
Bret Dunas	JPC	208 939 3648	BDumas @ idahopower.com
Allen R. Anseel	IPC	208-388-2729	a auselle idahopowar com
Dorothy Mason	BLM		Dorothy_ ME Son Cor. 6/19.9
Gil Green	1PC	_	Ggreen Gicale power con
Carlene. Souger	IPC	208-388-226	5 Same
0			

## AIR# TR-1 Consultation Meeting Idaho Power Company July 8, 2004

Name	Organization	Phone	E-Mail Address
Margaret Johnson	IPC	208 388-6454	mijohuson@idalapower
Andrea Conklin	Student Intern- BLM of Baker City	541-523-7213	afranky 8@ hotnail.com
Gary Holmstead	IPC	388-2369	gholmstead @idahopowa.
Jim Esch	MS-FWS	378-500	jim_esch@fws.gov
Eric Leitzinger	IDFG	465-8465	eleitzin@idfg. State.id.us
flephone Mike Gerdes	USFS	541-416-6571	J
Jim Clark	BCM	208-384-3460	jim_ clank@6/m.gov
Chistandoph	IPC	2922	
mike Gerdes	USFS	541-416-6521	mgerdes & fs fed us
L> Participated via Co	inference Call		J J
NOTE: Terry Gibson and but did not sign-in and			Tribe, were in attendence d an initial comment.

Appendix J. Example of letter dated July 16, 2004, formally requesting written comments from FERCdesignated agencies and Native American tribes about HCC AIR TR-1.

(insert 1<sup>st</sup> pg of 3-pg PDF here)

Insert 3<sup>rd</sup> pg of 3-pg PDF here

Appendix K. Written comments received from FERC-designated agencies and Native American tribes regarding HCC AIR TR-1 and in response to IPC's letter request of July 16, 2004.



# United States Department of the Interior

BUREAU OF LAND MANAGEMENT VALE DISTRICT 100 Oregon Street Vale, Oregon 97918 http://www.or.blm.gov/Vale/



IN REPLY REFER TO: 1780

AUG 1 8 2004

Frank Edelman Idaho Power Company PO Box 70 Boise ID 83707

Dear Mr. Edelman;

Thank you for providing the Idaho Power Company (IPC) proposal at the July 8, 2004 meeting. Thank you also for providing a portion of the power point presentation to the attendees of the meeting. At this meeting, and in follow up correspondence, you requested agency response by August 19, 2004. Attachment I of this letter is that response from the Bureau of Land Management (BLM) Oregon/Washington and Idaho.

It is our desire that following a careful review by IPC of agency responses to the Additional Information Request (AIR) TR-1, and upon receipt and review of the multi-agency proposal for terrestrial resource mitigation that further discussions among the parties should begin in earnest.

### Multi-Agency Work Group

On June 25, 2003, pursuant to the Federal Energy Regulatory Commission (FERC) regulations (18 CFR 16.8(c)(6)(i)), Idaho Power Company (IPC) held its third joint meeting of resource agencies and Tribes to discuss and to attempt to reach agreement on outstanding issues regarding its plan for environmental protection, mitigation, and enhancement (PM&E) measures outlined in IPC's draft license application from September 2002. The agencies and Tribes present at the meeting generally supported IPC's proposal to acquire, enhance and manage land to mitigate for estimated impacts of proposed operations to the fluctuation and shoreline zones, shoreline erosion, and mule deer winter range. However, the agencies and Tribes disagreed with the acreage proposed for acquisition and with the limited scope of issues mitigated. At the conclusion of the discussion, IPC agreed to consider an alternate proposal for land acquisition and management if it could be developed through consensus by the agencies and Tribes.

Hence, the Idaho Department of Fish and Game (IDFG), Oregon Department of Fish and Wildlife (ODFW), Bureau of Land Management (BLM), United States Fish and Wildlife Service (FWS), and the United States Department of Agriculture Forest Service (USDA Forest Service), here-in-after known as *the agencies*, have been working on developing a consensus approach to

land acquisition and management as partial mitigation for impacts from the continuing operations of the Hells Canyon Hydroelectric Project (Project). While each agency has its own policies, regulations, rules, and guidelines or statutes guiding its participation in the relicensing process, it was possible to consolidate these perspectives into a unified position without compromising any individual party's mandate or mission.

The agencies unified position and proposal is being developed following extensive review of IPC's technical reports, hydropower and other pertinent literature, current agreements among stakeholders and owners of FERC licensed projects, and each agency's mandate or mission. The review validates the agencies earlier disagreement with IPC's proposed PM&E measure for land acquisition and management. Specifically, that IPC's proposed PM&E does not adequately mitigate for the continuing Project impacts to public lands and resources, crucial mule deer winter range and low-elevation riverine and tributary riparian habitat of Hells Canyon Complex reservoirs, riverine riparian habitat in the river reach downstream of Hells Canyon Dam, shoreline erosion of Hells Canyon Complex reservoirs and the river reach downstream of Hells Canyon Dam, and recreation resources.

Specific components of the proposal include: agency summaries of policies, regulations, rules and guidelines or statutes; analysis of all applicable information, including the use of replacement ratios for land acquisition and management; and conclusions and recommendations based on the analysis. The analysis identifies the resources affected by the Project, continuing Project impacts, and management of mitigation lands.

The agencies' proposal is not included at this time, as it is not a specific component of FERC's and IPC's Additional Information Request for Terrestrial Resource (TR-1). Also, each agency needs additional time for the appropriate internal administrative review of the proposal before submittal to IPC and FERC. However, the agencies agreed that it was timely to provide an overview of the proposal in the spirit of open communication and in the hope that it encourages formal settlement discussions with IPC.

#### Settlement Discussions

In light of the good discussions regarding terrestrial resources and potential mitigation options for the Hells Canyon Project at the July 8, 2004 meeting, the agencies in attendance suggested that additional discussions with IPC should occur. While some fundamental disagreements remain regarding the amount and location of potential land acquisitions in both Idaho and Oregon, the agencies remain committed to the concept that a long-term agreement on terrestrial resources can be reached. To that end, the Federal and State agencies will provide IPC with our combined vision of an acceptable and adequate terrestrial mitigation package for the projects. When we submit this alternate proposal to you, the agencies suggest that all of the parties present at IPC's July 8, 2004 meeting reconvene to continue discussions that may lead to an agreement or settlement. It was evident from the material presented at the meeting, that the Terrestrial Resource Work Group (TRWG) has already made substantial progress toward a collaborative decision on PM&E measures. Our recommendation now is to resume where that group left off several years ago and jointly establish a goal of reaching a settlement on terrestrial resources.

The BLM looks forward to collaborative settlement discussions on this important issue. We are confident that IPC's qualified staff can work effectively with the agencies and tribes to reach a reasonable solution to this issue. Kindly keep the BLM informed of any planned meetings and/or discussions on this subject. Please contact me for questions at 541-523-1308.

Sincerely,

Britter Maker

Dorothy Mason BLM OR/WA and ID Relicensing Team Lead;

Cc: Craig Jones Idaho Power Company

Alan Mitchnick Federal Energy Regulatory Commission

Hells Canyon Complex Service List

## ATTACHMENT I

## **BLM Response to IPC's**

## TR-1 – Habitat Resource Management

## Information Request

### (a) Acquisition of Upland and riparian habitat

### (i) IPC's options for meeting land acquisition acre target

IPC's proposed option for meeting its land acquisition PM&E acre target identifies several riparian and upland habitat sites developed at the TRWG meetings (February 7 & 8, 2001, March 5 & 6, 2001, April 13, 2001, and May 15 & 16, 2001). Listed below are the Brainstormed Conceptual PM&E Measures – May 16, 2001 acquisition locations:

- On-site locations adjacent to the Hells Canyon Complex Reservoirs
  - o Powder River Pool
  - Tributaries at Brownlee Reservoir (Daly Creek, Powder River, Sturgill Creek and Cottonwood Creek)
- Unimpounded reach of the Snake River below Hells Canyon dam, including tributaries to the Snake River
  - o Imnaha River
  - Lower Grande Ronde River
- Off-site location, including Tribal lands and Ceded Territories of Native American Tribes
  - Other off-site locations, such as
    - Crane and Paddock Creek
    - o Severn Mile Slough/Lower Payette
    - o Pine Creek
    - o OX Ranch
    - o Imnaha River
    - Rocking M
    - Joseph Creek
    - North Pine Creek
    - o Lookout Mtn
    - Red Bird Canyon
    - Sheep Mtn
    - o Mtns on the Idaho side of Brownlee and Oxbow reservoirs
    - (Sheep) allotment Black Lake-Sheep Rock

The TRWG listing of potential acquisition parcels were identified knowing that the list was fluid and that opportunities change over time.

IPC's proposed option for meeting the land acquisition acre target includes 3 parcels from the identified sites above. Two primary reasons are given for this selection: 1) these parcels are currently on the market or are soon to be available, and 2) in IPC's view, these parcels along with the range allotments and IPC's own lands, meets and exceeds its proposed PM&E measure.

IPC's option proposes to acquire 18,000 acres of private land, assume management control over 16,000 acres of federal grazing allotments, and credit 2,799 acres of IPC owned lands towards the acquisition goal. This option totals 36,799 acres with a division of 21,416 acres and 15,383 acres in Oregon and Idaho, respectively.

# BLM Comments on IPC's Proposed Option:

## Acquisition of Private Lands

IPC's proposal to acquire private parcels in the Daly, Sturgill and Cottonwood Creeks incorporate many of the land acquisition criteria identified in the TRWG Brainstormed Conceptual PM&E Measures – May 16, 2001. Criteria include: on-site and in-kind mitigation; fee title acquisition, including water rights; maximum diversity; low-elevation winter range; riparian habitat; specific habitats (springs, seeps and wetlands); large contiguous blocks of land; adjacency to federal, state and IPC owned-lands; species specific; and off-site mitigation.

The BLM believes that acquisition and management of these lands within a specified time after the license is issued, will to a reasonable extent, partially mitigate the continuing Project affects to BLM lands. However, your proposal should include additional sites adjacent to Brownlee, Oxbow and Hells Canyon reservoirs and possibly adjacent to the Snake River below Hells Canyon dam. You should also consider land tracks mentioned at the July 8, 2004 meeting by the tribal representatives.

<u>Federal Grazing Allotments and Applicability to IPC Mitigation Responsibilities</u> IPC's proposal included 16,000 acres of federal (public) lands that are currently estimated to be attached to private lands (base property for BLM grazing privileges) that IPC is researching as having potential for mitigation opportunity. These private lands total 18,000 acres, with some in Idaho and some in Oregon.

It is not appropriate for IPC to 'take credit' for these 16,000 acres of public lands because IPC will not have control or jurisdiction over these lands. These will not be 'new acres' available for mitigation or changes in management for terrestrial species. They are currently under the management of BLM districts in Vale and Boise. This will not change. These offices have Land Use Plans, allotment management plans, and other guidance that currently and in the future will provide management goals. The owner of the base property does have the opportunity to suggest changes in grazing management by working with the managing BLM office, but they do not control these changes.

If, and when, IPC should purchase these properties, IPC must qualify for grazing privileges as specified in 43 CFR 4110.1(a)(2)or (3), which says, "(2) A group or association authorized to conduct business in the State in which the grazing use is sought, all members of which are qualified under paragraph (a)of this section or, (3) an applicant may be, a corporation authorized to conduct business in the State in which the grazing use is sought."

IPC would then be required to apply to BLM for the transfer of grazing preference. Should IPC wish to take non-use for these lands, it could be authorized by BLM for up to 3 years. It should also be noted that non-use might not be granted indefinitely unless approved by the BLM authorized officer. This approval process would involve evaluation of the allotment conditions, assessment of other grazing users needs and management allocations in the current and future Land Use Plans. In some cases, BLM could offer the grazing preference to other users if IPC does not utilize it. It should therefore be noted, that BLM is the authorizing agency for livestock grazing permits and administration of these public lands.

The BLM would willingly work with IPC, as with any new owner of base property, to allocate and manage public lands consistent with BLM Land Use Plans and policies. However, IPC is not authorized to make decisions on public lands, regardless of base property ownership. Therefore, it is not appropriate for IPC to 'take credit' for public lands in their TR-1 acquisition package.

# **IPC-Owned Lands**

IPC proposes that certain IPC-owned lands be managed to 1) protect wildlife resources from potential impacts, 2) mitigate for identified impacts to wildlife resources, and 3) enhance the future value of wildlife resources. Lands currently owned by IPC may be considered as mitigation properties if they meet specific criteria. These criteria may include those included in the Brainstormed Conceptual PM&E measures developed by the TRWG. IPC will need to clearly identify the benefits from inclusion of IPC-owned lands to mitigate the continuing impacts to terrestrial resources by the Project. This includes projected increase in habitat units and function expected with active management. A management plan for the IPC-owned properties will need to be developed and approved by the multi-agency committee and implemented by IPC.

# (iii) Alternative or additional PM&E measures

# Land Acquisition Proposals

# **Previous BLM letter on acquisition**

On May 1, 2001, BLM sent a letter with maps to Craig Jones, IPC. This letter and maps detailed the location of many parcels of private lands adjacent to BLM lands in Oregon, Idaho and Washington that could be suitable acquisition parcels to meet mitigation for project impacts. The letter also provided criteria for resource values necessary for suitable mitigation. These values included "habitats for big game, upland game, bull trout, red band trout, other native fish, sensitive native plants, riparian vegetation, cultural or historical properties and recreation use values." We also stated in the letter that it was not an all-inclusive list of potential properties. The information sent in this letter is still valid and continues to represent the BLM proposals and recommendations for specific land parcels.

#### **Methods of Monitoring**

The goal of monitoring should be to develop a scientifically defensible estimation of the status and trends in the terrestrial resources being managed by IPC, and to determine whether management practices are supporting those resources goals or should be changed (Gibbs et al. 1999). To ensure success, monitoring must be linked to well-defined objectives. In some instances, monitoring may involve testing specific hypotheses related to resource objectives or their components. IPC, in consultation with the TRWG, should define site-specific resource objectives that are both realistic and measurable. These objectives should articulate the following (Elzinga et al. 1998): (1) what will be monitored, (2) the geographic scope of the monitoring, (3) the specific metric of the indicator that will be measured, (4) the anticipated response to the management action, (5) the magnitude of change anticipated, and (6) the anticipated time frame over which the response should occur. Prior to initiating site-specific monitoring actions, IPC, in consultation with the TRWG, should establish baseline biological conditions for the resources that will be monitored. This could be accomplished using existing data and information, and/or new data collected through appropriately designed field surveys.

IPC, in consultation with the TRWG, should establish monitoring protocols and schedules. Monitoring parameters, or indicators, that best display the current condition and dynamics of the system being managed should be selected for monitoring (Gibbs et al. 1999). Preference should be given to indicators that not only demonstrate the existence of change, but which can also be linked to the cause of change. Monitoring intensities should reflect the need to obtain sufficient enough data to have a reasonable chance of detecting change.

#### **Plan Implementation**

IPC should prepare a Resource Habitat Mitigation Plan in consultation with the TWRG and other appropriate Hells Canyon resource work groups and stakeholders. The plan, at the minimum should include resource habitat mitigation goals and objectives; desired habitat conditions; parcel and conservation easement acquisition criteria; implementation schedule for habitat acquisition and improvement; procedures for habitat restoration of parcels in degraded condition, procedures for maintaining functioning habitat on the acquired parcels; procedures for effectiveness monitoring in determining whether the desired habitat conditions and trends are being achieved; modification of practices when objectives and trends are not achieved; and a provision for the plan's periodic review and revision. The Resource Habitat Mitigation Plan should be incorporated as a part of the Hells Canyon Resource Management Plan.

# **Terrestrial Resource Work Group**

Establishment of a post licensing TRWG will facilitate integrated and coordinated management of terrestrial resources identified in the Hells Canyon Resource Management Plan for the Hells Canyon Hydroelectric Project. The TRWG should be established for consultation in the development and implementation of the Hells Canyon Resource Management Plan throughout the life of the new Project license.

Representatives of each federal and state agencies as well as tribes and other key stake holders should be on the TRWG.

The purpose of the TRWG is to consult with IPC in the development of the Hells Canyon Resource Management Plan. The plan, in addition to the IPC's recommendations should include but not be limited to the following additional elements: resource habitat mitigation plan; design of restoration, protection, management and monitoring plans; exotic and invasive vegetation management strategy; review and evaluation of monitoring data; and in the development of adaptive management actions or other recommendations based on monitoring data analysis.

The TRWG should meet at least once per year to review the previous year's achievements and activities, and discuss and approve a final annual work plan for the current year. The TRWG may choose to meet at other times of the year, as needed, to address specific plan activities or unanticipated matters or circumstances.

#### Reporting

IPC should prepare and submit annual progress reports to FERC with copies sent to the TRWG. The annual report should document the previous calendar year's acquisitions, management activities, monitoring results, and compliance with the license terms and conditions. The progress report should also include a proposed annual work plan that describes planned activities for the current year. IPC in consultation with TRWG should complete and submit a final work plan to FERC with copies sent to the agencies and Tribes. The final work plan should document this consultation.

IPC, in consultation with the TRWG should review, update, and/or revise, as needed the Hells Canyon Resource Management Plan every 5 years. The updated or revised plan should document this consultation. IPC should submit 5-year plan updates to FERC by the end of each calendar year (December 31) in which the review and updates occur, with copies sent to the agencies and Tribes. The initial 5-year update of the plan should be completed during the 5<sup>th</sup> calendar year of the new license. Changes or revisions to the plan would be expected if terrestrial resource conditions change as a result of any unforeseen effects from new or existing project-related activities. Changes may also be in order if monitoring feedback indicates that resource objectives are not being met and/or it is determined that a specific PME is not providing the intended result and needs to be revised or replaced.

#### Adaptive Management

Adaptive management is crucial in achieving terrestrial resource goals and objectives, and as such, should be a key element of the Hells Canyon Resource Management Plan. IPC, in consultation with the TRWG should identify an adaptive management process that will apply to all aspects of the plan throughout the life of the new project license. The objective of adaptive management should be to monitor the implementation (compliance) and effectiveness of specific mitigation, enhancement, and protection measures, and to modify those actions as needed to meet resource-specific goals and objectives. The data generated from monitoring will be analyzed and used to evaluate changes in condition and progress toward meeting resource management objectives. Monitoring shall provide the necessary information to track and assess

the effects of specific management actions on terrestrial resources, and to change if necessary, future management actions or resource objectives.

Adaptive management should be based on periodic monitoring cycles tailored to each resource objective and the temporal expectation for change related to a specific mitigation or management action. IPC should report the results of the previous year's monitoring activities in the annual progress report. IPC and TRWG should review and evaluate the monitoring results at the annual TRWG meeting. The primary purpose of the evaluation process should be to determine whether management practices are achieving resource objectives, or should be changed. IPC and TRWG may request outside peer review of the monitoring results to assist in developing and evaluating adaptive management actions. Subsequent to the annual evaluation process and/or peer review, IPC in consultation with the TRWG should develop and implement specific monitoring proposals for the current year. Monitoring activities will be incorporated into an annual work plan for terrestrial resources.

#### **References:**

Christensen, A. 2001. Final Report Delineation and Assessment of Big Game Winter Range Associated with the Hells Canyon Hydroelectric Complex: Mule Deer, Elk, Mountain Goats, and Rocky Mountain Bighorn Sheep. Technical Report E.3.2-31 in License Application for the Hells Canyon Complex. Idaho Power Company, Boise, ID, USA.

Elzinga, C.L., D.W. Salzer, and J.W. Willoughby. 1998. Measuring and monitoring plant populations. Bureau of Land Management Technical Reference 1730-1.

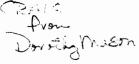
Gibbs, J.P., H.L. Snell, and C.E. Causton. 1999. Effective monitoring for adaptive wildlife management: lessons from the Galápagos Islands. The Journal of Wildlife Management 63:4 1055-1065.

Johnson, M. 2002. Hells Canyon Resource Management Plan. Technical Report E.6-1 in License Application for the Hells Canyon Complex. Idaho Power Company, Boise, ID, USA.

Kovalchik, B.L. 1987. Riparian zone associations deschutes, ochoco, fremont and winema national forests. Tech. Paper. R6 ECOL TP-279-87. U.S. Department of Agriculture, Forest Service, Pacific Northwest Region. Bend, OR.







# United States Department of the Interior

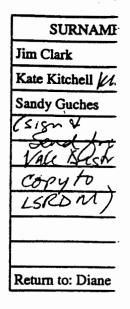
#### BUREAU OF LAND MANAGEMENT

Lower Snake River District Boise Field Office 3948 Development Avenue Boise, Idaho 83705-5389 http://www.id.blm.gov

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In Reply Refer To:

1780

Craig Jones Idaho Power Company 1221 W. Idaho St. Boise, Idaho 83702

Dear Mr. Jones,

In our September 6, 2000 letter, we indicated BLM's need to complete thorough analysis of Idaho Power's study results and the current management situation to provide appropriate PME measures to the workgroups involved in the relicensing process for Hells Canyon Complex. We acknowledged your requests for specific lists of land acquisitions but indicated these lists cannot be finalized until the analysis is complete and priorities are established. We further suggested opportunities existed for BLM in the following areas: in the rim to rim area from Farewell Bend to Captain John Rapids and on selected off site locations meeting our criteria for resource values.

The purpose of this letter is to communicate some opportunities and ideas for acquisition that may serve as mitigation and may be available prior to the license issuance. Enclosed are maps displaying potential acquisition properties with important resource values. Such values include habitats for big game, upland game, bull trout, red band trout, other native fish, sensitive native plants, riparian vegetation, cultural or historical properties and recreation use values. Be aware also that the enclosed list of properties is not all-inclusive.

These properties may be available prior to the completion of the relicensing process and Idaho Power may want to pursue their acquisition. As you know, acquisition of private lands, can be a sensitive issue, and it is important to respect private property rights, county tax bases, fair market valuation, and the need for full coordination with local governments. We believe it will be critical for Idaho Power to take these into full consideration when evaluating and pursuing acquisitions for mitigation.

In conclusion, BLM must fully evaluate the highest priority needs for public resources through an integrated process prior to offering specific PME measures to the FERC license. However we strongly urge and support Idaho power to evaluate acquisition opportunities as they become available over the next few years. For further information on this please feel free to contact our team leader, Dorothy Mason at 541-523-1308. Sincerely,

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Pevelope Dura Woods

Sandy Guches Vale District Manager

- Katherine Kitchell Lower Snake River District Manager
- cc: Alan Ansell, Dorothy Mason Idaho State Office (ID-930) Oregon State Office (OR-930)

JIMCLARK:db:3314:4/26/01:D:\dbarker\Correspondence\Jim Clark typing\IdahoPower.acquisition.let.4.01

CF RF

#### COTTONWOOD FIELD OFFICE POTENTIAL MITIGATION LAND ACQUISITIONS HELL'S CANYON RELICENSING PROJECT

CONTACT: Ron Grant, (208) 962-3680.

#### PROPERTY #1

Name: Wolf Creek. <u>Acreage</u>: 17,000 acres.

<u>Priority Resource Values</u>: Year-round big game range (big horn sheep, elk, mule deer, mountain lion, black bear), big game winter range, upland game, T & E Species (spring/summer chinook salmon and steelhead spawning & rearing), cultural & historical, recreation, riparian, sensitive/rare plants.

<u>Comments</u>: Contains the trail used by the Chief Joseph Band during the Nez Perce Indian War (Nez Perce National Historic Trail). High probability of significant prehistoric archeological sites. Has the most critical mule deer winter range in the area. Would provide extensive public recreational opportunities, including road access to the Snake River in the middle of Hell's Canyon. Has Snake River frontage.

#### PROPERTY #2

<u>Name</u>: Cottonwood Creek. <u>Acreage</u>: 2,140 acres.

<u>Priority Resource Values:</u> Year-round big game range (big horn sheep, mule deer, mountain lion, black bear), elk winter range, upland game, fisheries, recreation, cultural, riparian.

<u>Comments</u>: Critical inholding in the Craig Mountain Wildlife Management Area (one of only a few parcels of private land within 162,000 acres of federal and state ownership). Contains known prehistoric archeological sites.

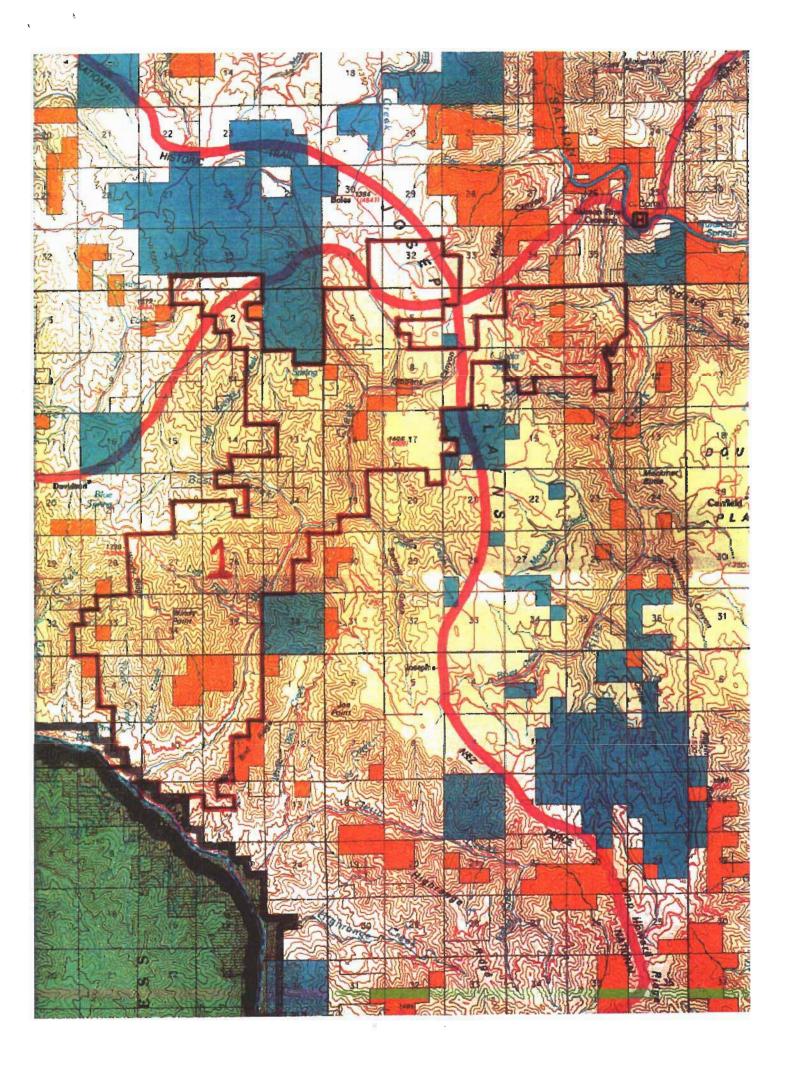
#### PROPERTY #3

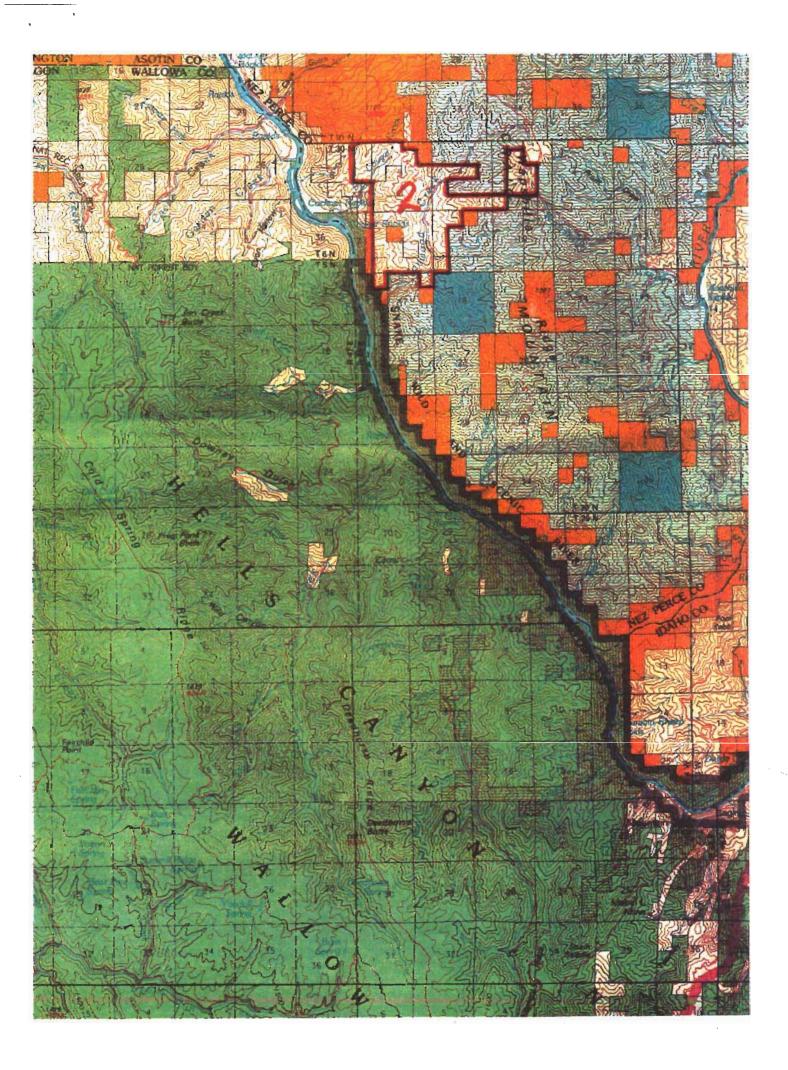
Name: Dry Creek.

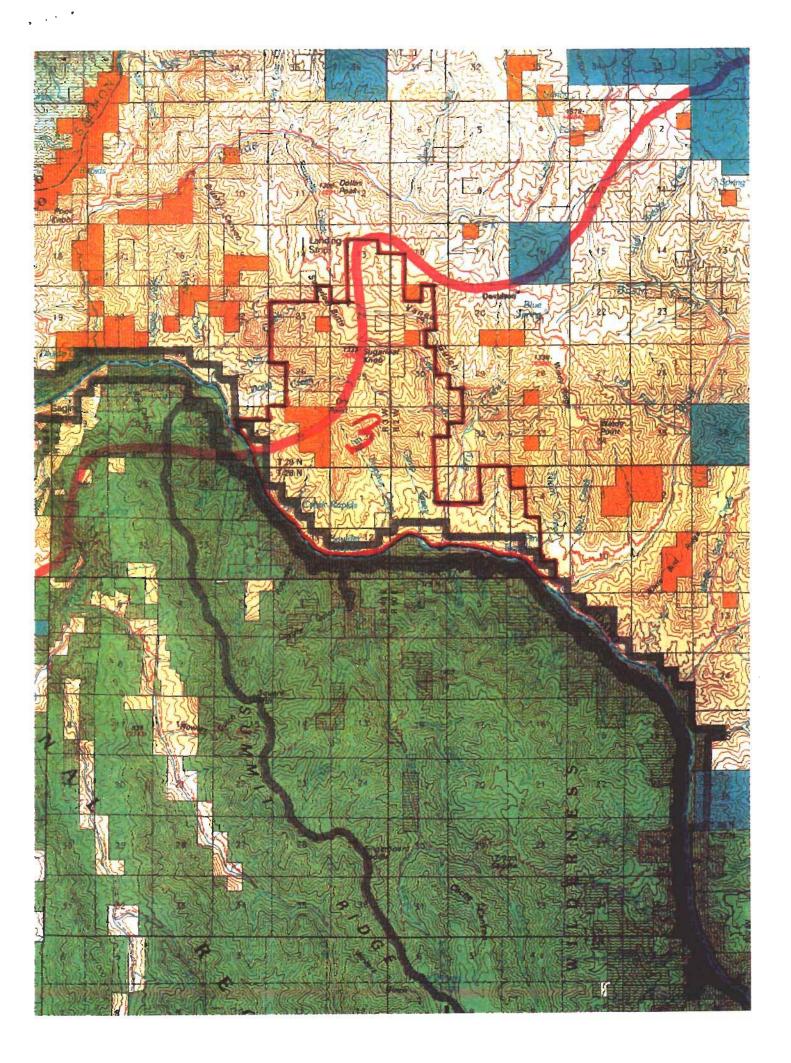
Acreage: 7,560 acres.

<u>Priority Resource Values</u>: Year-round big game range (big horn sheep, mule deer, mountain lion, black bear), elk and mule deer winter range, fisheries, upland game, T & E Species (spring/summer chinook salmon and steelhead rearing), cultural & historical, recreation, riparian, sensitive/rare plants.

<u>Comments</u>: Contains the Nez Perce National Historic Trail. The Nez Perce escaped the U.S. Cavalry by swimming across the Snake River at this location. High probability of significant prehistoric archeological sites. Would provide extensive public recreational opportunities, including road access to the Snake River in the middle of Hell's Canyon. Has more than six miles of Snake River frontage.







# BAKER FIELD OFFICE POTENTIAL MITIGATION LAND ACQUISITION HELLS CANYON DAMS RELICENSING

#### CONTACT: Dorothy Mason (541) 523-1308, Baker City, Oregon

#### **PROPERTY #1**

<u>Name</u>: Daly Creek (presently for sale) <u>Acreage</u>: 10,000 acres

<u>Priority Resource Values</u>: Critical big game winter and summer range for elk, deer, and bighorn sheep, upland transitional range, game birds, cultural plant communities and high potential archaeological area, wetlands and riparian, warm spring on Daly Creek, diverse plant communities across elevation relief, winter bald eagle/raptor habitat, major recreation opportunities on Powder River/Snake River reservoir frontage.

<u>Comments</u>: Potential federal, state, private partnerships for wildlife habitat improvement and watchable wildlife programs. High probability for significant archaeological sites on traditional Indian trail route from Eagle Valley to Lookout Mountain. Consolidated ownership provides potential for partnerships in watershed restoration on Daly Creek from Lookout Mountain to the Powder River. Includes one-half of shoreline of Powder River reservoir in Eagle Valley. This 10,000 acre property is the Daly Creek Ranch, which is presently for sale.

#### PROPERTY # 2

Name: Morgan/Fox/Connor Creek

Acreage: 2480 acres

#### Priority Resource Values:

*Connor Creek*: Upland big game habitat for elk, deer, bighorn sheep; upland game birds; riparian/wetland; significant known archaeological properties and historic cultural plant habitat (840 acres).

*Fox Creek*: Big game habitat for elk, deer, bighorn sheep; upland game birds, potential cultural plant habitat; riparian/wetlands; high probability for archaeological and historic sites, recreation hiking trail between Snake River and Lookout Mountain (1360 acres).

Morgan Creek: Big game habitat, upland game bird habitat; potential for watershed/riparian restoration and erosion control on Morgan Creek (280 acres)

<u>Comments</u>: Opportunity for upland restoration/protection of historic cultural plant habitat and significant watershed restoration on three tributaries of the Snake River above Brownlee Dam.

# April 10,2001

#### **Recreation** Input for Aquisition

The following tracts of land are identified as those that are priority for acquisition. These parcels of land have been identified to acquire because of existing public use, potential for boat ramp construction, or improved public access.

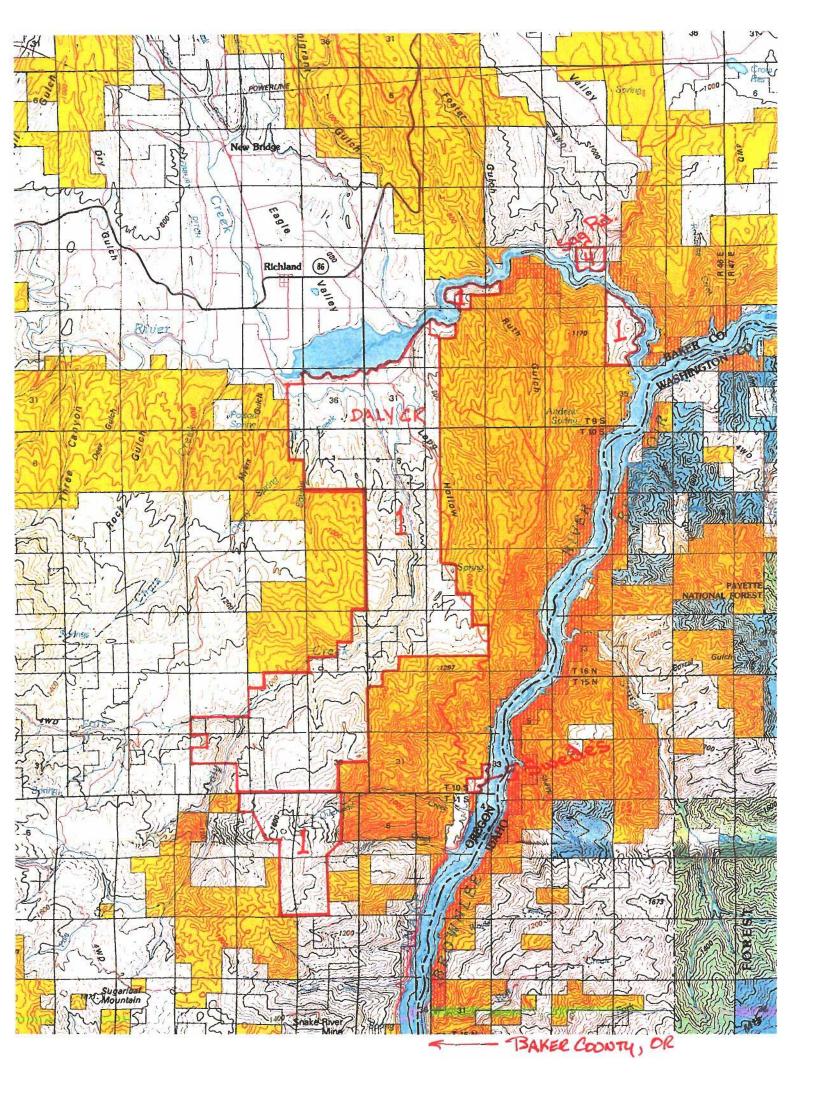
Parcel #	<u>Township</u>	Range	Section
3	6S	48E	28 Holbrook Crk.
4	9S	46E	22 Sag Road
5	10S	46E	32 Swede's
6	12S	45E	28, 29 Hibbard Crk.
7	15S	46E	19 Cobb Rapids

To:	Polly Gibskov	April 10, 2001
From:	Greg Miller	
Re:	Wildlife Input for land Acquisition along Snake River relative to FERC r	elicensing.

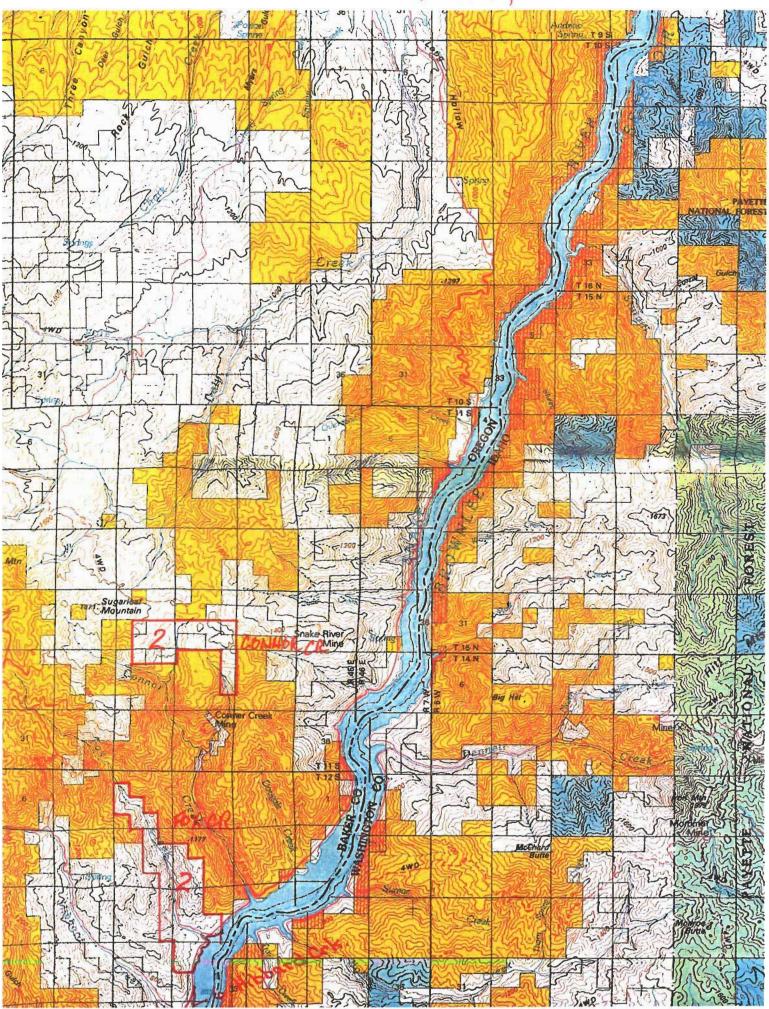
The following tracts of land are identified as those that are priority for acquisition by the BLM along the Snake River.

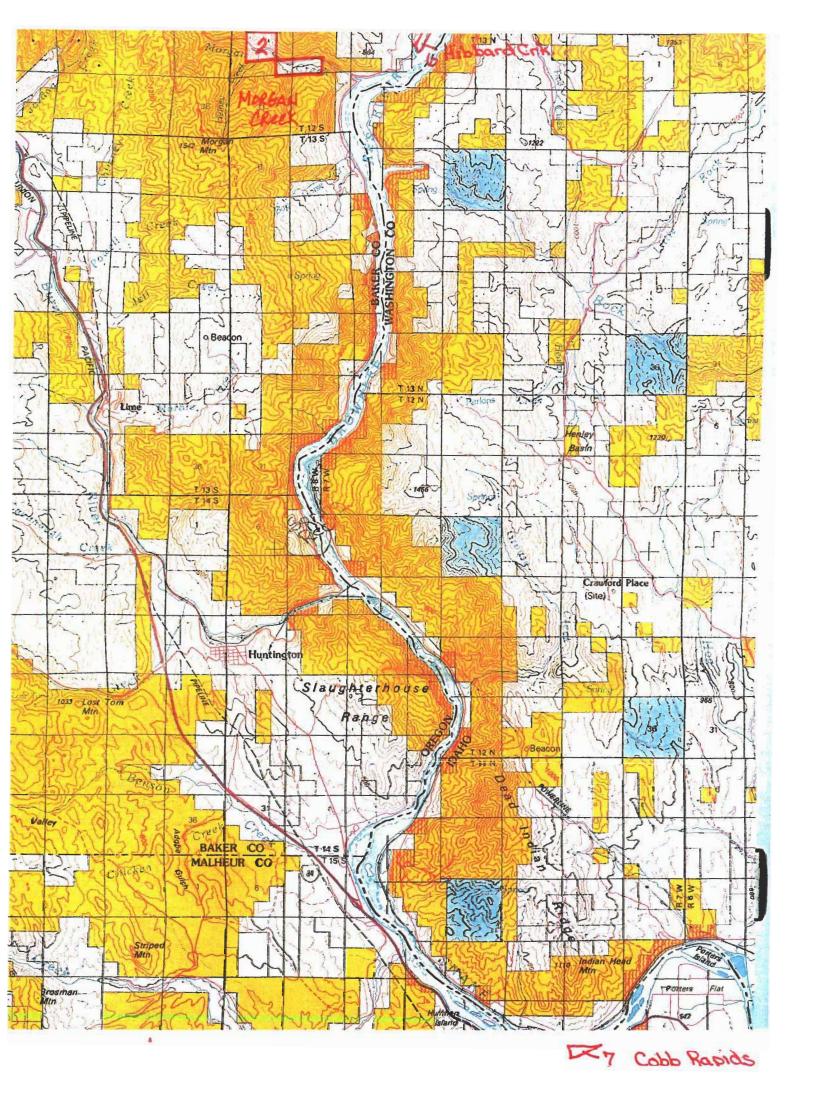
Township	Range	Sections
<b>8</b> - 6 S.	48 E.	1, 2, 10, 11, 14, 15
<b>9</b> - 7 S.	48 E.	16, 21, 22, 27, 28, 29, 33
10 - 8 S.	47 E.	36
11 - 9 S.	47 E.	16

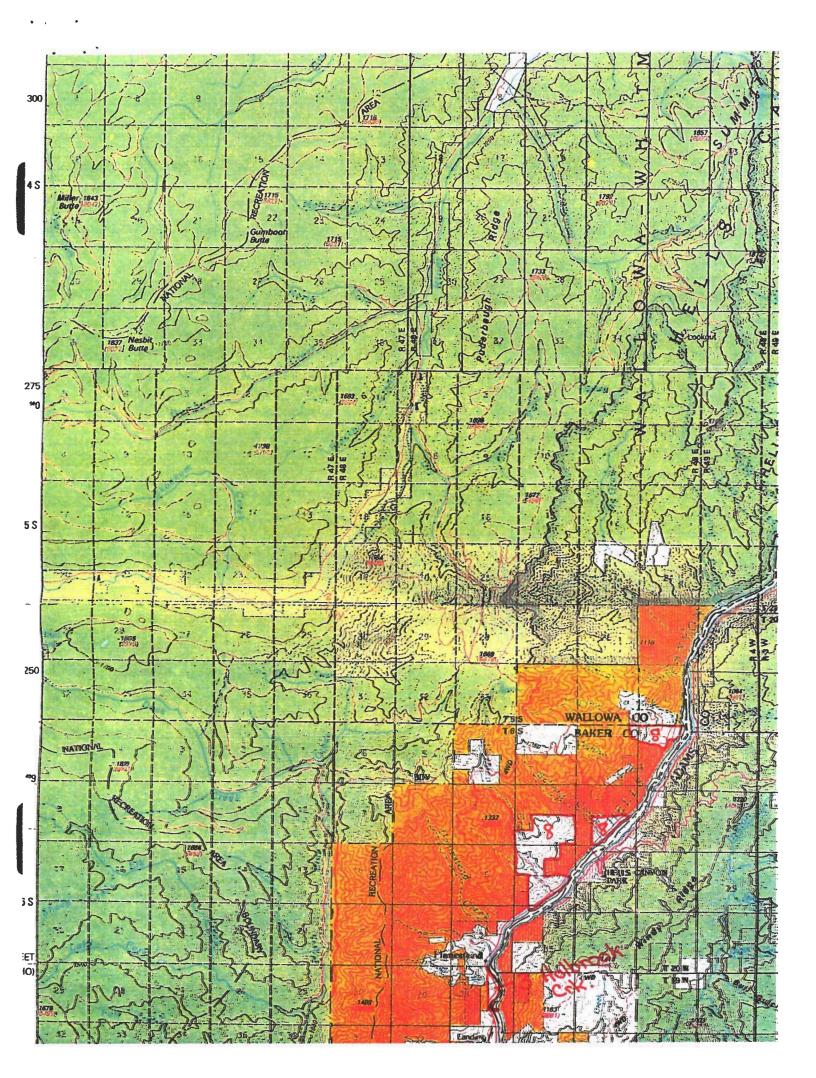
These parcels of land have been identified to acquire because of their contribution to existing or future habitat for big horn sheep and deer and elk winter range. In addition to their contribution to existing and future habitat for nesting and roosting bald eagles and other birds of prey including peregrine falcons. These areas are also potential and existing habitat for many bat species including the spotted bat and western big-eared bat.

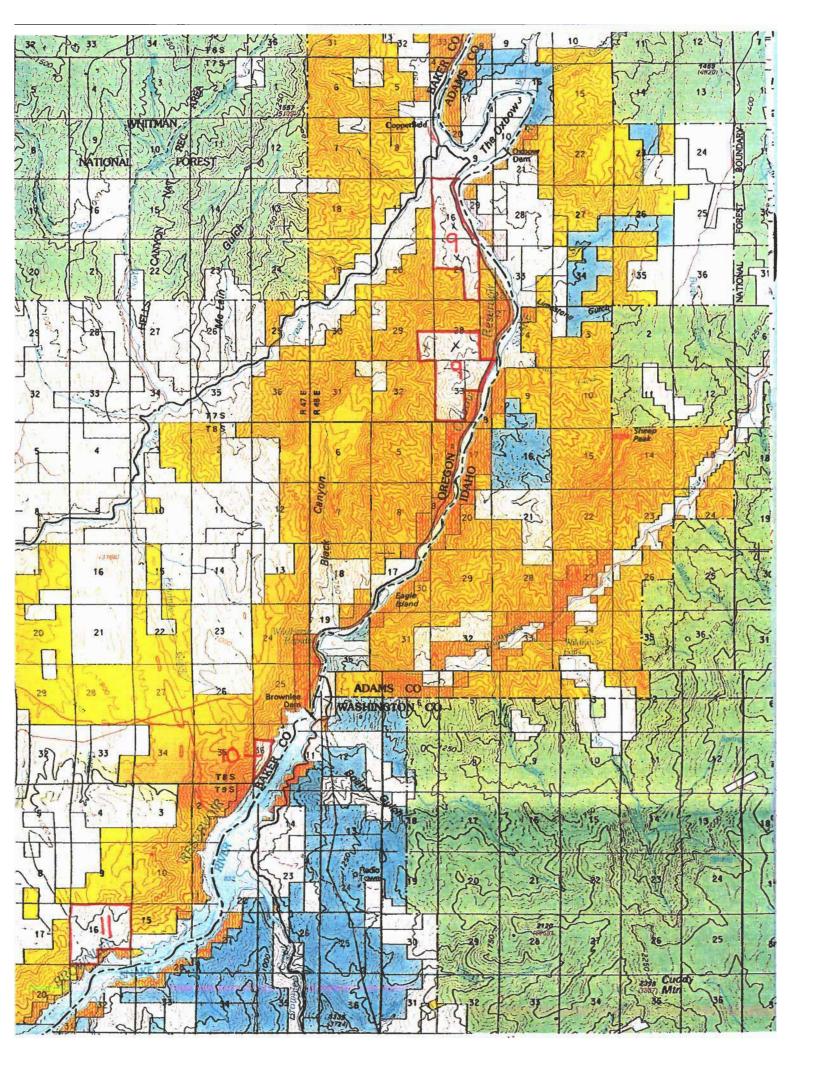


BAKER Co., OR









#### Idaho Power Mitigation Acquisition or Wildlife Easement Doise Dの

MAP 1: 1. - Bull Trout - Acquisition of State and Private.

MAP 2: 2. - Big Game - Acquisition or Easement of Sturgill Creek Ranch which is presently up for sale. (Soulen)

3. - Big Game - Acquisition of State and Private (Rocking "M" Ranch)

4 Sutton, Palmer, and others)

MAP 3: 4. - Big Game and Sage Grouse - Acquisition or Easement. (Sutton, Palmer, and others)

5. - Big Game and Sage Grouse - Acquisition or Easement. (Palmer)

6. - Big Game and Sage Grouse - Easement proposed by owner. (Robert Rouston Estate)

7. - Big Game and Sage Grouse - Easement proposed by owner. (Winegar)

8. - Big Game and Sage Grouse Acquisition or Easement.

9. - Sage Grouse Acquisition.

Phil Soulen 208-549-1878

Rocking "M" Ranch (Roy Moore) 303-294-0146

Howard Sutton 208-355-2450

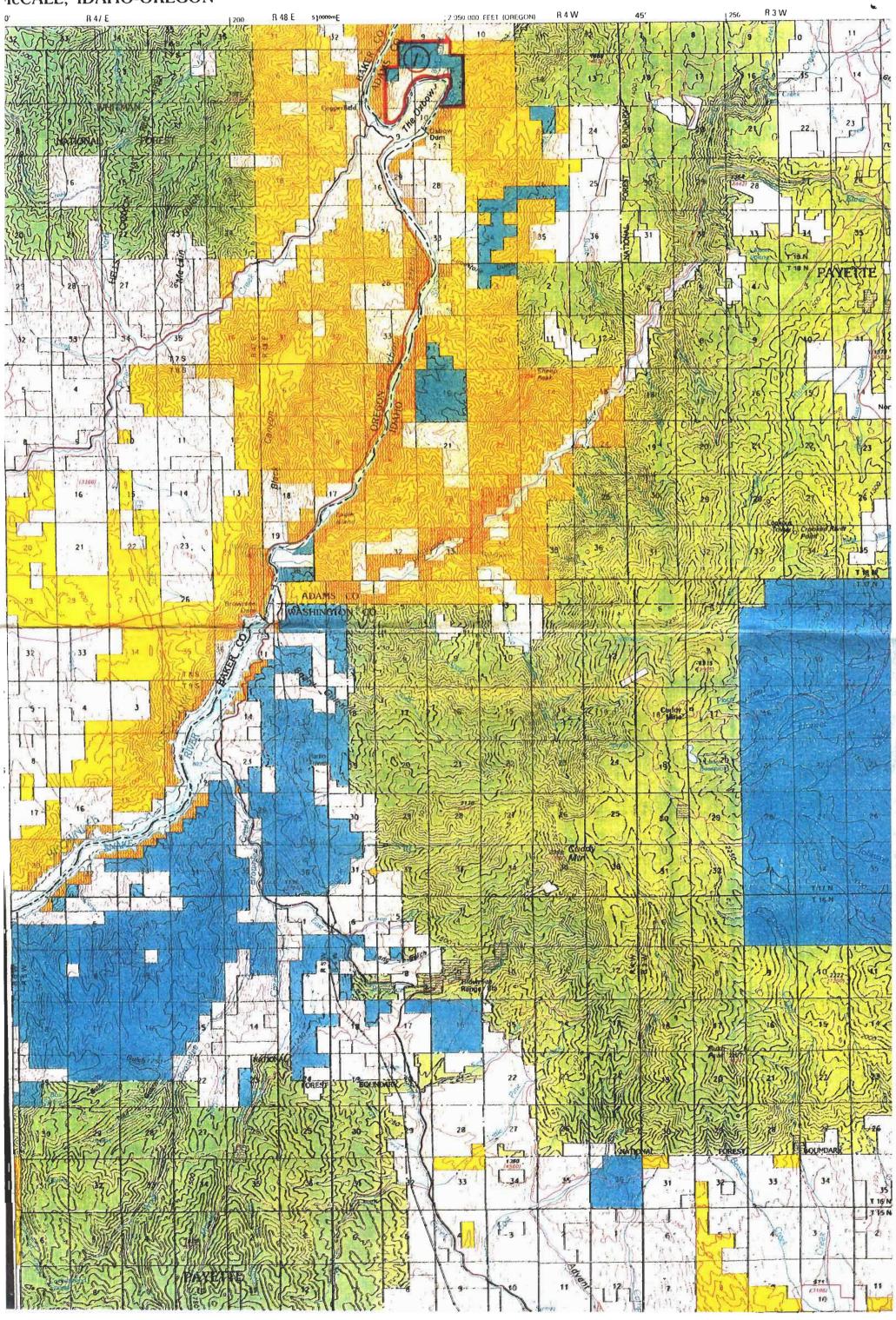
Pat Palmer No phone contact through Jim Mason 208-549-1752

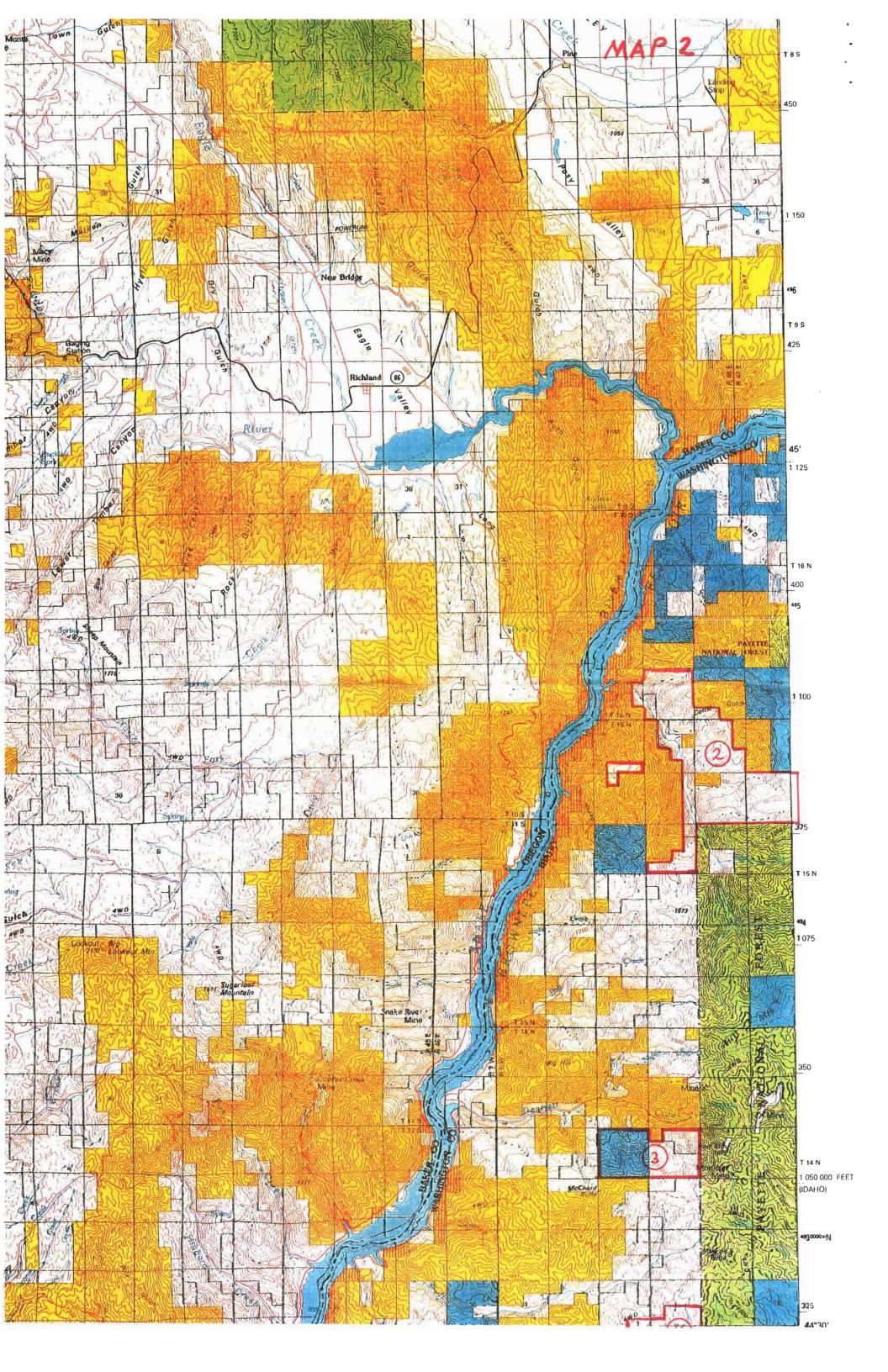
Rouston Ranch (Mike Rouston) 208-549-2090

Bruce Winegar 208-549-3060

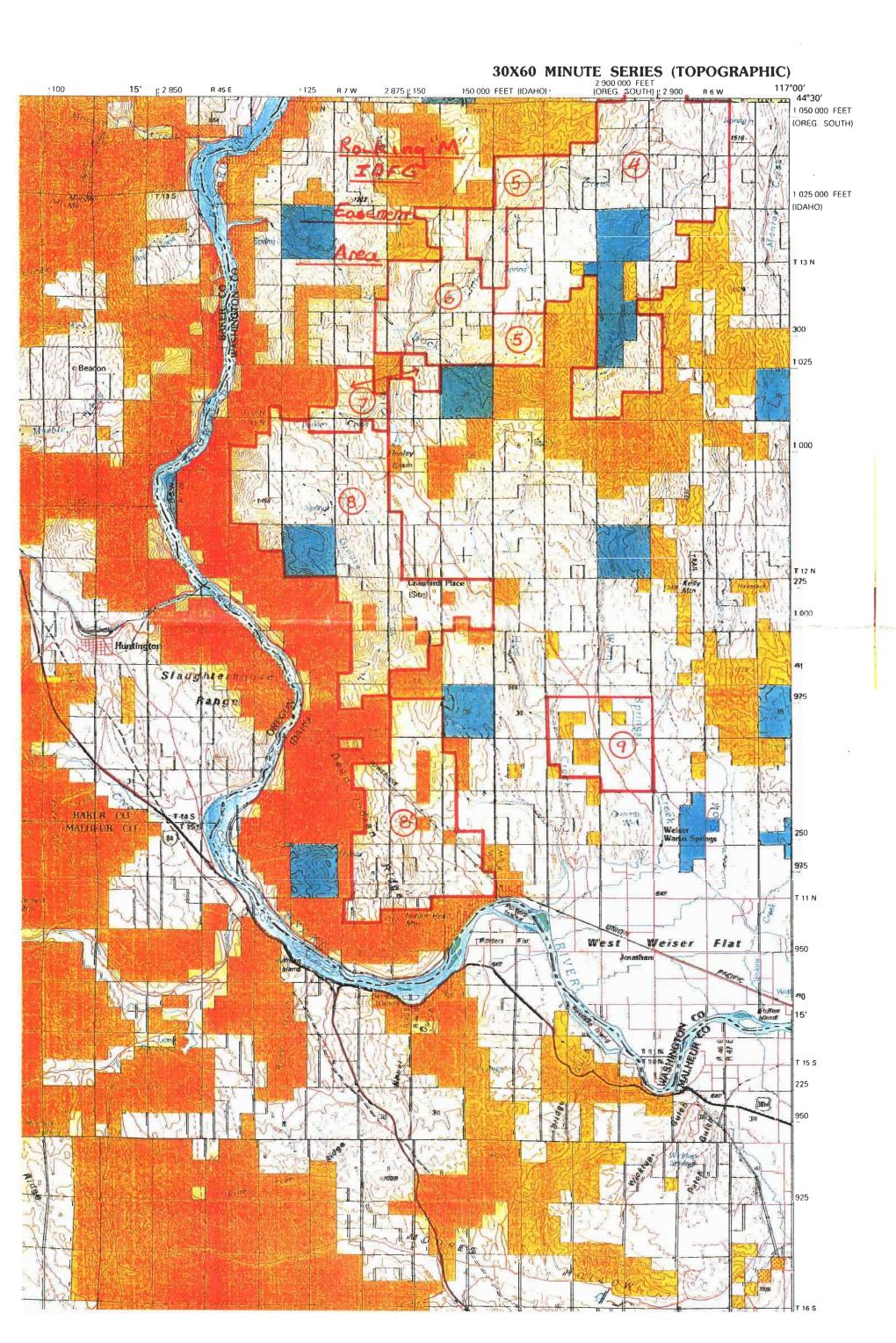
# MAP 1

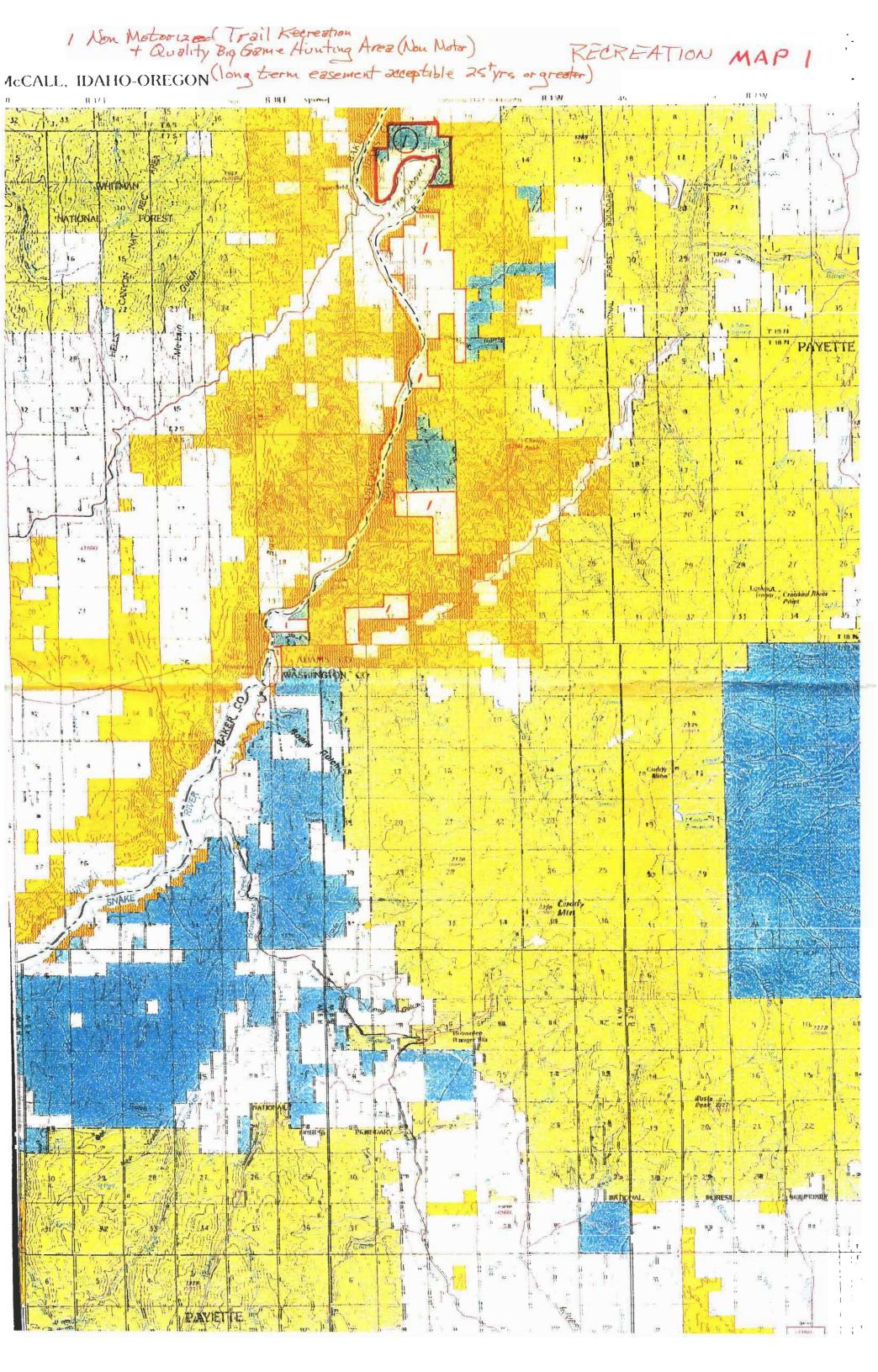
# 1cCALL, IDAHO-OREGON



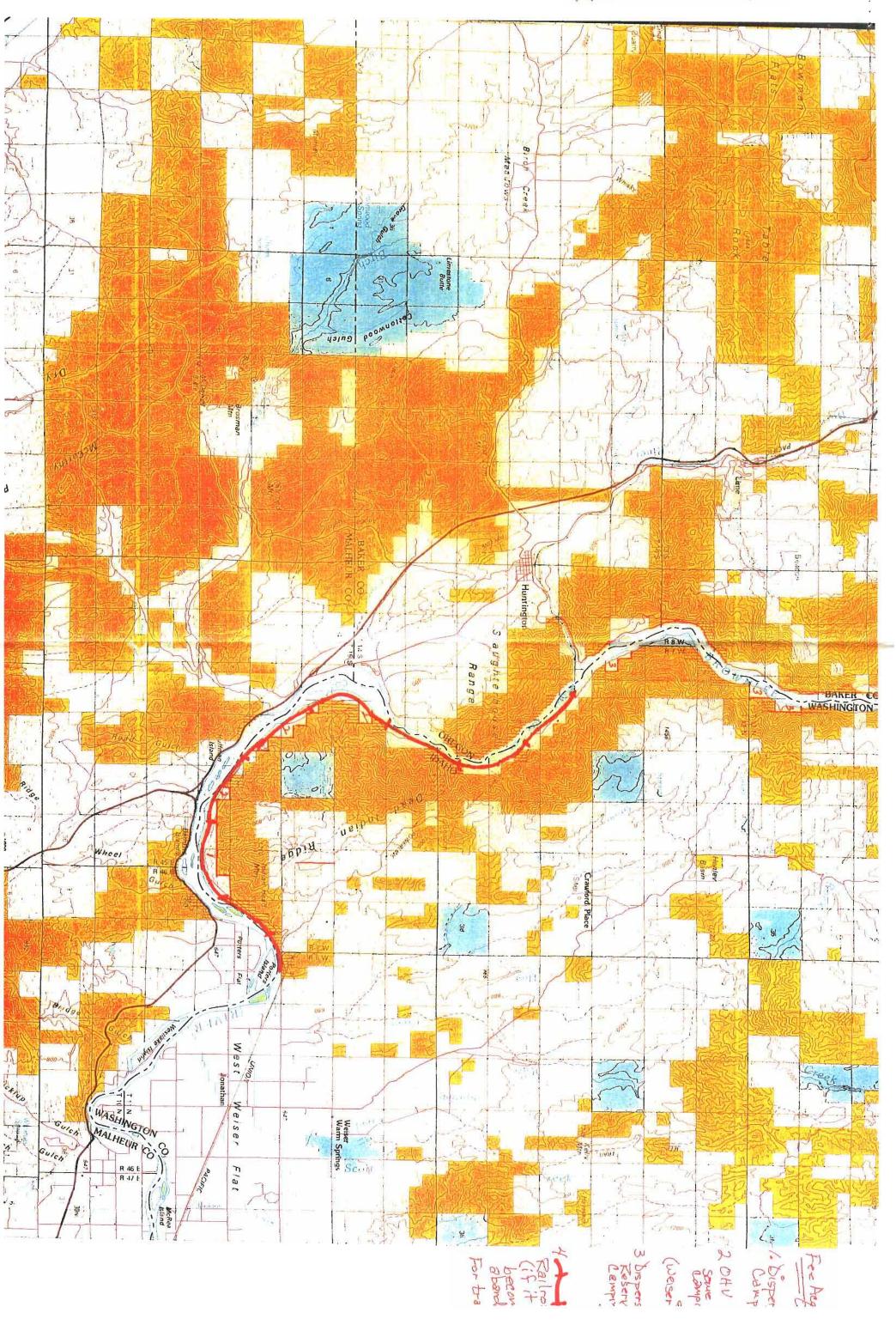


# MAP 3





Recreation Map 2





**IDAHO DEPARTMENT OF FISH AND GAME** 600 S Walmit - PO Box 25 Boise, Idaho -831 0/20028

Dirk Kempthorne - Governor Steven M. Hutfaker - Director

August 18, 2004

Frank Edelmann Idaho Power Company Environmental Affairs P.O. Box 70 Boise, Idaho 83707

Re: Hells Canyon Additional Information Request TR-1 (a-c) Hells Canyon Hydroelectric Complex, Project No. 1971

Dear Mr. Edelmann:

The Idaho Department of Fish and Game (IDFG) is responding to Idaho Power Company's (IPC) letter of July 16, 2004 requesting comments on Additional Information Request (AIR) TR-1 (a – c) for relicensing of the Hells Canyon Hydroelectric Complex. The Federal Energy Regulatory Commission (FERC) requires that IPC report comments from consulted entities on IPC's responses to the three elements of AIR TR-1: (a) Acquisition of upland and riparian habitat, (b) management of wildlife resources on IPC-owned lands, and (c) Integrated Wildlife Habitat Program. IPC asked the IDFG to recommend alternative or additional protection, mitigation, and enhancement (PM&E) lands that IPC should analyze as potential mitigation acquisitions. Specifically, IPC requested the IDFG address the following information required by the FERC:

- 1. Ownership
- 2. Acreage
- 3. Vegetation Cover Types
- 4. Elevations
- 5. Contiguity with larger blocks of habitat
- 6. Proximity to project
- 7. Geographic distribution
- 8. Benefits to high priority habitats or species

# (a) Acquisition of Upland and Riparian Habitat

IDFG staff participated in the Terrestrial Resource Work Group (TRWG) and along with the other members provided input about key private land parcels that IPC should consider as potential mitigation options. The IDFG owns and manages the Cecil D. Andrus Wildlife Management Area (WMA) and holds a conservation easement on the Rocking M Ranch, both of which are located in close proximity to Brownlee Reservoir.

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Having this large, core block of land dedicated to fish and wildlife management, habitat protection and enhancement, and public access, provides the foundation for a larger cooperative venture involving other stakeholders. IDFG believes the mitigation scenario pursued by IPC via its relicensing efforts for the Hells Canyon Complex, affords a significant opportunity to create a landscape level effort to manage the diverse wildlife resources inhabiting this ecoregion. The IDFG supports IPC's efforts to acquire, manage, and enhance wildlife habitat in Hells Canyon.

To address the issue of alternative lands that the IDFG would recommend to IPC for analysis, the IDFG priority as per our policy is for on-site in-kind mitigation. In the TRWG discussions involving the Conservation Reserve Study funded by IPC (Technical Report Appendix E.3.2-39), the IDFG recommended consideration for acquisition of two large private ranches along the Brownlee Face. These same two properties were identified and discussed at IPC's July 8, 2004 consultation meeting to discuss AIR TR-1. IDFG has identified these properties with the assumption that the owners might be willing sellers. Below is the specific information that IPC requests for these properties:

# Lawrence Property

- (1) <u>Ownership</u>: Ron Lawrence, Private Ranch
- (2) Acreage: 1,971 +/- 100 acres
- (3) Vegetation Cover Types: The vegetation cover types on this property are similar to those documented on the Cecil D. Andrus WMA. Based on the descriptions of various published classifications, 21 plant communities have been identified for the Cecil D. Andrus WMA.

# Grassland

- 1. Bluebunch wheatgrass-Sandberg's bluegrass/arrowleaf balsamroot (*Agropyron spicatum-Poa sandbergii/Balsamorhiza sagittata*)
- 2. Idaho fescue/bluebunch wheatgrass (*Festuca idahoensis/Agropyron spicatum*)
- 3. Idaho fescue/prairie junegrass (*Festuca idahoensis/Koeleria cristata*)
- 4. Sand dropseed (Sporobolus cryptandrus)
- 5. Spiny greenbush/bluebunch wheatgrass (*Glossopetalon nevadense/Agropyron spicatum*)

# <u>Bitterbrush</u>

6. Bitterbrush/bluebunch wheatgrass (*Purshia tridentata/Agropyron spicatum*)

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- 7. Bitterbrush/needle-and-thread grass (*Purshia tridentata/Stipa comata*)
- 8. Bitterbrush/Idaho fescue-bluebunch wheatgrass (*Purshia tridentata/Festuca idahoensis-Agropyron spicatum*)

#### Mountain big sagebrush

- 9. Mountain big sagebrush/Idaho fescue (*Artemisia tridentata ssp. vaseyana/Festuca idahoensis*)
- 10. Mountain big sagebrush/bluebunch wheatgrass (*Artemisia tridentata ssp. vaseyana/Agropyron spicatum*)
- 11. Mountain big sagebrush-bitterbrush/ldaho fescue (*Artemisia tridentata ssp. vaseyana-Purshia tridentata/Festuca idahoensis*)
- 12. Mountain big sagebrush/Geyer's sedge (*Artemisia tridentata ssp. vaseyana/Carex geyeri*)

#### <u>Scabland</u>

13. Stiff sagebrush/Sandberg's bluegrass (Artemisia rigida/Poa sandbergii)

#### Deciduous shrub

- 14. Ninebark (Physocarpus malvaceus)
- 15. Common snowberry (Symphoricarpos albus)
- 16. Wood's rose (Rosa woodsii)
- 17. Talus-shrub garland
- 18. Netleaf hackberry/bluebunch wheatgrass (Celtis reticulata/Agropyron spicatum)

# <u>Riparian</u>

19. White alder/syringa (Alnus rhombifolia/Philadelphus lewisii)

# Conifer woodland

- 20. Douglas-fir/ninebark (*Pseudotsuga menziesii/Physocarpus malvaceus*)
- 21. Douglas-fir/common snowberry (*Pseudotsuga menziesii/Symphoricarpos albus*)

Plant communities that occur on the Cecil D. Andrus WMA, but not linked to published classification names include the following -- mixed deciduous shrub, black cottonwood/mixed deciduous shrub, aspen/mixed deciduous shrub, water birch, black hawthorn, low forb scabland, *Lomatium* spp./*Eriogonum* spp. scabland, northern buckwheat scabland, stiff sagebrush/ldaho fescue, mountain mahogany/rock outcrop. All of these will require further study before a more rigorous classification is possible.

On the Lawrence property, there are primarily annual grasslands at low elevations (cheatgrass and medusahead wildrye) within the bluebunch wheatgrass, Idaho fescue, and Mountain big sagebrush cover types. There is 1.5 miles of Cottonwood Creek within the property dominated by black cottonwood and deciduous shrub communities (serviceberry, chokecherry, dogwood, hawthorn, alder).

Elevations: 2,350-5,300 feet

<u>Contiguity with Larger Blocks of Habitat</u>: Property lies adjacent to the southern border of the Cecil D. Andrus WMA, is adjacent to the Soulen property (described below), and continuing beyond that, to the Rocking M Ranch. Property lands are intermingled with state endowment lands administered by the Idaho Department of Lands (IDL). In close proximity are federal lands administered by the Bureau of Land Management (BLM) and U.S. Forest Service (USFS).

Proximity to Project: Property is on the Hell's Canyon face along Brownlee Reservoir.

<u>Geographic Distribution</u>: Property is located within the Cottonwood Creek, Jackson Gulch, Cow Creek, and Cave Creek drainages, all along the Hell's Canyon face.

<u>Benefits to High Priority Habitats or Species</u>: Property lies within critical mule deer and elk winter range. Elk and deer are found on the property year-round. It hosts numerous other game and non-game species year-round. Attached is a species list for the Cecil D. Andrus WMA prepared by IDFG staff. The IDFG assumes the Lawrence property supports the same or similar fauna. Please be advised that this species list is not considered to be all-inclusive. Property (Cottonwood Creek) appears to be suitable habitat for future mountain quail reintroduction. Sage grouse have also been observed on the upper end of this property each fall season for the last 5 years or so, passing through to winter habitat.

# Soulen Property

<u>Ownership</u>: Snake River Sheep Company, Margaret Soulen and Joe Hinson, Private Ranch.

Acreage: Approximately 6,300.

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<u>Vegetation Cover Types</u>: To the best of IDFG's knowledge, vegetation cover types are similar to the Cecil D. Andrus WMA, which are described above.

#### Elevations: 2,350-5,400 ft

<u>Contiguity with Larger Blocks of Habitat</u>: Property is adjacent to the Lawrence Ranch situated to the north and the Rocking M Ranch to the south. In close proximity are federal lands administered by the BLM and USFS.

Proximity to Project: Property lies along Brownlee Reservoir on the Hell's Canyon face.

<u>Geographic Distribution</u>: Property spans the Sturgill Creek to Raft Creek drainages and borders the Payette National Forest on the east side, and there is one ranch in holding within the boundaries of the Payette National Forest. BLM (6,500 acres) and IDL property (640 acres) are intermingled with private lands.

<u>Benefits to High Priority Habitats or Species</u>: IDFG assumes that the high priority habitats and species that could be benefited are the same or similar to the Lawrence property. Portions of the property lie within critical elk and mule deer winter range. Numerous game and non-game species would be found here year-round. Because sage grouse are found in Henley Basin, just east of the Rocking M Ranch, there is potential for sage grouse to occur here.

#### **Other Properties**

At the July 8 coordination meeting, IDFG's learned that a large part of the Rocking M Ranch is currently for sale. The IDFG holds a conservation easement on the Rocking M property that protects wildlife values and provides for public access. Therefore, acquisition of this property by IPC is of less priority to the IDFG than other private land parcels in the Hells Canyon ecoregion. However, if the list of available private land acquisition options in Idaho narrows, and the Rocking M Ranch is still available for purchase, then it should be considered by IPC. It does meet the IDFG policy priority for on-site in-kind mitigation.

#### (b) Management of Wildlife Resources on IPC-owned Lands

IDFG supports IPC's approach to the creation of an Integrated Wildlife Habitat Program (IWHP) and the described proposal for monitoring and feedback for revision of the wildlife habitat management plan and identification of future needs. This is a reasonable measure if wildlife are given the priority for management consideration as envisioned by the Resource Management Plan Work Group. Parcels containing big game winter range, riparian-wetlands, and habitats for sensitive and threatened and endangered species, should be given the highest priority for protection using the appropriate management measures. The IDFG wants to be involved with the IPC proposed Interdisciplinary Team to implement and monitor progress of initiatives.

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The priority of the IDFG as per our policy is that mitigation for impacts to terrestrial resources are achieved on-site and in-kind. IPC should focus efforts to acquire lands within the Hells Canyon ecoregion. IPC proposes to develop a Wildlife Management Plan within 5 years of the issuance of a new license. In the license application, IPC states that the Wildlife Management Plan would be developed cooperatively with agencies and adjacent landowners. The IDFG and Oregon Department of Fish and Wildlife (ODFW) are statutorily obligated to preserve, protect, perpetuate, and manage fish, wildlife, and botanical resources for use and enjoyment by present and future generations. Therefore, while the agencies agree in principle with this approach, the state fish and wildlife agencies should participate as members of the Interdisciplinary Team, and will require that IPC provide a written management plan approved by ODFW and IDFG.

The terrestrial habitat mitigation plan must include criteria to ensure consistency with ODFW and IDFG management policies and rules. A multi-agency committee, including state fish and wildlife agencies, should develop these criteria. The management plan for acquired land must identify fish and wildlife habitat enhancement and public access for fish and wildlife related recreation as important objectives. The management plan should specify approved uses of the land to ensure that the major goals of the program are not compromised. All lands acquired for conservation purposes should have development restrictions that effectively limit and control human access and impacts.

Management planning should establish desired future conditions and include protocols, goals and objectives, performance expectations, methods, and a reporting schedule for monitoring effectiveness of mitigation measures. Monitoring should be conducted for the duration of the new license.

A critical issue for the IDFG associated with any land purchase that mitigates for lost wildlife values is access for hunting, fishing, and other forms of wildlife-based recreation. The Interdisciplinary Team that is proposed as part of this measure will undoubtedly need to address this issue. The majority of land identified by IPC to be acquired is to mitigate for impacts to mule deer winter range. Mule deer are one of the most sought after big game species in both Idaho and Oregon. Hunting on acquisition lands could be safely accommodated in a fashion similar to the way the IDFG manages hunting access on the Cecil D. Andrus WMA.

#### (c) Integrated Wildlife Habitat Program

IPC described the Integrated Wildlife Habitat Program (IWHP) in its license application beginning on page E.3-511. IPC further described the IWHP structure and land classification at the July 8 meeting. In AIR TR-1 (c), the FERC is soliciting information about the relationship between specific projects that IPC identified in the license application and the IWHP. These projects include protection of 1) riparian habitat from dispersed recreation; 2) waterfowl habitat from reservoir operations; 3)

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winter range from disturbance; 4) upland habitat from livestock grazing; 5) bald eagle roosts and nests from disturbance; 6) rookeries from disturbance; and 7) bat hibernacula from disturbance. The FERC solicits information about the locations for implementation of these conservation measures, methods for habitat protection and enhancement, and protocols for monitoring the effectiveness of the conservation measures.

IDFG cannot provide specific feedback to IPC on this facet of AIR TR-1 without information about the exact locations of IPC's proposed projects referenced above. The IDFG assumes that management actions designed to protect or enhance sensitive habitats will be implemented in consultation with state fish and wildlife agencies and based on the specific site conditions and current uses permitted by IPC. In general terms, IPC identified the mitigation projects anticipated in the table on page E.3-516 of the license application. The IDFG recommends for IPC consideration the following management actions to protect and enhance wildlife habitats:

- 1. Protection of riparian habitats from dispersed recreation
  - physical structures to restrict access including fencing and large boulders
  - eliminating existing dispersed recreation sites where damage has been documented
  - signing, brochures and other educational information
  - dispersed recreation plan
- 2. Protection of waterfowl habitat from reservoir operations
  - subimpoundments
- 3. Protection of winter range from disturbance
  - area closures on a seasonal basis
  - road closures on a seasonal basis
  - road and trail obliteration
- 4. Protection of upland habitat from livestock grazing
  - revise grazing strategy
  - improve land stewardship
  - limit or prohibit use of important botanical sites
  - establish firm utilization levels on upland vegetation
- 5. Protection of bald eagle roosts and nests from disturbance
  - seasonal closures
  - nest management plans
  - buffer zones around active nests
  - protect roost and nest trees from disturbance
- 6. Protection of rookeries from disturbance
  - seasonal closures
  - protect roost sites from disturbance
- 7. Protection of bat hibernacula from disturbance
  - protect identity of known sites

# General Comments on Other Issues from the July 8, 2004 AIR Meeting

#### Multi-Agency Work Group

At the conclusion of the June 25, 2003 joint meeting to discuss outstanding issues regarding IPC's proposed PM&E measures, IPC agreed to consider an alternate proposal for land acquisition and management if developed through consensus by interested parties. The IDFG is participating in a multi-agency work group to develop an alternate proposal for land acquisition and management. The alternate proposal is not included for IPC review at this time as it is not a specific component of the FERC and IPC Additional Information Request for Terrestrial Resources (TR-1).

Considering the productive discussions regarding terrestrial resources and potential mitigation options for the Hells Canyon Project at the July 8, 2004 AIR meeting, additional discussions with IPC would be productive. While some fundamental disagreements remain regarding the proposed land acquisition PM&E measure, the IDFG believes that a long-term agreement on terrestrial resources is possible. It was evident from the material presented at IPC's meeting, that the TRWG made substantial progress toward a collaborative decision on this PM&E measure. However, IPC did not follow through on the recommendations of the TRWG including those found in the Hells Canyon Complex Conservation Reserve Study Final Report (Technical Report Appendix E.3.2-39, August 2001). The IDFG suggests that interested parties and IPC resume where the TRWG left off several years ago and attempt to jointly resolve and settle the terrestrial resource/land acquisition issue.

# Federal Grazing Allotments and Applicability to IPC Mitigation Responsibilities

The IDFG does not believe it is appropriate to award full or acre-for-acre mitigation credit to IPC for federal grazing allotments that are attached to acquired base properties. IPC will not have control or jurisdiction over these lands. Management and administration would remain in control of the federal land management agencies. The IDFG is willing to discuss the issue of partial crediting on a case-by-case basis where IPC implements habitat enhancement measures for wildlife. The IDFG is interested in whether or not federal grazing allotments in the Hells Canyon ecoregion could be considered for retirement and the priority of these federal lands be for wildlife habitat enhancement.

# Applicant-owned Lands

IPC proposes that certain Applicant-owned lands be managed to 1) protect wildlife resources from potential impacts, 2) mitigate for identified impacts to wildlife resources, and 3) enhance the future value of wildlife resources. Lands currently owned by IPC may be considered by the IDFG as mitigation properties if they meet specific criteria. These criteria may include those from the Brainstormed Conceptual PM&E

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measures developed by the TRWG (May 16, 2001 document). IPC will need to clearly show the benefits that may accrue to these properties for terrestrial resources impacted by the HCC. This includes projected increase in habitat units and function expected with active management. A management plan for these applicant-owned properties will need to be developed and approved by the multi-agency committee and implemented by IPC. The IDFG again wishes to reiterate our desire to maintain opportunities for wildlifebased recreation on mitigation lands.

Thank you for the opportunity to provide comment on this Additional Information Request. If you have any questions regarding this letter, please contact Scott Grunder, Fishery Program Coordinator at 208-287-2714.

Sincerely,

Tracey Trent, Chief Natural Resources Policy Bureau

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cc: Wildlife Bureau (Unsworth, Gould) IDFG SW Region (Leitzinger, Deal, Owsiak) IDFG McCall (Rohlman) IDFG Lewiston (Hennekey) Idaho AGO-Nat. Res. Div. (Hensley) IDPR (Lucachick) USFWS Boise (Esch) BLM Boise (Martin) BLM Baker City (Mason, Bulinski) USFS Baker City (Roehm) USFS Prineville (Gerdes) ODFW LaGrande (Fagan)

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# WILDLIFE SPECIES LIST FOR CECIL D. ANDRUS WILDLIFE MANAGEMENT AREA (Compiled through general wildlife observations)

#### Common Name

#### **Scientific Name**

#### **BIG GAME MAMMALS**

Elk Black bear Moose Mountain lion Mule deer White-tailed deer

# UPLAND GAME BIRDS

California quail Chukar Blue grouse Gray partridge Mountain quail<sup>1</sup> Mourning dove Ruffed grouse Sage grouse<sup>1</sup> Sharp-tailed grouse<sup>1</sup> Turkey

# **FURBEARERS**

Badger Beaver Bobcat Cottontail rabbit Coyote Long-tailed weasel Mink Muskrat Porcupine Raccoon Red fox River otter Snowshoe hare Striped skunk

# SMALL MAMMALS

Columbian ground squirrel

<u>Cervus elaphus</u> <u>Ursus americanus</u> <u>Alces alces</u> <u>Felis concolor</u> <u>Odocoileus hemionus</u> <u>Odocoileus virginianus</u>

Callipepla californicus Alectoris chukar Dendragapus obscurus Perdix perdix Oreortyx pictus Zenaida macroura Bonasa umbellus Centrocercus urophasianus Pediocetes phasianellus Meleagris gallopavo merriami

Taxidea taxus Castor canadensis Felis rufus Sylvilagus nuttallii Canis latrans Mustela frenata Mustela vison Ondatra zibethicus Erethizon dorsatum Procyon lotor Vulpes vulpes Lutra canadensis Lepus americanus Mephitis mephitis

Spermophilus columbianus

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Least chipmunk Northern pocket gopher Red squirrel Yellow-bellied marmot Yellow-pine chipmunk

#### WATERFOWL

Canada goose<sup>2</sup> Common merganser<sup>2</sup> Common goldeneye<sup>2</sup> Mallard

# RAPTORS

Golden eagle Bald eagle American kestrel Prairie falcon Northern goshawk Cooper's hawk Sharp-shinned hawk Northern harrier Red-tailed hawk Great-horned owl Western screech-owl Turkey vulture

# SONG BIRDS

American dipper American goldfinch American robin Barn swallow Belted kingfisher Black-billed magpie Black-capped chickadee Brewer's blackbird Brewer's sparrow Brown-headed cowbird Bullock's oriole Common crow Common nighthawk Common raven Cliff swallow European starling Horned lark House wren

<u>Eutamias minimus</u> <u>Thomomys talpoides</u> <u>Tamiasciurus hudsonicus</u> <u>Marmota flaviventris</u> <u>Eutamias amoenus</u>

Branta canadensis Mergus merganser Bucephala clangula Anas platyrhynchos

Aquilla chrysaetos Haliaeetus leucocephalus Falco sparverius Falco columbarius Accipiter gentilis Accipiter cooperii Accipiter striatus Circus cyaneus Buteo jamaicensis Bubo virginianus Otus asio Cathartes aura

Cinclus mexicanus Spinus tristis Turdus migratorius Hirundo rustica Megaceryle alcyon Pica pica Parus atricapillus Euphagus cyanocephalus Spizella breweri Molothrus ater Icterus bullockii Corvus brachyrhynchos Chordeiles minor Corvus corax Petrochelidon pyrrhonota Sturnus vulgaris Eremophila alpestris Troglodytes aedon

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Lazuli bunting Lewis'woodpecker Mountain bluebird Pine siskin Purple finch Red-winged blackbird Red-shafted flicker Rufous-sided towhee Rufous hummingbird Say's phoebe Vesper sparrow Violet-green swallow Western kingbird Western meadowlark Western tanager Passerina amoena Asyndesmus lewis Sialia currucoides Spinus pinus Carpodacus purpureus Agelaius phoeniceus Colaptes cafer Pipilo erythrophthalmus Selasphorus rufus Sayornis saya Pooecetes gramineus Tachycineta thalassina Tyrannus verticalis Sturnella neglecta Piranga Iudoviciana

#### **SHOREBIRDS & WATERBIRDS**

California gull<sup>2</sup> Common loon<sup>2</sup> Great blue heron Killdeer Ring-billed gull<sup>2</sup>

Larus californicus Gavia immer Ardea heroias Charadrius vociferus Larus delawarensis

#### AMPHIBIANS & REPTILES

Common garter snake Gopher snake Long-toed salamander Pacific chorus frog Racer Rubber boa Western fence lizard Western rattlesnake Western toad Thamnophis sirtalis Pituophis melanoleucus Ambystoma macrodactylum Pseudacris regilla Coluber constrictor Charina bottae Sceloporus occidentalis Crotalus viridis Bufo boreas

<sup>1</sup>Historical range - small remnant populations are likely present. <sup>2</sup>Observed at mouth of Brownlee Creek (Brownlee Reservoir).



August 16, 2004

Frank Edelman, Wildlife Biologist Environmental Affairs Idaho Power Company P.O. Box 70 Boise, Idaho 83707

# RE: Comments on Idaho Power's Terrestrial Land Acquisition Proposal

Dear Mr. Edelman:

On July 8, 2004, a meeting was hosted by Idaho Power in Boise to discuss the company's preliminary concept for land acquisition in response to FERC's Additional Information Request (AIR TR-1). As a follow up to that meeting, Idaho Power requested written comments on that proposal.

In response, it is important to understand that Hells Canyon is an area of significant cultural importance to the Nez Perce Tribe and contains areas where tribal members have historically and continue to exercise treaty-reserved hunting, fishing, and gathering rights. Accordingly, the Tribe firmly believes any mitigation proposal must consider tribal use of Hells Canyon and design mitigation to address the impacts of the Hells Canyon Complex on that use.

#### 1. Amount of Land Acquisition

The Tribe believes that the total amount of land (23,592 acres) identified by Idaho Power as the goal for new habitat acquisition is inadequate. The mitigation proposal identified new acquisitions totaling 18,000 acres (10,000 in Oregon and 8,000 in Idaho), along with 16,000 acres of federal grazing allotment associated with the base properties purchased.

Given the condition of the targeted lands, it appears that the total amount of land purchased will mitigate for the losses only if and when there are enough positive changes to the management practices and vegetation cover to provide suitable wildlife habitat. Changes in ownership of the property, in and by itself, do not result in adequate mitigate. The quality difference in the habitat from before and after the implementation of improved land management practices have occurred will be the measure of successful mitigation. Accordingly, a 50% improvement in habitat quality

would mean that Idaho Power would need at least twice the number of acres identified to provide adequate mitigation.

The properties identified for mitigation all have Forest Service or BLM grazing allotments attached to the base property to which Idaho Power wants to have full credit for. Usually when base properties change hands, allotments are transferred to the new owner but the allotments are still required to be grazed at some minimum level. It is unclear why Idaho Power should get full credit for the acres of grazing allotment if grazing still remains part of the management plan.

# 2. Location of Acquisitions

All the properties identified in your presentation were located south of the Powder River. This would make most if not all the mitigation properties located outside of the treaty territory of the Nez Perce Tribe which would make use of the lands difficult for Nez Perce tribal members. The Tribe believes that the mitigation lands should have a diversity of geographic location to fully mitigate the impacts of the project, which would allow access by citizens in a variety of locations, including those in northeastern Oregon, north-central Idaho, and the Nez Perce Reservation.

# 3. Ownership of Mitigation Lands

Idaho Power proposes to hold title to all mitigation lands. Under this proposal, mitigation lands would be unavailable for the exercise of treaty-reserved hunting rights by tribal members. Article three of the Treaty of 1855 reserves to the Tribe the right to hunt on "open and unclaimed lands," which courts have generally defined as including publically-held lands. The Tribe recommends that all or a portion of the mitigation land be publically held to allow for treaty access.

# 4. Using IPC Existing Ownership for Mitigation

Idaho Power identified 6,500 acres, owned by the company, of which, 2,799 acres would be used as wildlife mitigation. It is unclear whether this means that the 3,701 acres left is unsuitable for wildlife mitigation habitat because it is associated with project operations (housing, power plant operation, airstrips, parks, camping areas). Please provide additional information on the 3,701 acres.

Idaho Power has also stated that if these acres were not protected under this mitigation program, they may be sold. Given this, what was the original purpose of the property? Very little detail on the 2,799 acres was given, so it is difficult to assess the value of these parcels in regards to potential PM&Es.

# 5. Recommended Opportunities Off Site Mitigation

The Tribe believes that Idaho Power must **exp**lore other opportunities for land acquisition, particularly lands north of the project area. Particularly, the Tribe is aware of two parcels that

would present outstanding mitigation opportunities:

**Wallane Corporation Lands:** About 10,000 acres located in northeastern Oregon along Joseph Creek, Cottonwood Creek, and Horse Creek Area This property has the last large domestic sheep herd in northeastern Oregon, which is a problem for Hells Canyon's big horn sheep. In addition, acquisition of this property would have multiple resource values – Joseph Creek and Cottonwood Creek have spawning steelhead, which are impacted by land management activities in the area. Further, this parcel is adjacent to lands managed by the Washington Department of Wildlife, BLM, Forest Service, and Nez Perce Tribe.

**Getta Creek Property:** Located along Getta Creek which flows into Snake River just north of the Forest Service boundary in Idaho. This area is currently grazed with domestic goats for weed control, which is a problem for Hells Canyon's big horn sheep. Land managed by the BLM and Forest Service border the property.

If you have any question regarding these comments, please do not hesitate to contact me.

Sincerely,

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Loren A. Kronemann Wildlife Mitigation Specialist

cc: Service List Alan Mitchnick, FERC





Department of Fish and Wildlife

Northeast Region 107 20th Street La Grande, OR 97850 (541) 963-2138 FAX (541) 963-6670

August 18, 2004



Frank Edelmann Idaho Power Company P.O. Box 70 Boise, ID 83707

Re: Hells Canyon Additional Information Request TR-1.

Dear Mr. Edelmann:

Within Additional Information Request TR-1, FERC directs Idaho Power Company (IPC) to include comments from consulted agencies and Native American Tribes on its response to items (a) – (c). IPC presented preliminary concepts for its response at a meeting on July 08, 2004. Following that meeting, IPC requested the Oregon Department of Fish and Wildlife's (ODFW) written comments on TR-1 (a-c), particularly alternative or additional lands that IPC should analyze for possible acquisition and inclusion in its mitigation package. Based on the preliminary concepts presented at the July meeting, ODFW offers the following comments and recommendations. In addition, we look forward to reviewing and providing comments to IPC on its formalized analysis and response to TR-1 (a-c) prior to submittal to FERC.

# **Replace Lost Habitat Value**

Oregon's mitigation policy requires reliable in-kind, in-proximity mitigation, no net loss of either habitat quantity or quality, and depending on the category of habitat impacted, a net benefit of habitat quantity or quality. We believe that IPC's mitigation proposal in large part is not habitat value associated and will not adequately mitigate project impacts to terrestrial resources. Its proposal also may not comply with Oregon's fish and wildlife habitat mitigation policy.

IPC proposes mitigating an acre for an acre. An acre for an acre value does not replace lost cover types, species associations, or habitat function. Under an acre for acre requirement, an acre of high quality habitat could be replaced with an acre of low quality habitat, resulting in no net loss of acreage but a loss of environmental values. Therefore, strict adherence to a no net loss of acreage stipulation would result in a net loss of environmental values and site productivity.

From an environmental perspective, the approach of replacing habitat value is more reflective of losses/impacts than a simple acre for acre approach. ODFW believes it is necessary to assess and measure the physical, chemical, and biological values associated with the resource impacted and not just the physical dimensions of an area. Equivalent function should be replaced.

It was ODFW's hope that the wildlife habitat assessment (WHA) as proposed by IPC would provide the basis for mitigating for impacts in equivalent function replaced. This has not occurred nor is it clear how results of the wildlife habitat assessment have been used in developing a land acquisition package. IPC's land acquisition and management proposal appears to be based strictly on estimated acres of riparian and upland habitat impacted by Project operations.

In addition to replacement acreage being determined based on functional values of the area being impacted, the temporal loss of habitat that will occur, as well as an adequate margin to reflect the expected degree of success associated with the mitigation plan should be taken in to consideration. There is typically a long-term loss of values, functions, and productivity of the impacted resources. Some habitats may take decades, centuries, or even longer to approach the original ecosystem structure and functionality. There is also the risk that the values, functions, and productivity of the original area may not be fully replaced by the mitigation effort. According to the Natural Resource Council, the rate of success for mitigation projects in the United States is about 16% or 21% for projects actually implemented.

Riverine and riparian habitats that are affected by the Hells Canyon reservoirs and impacted by the lack of sediment recruitment and daily/hourly water-level fluctuations in the river reach downstream of Hells Canyon Dam will not be available as functioning habitat over the new license term. The affected habitats are a scarce and valuable resource in the arid west, and their loss has a continuing impact on riparian associated plant and wildlife species and populations.

Upland and riparian habitats immediately adjacent to the Hells Canyon reservoirs are crucial winter range for mule deer. It is impossible to acquire, restore, enhance, create or preserve critical riparian and upland winter range at the low elevations impacted by Project reservoirs and critical to over-winter survival especially during harsh winters. There is no land of equal value elsewhere because there is no other land at that low elevation.

#### **Potential Properties for Acquisition and Management**

The priority of ODFW is that mitigation for impacts to terrestrial resources by achieved in-kind and on-site. Therefore, the focus of IPC efforts to acquire lands should occur within the Hells Canyon Project area. Identification and acquisition of properties should begin immediately. Credit shall be given by ODFW for habitat mitigation occurring prior to license issuance.

Potential properties for acquisition were identified in letters to IPC and in Terrestrial Resource Work Group (TRWG) meetings and further discussed by participants on July 08. Extensive discussions of potential sites for acquisition were discussed as part of the Conservation Reserve Study. Unfortunately, the majority of tasks and sub-tasks associated with the Conservation Reserve study were not completed. In information previously provided to IPC, ODFW recommends acquisition and enhancement of property around the Powder River pool and within the Lookout Mountain and Pine Creek management units, particularly Daly Creek Ranch and adjacent private properties with allotments if owners are willing to sell. Other properties and locations identified by ODFW include Fox Creek, McGraw Creek, Soda Creek, Hibbard Creek, Goat Island, and private islands above Brownlee Dam. IPC should purchase properties that provide benefits for multiple species of wildlife, in addition to having potential for improvement in habitat condition for deer.

#### **Public Lands**

IPC's preliminary concepts for AIR TR-1 included 16,000 acres of federal (public) lands that are currently estimated to be attached to private lands base property that IPC is researching as having potential for mitigation opportunity. These private lands total 18,000 acres with 10,000 acres in Oregon. The majority of the proposed acquisitions are base properties attached currently to BLM public lands.

ODFW does not believe it is appropriate to award IPC full credit for these 16,000 acres of public lands. IPC will not have control or jurisdiction over these lands. Management and administration would remain in control of the state and federal land management agencies.

In addition, these lands are already being used by terrestrial resources and are not considered 'new acres' available for mitigation or changes in management for terrestrial species. However, ODFW is willing to discuss options for partial credit depending on IPC's commitment to funding and participating in protecting and enhancing habitat conditions to benefit wildlife on these allotments for the life of the license.

#### **IPC-Owned Lands**

IPC also proposes that certain Applicant-owned lands be managed to 1) protect wildlife resources from potential impacts, 2) mitigate for identified impacts to wildlife resources, and 3) enhance the future value of wildlife resources. Lands currently owned by IPC may be considered by ODFW as mitigation properties if they meet specific criteria. These criteria may include those in the "Brainstormed Conceptual PM&E Measures" developed by the TRWG. IPC will need to clearly show the benefits of these properties to terrestrial resources impacted by the HCC. This includes projected increase in habitat units and function expected with active management. The only benefit and consideration for mitigation is if this land is improved and helps replace lost value and function of impacted habitat. For protection credit, IPC would need to demonstrate that the habitat protected is potentially threatened by land use changes or practices. Preservation is a lower priority because neither new habitat nor enhanced function has been added to the impacted watershed. A management plan for these applicant-owned properties in Oregon will need to be developed and approved by ODFW and implemented by IPC.

#### **Settlement Discussions**

Information collected by TRWG members and included in the final Conservation Reserve Report (Technical Report E.3.2-39) provides a strong foundation for a land acquisition and management program. ODFW would like discussions of the land acquisition and management program to continue. While some fundamental disagreements remain regarding the amount and potential location of land acquisitions in both Idaho and Oregon, we remain committed to the concept that a long-term agreement on terrestrial resources can be reached. The TRWG had made substantial progress towards a mitigation package and land acquisition prior to the elimination of the work group meetings. ODFW's recommendation is to resume where the TRWG left off several years ago and jointly establish a goal of reaching a settlement on terrestrial resources within the next year.

The ODFW, Idaho Department of Fish and Game, Bureau of Land Management, United States Fish and Wildlife Service, and the United States Department of Agriculture Forest Service have drafted a consensus approach to land acquisition and management as partial mitigation for impacts from the continuing operations of the Hells Canyon Hydroelectric Project. The agencies proposal was developed following extensive review of IPC's technical reports, hydropower and other pertinent literature, current agreements among stakeholders and owners of FERC licensed projects, and each agencies and tribes mandate or mission. The agency plan and the Conservation Reserve study could form the basis for settlement negotiation discussions.

ODFW looks forward to commenting on IPC's response to AIR TR-1. If you have any questions or need additional information please call me at (541) 963-2138.

Sincerely,

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Colleen Fagan Hydropower Coordinator NE Region ODFW

Cc: Craig Ely, ODFW Dorothy Mason, BLM Alan Mitchnick, FERC Scott Grunder, IDFG Mike Gerdes, USFS Jim Esch, USFWS Lynn Roehm, USFS Rick Eichstaedt, NPT

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# Holland & Knight

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Rafe Petersen 202 419 2481 rafe.petersen@hklaw.com

August 18, 2004

VIA TELECOPY

Mr. Frank Edelmann Idaho Power Company P.O. Box 70 Boise, ID 83707

> Re: Comments of the Shoshone-Paiute Tribes of the Duck Valley Reservation on IPC's July 8, 2004 PowerPoint Presentation

Dear Mr. Edelmann:

The purpose of this letter is to provide the comments of the Shoshone-Paiute Tribes of the Duck Valley Reservation (the "Tribes") on the information presented by Idaho Power Company ("IPC") during the July 8, 2004 meeting concerning FERC's Additional Information Request ("AIR") for TR-1, Habitat Resource Management. During this meeting, IPC presented what it has described as "preliminary" concepts in a PowerPoint presentation. As a threshold matter, we note that the comments below are provided in what we hope is a continued, open dialogue with IPC. While we appreciated the opportunity to meet with IPC on July 8, as noted by Chairman Gibson, we do not view the PowerPoint presentation, nor the submission of these comments, as fulfilling IPC's obligation to engage in "consultation" with the Tribes. As we have discussed in the past, we believe that such issues of importance are more properly addressed in government-togovernment consultations such as the "wings and roots" process.

In order to ensure that the federal agencies have adequate facts upon which to evaluate the license application, and to ensure meaningful participation by the public, IPC must provide more than simply preliminary information to support its application. In turn, such information must be presented in a timely manner that allows the Tribes the ability to assess the adequacy of the proposed measures. Until that time, we consider IPC's response to the AIR incomplete and legally insufficient. Mr. Frank Edelmann August 18, 2004 Page 2 of 6

We therefore look forward to additional opportunities to comment on IPC's response to the AIR.<sup>1</sup>

#### TR-1(a) Acquisition of Upland and Riparian Habitat

In IPC's application, the applicant concluded that the proposed operations of the Hells Canyon Complex ("HCC") would impact 6,149 acres (388 acres riparian and 5,761 acres of upland) of habitat. In order to mitigate for such significant impacts on wildlife habitat, IPC proposed the <u>acquisition</u> of 23,528 acres of property (22,761 upland acres and 821 riparian/wetland acres) and to manage certain parcels already in IPC ownership. The application stated that IPC would begin to acquire the land within 1 year of issuance of the license and would achieve its acquisition target within 2-5 years. However, the application did not propose any specific parcels for acquisition or otherwise identify how these and properties already under the control of IPC would be managed for wildlife. Consequently, FERC requested IPC to identify, with specificity "parcels that would be targeted for acquisition" in order to meet the proposed acreage targets. Thus, FERC, the other agencies, the Tribes and the public at large were under the impression that IPC would acquire 22,761 upland acres and 821 riparian/wetland acres.

We are concerned with IPC's low target of 23,528 acres for acquisition. The HCC eliminated anadromous fish and the oceanic derived nutrients they supplied to millions of upstream acres of terrestrial habitat. Given IPC's actions have had a direct adverse impact on millions of acres – including the land contained within the Duck Valley Reservation – by eliminating anadromous fish, we believe 23,528 acres is an insufficient number of acres to mitigate for these dramatic losses.

During the PowerPoint presentation, we were further disturbed to learn that IPC no longer plans on meeting its already low target of acquiring 23,582 acres of land in order to meet its obligation of providing for wildlife protection, mitigation and enhancement. Rather than actually "acquiring" a total of 23,582 acres of property, IPC appears to have redefined its obligation as "protecting" and "managing" 23,582 acres, which includes property already in the ownership of IPC. Consistent with this recent change in goals for meeting the mitigation obligations, during the PowerPoint presentation, IPC identified only a total of 18,000 acres of property for acquisition. In addition, IPC indicated that it will rely on state and federal grazing leases to meet its obligation. This represents an unacceptable modification to IPC's mandate to "acquire" 23,582 acres. By any sense of the word, one cannot "acquire" (defined as to come into ownership) property that it already owns. Hence, counting property that IPC already owns and counting Bureau of Land Management acres on which IPC holds the grazing allotments towards the

<sup>&</sup>lt;sup>1</sup> Of course, the Tribe also plans on continuing to comment on various other aspects of the application including the anticipated consultation under section 7 of the Endangered Species Act.

Mr. Frank Edelmann August 18, 2004 Page 3 of 6

required acreage, or obtaining conservation easements on property not completely under IPC control, does not count towards the requirement of property acquisition. As such, in order to fulfill its obligation, IPC must, at a minimum, purchase or otherwise obtain fee simple ownership of 23,582 acres. Again, however, we believe that this number is woefully inadequate in consideration of the actual impact of IPC's activities on upstream fish habitat.

During the PowerPoint presentation, IPC identified several properties that it is currently reviewing for potential acquisition. While we feel that this is a good start, we are concerned with both the amount of land analyzed and the level of due diligence that IPC has engaged in up until this point. Foremost, during the presentation IPC conceded that it has no information on the habitat value of the parcels identified and therefore has no means of scoring the properties in terms of potential habitat value. Absent such information, FERC and the public cannot adequately analyze whether the functional habitat values that are being lost as a result of the project will be replaced by the acquisition of the targeted properties. As such, we request that IPC undertake a systematic survey of the habitat value of such properties by analyzing far more than simply the cover type of existing vegetation.<sup>2</sup> IPC's field analysis should be based on the biological potential of the habitat as defined by the measures of historic species diversity and species richness. In order for these to be determined, extensive knowledge of historic conditions and fieldwork including plant and animal surveys are essential. Only parcels with high biological potential should be considered for acquisition. A special emphasis should be put on parcels with Endangered Species Act listed species present.

As requested by FERC, IPC's analysis must detail not only existing conditions, but what IPC plans on doing to restore the habitat value of such lands. Habitat improvement projects should aim to maximize the biological potential of any given parcel and need, at a minimum, to provide the following information:

- > restoration of native species and their corresponding habitats;
- reduction of non-native species through the establishment of native populations;
- > protection for riparian and wetland habitat; and
- > restoration of natural fire and hydrological regimes.

Inherent in maximizing the biological potential of each parcel for native fish and wildlife is minimizing anthropogenic-associated impacts such as grazing. Given the central importance of this mitigation, such analysis must be completed prior to issuance of the license.

<sup>&</sup>lt;sup>2</sup> Such functional analysis is relatively commonplace under both the federal Clean Water Act and the Endangered Species Act.

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Mr. Frank Edelmann August 18, 2004 Page 4 of 6

We are also concerned that IPC has identified properties but lacks information concerning the willingness of the owners of such property to sell. Obviously, knowledge that the property is actually available for acquisition is fundamental to any analysis of whether IPC's proposed mitigation will be adequate. If a seller will not relinquish their property, then it is an empty exercise to propose such property for acquisition and to have the agencies and the public expend resources on analyzing them. Given that odds are IPC cannot count on all properties that it targets being available for acquisition, we suggest that it build a buffer in by analyzing at least 10,000 acres more than the required 23,582 acres. Such a safeguard would ensure that IPC not only present for comment some alternatives but also that there is sufficient land available within the 5 year deadline.

Since millions of acres upstream of the HCC have been negatively impacted by the loss of anadromous fish and their oceanic nutrients, we believe some off-site, upstream mitigation parcels need to be seriously considered. This would at least provide a minimal attempt to mitigate for the dramatic losses to stakeholders upstream of the HCC such as the Tribes. A failure to provide upstream, off-site mitigation further justifies the reality that upstream stakeholders such as the Tribes are the most impacted and least compensated for the impacts of the HCC. Information pertaining to specific off-site parcels could be obtained through further consultation with the Tribes.

In order for IPC to be able to meet its deadline of having 23,582 new acres of property under its ownership within 5 years of issuance of the licenses, we strongly suggest that it undertake its detailed analysis as soon as possible. To ensure that the consultation on such properties is meaningful, once IPC has undertaken its analysis of both the environmental and the ownership issues of the various alternative properties, such analysis should be provided to the agencies and the public for comment.

#### TR-1(b) Management of Wildlife Resources on IPC lands

The AIR also requested further detail on IPC's plans for management of wildlife resources on IPC-owned lands. Obviously, the integrated wildlife habitat program is a key component to IPC's mitigation. Unfortunately, however, the Tribe feels that IPC has yet to provide any details that would allow the agencies and the public to evaluate the adequacy of IPC's planned approach.

During the PowerPoint presentation, it became clear that rather than proposing new and additional plans for management of wildlife resources on each distinct parcel that IPC will provide enhanced management, IPC interprets its Mr. Frank Edelmann August 18, 2004 Page 5 of 6

obligation as merely summarizing its current management measures<sup>3</sup> and providing the structure for an integrated management plan, without the actual details of what will be implemented pursuant to that structure. Such vague information does not meet FERC's request for information on not only current management practices, but specific measures that IPC will implement for each parcel that will be managed in order to meet IPC's obligation to provide wildlife habitat mitigation.

IPC must provide a detailed mitigation plan for each parcel that will be managed. Specifically, IPC needs to incorporate the following information into their mitigation plans:

- > Documentation of species present on each parcel;
- details of how IPC will restore native populations and reduce non-native populations; and
- an explanation of how IPC will effectively manage their parcels for historic native species assemblages.

Of course, because mitigation plans for specific parcels are currently not available for review, continued consultation between IPC and the Tribes will be essential as these detailed plans develop.

In addition to the lack of details on the type of mitigation measures that will be actually implemented, the Tribes were concerned by how little land IPC actually plans on providing enhanced mitigation for. As a threshold matter, IPC cannot simply rely on land that is already considered a "special management area" ("SMA"). Simply summarizing the mitigation measures for property that IPC is already required to mitigate for is yet another example of IPC seeking credit for something that it is already obligated to do. While the Tribes would certainly not object to the expansion of SMAs, management of such lands cannot count towards IPC's obligations under TR-1(b). When SMAs are subtracted, it is clear that IPC is not offering much land for additional management. We request that IPC provide PM&E measures for a significant amount of additional property under the control of IPC, with a focus on the restoration and enhancement of riparian and other critical habitat.<sup>4</sup>

<sup>&</sup>lt;sup>3</sup> Indeed, for example the focus on protection of bald eagle habitat was somewhat deceptive, as IPC already is obligated to implement such measures pursuant to the Endangered Species Act.

<sup>&</sup>lt;sup>4</sup> Preservation of existing habitat should be given very little weight towards IPC's obligations. Indeed, in analogous statutes, such as mitigation for wetlands impacts under section 404 of the federal Clean Water Act, preservation is weighted at a 10:1 ratio as compared to creation of new habitat.

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Mr. Frank Edelmann August 18, 2004 Page 6 of 6

#### TR-1(c) Integrated Wildlife Habitat Program

The AIR requested IPC to provide further detail concerning its Integrated Wildlife Habitat Program ("IWHP"). From what we were able to glean from the PowerPoint presentation, IPC has yet to "integrate" the various disconnected wildlife management measures that it is currently undertaking. We therefore require additional information before the Tribe can comment on whether IPC has met its obligation of integrating the various wildlife management measures that it will undertake. Of course, this analysis will have to include the additional measures that it is going to implement pursuant to the new licensing requirement.

#### <u>CONCLUSION</u>

The Tribes appreciate the opportunity to comment on IPC's self-described preliminary thoughts on how it will respond to the AIR. Overall, we believe that IPC has a significant amount of work to undertake in order to meet its goal of replacing what will be lost by the HCC. We believe, however, that IPC can meet this goal by continuing to engage in meaningful and open dialogue with the agencies and the Tribes and therefore look forward to future discussions on this very important topic.

Very truly yours,

HOLLAND & KNIGHT LLP Rafe Petersen

cc: Chairman Terry Gibson Robin Harms Timothy Dykstra Donald Clary Colleen Fagan Dorothy Mason Jim Esch Eric Leitzinger Mike Gerdes

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# United States Department of the Interior

FISH AND WILDLIFE SERVICE Snake River Fish and Wildlife Office 1387 S Vinnell Way, Suite 368 Boise, Idaho 83709



SEP 0 8 2004

Frank Edelmann, Wildlife Biologist Environmental Affairs Idaho Power Company P.O. Box 70 Boise, Idaho 83707

#### Subject: Hells Canyon Hydroelectric Project, Snake River, Idaho and Oregon --Additional Information Request - TR-1. File #FERC 1971 OALS #04-0536

Dear Mr. Edelmann:

On July 19, 2004, the Fish and Wildlife Service (Service) received a letter from the Idaho Power Company (Company) dated July 16, 2004, regarding an additional information request (TR-1) from the Federal Energy Regulatory Commission (Commission) concerning the acquisition of mitigation lands, management of wildlife resources on Company lands, and the Company's Integrated Wildlife Management Plan. The Service also attended the July 8, 2004 meeting hosted by the Company to discuss TR-1 with other members of what used to be termed the Terrestrial Resources Workgroup (TRWG). Your July 16 letter, which requests our comments on the primary issues discussed at the meeting, did not include a summary or transcript of the meeting. The Service suggests that you distribute meeting notes and a summary of important issues that were addressed on July 8 for review and comment by those on the attendance tist. The Service would also like to offer you comments on your proposed strategy to satisfy this additional information request in a collaborative fashion.

Although much preliminary work has been done, the last recorded formal meeting of the TRWG was November 2001, during which no final agreement on terrestrial resources mitigation was reached. The Service recommends that the Company schedule additional facilitated meetings with the agencies, tribes, and conservation community to refine and develop the preliminary concepts for land acquisition which you presented at the July 8, 2004 meeting.

Although the TRWG has not been meeting on a regular basis, the Service and other State and Federal resource agencies have been working on a document for the past year that is responsive to the Company's need to have a consolidated position on terrestrial mitigation needs for the Hells Canyon project. We would like to present this to you and the other members of the TRWG for review and discussion in the near future. The Service suggests that lands identified for acquisition be developed within the TRWG to facilitate this approach.

Thank you for the opportunity to provide our comments to you on this additional information request. If you agree that additional meetings of the larger TRWG are warranted for the purpose of exploring alternative approaches to reaching consensus on a terrestrial mitigation package for the relicensing of the Hells Canyon Project, please contact either Jim Esch (378-5099) or Michael Morse (378-5261).

Mar Golf Sincerely,

Snake River Fish and Wildlife Office

cc: IDFG, HQ (Scott Grunder) ODFW, LaGrande (Colleen Fagan) BLM, Baker City (Dorothy Mason) BLM, Idaho State Office (John Martin) Wallowa Whitman NF, Baker City (Lynn Roehm) Ochoco NF, Prineville (Mike Gerdes) Nez Perce Tribe, Lapwai (Greg Heller) FERC, DC (Alan Mitchnick) DOI-SOL, Portland (Frank Wilson)



United States Forest Department of Service Agriculture

File Code: 2770 Date: August 13, 2004

Mr. Frank Edelmann Idaho Power Company P.O. Box 70 Boise, ID 83707

Dear Mr. Edelmann:

The USDA Forest Service (USDA FS) appreciates the opportunity to comment on Idaho Power Company's (IPC) proposed land acquisition option. IPC's proposal is in response to the Federal Energy Regulatory Commission's (FERC) Additional Information Request Terrestrial Resource-1 (TR-1) for the Hells Canyon Hydroelectric Project.

The USDA FS believes that IPC's proposed land acquisition protection, mitigation, and enhancement measure identified in the Final License Application (2003) provides a reasonable foundation to address impacts to National Forest System (NFS) terrestrial resources that will continue over the term of the new Project license. As detailed in previous responses to FERC, the Agency has identified that there will be continuing Project affects to crucial mule deer winter range and low-elevation riverine and tributary riparian habitat affected by Hells Canyon reservoir, to riverine riparian habitat in the river reach downstream of Hells Canyon dam, and to shoreline erosion of Hells Canyon reservoir and the river reach downstream of Hells Canyon dam. As provided for in applicable land management direction, our objective is to mitigate for impacts to terrestrial resources caused by Project operations under the new license. Land acquisition has been employed in other relicensing proceedings to achieve this objective and your proposal should incorporate alternatives that include acquisition of parcels adjacent to Hells Canyon reservoir and to the Snake River reach below Hells Canyon dam.

The Multi-Agency Work Group chartered to provide IPC a consensus land acquisition alternative is finalizing its proposal. Attachment I provides an overview of the multi-agency work group proposal.

On July 8, 2004, per FERC's consultation request in TR-1, IPC hosted a consultation meeting to review of the components of TR-1 and detailed its specific response to each TR-1 element. As requested in your letter of July 16, 2004, the USDA FS is providing comment on TR-1 elements, Attachment II.

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If you have any questions regarding this response, please contact Lynn Roehm, Wallowa-Whitman National Forest Hydropower Coordinator, at (541) 523-1316 or Mike Gerdes, Zone Terrestrial Resource Specialist, at (541) 416-6521.

Sincerely,

7 A Charles Starter ; ; ; ; RICHARD E. MARKLEY Acting Forest Supervisor

Attachment I & II

cc: FERC's Service List

#### ATTACHMENT I

#### Multi-Agency Work Group

On June 25, 2003, pursuant to the Federal Energy Regulatory Commission (FERC) regulations (18 CFR 16.8(c)(6)(i)), Idaho Power Company (IPC) held its third joint meeting of resource agencies and Tribes to discuss and to attempt to reach agreement on outstanding issues regarding its plan for environmental protection, mitigation, and enhancement (PM&E) measures outlined in IPC's draft license application, September 2002. The agencies and Tribes present at the meeting generally supported IPC's proposal to acquire, enhance and manage land to mitigate for estimated impacts of proposed operations to the fluctuation and shoreline zones, shoreline erosion, and mule deer winter range. However, the agencies and Tribes disagreed with the acreage proposed for acquisition. At the conclusion of the discussion, IPC agreed to consider an alternate proposal for land acquisition and management if it could be developed through consensus by the agencies.

Hence, the Idaho Department of Fish and Game (IDFG), Oregon Department of Fish and Wildlife (ODFW), Bureau of Land Management (BLM), United States Fish and Wildlife Service (FWS), and the United States Department of Agriculture Forest Service (USDA FS), here-in-after known as *the agencies*, have been working on developing a consensus approach to land acquisition and management as partial mitigation for impacts arising from continuing operations of the Hells Canyon Hydroelectric Project (Project). While each agency has its own policies, regulations, rules, and guidelines or statutes guiding its participation in the relicensing process, it was possible to consolidate these perspectives into a unified position without compromising any individual party's mandate or mission.

The agencies unified position and proposal is being developed following extensive review of IPC's technical reports, other pertinent literature, current agreements among stakeholders and owners of FERC licensed projects, and each agencies mandate or mission. The review validates the agencies earlier disagreement with IPC's proposed Protection, Mitigation & Enhancement (PM&E) measure for land acquisition and management. Specifically, that IPC's proposed PM&E does not adequately address the continuing Project impacts to public lands and resources including, crucial mule deer winter range and low-elevation riverine and tributary riparian habitat of Hells Canyon Project reservoirs, riverine riparian habitat in the river reach downstream of Hells Canyon Dam, shoreline erosion of Hells Canyon reservoirs and the river reach downstream of Hells Canyon Dam and recreation resources.

Specific components of the proposal include: agency summaries of policies, regulations, rules and guidelines or statutes; analysis of all applicable information, including the use of replacement ratios for land acquisition and management; and conclusions and recommendations based on the analysis. The analysis identifies the resources affected by the Project; continuing Project impacts; and management of mitigation lands.

#### Hells Canyon Hydroelectric Project FERC Project No. 1971-079

#### Settlement Discussions

In light of the productive discussions regarding terrestrial resources and potential mitigation options for the Project at IPC's recent Additional Information Request (AIR) meeting, the agencies believe that additional discussions with IPC should occur. While some fundamental disagreements remain regarding the amount and location of potential land acquisitions in both Idaho and Oregon, the agencies remain committed to the concept that a long-term agreement on terrestrial resources can be reached. To that end, the agencies will provide IPC with our combined vision of an acceptable and adequate land acquisition package for the Project. Following submittal of this alternate proposal to you, the agencies suggest that all of the parties present at IPC's AIR meeting reconvene to continue discussions that may lead to agreement on a terrestrial PM&E package. It was evident from the material presented at IPC's AIR meeting, that the Terrestrial Resource Work Group (TRWG) has already made substantial progress toward a collaborative agreement on PM&E measures. Our recommendation now is to resume where that group left off several years ago and jointly establish a goal of reaching a settlement on terrestrial resources.

Hells Canyon Hydroelectric Project FERC Project No. 1971-079

## ATTACHMENT II

#### **USDA Forest Service Response to IPC's**

#### TR-1 – Habitat Resource Management

#### **Information Request**

#### (a) Acquisition of Upland and riparian habitat

#### (i) IPC's options for meeting land acquisition acre target

IPC's proposed option for meeting its land acquisition PM&E acre target identifies several the listed riparian and upland habitat sites developed at the TRWG meetings (February 7 & 8, 2001, March 5 & 6, 2001, April 13, 2001, and May 15 & 16, 2001). Listed below are the Brainstormed Conceptual PM&E Measures – May 16, 2001 acquisition locations:

- On-site locations adjacent to the Hells Canyon Complex Reservoirs
  - o Powder River Pool
  - Tributaries at Brownlee Reservoir (Daly Creek, Powder River, Sturgill Creek and Cottonwood Creek)
- Unimpounded reach of the Snake River below Hells Canyon dam, including tributaries to the Snake River
  - o Imnaha River
  - o Lower Grande Ronde River
- Off-site location, including Tribal lands and Ceded Territories of Native American Tribes
- Other off-site locations, such as
  - o Crane and Paddock Creek
  - o Severn Mile Slough/Lower Payette
  - o Pine Creek
  - o OX Ranch
  - o Imnaha River
  - o Rocking M
  - o Joseph Creek
  - o North Pine Creek
  - o Lookout Mtn
  - o Red Bird Canyon
  - o Sheep Mtn
  - o Mtns on the Idaho side of Brownlee and Oxbow reservoirs
  - o (Sheep) allotment Black Lake-Sheep Rock

The TRWG listing of potential acquisition parcels were identified knowing that the parcels are fluid and opportunities change over time.

IPC's proposed option for meeting the land acquisition acre target includes 3 parcels from the identified sites above. Two primary reasons are given for this selection: 1) these parcels are currently on the market or are soon to be available, and 2) in IPC's view, these parcels along with the range allotments and IPC's own lands, meets and exceeds its proposed PM&E measure.

IPC's option proposes to acquire 18,000 acres of private land, assume management control over 16,000 acres of federal grazing allotments, and credit 2,799 acres of IPC owned lands towards the acquisition goal. This option totals 36,799 acres with a division of 21,416 acres and 15,383 acres in Oregon and Idaho, respectively.

#### Discussion of IPC's Proposed Option

#### Acquisition of Private Lands

IPC's proposal to acquire private parcels in the Daly, Sturgill and Cottonwood Creeks incorporate many of the land acquisition criteria identified in the TRWG Brainstormed Conceptual PM&E Measures – May 16, 2001. Criteria include: on-site mitigation including the following elements: fee title acquisition, including water rights; maximum diversity; low-elevation winter range; riparian habitat; specific habitats (springs, seeps and wetlands); large contiguous blocks of land; adjacency to federal, state and IPC owned-lands; species specific; and off-site mitigation: including the elements listed for on-site mitigation.

The USDA FS believes that acquisition and management of these lands over the term of the new Project license will, to a reasonable extent, mitigate the continuing Project affects to NFS lands and resources. However, as there are direct Project affects to NFS resources, your proposal should incorporate alternatives that include acquisition of parcels adjacent to Hells Canyon reservoir and to the Snake River reach below Hells Canyon dam.

#### Federal Grazing Allotments

The interagency land acquisition work group, through discussion and in reaching consensus has determined that it is not appropriate for IPC to "take full credit" for the 16,000 acres of federal grazing allotments (public land). These acres are not considered "acquisition acres" to mitigate Project impacts to aquatic, terrestrial and botanical resources. Grazing allotments, whether under the management of the BLM or USDA FS, are guided by the Multiple-Use Sustained-Yield Act of 1960 (16 U.S.C. 528-531), thereby giving consideration to other public land uses.

IPC may be able to "take partial credit" for some of these acres depending upon whether IPC is granted the grazing permit, whether the permit is active or in non-use status, type

#### Hells Canyon Hydroelectric Project FERC Project No. 1971-079

of habitat improvement projects implemented, and project O&M and administration funding over the term of the new Project license.

If, and when, IPC purchases the private parcels in its proposed option, IPC could qualify for grazing privileges, according to 43 CFR 4110 (a) (3) which states that an applicant may be "a corporation authorized to conduct business in the State in which the grazing use is sought," for the accompanying grazing permits. However, IPC is not automatically awarded the federal grazing permit for purchase of a base property. Federal agencies are required to re-assess the permitting of a grazing allotment when the owner of the accompanying base property sells said property. In some cases, after assessment the agency may offer the grazing preference to other permittees.

The agencies are willing work with IPC, as with any new owner of base property, to allocate and manage public lands consistent with federal laws, regulations and policies.

#### IPC-Owned Lands

IPC proposes that certain IPC-owned lands be managed to 1) protect wildlife resources from potential impacts, 2) mitigate for identified impacts to wildlife resources, and 3) enhance the future value of wildlife resources. Lands currently owned by IPC may be considered as mitigation properties if they meet specific criteria. These criteria may include those included in the Brainstormed Conceptual PM&E measures developed by the TRWG. IPC will need to clearly identify the benefits from inclusion of IPC-owned lands to mitigate the continuing impacts to terrestrial resources by the Project. These include projected increase in habitat units and function expected with active management. A management plan for the IPC-owned properties will need to be developed and approved by the multi-agency work group and implemented by IPC.

#### (iii) Alternative or additional PM&E measures

#### Land Acquisition Proposals

Below, the USDA FS proposes general land acquisition locations by Project reach to mitigate the continuing Projects affects to NFS lands and resources. The Agency priority preference for acquisition of parcels is on-site and adjacent to Hells Canyon reservoir and to the Snake River reach below Hells Canyon dam. The listing of general locations captures several of the sites identified by the TRWG above.

1) Hells Canyon Reservoir area

a) Private parcels adjoining to Hells Canyon reservoir, north of Copperfield, OR on either the Oregon and Idaho side of the reservoir.

b) Private parcels adjoining Pine Creek, from its confluence with Hells Canyon reservoir upstream to the confluence of North Pine Creek.

#### Hells Canyon Hydroelectric Project FERC Project No. 1971-079

c) Private parcels upslope from Hells Canyon reservoir but within the defined mule deer winter (regular & crucial) range as defined by Christensen 2001.

2) Snake River reach downstream of Hells Canyon dam

a) Private parcels adjoining the Snake River, north of Hells Canyon dam downstream to the confluence of the Salmon River, either on the Oregon and Idaho side of the river.

b) Private parcels adjoining the Imnaha River from the confluence with the Snake River including the side tributaries but within either the defined mule deer winter (regular & crucial) range as defined by Christensen 2001 and/or the anadromous fish reaches.

c) Private parcels adjoining Cow, Lightning, Horse, and Sheep and Little Sheep Creeks from the confluence with the Imnaha River.

3) Off-Site Mitigation Parcels – In order to meet resource goals and objectives other offsite mitigation parcels may need to be considered than those identified above.

The above land acquisition suggestions for the Imnaha River basin, need to tempered with the USDA FS planned Blue Mountain Land Exchange. IPC may review the potential land exchange parcels on the following website: <u>http://www.fs.fed.us/r6/w-w/projects/bmle/maps/index.shtml</u>.

# **Terrestrial Resource Work Group**

Establishment of a post licensing TRWG will facilitate integrated and coordinated management of terrestrial resources identified in the Hells Canyon Resource Management Plan for the Hells Canyon Hydroelectric Project. The TRWG should be established for consultation in the development and implementation of the Hells Canyon Resource Management Plan throughout the life of the new Project license.

The purpose of the TRWG is to consult with IPC in the development of the Hells Canyon Resource Management Plan. The plan, in addition to the IPC's recommendations, should include but not be limited to the following additional elements: resource habitat mitigation plans; design of restoration, protection, management and monitoring plans; exotic and invasive vegetation management strategy; review and evaluation of monitoring data; and in the development of adaptive management actions or other recommendations based on monitoring data analysis.

The TRWG should meet at least once per year to review the previous year's achievements and activities, and discuss and approve a final annual work plan for the current year. The TRWG may choose to meet at other times of the year, as needed, to address specific plan activities or unanticipated matters or circumstances.

#### **Plan Implementation**

IPC should prepare a Resource Habitat Mitigation Plan in consultation with the TWRG and other appropriate Hells Canyon resource work groups and stakeholders. The plan, at the minimum, should include resource habitat mitigation goals and objectives; desired habitat conditions; parcel and conservation easement acquisition criteria; an implementation schedule for habitat acquisition and improvement; procedures for habitat restoration of parcels in degraded condition, procedures for maintaining functioning habitat on the acquired parcels; procedures for effectiveness monitoring in determining whether the desired habitat conditions and trends are being achieved; a process for modification of practices when objectives and trends are not achieved; and a provision for the plan's periodic review and revision. The Resource Habitat Mitigation Plan should be incorporated as a part of the Hells Canyon Resource Management Plan.

## Reporting

IPC should prepare and submit annual progress reports to FERC with copies sent to the TRWG. The annual report should document the previous calendar year's management activities, monitoring results, and compliance with the license terms and conditions. The progress report should also include a proposed annual work plan that describes planned activities for the current year. IPC in consultation with TRWG should complete and submit a final work plan to FERC with copies sent to the agencies and Tribes. The final work plan should document this consultation.

IPC, in consultation with the TRWG, should review, update, and/or revise, as needed the Hells Canyon Resource Management Plan every 5 years. The updated or revised plan should document this consultation. IPC should submit 5-year plan updates to FERC by the end of each calendar year (December 31) in which the review and updates occur, with copies sent to the agencies and Tribes. The initial 5-year update of the plan should be completed during the 5<sup>th</sup> calendar year of the new license. Changes or revisions to the plan would be expected if terrestrial resource conditions change as a result of any unforeseen effects from new or existing project-related activities. Changes may also be in order if monitoring feedback indicates that resource objectives are not being met and/or it is determined that a specific PM&E is not providing the intended result and needs to be revised or replaced.

#### **Methods of Monitoring**

The goal of monitoring should be to develop a scientifically defensible estimation of the status and trends in the terrestrial resources being managed by IPC, and to determine whether management practices are supporting those resources goals or should be changed (Gibbs et al. 1999). To ensure success, monitoring must be linked to well-defined objectives. In some instances, monitoring may involve testing specific hypotheses related to resource objectives or their components. IPC, in consultation with the TRWG, should define site-specific resource objectives that are both realistic and measurable.

#### Hells Canyon Hydroelectric Project FERC Project No. 1971-079

These objectives should articulate the following (Elzinga et al. 1998): (1) what will be monitored, (2) the geographic scope of the monitoring, (3) the specific metric of the indicator that will be measured, (4) the anticipated response to the management action, (5) the magnitude of change anticipated, and (6) the anticipated time frame over which the response should occur. Prior to initiating site-specific monitoring actions, IPC, in consultation with the TRWG, should establish baseline biological conditions for the resources that will be managed and monitored. This could be accomplished using existing data and information, and/or new data collected through appropriately designed field surveys.

IPC, in consultation with the TRWG, should establish monitoring protocols and schedules. Monitoring parameters, or indicators, that best display the current condition and dynamics of the system being managed should be selected for monitoring (Gibbs et al. 1999). Preference should be given to indicators that not only demonstrate the existence of change, but which can also be linked to the cause of change. Monitoring intensities should reflect the need to obtain sufficient enough data to have a reasonable chance of detecting change.

#### **Adaptive Management**

Adaptive management is crucial in achieving terrestrial resource goals and objectives, and as such, should be a key element of the Hells Canyon Resource Management Plan. IPC, in consultation with the TRWG, should identify an adaptive management process that will apply to all aspects of the plan throughout the life of the new project license. The objective of adaptive management should be to monitor the implementation (compliance) and effectiveness of specific mitigation, enhancement, and protection measures, and to modify those actions as needed to meet resource-specific goals and objectives. The data generated from monitoring will be analyzed and used to evaluate changes in condition and progress toward meeting resource management objectives. Monitoring shall provide the necessary information to track and assess the effects of specific management actions or terrestrial resources, and to change if necessary, future management actions or resource objectives.

Adaptive management should be based on periodic monitoring cycles tailored to each resource objective and the temporal expectation for change related to a specific mitigation or management action. IPC should report the results of the previous year's monitoring activities in the annual progress report. IPC and TRWG should review and evaluate the monitoring results at the annual TRWG meeting. The primary purpose of the evaluation process should be to determine whether management practices are achieving resource objectives, or should be changed. IPC and TRWG may request outside peer review of the monitoring results to assist in developing and evaluating adaptive management actions. Subsequent to the annual evaluation process and/or peer review, IPC, in consultation with the TRWG, should develop and implement specific monitoring proposals for the current year. Monitoring activities will be incorporated into an annual work plan for terrestrial resources.

#### **References:**

Christensen, A. 2001. Final Report Delineation and Assessment of Big Game Winter Range Associated with the Hells Canyon Hydroelectric Complex: Mule Deer, Elk, Mountain Goats, and Rocky Mountain Bighorn Sheep. Technical Report E.3.2-31 in License Application for the Hells Canyon Complex. Idaho Power Company, Boise, ID, USA.

Elzinga, C.L., D.W. Salzer, and J.W. Willoughby. 1998. Measuring and monitoring plant populations. Bureau of Land Management Technical Reference 1730-1.

Gibbs, J.P., H.L. Snell, and C.E. Causton. 1999. Effective monitoring for adaptive wildlife management: lessons from the Galápagos Islands. The Journal of Wildlife Management 63:4 1055-1065.

Idaho Power Company. 2003. New License Application. Hells Canyon Hydroelectric Project. FERC Project No. 1971.

Johnson, M. 2002. Hells Canyon Resource Management Plan. Technical Report E.6-1 in License Application for the Hells Canyon Complex. Idaho Power Company, Boise, ID, USA.

Kovalchik, B.L. 1987. Riparian zone associations deschutes, ochoco, fremont and winema national forests. Tech. Paper. R6 ECOL TP-279-87. U.S. Department of Agriculture, Forest Service, Pacific Northwest Region. Bend, OR.

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Appendix L. Example of letter dated December 6, 2002, formally requesting written comments from FERC-designated agencies and Native American tribes about the draft report for HCC AIR TR-1.

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IDAHO POWER COMPANY PO. BOX 70 BOISE, IDAHO 83707

Frank Edelmann Wildlife Biologist Environmental Affairs fbe2355@idahopower.com Phone Fax E-Mail 208-388-2355 208-388-6902

December 3, 2004

David Henderson Bureau of Land Management 100 Oregon Street Vale, OR 97918

Re: Hells Canyon Additional Information Request TR-1

Dear Mr. Henderson:

In a letter dated May 4, 2004, the Federal Energy Regulatory Commission (FERC) issued to Idaho Power Company (IPC) an additional information request (AIR) for the Hells Canyon New License Application. As part of the AIR, FERC directed IPC to provide information on habitat resource management (AIR TR-1).

In AIR TR-1, the FERC directs IPC to consult with various entities (see attached list) on IPC's responses to items (a) - (c) of the AIR. Enclosed is a CD with an electronic copy of IPC's draft response to TR-1 in .pdf format.

In its cover letter issuing the AIRs, the FERC directs IPC to allow for a 30-day review and comment period. Because of the tight time constraints established by the FERC for this AIR, your comments must be delivered to me by no later than January 7, 2005 for inclusion in the final report submitted to FERC. Comments received after the 30-day review period may not be included in the final response to AIR TR-1.

Please contact me if you have questions or need clarification.

Sincerely,

I Elelmoun

Frank Edelmann

FBE/da Enclosure Cc: Jim Tucker, IPC Nathan Gardiner, IPC Craig Jones, IPC Jim Vasile, Davis Wright Tremaine

#### HCC Additional Information Request TR-1 Consulting Agencies and Native American Tribes

#### List of Addressees

Forest Supervisor U.S. Forest Service Wallowa-Whitman National Forest 1550 Dewey Avenue PO Box 907 Baker City, OR 97814

David Henderson Bureau of Land Management 100 Oregon Street Vale, OR 97918

Jeffery Foss U.S. Fish and Wildlife Service 1387 South Vinnell Way, Suite 368 Boise, ID 83709

Tracey Trent Idaho Department of Fish and Game 600 South Walnut PO Box 25 Boise, ID 83702

Colleen Fagan Oregon Department of Fish and Wildlife 107 20th Street La Grande, OR 97850 Rick Eichstaedt Nez Perce Tribe PO Box 305 Lapwai, ID 83540

Donald Clary Shoshone-Paiute Tribe 633 West Fifth Street Twenty-First Floor Los Angeles, CA 90071-2040

Frederick Auck Shoshone-Bannock Tribe PO Box 306 Fort Hall, ID 83203

Albert Teeman Burns-Paiute Tribe HC 71, 100 Pasigo Street Burns, OR 97720

Gary Burke Confederated Tribes of the Umatilla Indian Reservation PO Box 638 Pendleton, OR 97801

Olney Patt, Jr. Confederated Tribes of the Warm Springs PO Box C Warm Springs, OR 97761-0078

Appendix M. Written comments received from FERC-designated agencies and Native American tribes regarding the draft report for HCC AIR TR-1 and in response to IPC's letter request of December 6, 2004.

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# United States Department of the Interior

BUREAU OF LAND MANAGEMENT VALE DISTRICT 100 Oregon Street Vale, Oregon 97918 http://www.or.blm.gov/Vale/



IN REPLY REFER TO: 1780

January 7, 2005

Craig Jones and Frank Edelman Idaho Power Company PO Box 70 Boise ID 83707

Dear Mr. Jones and Mr. Edelman;

Thank you for the opportunity to comment on your recently completed AIR, TR-1. BLM has a large interest in the outcome of the Terrestrial Resource issues for the Hells Canyon Complex because of the large quantity of BLM managed lands affected by the project. We provided the BLM comments on the Idaho Power draft AIR for TR-1 on August 18, 2005. We appreciate that IPC has tried to incorporate some of our suggestions and requests. We offer the attached comments to your latest version for your use in finalizing this important document.

We look forward to continued cooperation in working with the terrestrial issues in the relicensing of the Hells Canyon Complex. For more information please contact me at 541-523-1308. My mailing address is: BLM, 3165 10<sup>th</sup> St. Baker City OR 97814.

Sincerely,

Dorothy Mason OR/WA and ID BLM Relicensing Team Lead

One Attachment

Cc: Alan Mitchnick, FERC Hells Canyon Complex P-1971 Service List

#### ATTACHMENT I BLM Response to IPC's November 2004 Report TR-1 – Habitat Resource Management January 7, 2005

## 1.1 Integrated Wildlife Habitat Program Framework

medium acquisition priority.

IPC's discussion of the integrated wildlife habitat program incorporates and details many BLM 01 of the BLM comments provided in its August 18, 2004 letter. BLM concurs with IPC's decision not to include grazing allotments for partial mitigation credit. IPC identified numerous consulting groups (consulting entities, neighbors and other stakeholders and constituents, Federal Energy Regulatory Commission (FERC) (FERC-BLM 02 designated consultation entities) within the TR-1. Identification of those specific team members, their roles and responsibilities, and an outline of meeting schedules for the numerous identified interdisciplinary teams would provide a better understanding of how IPC would consult with its stakeholders within the context of the IWHP. BLM feels it is very appropriate for agencies and tribes to participate with the prioritization and selection of parcels for acquisition, the establishment of management **BLM 03** goals for them, the implementation and the development of monitoring and the adaptive management decisions. Please provide us with a clear picture of how we can accomplish this. IPC identifies "adaptive management principles" as an element in the WMMP and indicates that it will be applied in future annual work plans. IPC should detail the **BLM 04** monitoring/adaptive management feed back loop for its three monitoring combinations: short-term small-scale, long-term small-scale and long-term broad scale. 2. Response to (a) – Acquisition of Upland and Riparian Habitat Figure 2 identifies and codes each private parcel requested by the agencies and the American Indian Tribes. Table 2 codes and ranks each private parcel. Please define the BLM 05 ≺ properties labeled with a "0" code. IPC's mitigation and acquisition prioritization considers the TRWG recommendations, but seems subjective in nature. It appears that IPC's criteria for selecting properties with high acquisition priority is based on; proximity to the Project, IPC documented wildlife impacts and whether it was specifically identified in the draft TRWG recommendations **BLM 06** of March 2001. Further, in its ranking, IPC determined that properties on-site (within the rim to rim zone) and those meeting draft TRWG recommended desirable habitat characteristics and locations but not adjacent to the Project reservoirs would receive a

#### Hells Canyon Hydroelectric Project FERC Project No. 1971-079

BLM 06 BLM provided IPC with specific parcels in OR, WA and ID adjacent to the reservoirs and some below Hells Canyon dam in its letter of May 1, 2001. Appendix E in TR-1, provides IPC's justification for ranking BLM suggested mitigation parcels. IPC identified many of these parcels as medium or low acquisition priority based on the parcels not being specifically recommended for acquisition by the TRWG and their distance from IPC identified HCC impacts to wildlife populations and habitat. The draft TRWG acquisition recommendations were not only, the proximity to the Project but other locations that provided desirable habitat characteristics.

BLM 07
 If any of IPC's preferred options become unavailable, IPC proposes to pursue its ranking of properties identified in Table 2. This sequential process essentially eliminates acquisition of parcels adjacent to Project reservoirs and those downstream of Hells Canyon dam that are acquisition priority ranked as either medium or low. Parcels adjacent to Project reservoirs and those downstream of Hells Canyon dam meet many of the TRWG desirable characteristics: crucial mule deer winter range (Table 9), TESC species (Table 10), and general high-value wildlife resources (Table 11), and summarized in Appendix D.

BLM 08 The BLM contends that there are direct Project impacts to resources adjacent to Project reservoirs and to the river reach downstream of Hells Canyon dam. As such, BLM views the acquisition priority for these parcels is high because of their value for many of the TRWG recommended characteristics and other resource values. Further discussion of parcel prioritization between IPC, the agencies and the tribes could better facilitate acceptable selection.

#### **Interagency Alternative Proposal**

In response to an IPC request for a unified acquisition counterproposal, the Idaho Department of Fish and Game (IDFG), Oregon Department of Fish and Wildlife (ODFW), Bureau of Land Management (BLM), United States Fish and Wildlife Service (FWS), and the United States Department of Agriculture Forest Service (USDA Forest Service), here-in-after known as *the agencies*, have been working on developing a consensus approach to land acquisition and management as partial mitigation for impacts from the continuing operations of the Hells Canyon Hydroelectric Project (Project). While each agency has its own policies, regulations, rules, and guidelines or statutes guiding its participation in the relicensing process, it was possible to consolidate these perspectives into a unified position without compromising any individual party's mandate or mission.

BLM 9

The agencies unified position and proposal is being developed following extensive review of IPC's technical reports, hydropower and other pertinent literature, current agreements among stakeholders and owners of FERC licensed projects, and each agency's mandate or mission. The review validates the agencies earlier disagreement with IPC's proposed PM&E measure for land acquisition and management. Specifically, that IPC's proposed PM&E does not adequately mitigate for the continuing Project impacts to public lands and resources, crucial mule deer winter range and low-elevation

#### Hells Canyon Hydroelectric Project FERC Project No. 1971-079

riverine and tributary riparian habitat of Hells Canyon Complex reservoirs, riverine riparian habitat in the river reach downstream of Hells Canyon Dam, shoreline erosion of Hells Canyon Complex reservoirs and the river reach downstream of Hells Canyon Dam and recreation resources.

BLM 9 Specific components of the agencies proposal include: agency summaries of policies, regulations, rules and guidelines or statutes; analysis of all applicable information, including the use of replacement ratios for land acquisition and management; and conclusions and recommendations based on the analysis. The analysis identifies the resources affected by the Project, continuing Project impacts, and management of mitigation lands.

BLM 10 The agencies' proposal is not included at this time, as it is not a specific component of FERC's and IPC's Additional Information Request for Terrestrial Resource (TR-1). Also, each agency needs additional time for the appropriate internal administrative review of the proposal before submittal to IPC and FERC. However, the agencies agreed that it was timely to provide an overview of the proposal in the spirit of open communication and in the hope that it encourages formal settlement discussions with IPC. We look forward to discussing this proposal with IPC in the future.



IDAHO FISH & GAME 600 South Walnut P.O. Box 25 Boise, Idaho 83707-0025

Dirk Kempthorne / Governor Steven M. Huffaker / Director

January 7, 2005

Frank Edelmann Idaho Power Company P.O. Box 70 Boise, Idaho 83707

#### Re: Hells Canyon Complex, FERC Project No. 1971 Additional Information Request TR-1, Habitat Resource Management

Dear Mr. Edelmann:

Idaho Department of Fish and Game (IDFG) staff has reviewed Additional Information Request TR-1 and we offer the following comments for your consideration in developing the final report for the Federal Energy Regulatory Commission. We appreciate being involved in the consultation process for this important Hells Canyon Complex mitigation issue.

2.2.3 Rocking M Ranch

IDFG 01 IDF

IDFG 02There is approximately one section of non-easement, private land on the east side of the<br/>Rocking M Ranch that lies between the Idaho Department of Lands (IDL) section and the<br/>U.S. Forest Service boundary (near Chinaman's Hat). Acquisition of this private land<br/>section by IPC, rather than easement lands in Dennett Creek, would help protect big<br/>game transition range; prevent subdivision of the property for recreational home sites or<br/>other uses that could impact current management goals on the Rocking M Ranch; and<br/>would provide uniform resource management to this section within the Rocking M Ranch<br/>Conservation Easement Area.

] Keeping Idaho's Wildlife Heritage

## 3.1.2 Wildlife Management Areas and 4.2.1 Andrus WMA (Idaho)

IDFG 03 IDFG 03 IPC states in paragraph 1 of Section 3.1.2 that several IPC-owned small parcels (about 356 acres total) along Brownlee Reservoir and adjacent to the IDFG's Cecil D. Andrus WMA (CDAWMA) will be incorporated, along with operation and maintenance funding, into the larger management of the CDAWMA. A portion of this acreage (excluding IPC's Woodhead Park facilities) is used heavily by the public for dispersed and unregulated recreational campsites and year-round fishing access. This same acreage is critical winter range for mule deer. We are assuming that these recreational areas have been included with the mitigation lands, based on the last sentence of page 40, "Specifically, management actions would be designed to protect wintering big game from human disturbance...and habitat rehabilitation at unauthorized recreation sites." The IDFG does not believe that significant conflicts currently exist between dispersed recreation and wintering wildlife in these areas because we have observed little human use in winter months.

IDFG 04 The IDFG will discuss with IPC the proposal for incorporating these IPC lands into the overall management of the CDAWMA along with appropriate operation and maintenance funding, responsibilities, and expectations. It is our preference that IDFG personnel primarily allocate their time to the habitat management tasks associated with the CDAWMA rather than land use enforcement.

# 4.2.3 Cottonwood Creek WMA (Idaho)

IDFG 05 An important issue relevant to this proposed WMA and others is travel management and public access. Currently, the main access to the proposed Cottonwood Creek WMA is via the CDAWMA Lake Road Access. The current road easement (recorded on the CDAWMA deed) allows the existing landowner access to his property via this road. The IDFG and IPC will need to work closely when IPC develops the use plan for the proposed Cottonwood Creek WMA, so that the travel management and access plans are compatible with the existing CDAWMA travel and access plans, especially at the Lake Road access point. An alternative is to develop a new and mutually agreeable plan for access to the Cottonwood Creek WMA that meets the needs of IPC and the IDFG.

# 4.2.4 Farewell Bend WMA (Idaho)

IDFG 06 Since this area is in close proximity to extensive dispersed recreation activity, significant protection and enforcement measures will be required to prevent unauthorized recreation use from negating wildlife mitigation benefits expected from these properties. Page 47, paragraph 3, states, "I&E methods will be the primary tool for preventing human disturbance and expansion of recreational sites into wildlife habitat." Based on our lengthy experience in land management, IPC should reconsider this strategy because as information and education will not be adequate if used as the primary method for regulating human activities impacting wildlife mitigation goals at this location. Nothing

IDFG 06 short of frequent staff presence will be effective in controlling human use and disturbance seasons of use. Physical barriers will be ineffective at preventing unauthorized human motorized use due to landscape characteristics of this area. We recommend that IPC work with IDFG staff to develop an overall strategy for effectively controlling human use and disturbance at this location to ensure that mitigation goals are achieved.

#### 4.2.6 Rocking M WMA (Idaho)

IPC proposes to manage its Rocking M WMA lands in coordination with the IDFG's adjacent Rocking M Ranch Conservation Easement (page 52, last paragraph). We believe it is important for IPC to also coordinate with the Bureau of Land Management and IDL, as part of the Rocking M Ranch Conservation Easement Area. The BLM is a major landowner in the Conservation Easement Area and IDFG and BLM coordinate extensively with each other on the goals and management of the intermingled properties so that they are managed as a unit.

IDFG 08 IDFG 0

IDFG 09 IPC also plans to implement a travel and access management plan for all their lands. This should mesh well with the need for an overall access management plan for the Rocking M Ranch Conservation Easement Area. It is essential that all parties coordinate their efforts in developing, implementing, and enforcing a travel management plan.

4.2.8 Sturgill Creek WMA (Idaho)

IDFG 10 Overall, the plan for this proposed WMA looks adequate and is consistent with the management goals outlined in the other proposed WMAs. The grazing plan appears to be compatible with wildlife habitat protection and improvement, and includes a proposal to coordinate with the BLM on grazing compatibility and management. For the proposed travel management plan, enforcement of recreational use and access will need to be a priority in addition to an information and education program and compliance monitoring.

#### 4.2.9 Wildhorse WMA (Idaho)

IDFG 11 The overall the plan for this proposed WMA appears to be adequate. IPC addresses the impacts of unauthorized livestock grazing on critical big game winter range and the need for recruitment of large cottonwoods within the riparian area for bald eagle use. This parcel does not significantly affect the management of the CDAWMA and close coordination on habitat management will not be necessary. However, coordinating with IDFG staff at the CDAWMA will be important for addressing unauthorized motorized use of BLM lands adjacent to McCormick Park that are managed as part of the CDAWMA. It is likely that public use of McCormick Park facilities contributes to this unauthorized use.

#### General Comments

IDFG 12 If IPC is unable to purchase the privately owned Cottonwood Creek or Sturgill Creek properties, IPC's currently held small parcels adjacent to these larger ranches, has minimal or no mitigation value. As IPC states, the value of these small IPC parcels for terrestrial mitigation would increase only when considered in combination with acquisition of larger ranches; however, standing alone, they do not provide much value for wildlife.

IDFG 13 IDFG 1

IPC proposes that certain Applicant-owned lands be managed to 1) protect wildlife resources from potential impacts, 2) mitigate for identified impacts to wildlife resources, and 3) enhance the future value of wildlife resources. We assume that "enhance the future value of wildlife resources" means that through significant habitat restoration on IPC lands, we can expect an increase in carrying capacity for wildlife. Lands currently owned by IPC may be considered as mitigation properties if they meet specific criteria. These criteria may include those identified in the Brainstormed Conceptual Protection, Mitigation, and Enhancement measures developed by the Terrestrial Resources Work Group. IPC will need to clearly demonstrate the benefits of active management at these properties for terrestrial resources impacted by the Hells Canyon Complex. This includes the projected increase in habitat units and function expected with active management. A management plan for these applicant-owned properties will need to be developed and approved by a multi-agency committee and implemented by IPC.

Thank you for the opportunity to comment. The IDFG looks forward to working with IPC on this important mitigation project for Hells Canyon relicensing. If you have any questions regarding this letter, please contact Scott Grunder, Fishery Program Coordinator, at 208-287-2714.

Sincerel anu . Tracey Trent, Chief

Natural Resources Policy Bureau

TT:AO:sag

Cc: IDFG SW Region (Deal, Leitzinger) CDAWMA (Owsiak) IDFG Clearwater Region (Hennekey) IDFG Wildlife Bureau (Gould) Idaho AGO (Hensley) Interagency Work Group via email





January 7, 2005

Frank Edelmann Idaho Power Company P.O. Box 70 Boise, ID 83707

Re: Hells Canyon Complex, FERC Project No. 1971 Additional Information Request TR-1, Habitat Resource Management

Dear Mr. Edelmann:

Within Additional Information Request TR-1, the Federal Energy Regulatory Commission (FERC) directs Idaho Power Company (IPC) to include comments from consulted agencies and Native American Tribes on its response to items (a) – (c). The Oregon Department of Fish and Wildlife (ODFW) staff has reviewed IPC's draft response to Additional Information Request TR-1 and we offer the following comments for your consideration in developing the final report for FERC.

ODFW has authority pursuant to Section 10(j) of the Federal Power Act and the Fish and Wildlife Coordination Act (16 U.S.C. 661 et seq.) to provide recommended terms and conditions to FERC regarding protection, mitigation, and enhancement of fish and wildlife and their habitat affected by operation and management of the Hells Canyon Complex Hydroelectric Project (HCC). In addition, ODFW's goals, objectives, and management authorities for the fish and wildlife populations affected by the Project are found in Oregon Revised Statutes (ORS), Oregon Administrative Rules (OAR) and associated management plans.

ODFW shall recommend mitigation for HCC impacts consistent with the goals and standards of its fish and wildlife habitat mitigation policy (OAR 635-415-0025). This policy directs ODFW to require or recommend mitigation for losses of fish and wildlife habitat resulting from development actions. Development actions include subsequent re-permitting (e.g. hydroelectric relicensing) for activities with new impacts or continued impacts that have not been mitigated consistent with current standards. Consistent with OAR 635-415-0025, ODFW's proposed mitigation shall be based on the following considerations:

- a) The location, physical and operational characteristics, and duration of the proposed development action; and
- b) The alternatives to the proposed development action; and
- c) The fish and wildlife species and habitats which will be affected by the proposed development action; and
- d) The nature, extent and duration of impacts expected to result from the proposed developmental action.

ODFW considers wetland, riparian, critical winter range, and riverine habitat within the Project boundary and the Hells Canyon Natural Resource Area to be "Habitat Category 2" and upland habitat associated with the HCC and the HCNRA, not included in critical winter range, to be "Habitat Category 3" according to ODFW's Fish and Wildlife Habitat Mitigation Policy (OAR 635-415-0000-0025). Oregon's mitigation policy requires that if impacts are unavoidable to Habitat Category 2 or 3, then reliable in-kind, in-proximity mitigation shall be provided to achieve no net loss of either habitat quantity or quality. Also, a net benefit of habitat quantity or quality must be provided for impacts to Habitat Category 2. In-kind mitigation, as defined in the mitigation policy, needs to recreate similar structure and function as to habitat lost and impacted by Project effects.

ODFW 01 Based on information submitted in IPC's Final License Application and contained within the draft response to AIR TR-1, ODFW believes that IPC's mitigation proposal in large part is not habitat value associated and will not adequately mitigate project impacts to terrestrial resources. It also may not comply with Oregon's fish and wildlife habitat mitigation policy.

IPC's land acquisition and management proposal appears to be largely based on estimated acres of riparian and upland habitat impacted by Project operations. IPC proposes mitigating one impacted acre of riparian habitat with acquisition or designation of, as a Special Management Area or Wildlife Management Area, one acre of riparian habitat. Under an acre for acre requirement, an acre of high quality habitat could be replaced with an acre of low quality habitat, resulting in no net loss of acreage but a loss of environmental values.

ODFW 02 This acre for an acre approach does not replace lost cover types, species associations, or habitat function as required by Oregon's habitat mitigation policy. ODFW believes it is necessary, therefore, to assess and measure the physical, chemical, and biological values associated with the resource impacted and not just the physical dimensions of an area. Equivalent habitat function should be replaced.

In addition to replacement acreage being determined based on functional values of the area being impacted, the temporal loss of habitat that will occur, as well as an adequate margin to reflect the expected degree of success associated with the mitigation plan should be taken in to consideration. There is typically a long-term loss of values, functions, and productivity of the impacted resources. Some habitats may take decades, centuries, or even longer to approach the original ecosystem structure and functionality. There is also the risk that the values, functions, and productivity of the original area may not be fully replaced by the mitigation effort.

ODFW 03 Therefore, ODFW believes IPC's mitigation proposal and targeted acreage for inclusion in the Integrated Wildlife Habitat Program is not sufficient to mitigate for Project impacts to terrestrial resources and their habitats.

#### **Integrated Wildlife Habitat Program**

IPC is proposing to create the Integrated Wildlife Habitat Program (IWHP) as the mechanism for administering wildlife PM&Es in Hells Canyon. Approximately 21,893 acres of new acquisitions and 2,990 acres of currently owned lands would comprise the program. Protection and enhancement of these 24,884 acres would provide mitigation for HCC impacts to wildlife.

The IWHP will be an extension of IPC's Hells Canyon Resource Management Plan (HCRMP). Wildlife PM&E lands administered by the IWHP will be classified according to the land- and water-use classification system of the HCRMP. Resource management classifications in the RMP are used to designate the areas in which the sustenance of natural and cultural resources is to be the primary objective and to provide the appropriate levels of protection of these resources from human disturbance. To determine resource designation, IPC used three approaches to analyze resource conditions in the Planning Area. The outcome of these individual analyses indicated how areas should be designated so that IPC can ensure that particular activities occur in areas appropriate for those activities. These analyses were used to determine the proper geographic classification of canyon lands for human use or resource management, as well as the appropriate levels of use or management. The resulting land and water classifications and the total acreage included within each classification are provided in the HCRMP. Also included are policies for resource management for each resource designation.

Where specific resources that are highly valuable or sensitive to human disturbance have been identified, or where such resources occur near areas of human use, a special management area (SMA) will be designated according to policies in the HCRMP, with specific resource objectives identified. Within the IWHP, an SMA will be expanded to include an assemblage of parcels that are geographically close and have common management issues and settings. These SMA lands will also contain intermingled human uses such as recreation sites. Therefore, only parts of SMA lands will be specifically dedicated to wildlife mitigation.

IPC is proposing another land use classification, Wildlife Management Area (WMA), be developed for inclusion in the IWHP and the HCRMP. WMA designated lands will be managed with the sole priority of protecting and enhancing wildlife resources and no other land-use designations will be simultaneously assigned. Some traditional land uses, recreational activities, and infrastructure development may be permitted, but only if compatible with the wildlife mitigation and management objectives.

Within AIR TR-1, IPC proposes creating two SMAs and one WMA in Oregon from currently owned IPC parcels that will contain dedicated wildlife PM&E lands. These lands are currently identified as resource protection and special management areas in the HCRMP.

ODFW 04 ODFW strongly supports development of an Integrated Wildlife Habitat Program and the designation and management of IPC-owned lands as SMA and WMA. ODFW does not, however, consider IPC's management of its existing lands mitigation for Project impacts. These lands are largely being used by terrestrial resources and are not considered "new acres". The only benefit and consideration for mitigation is if this land is improved and helps replace lost value and function of impacted habitat. Therefore, certain criteria will need to be met for lands currently owned by IPC to be considered by ODFW as mitigation properties. This includes clearly showing

ODFW 04 the benefits of these properties to terrestrial resources impacted by the HCC and projected increases in habitat units and functions expected with active management.

ODFW 05 Based on the information provided, it is not clear how reclassifying IPC-owned lands as an SMA established by the IWHP will provide additional protections than those already provided by the HCRMP. Please provide additional information on the differences in management expected for SMA land in the IWHP versus SMA and resource protection land in the HCRMP. For protection credit, IPC will need to demonstrate that the habitat protected is potentially threatened by land use changes or practices. Preservation remains a lower priority for ODFW than enhancement because neither new habitat nor enhanced function has been added to the impacted watershed.

To ensure compliance with ODFW's fish and wildlife habitat management policy, a management plan for newly acquired parcels and IPC-owned properties considered mitigation property will need to be developed. The management plan will need to include details of how IPC will effectively manage their parcels for historic native species assemblages, increase habitat value and function, maximize biological function, and improve native populations.

IPC envisions that an IWHP Workgroup, comprised of FERC-designated entities, will assist in preparing cooperative management plans with written comments from workgroup members on draft plans requested. The IWHP Workgroup will also aid in planning and implementing the IWHP and in establishing overall and site-specific PM&E goals and objectives. Workgroup functions, consultation protocols, and discussion and feedback procedures will not be established until IWHP development.

ODFW 06 ODFW is statutorily obligated to preserve, protect, perpetuate, and manage fish, wildlife, and their habitats for use by present and future generations. Therefore, while ODFW agrees in principle with the IWHP, we can not agree to only being consulted on management plan development and implementation. ODFW staff will need to be an active participant in development of management plans and will require that management plans for properties in Oregon receive written approval by ODFW.

ODFW 07 Terrestrial habitat management plans should include criteria to ensure consistency with ODFW management policies and rules. The management plan for acquired land should also clearly identify fish and wildlife habitat enhancement and public access for fishing and hunting as important objectives. The management plan should further specify approved uses of the land to ensure that the major goals of the program are not compromised. All lands acquired or identified for conservation purposes should have development restrictions, limiting and controlling human access and impacts.

ODFW 08 Additionally, management planning should establish desired future conditions and include protocols, clear performance expectations, methods, and reporting schedule for monitoring effectiveness of mitigation measures at achieving these conditions. Adequate monitoring and evaluation for all mitigation projects should include an assessment of both compliance and functional equivalency. ODFW recommends that IPC evaluate the effectiveness of PM&E wildlife habitat acquisition and management by funding assessments of habitat quantity and quality using HEP or another appropriate methodology selected by the workgroup. Monitoring should continue for the duration of the new license.

ODFW 09 Without mitigation plans for IPC-owned lands proposed for inclusion in an SMA or WMA, ODFW is unable to determine what credit IPC should be given towards mitigation of Project impacts to terrestrial resources. ODFW is willing to provide credit for habitat enhancements projects occurring on currently owned IPC lands provided that the projects are approved by ODFW and suitably mitigate for Project impacts.

## **Habitat Acquisition Options**

#### **Mitigation and Acquisition Prioritization**

ODFW 10 ODFW 10 ODFW 10 ODFW 10 ODFW 10 ODFW 10

Potential properties for acquisition were identified in letters to IPC and in Terrestrial Resource Work Group (TRWG) meetings and further discussed by participants on July 08, 2004. Extensive discussions of potential sites for acquisition were discussed as part of the Conservation Reserve Study. Unfortunately, the majority of tasks and sub-tasks associated with the Conservation Reserve study were not completed.

ODFW recommended acquisition and enhancement of property around the Powder River Pool and within the Lookout Mountain and Pine Creek management units, particularly Daly Creek Ranch and adjacent private properties with allotments if owners are willing to sell. Other properties and locations identified by ODFW included Fox Creek, McGraw Creek, Soda Creek, Hibbard Creek, Goat Island, and private islands above Brownlee Dam.

<sup>11</sup> On November 22, 2004 ODFW, BLM, and IPC staff toured another potential acquisition site in the Lookout Mountain Unit, the John Patterson Property. This 20,400 acre property is located along Durkee and Manning creeks, has a lot of riparian potential, and provides mule deer winter range and sage grouse habitat. Although only recently identified as a potential acquisition site, ODFW would like to see this property included in the final TR-1 report to FERC.

IPC has included all other properties identified for by ODFW in its response to AIR TR-1. IPC has also proposed classifying its land in areas identified by ODFW as high priority, such as the Powder River Pool and Pine Creek, as part of an SMA or WMA.

Furthermore, IPC has identified the Daly Creek Ranch as a high priority mitigation and acquisition property. ODFW recommended acquisition of Daly Creek Ranch based on its current and potential wildlife values, opportunities and potential to improve habitat in Hells Canyon, and

ODFW 11

ability to contribute to mitigating impacts to wildlife from the HCC. Daly Creek ranch was also prioritized by ODFW because of its attached allotments.

ODFW 12 ODFW strongly supports acquisition of base properties with grazing allotments attached. Although management and administration of these public lands would remain in control of the state and federal land management agencies, ODFW is willing to discuss options for crediting IPC for funding and participating in protecting and enhancing habitat conditions to benefit wildlife on these allotments for the life of the license.

ODFW 13 ODFW continues to support acquisition of the Daly Creek Ranch. ODFW also supports IPC's proposed development of a WMA incorporating the Daly Creek Ranch along the Powder River Arm of Brownlee Reservoir.

#### **Powder River WMA**

IPC is proposing to dedicate for wildlife management approximately 503 acres of currently owned parcels along the shoreline of the Powder River Arm of Brownlee Reservoir. Several parcels are contiguous to the Daly Creek Ranch that IPC has proposed to acquire and include in the Powder River WMA and to public lands administered by the BLM. If IPC does acquire the Daly Creek Ranch, ODFW sees the value of combining IPC lands adjacent to this property and around the west end of the Powder River pool into a WMA, assuming habitat protection and enhancement measures are implemented on these properties. Even without the acquisition of the Daly Creek Ranch, there are numerous benefits to terrestrial and aquatic resources through designation of these properties in this area as a WMA and associated proposed habitat enhancements. This area contains many high-value wildlife resources and habitats.

ODFW 14 What is unclear, however, is the proposed inclusion of IPC lands north and east of Hewitt and Holcomb parks in this WMA. Similarly, why are scattered parcels approximately 1-2 miles north and south Copperfield included in that SMA? It would be very beneficial if IPC more thoroughly identified the value of, and proposed management and enhancement measures for, properties that are not contiguous with proposed SMA and WMA areas. Also beneficial would be information on the cover type and wildlife habitat acreages by parcel proposed for inclusion. ODFW requests a discussion in the final response to AIR TR-1 of whether and how targeted parcels for acquisition and management of lands currently owned by IPC will replace acreage, function, and quality of lost and impacted habitat resulting from Project operations.

For the Powder WMA, IPC has identified eight resource goals for the next license period. ODFW generally supports these goals.

ODFW 15 IPC indicates that selected areas surrounding the Powder River Pool will be seasonally closed to human access and recreation to protect heron and waterfowl production. ODFW expects to take part in any decision making concerning closure boundaries and timing as well as the sportsman's access program.

ODFW 16 ODFW 16 ODFW 16 ODFW also supports IPC's proposal for special emphasis for riparian habitat enhancements being placed on the heron rookery, bald eagle roosts, and waterfowl habitat surrounding the Powder River Pool. ODFW also supports IPC's proposal that native tree and shrub planting be considered as a primary riparian and upland big game winter range habitat enhancement and rehabilitation tool.

# **Copperfield SMA**

ODFW 17 The proposed Copperfield SMA includes lands around Copperfield Park and also scattered parcels approximately 1-2 miles upstream and downstream. Several major access roads occur is this SMA along with extensive human use on 21 acres of dispersed recreation sites. Nine SMA goals have been identified for the next license period. These goals are generally supported by ODFW.

ODFW 18 IPC has identified some mitigation measures it plans to implement within the SMA. Among the proposed protection and enhancement measures, are management activities IPC is required to conduct such as noxious weed management and measures to protected ESA listed species. Other identified measures include enhancing habitat through planting of native trees and shrubs at suitable sites. ODFW supports planting of native trees and shrubs and assumes the location and extent of plantings will be determined following the SMA inventory.

ODFW 19 Additional measures include public I&E to minimize disturbance to wildlife and monitoring of recreation-site expansion and degradation outside authorized areas. ODFW anticipates additional measures such as more frequent staff presence will be needed to control human use and disturbance of wildlife areas.

# Spring SMA

ODFW 20 IPC proposes designating 370 acres of currently owned parcels distributed along the Oregon shoreline of Brownlee Reservoir as the Spring SMA. IPC indicates the SMA will be managed to protect and enhance wildlife resources while containing recreation impacts to authorized sites. Five resource goals have been identified for the next license period. ODFW generally supports these goals.

ODFW 21 { IPC has proposed enhancing winter range by focusing on shrub plantings and controlling livestock grazing. ODFW supports these proposed enhancements and the commitment of IPC to coordinate with the adjacent BLM grazing allotment.

ODFW 22 Implementing a public I&E campaign is proposed to minimize disturbance to wildlife and any seasonal access restrictions that may be implemented. Because of the recreational use and presence of the Snake River Road, ODFW anticipates additional measures such as more frequent staff presence will be needed to control human use and disturbance of wildlife areas.

ODFW 23 For each proposed WMA and SMA, IPC indicates detailed management direction will be incorporated into a site plan following an initial SMA/WMA inventory and evaluation of resource potential, protection and enhancement needs. Specific management actions will then be planned and implemented through the IWHP's annual work planning process. ODFW will participate in development of site plans, annual work plans, and management plans for these properties and others acquired for mitigation. IPC also proposes planting of native trees and shrubs in each management area. ODFW assumes the location and extent of plantings will be determined following the SMA/WMA inventories. Based on these inventories and subsequent development of plans and projects, ODFW will be better able to determine suitable mitigation credit.

#### **Settlement Discussions**

Information collected by IPC and the terrestrial resource work group (TRWG) members and included in the final Conservation Reserve Report (Technical Report E.3.2-39), FLA, and response to AIR TR-1 provides a strong foundation for a land acquisition and management program. ODFW would like discussions of the land acquisition and management program to continue within the Settlement Work Group. While some fundamental disagreements remain

ODFW 24 regarding the amount and potential location of land acquisitions in both Idaho and Oregon, we remain committed to the concepts that a long-term agreement on terrestrial resources can be reached and an effective Integrated Wildlife Habitat Program developed. Substantial progress has been made towards a terrestrial mitigation package. ODFW recommends resuming where the TRWG left off several years ago and jointly establishing a goal of reaching a settlement on terrestrial resources within the next year.

ODFW 25 ODFW also recommends that acquisitions begin immediately, particularly for properties currently on the market and rated as high for mitigation and acquisition value. Credit will be given by ODFW for implementation of components of the IWHP prior to license issuance. Initiation of the IWHP and land acquisitions would be helped by immediately forming the IWHP workgroup, identifying member roles and responsibilities, and by IPC providing a better understanding of how it will consult with management agencies and stakeholders within the context of the IWHP.

ODFW looks forward to working with IPC in development of an Integrated Wildlife Habitat Program. If you have any questions or need additional information please call me at (541) 963-2138.

Sincerely,

Colleen Fagan

Colleen Fagan Hydropower Coordinator NE Region ODFW

Cc: Craig Ely, ODFW Alan Mitchnick, FERC Dorothy Mason, BLM Scott Grunder, IDFG Mike Gerdes, USFS Jim Esch, USFWS Lynn Roehm, USFS Rick Eichstaedt, NPT



United StatesForestDepartment ofServiceAgricultureService

File Code: 2770 Date: January 3, 2005

Mr. Frank Edelmann Wildlife Biologist Idaho Power Company P.O. Box 70 Boise, ID 83707

Re: Additional Information Request (AIR) TR-1

Dear Mr. Edelmann:

The Federal Energy Regulatory Commission (FERC) directed Idaho Power Company (IPC) to allow identified agencies and Native American Tribes a 30-day review and comment period of IPC's response to FERC's AIR TR-1 prior to final submittal to FERC. The Forest Service (FS) appreciates the opportunity to comment on IPC's AIR TR-1 report.

In previous responses to IPC and FERC, the FS indicated that continuing Hells Canyon Hydroelectric Project (Project) operations will adversely impact both terrestrial and botanical resources on FS lands. Specifically, the Project will adversely affect crucial mule deer winter range and low-elevation riparian communities adjacent to Hells Canyon reservoir. Riparian communities in the river reach downstream of Hells Canyon dam will also be affected due to load following operations (ramping). Project caused shoreline erosion has, and will continue to adversely impact riparian communities in the reservoir area and downstream from the dam. Our objective is to have adverse impacts such as these mitigated under the new license.

USFS 01

We believe that IPC's report describing the acquisition of upland and riparian habitat, management of wildlife resources on Idaho Power-owned lands, and its integrated wildlife habitat program, will help mitigate the adverse affects to crucial mule deer winter range and lowelevation riparian communities adjacent to Hells Canyon reservoir. However, as there are additional direct Project affects to the terrestrial and botanical issues identified above, the acquisition of mitigation habitats should include parcels adjacent to Hells Canyon reservoir and to the Snake River reach downstream of Hells Canyon dam.

USFS 02 The FS supports the concept of fee title purchase of private lands with any associated water rights, and the purchase of large contiguous parcels adjacent to public land with desirable habitat characteristics.

The FS provides specific comments to IPC's AIR TR-1 report in Attachment I.

If you have any questions regarding this response, please contact Lynn Roehm, Wallowa-Whitman National Forest Hydropower Coordinator, at (541) 523-1316 or Mike Gerdes, Zone Terrestrial Resource Specialist, at (541) 416-6521.

Sincerely,

/s/Steven A. Ellis

STEVEN A. ELLIS Forest Supervisor

Attachment I - USDA Forest Service response to AIR TR-1 Habitat Resource Management

cc: Bureau of Land Management (Dorothy Mason) Idaho Department of Fish and Game (Scott Grunder) Nez Perce Tribe (Loren A. Kronemann) Oregon Department of Fish and Wildlife (Colleen Fagan) Shoshone-Paiute Tribes U.S. Fish and Wildlife Service (Jim Esch) Alan Mitchnick - FERC

# ATTACHMENT I

## USDA Forest Service Response to IPC's AIR TR-1 Report

#### **TR-1** – Habitat Resource Management

#### **1.1 Integrated Wildlife Habitat Program Framework**

Idaho Power Company's (IPC) discussion of the integrated wildlife habitat program incorporates and details many of the Forest Service (FS) comments provided in its August 12, 2004 letter. However, a couple elements need to be better defined.

USFS 03 IPC identifies numerous consulting groups (consulting entities, neighbors and other stakeholders and constituents, Federal Energy Regulatory Commission (FERC) (FERC-designated consultation entities)). Identification of those specific team members, their roles and responsibilities, and an outline of meeting schedules for the numerous identified interdisciplinary teams would provide a better understanding of how IPC would consult with its stakeholders within the context of the IWHP.

USFS 04 IPC identifies "adaptive management principles" as an element in the WMMP and indicates that it will be applied in future annual work plans. IPC should detail the monitoring/adaptive management feed back loop for its three monitoring combinations: short-term small-scale, longterm small-scale, and long-term broad scale.

#### 2. Response to (a) – Acquisition of Upland and Riparian Habitat

USFS 05 Figure 2 identifies and codes each private parcel requested by the agencies and American Indian Tribes. Table 2 codes and ranks each private parcel. Please define properties labeled with a "0" code.

USFS 06 IPC's Mitigation and Acquisition Prioritization while considering the TRWG recommendations seem subjective in nature. It appears that IPC's criteria for selecting properties with high acquisition priority is proximity to the Project and IPC documented wildlife impacts. However, TRWG acquisition recommendations were not only proximity to the Project but other locations that provided desirable habitat characteristics. Specifically, TRWG recommendations identified the unimpounded reach of the Snake River below Hells Canyon dam, including tributaries to the Snake River – the Imnaha and Lower Grande Ronde Rivers.

USFS 07 In its ranking, IPC determined that properties on-site (within the rim to rim zone) and those meeting TRWG recommended desirable habitat characteristics and locations but not adjacent to the Project reservoirs would receive a medium and low acquisition priority. If any of IPC's preferred options become unavailable, IPC proposes to pursue its ranking of properties identified in Table 2. This sequential process essentially eliminates acquisition of parcels adjacent to Hells USFS 07 Canyon reservoir and those downstream of Hells Canyon dam. Parcels adjacent to Hells Canyon reservoir and those downstream of Hells Canyon dam meet many of the TRWG desirable habitat characteristics: crucial mule deer winter range (Table 9), TESC species (Table 10), and general high-value wildlife resources (Table 11), and summarized in Appendix D. Additionally, these parcels provide habitat for TESC aquatic species (Table 10).

Appendix E provides IPC's justification for ranking FS suggested mitigation parcels. IPC identifies many of these parcels as low mitigation value based on distance to HCC impacts and not specifically recommended by the TRWG for acquisition. The FS contends that there are direct Project impacts to resources downstream from Hells Canyon dam and that the acquisition priority for these parcels is high because of their value for many of the TRWG recommended desirable habitat characteristics and other resource values.