

4. Subbasin Assessment – Summary of Past and Present Pollution Control Efforts

The following section provides a general overview of activities and regulatory and voluntary methods aimed at managing sediment loading within the study area. The FPA governs the harvest and reforestation of all timberlands in Idaho. These rules are, in part, requirements for BMPs designed to abate erosion and retard sediment delivery to streams. The IDL has implemented the Act's rules and regulations aggressively over the past 15 years. Currently, the majority of the forested lands in the Pend Oreille Subbasin are managed by the state or federal government. This large state and federal ownership helps ensure that the rules and regulations of the FPA are implemented. All harvests managed by the USFS must meet the federal Inland Native Fish Strategy (INFISH) guidelines. These guidelines prescribe 300-foot wide buffers for streams with fish uses. Current and proposed timber sales within the Subbasin include road projects aimed at improving water quality. Road projects include road obliteration, resurfacing, slope stabilization, stream crossings, and drainage improvements.

Much of the remaining information presented in Chapter 4 is derived from the *Pack River Watershed Management Plan and TMDL Implementation Plan* prepared by the Bonner Soil and Water Conservation District, Pack River Technical Advisory Committee, and the Pack River Watershed Council in July 2006.

Idaho Code §39-3601 specifies certain entities as designated agencies for various land use activities. These include the IDL for timber harvest and mining activities, the Idaho Soil Conservation Commission (ISCC) for grazing and agricultural activities through local conservation districts, the Idaho Transportation Department (ITD) for public road construction, and the DEQ for all other activities. Designated agencies take the lead in identifying and selecting proven management practices that can be used to reduce nonpoint source pollution and facilitate implementation for their respective activities.

4.1 Forestry - Idaho Department of Lands

The FPA is state policy and is legislatively mandated. A Forest Practices Advisory Committee composed of various interest groups was established with the specific responsibility to review and improve forestry BMPs so forest practices will be conducted using the latest economically sound information and practices to protect water quality. The Committee conducts research into forest practice questions and gathers information from various sources, effectively providing a feedback loop for continuous improvement of forest practices. Many of the activities to improve water quality now being implemented in the Pend Oreille Subbasin are the direct result of improved practices and BMPs put in place by the FPA. The FPA was codified during the mid-1970s to comply with Section 208 of the federal CWA. The FPA established mandatory rules and regulations leading to BMPs to be used during forest practices to protect surface water quality. Espinosa, *et al.* (1997) described estimated sediment delivery in amounts greater than USFS management plan goals from the 1950s through the 1970s, and noted that the awareness of watershed and habitat degradation problems helped initiate a moderation of timber and road construction impacts in the early 1980s. On-site audits of FPA compliance were conducted in 1978, 1984, 1988, 1992, 1996, 2000, and 2004. Because of these audits, BMPs were revised to promote better

water quality protection. Under the FPA, the forest industry and the State of Idaho developed and are implementing a CWE process for forest lands in Idaho. The goal of this method is to systematically examine forested watersheds and identify on-the-ground cases where forest management may be contributing to water quality problems as defined by the CWA and state standards.

When problems are identified, the process leads directly to corrective management prescriptions where the problem is occurring. In 1991, the CWE analysis process was added to the IDL tool chest. This process includes assessments of erosion hazards, canopy closure, stream temperature, hydrology, sediment delivery, channel stability, beneficial uses, and nutrients. The CWE process provides a broad scale watershed assessment that determines if water quality problems exist and what should be done to mitigate those problems. This process can be initiated by the IDL, by a watershed advisory group, or by DEQ at any time it appears beneficial and when funding is available. CWE assessments have been completed on the Upper Pack River, Sand Creek, Gold Creek, and Rapid Lightning Creek. CWE reports define corrective management actions where on-the-ground conditions have been documented. These actions include BMPs based on FPA guidelines to ensure that forestry activities are not impairing water quality conditions. DEQ works closely with the FPA Committee, IDL, and private industry to ensure sediment BMPs are implemented, and will continue to do so.

Idaho's water pollution administrative rules governing nonpoint source activities (IDAPA 58.01.02.001.350) recognize BMPs as the most appropriate method to handle nonpoint sources, and section .03.a. recognizes the FPA as administered by the IDL as an approved BMP for silviculture and forestry. The IDL is the designated agency in Idaho for administering the Idaho FPA on state, private, and federal forestlands. In addition to the regular FPA inspection program conducted by the IDL, the Forest Practices Water Quality Management Plan calls for statewide audits of the application effectiveness of forest practices rules.

The IDL performs a variety of pollution control efforts in the Pend Oreille Subbasin. These efforts include enforcement of FPA rules, FPA education, Stewardship Forestry Assistance, Stewardship Cost-Share Programs, general forestry education, management of State endowment lands, and administration and enforcement of the Minerals Act. The FPA requires forest landowner compliance with forestry BMPs. On-site inspections include review of road construction and maintenance, stream crossing construction, stream protection zone encroachment by equipment, and road/skidtrail locations. Stewardship Forestry Assistance includes on-site visits with landowners to provide education, information, and technical training on forestry and stream-side BMPs. The State administers the Stewardship Program that includes assistance to landowners through cost sharing forestry, riparian, and agroforestry practices. The IDL also supports the Logger Education and Professionalism Program and Pro-Logger Program by providing workshops and training in the areas of logging BMP and FPA rules. Topics presented in 2003 included "Installing Culverts to Meet Fish Passage Guidelines." Stream crossing structures are engineered to meet 50-year peak flows. Roads are inventoried and inspected on a periodic basis. Pollution (sediment and temperature) management problems are identified and repaired as soon as weather conditions and funding permit. From the time of the initial 1998 §303(d) list until now (2007), the IDL, in conjunction with cooperating large industrial forest landowners, has undertaken a number

of capital improvement projects expressly to reduce potential sediment generation from existing forest roads.

4.2 Agriculture - Idaho Soil Conservation Commission

The ISCC is the designated management agency in Idaho for managing agricultural nonpoint source pollution. Although the ISCC does not have regulatory or licensing authority over water quality or pollution control, the mission of the ISCC is to provide support to Idaho's Soil and Water Conservation Districts for wise use and improvement of natural resources. The ISCC works with the Bonner Soil Conservation District and the Boundary Soil Conservation District, the Idaho Association of Soil Conservation Districts, and the Natural Resources Conservation Service (NRCS) in a *conservation partnership* to reach common goals and successfully deliver conservation programs that support water quality management.

The effects of agricultural practices on water quality vary depending on the management practices and location of particular operations in relation to surface and groundwater. The conservation partnership assists landowners in implementing BMPs that minimize negative impacts to water quality. The partnership is committed to targeting watersheds listed as water quality limited, and program delivery efforts prioritize projects occurring in degraded watersheds.

Given that less than 1 percent of the Pend Oreille Subbasin is considered cropland, BMPs for sediment management and soil conservation are effectively targeted to any potential problem conditions. Approximately 9 percent of the Subbasin is Pasture/Hay land (NRCS 2006). Minimal livestock grazing does occur within the basin. Current watershed improvement projects include fencing and hardening of livestock stream crossings, riparian vegetation restoration, and bank stabilization. In 1979 the original Agricultural Pollution Plan (AgPlan) was developed in response to Section 208 of the CWA and represents the agricultural portion of the State Water Quality Management Plan. Subsequently the AgPlan was revised in 1983 and 1991. The most current AgPlan, *Idaho Agriculture Pollution Abatement Plan, 2003*, sets goals and provides guidance for management of all nonpoint source-related activities throughout the state. Proposed and currently implemented pollution control efforts will help restore water quality. Field observations note that implemented projects have been generally effective in the basin. Further development and implementation of pollution control efforts will help to achieve water quality standards within a reasonable time.

4.3 Idaho Transportation Department

The ITD is designated as a lead agency responsible for TMDL implementation actions related to public roadways. ITD coordinates these efforts with local roadway jurisdictions such as highway districts, counties, and municipalities.

ITD's principal operations are dominated by the need to maintain and improve the state highway system; however, ITD also provides local transportation agencies with planning support and contract administration services for federally funded activities associated with local roads. The effects of state and local roadway infrastructure on environmental quality is primarily dictated by past roadway corridor development. For the most part, highway corridors are well established and will continue to influence environmental baseline conditions, particularly with respect to stream morphology and hydrology in lower stream

reaches. Maintenance activities and roadway improvement projects on existing routes, however, do pose some risk of additional adverse impact to these highly altered systems, mainly from short-term construction related sediment discharge.

In some cases, adverse environmental impacts resulting from previous construction of transportation systems near water bodies may be correctable through beneficial stream channel and floodway alterations and/or reclamation actions. These may include but are not limited to the use of biological and physical stabilization techniques, as well as realignment and subsequent removal of original roadway fill material.

4.4 Idaho Department of Environmental Quality

With the responsibility for lead agency coordination, the DEQ will provide forums for the exchange of scientific information between lead agencies and other interested parties throughout the implementation of a TMDL Implementation Plan. The designated management agencies are responsible under Idaho Code §39-3601 for complying with the provisions and agreements set forth within an implementation plan. While the DEQ is responsible for overseeing the development of an implementation plan and monitoring progress over time, the success of the TMDL implementation plan is directly dependent on the commitment and involvement of lead agencies and stakeholders within the watershed and their ability to implement the necessary changes outlined in a plan to restore beneficial uses.

4.5 Other Participants

As described above, the lead agencies under a TMDL Implementation Plan are DEQ, IDL, ITD, and ISCC, with involvement from the NRCS and the Bonner Soil and Water Conservation District. Federal agencies working in cooperation with IDL on forestry issues include the USFS and BLM. The Bonner County road department will work in cooperation with ITD to address water quality impacts from county roads within the watershed. The DEQ recognizes that involvement from the IDFG as well as the Bonner County Planning Department and the WAG may have significant impacts on designated beneficial uses in the Pack River watershed and will make a genuine effort to include them in all aspects of TMDL implementation and planning. TMDL implementation will also be coordinated with all aspects associated with the implementation of the Bull Trout Conservation Plan prepared by Governor Philip E. Batt in 1996 (Batt 1996).