Specific Findings and Assessment Response Summary - South Fork Clearwater

The ecological integrity and socioeconomic resiliency ratings assigned to South Fork Subbasin from the ICRB Science Assessment are shown below. These ratings are reviewed as part of the South Fork Clearwater assessment. Responses were developed if the ratings or characterizations were incomplete, contrary to those found with the South Fork Landscape Assessment or where further explanation was needed. The subbasin assessment responses are shown in bold letters following the ICRB Science Assessment findings.

- ❑ The ICRB Science Assessment rated forest integrity as **low** based on tree stocking levels, presence of exotic species, snags, down wood, seral species, and tree size classes, and disruptions to hydrologic and fire regimes. A forest system that exhibits high integrity is defined as a mosaic of plant and animal communities consisting of well-defined, connected, high quality habitats that support a diverse assemblage of native and desired nonnative species, the full expression of potential life histories and taxonomic lineages, and the taxonomic and genetic diversity necessary for long term persistence and adaptation in a variable environment. Areas with most of these elements were rated high and those with the least were rated low.
  Forest integrity is considered to be low to moderate in the subbasin. Highest departures from historic composition and structure were found in low elevation forests in the ICRB Science Assessment. The area occupied historically by ponderosa pine in the South Fork Subbasin was actually less than portrayed in the ICRB Science Assessment. Larger areas of Douglas-fir and lodgepole pine were historically prevalent. In these types, departures of structure (age class distribution) are the primary changes from historic. The loss of whitebark pine, although poorly documented, appears to be greater in the South Fork in terms of proportion of the community type affected, than changes in ponderosa pine, and will be less easily reversed.

- ❑ The ICRB Science Assessment did not display range integrity for the South Fork Subbasin, because of the relatively low proportion of rangeland. However, the assessment concluded for the area in which the subbasin falls, that the low elevation forests and rangelands were typically among the most altered by livestock grazing, timber harvest practices, and exclusion of fire.

  Our ability to evaluate range integrity was poor because data on actual rangeland conditions in the South Fork Subbasin are not readily available. Based on degree of conversion to annual cropland, extent of disturbed grasslands, and establishment of noxious weeds, the ICRB Science Assessment findings were found to be correct.

- ❑ Hydrologic integrity was rated as **low** for the South Fork Subbasin. This rating was based on disturbance to water flow; bare soil and disturbances to soil structure; riparian vegetation; sensitivity of stream banks and hill slopes to disturbance; cycling of nutrients, energy, and chemicals; surface and subsurface flows; stream morphology; and recovery potential following disturbance. Again, surrogate indicators were used as needed. For human disturbance, these were roads, agricultural conversion, mining, and dams.
  Within the South Fork Subbasin, watershed condition (synonymous with hydrologic integrity) of tributaries spans the continuum of low to high integrity. The uppermost tributaries of the South Fork were generally rated low. Tributaries in the middle part of the subbasin, generally rated moderate or high. Tributaries in the lower parts of the basin generally rated low to moderate. Although not analyzed in detail, tributaries draining the Camas Prairie would be expected to rate very low integrity, if compared to the tributaries draining forested lands.

- ❑ The ICRB Science Assessment rated aquatic integrity as **moderate** for the South Fork Subbasin. The rating was based on degree of presence of the full complement of native fish and other aquatic species, well distributed in high-quality, well connected habitats.
  In the South Fork assessment, we evaluated species distribution of native fish species (spring chinook, steelhead, bull trout, and westslope cutthroat), and the distribution of brook trout as

a nonnative species. The assessment describes, by species, the inherent habitat potential across the subbasin, the current habitat condition, and the connectivity between habitats. Most of this analysis is contained in the species specific discussions in Chapter 3. Based on the criteria used to determine the rating of aquatic integrity in the ICRB Science Assessment, a rating of moderate for the South Fork Subbasin is appropriate.

- Terrestrial wildlife habitat was rated for the degree of departure from historic occurrence. The ICRB Science Assessment showed departures of 16 to 85 percent from historic. Departures generally included increases in mid seral community types, losses of early seral and late-seral in montane types, and increases in early seral and losses of mid and late seral in subalpine types. These habitat departures, when combined with moderate to high road densities have decreased available habitat for wildlife vulnerable to human disturbances, especially those relying on late or early seral forest structure and those species using small non-forest openings or canopy gaps. **In the South Fork Assessment, the departures from historic occurrence were similar in pattern to those displayed in the ICRB Science Assessment. In general, habitats that displayed the greatest departures ranked as follows and implied the following priority actions: 1) create burned timber and increase early seral community types, 2) restore fire-climax ponderosa pine, 3) create/maintain early seral habitats for elk in montane types, and 4) maintain late seral habitats (pileated woodpecker, goshawk, fisher) .**
- The ICRB Science Assessment rated ecological integrity as **moderate** for the South Fork Subbasin. The composite rating was estimated by comparing the component integrity ratings and knowledge of actual on-the-ground conditions.
- The social and economic counterpart to ecological integrity is resiliency, a measure of adaptability of social and economic systems. Economic and social resiliency for Idaho County were both rated as **moderate,** but when combined with social factors, including population density and life-style diversity (which was also rated as **moderate**), overall socioeconomic resiliency was rated as **low**. Communities with a low rating are less capable of adapting to changing economic and social environments.
- The ICRB Science Assessment rated reliance on Forest Service/BLM timber harvest for Idaho County as **high**.
- The ICRB Science Assessment rated reliance on Forest Service/BLM livestock forage for Idaho County as **low**.