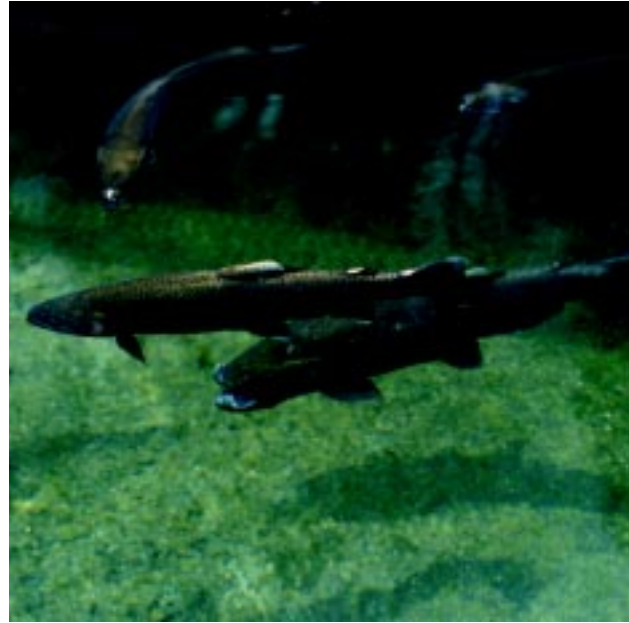


V. Resident Fish

Resident fish are those that live and migrate within freshwater rivers, streams and lakes of the Columbia River Basin, but do not travel to the ocean. Resident fish exist throughout the basin and are particularly important in areas where anadromous fish runs are blocked by natural or manmade obstructions. Hydroelectric projects created a number of problems for resident fish, altering river flows, inundating spawning and rearing areas and blocking natural migration patterns.

The Council's program addresses resident fish losses caused by hydro-



power development and operation, and substitution of resident fish to compensate for losses of salmon and steelhead in areas permanently blocked by hydro-power projects. In fact, vast areas that were once the destination for large runs of salmon and steelhead were permanently blocked by the construction of two federal dams, Grand Coulee and Chief Joseph. Mitigation is provided by substituting other fish species primarily through the construction and operation of fish hatcheries, such as those for trout and kokanee in Lake Roosevelt. An effort is also being made to

conserve the endangered white sturgeon in the Kootenai River. This is one example of a project that addresses a transboundary species whose habitat crosses the border with Canada. The Council works with Canadian entities on other transboundary fish and wildlife species that also are affected by the hydropower system.

The program establishes certain reservoir elevations and flow requirements to protect resident fish and their habitat. Other measures call for using stored water to maintain appropriate water temperatures and protect streambeds.

The program goal for resident

fish emphasizes the long-term sustainability of native fish in native habitats where possible, but also recognizes that where impacts have irrevocably changed the native ecosystem, we can only protect and enhance the ecosystem that remains.

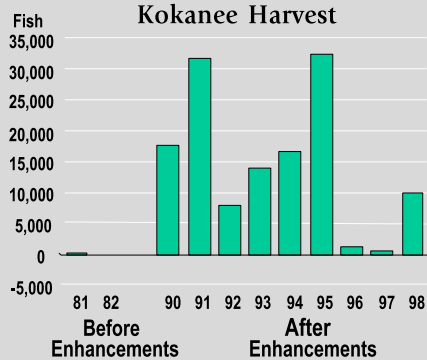
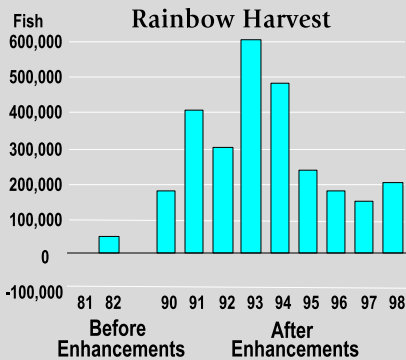
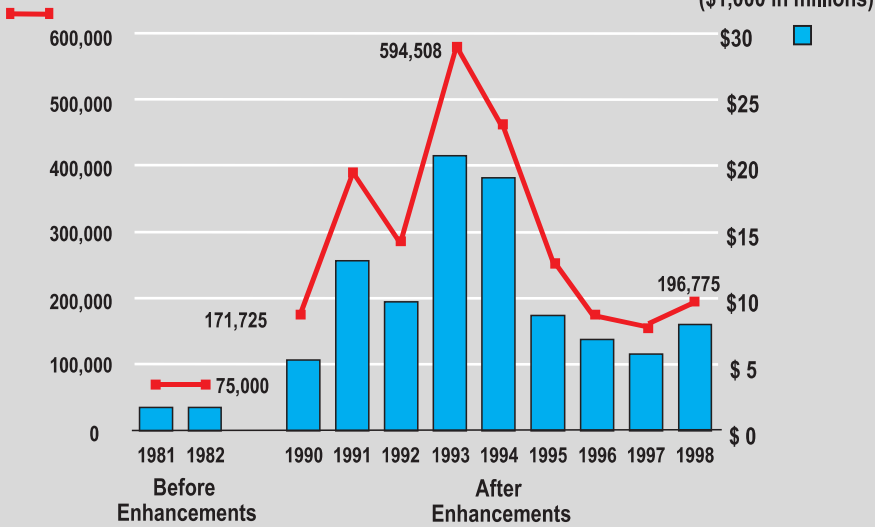
Good examples from the resident fish program are the rainbow trout and kokanee enhancement projects in Lake Roosevelt summarized in Figure 19. The salmon runs that once existed in this region were terminated with the construction of Chief Joseph and Grand Coulee dams. By the early 1980s there was relatively little fishing in the reservoir, and what was there primarily targeted a

FIG 19 Lake Roosevelt Resident Fish Program

Before and After Enhancement

1981-1998

Angler
Trips



small population of walleye. With the construction of hatcheries and the release of kokanee and rainbow trout into the lake beginning in 1988, the number of fish harvested increased dramatically. The sharp rise in the number of angler trips contributed significantly to the economic development of the region.

While some regions have made significant progress, there remains a need to establish quantitative biological goals for all resident fish projects and to evaluate progress in meeting these goals.

