

have resulted in the inundation of waterfowl and shorebird nests and often create land bridges providing predator access to nesting islands. In addition, established riparian communities which support a variety of wildlife are continuously being eroded by wave action in the reservoir (USDI, 1979).

(3) Benefits

Benefits to wildlife from the project have not been adequately identified and/or assessed.

V. WILDLIFE MITIGATION HISTORY

(a) Mitigation Requested or Proposed

No wildlife impact assessment was done prior to or during construction and no mitigation was recommended. However in 1952, 1 year prior to reservoir filling, the U.S. Fish and Wildlife Service; Washington Department of Game; and Oregon State Game Commission, now Oregon Department of Fish and Wildlife, prepared a joint report discussing the place of fish and wildlife resources in recreational planning for McNary Reservoir and recommended that certain Government-owned lands within the impoundment area be set aside for fish and wildlife development (USDI, et al., 1952). These lands are further discussed under the Mitigation Agreements or Requirements section of this report.

In 1975 and 1976, the Oregon Department of Fish and Wildlife attempted to negotiate with the U.S. Army Corps of Engineers and U.S. Fish and Wildlife Service for the management of lands in the Juniper Canyon area. Oregon Department of Fish and Wildlife sought the lands which were comprised of Bureau of Land Management lands, U.S. Army Corps of Engineers lands, and private lands for mitigation of the wildlife habitat inundated by McNary Dam. The attempt was unsuccessful (Scherzinger, 1984; Wilt, 1984).

(b) Mitigation Agreements or Requirements

(1) FPC/FERC Requirements

As a Federal project, the Federal Power Commission is not responsible for issuing permits, licenses, and license exempting grants under the Federal Water Power Act for McNary Lock and Dam.

(2) Fish and Wildlife Coordination Act Proceedings

The Fish and Wildlife Coordination Act (FWCA) of 1934, as amended, requires all hydroelectric project developers to consult

with the U.S. Fish and Wildlife Service and state conservation agencies prior to project development "with a view to preventing loss of and damage to wildlife resources." Federal development projects were required to contain adequate provision for conservation, maintenance, and management of wildlife resources consistent with primary project purposes. This Act was named the Fish and Wildlife Coordination Act of August 12, 1958, at which time an amendment was added stating that "wildlife conservation shall receive equal consideration and be coordinated with other features of water-resource development programs." Land acquisition, project modifications, and/or project operations modification were to be based on impact and mitigation reports by wildlife agencies, and costs for these measures were to be made an integral part of project costs.

During project construction, the U.S. Fish and Wildlife Service, Washington Department of Game, and Oregon State Game Commission jointly produced a report on Fish and Wildlife Development Plans recommended for McNary Reservoir. Principal areas recommended for management and development were: 1) the Columbia River between the Walla Walla and Snake Rivers; 2) the impounded portion of the Yakima River above Richland; 3) Burbank Slough; 4) the impounded section of Snake River; 5) the upper portion of the impounded section of the Walla Walla River; and, 6) certain islands within the reservoir (USDI, et al., 1952).

These areas were later expanded and increased in number (to 11) and currently include a total of 12,909 acres (Table 2). In addition, the U.S. Fish and Wildlife Service purchased 331 acres and received 5 acres as a gift. Neither of these areas are considered to be mitigation.

### (3) MOU's and Other Agreements

In 1952, the U.S. Army Corps of Engineers licensed 8,913 acres of land south of Burbank, Washington and near the mouth of the Walla Walla River to Washington Department of Game as partial compensation for habitat losses resulting from McNary Dam. Of the total area, Washington Department of Game manages 7,578 acres as the McNary Habitat Management Area (HMA). Washington Department of Game has funded all development, operation, and maintenance costs associated with the HMA since 1952. The City of Richland controls the remaining 1,121 acres.

The U.S. Fish and Wildlife Service under cooperative agreement with the U.S. Army Corps of Engineers manages 3,029 acres in the vicinity of Burbank Slough as part of the McNary National Wildlife Refuge (NWR). The NWR was expanded in 1980 when the U.S. Bureau of Reclamation transferred 234 acres in fee title to

Table 2. Areas Managed (12,909 acres) for Wildlife in  
Conjunction With the McNary Project

| <u>Management Agency/Area Name</u>   | <u>Acres</u> | <u>Comments</u>  |
|--|--------------|--|
| <b>U.S. Fish and Wildlife Service</b>  |              |  |
| 1. McNary National Wildlife Refuge (includes Strawberry and Hanford Islands) | 234          | BR turned over to FWS in fee title   |
| 2. McNary National Wildlife Refuge (includes Strawberry and Hanford Islands) | 30           | Under lease from WDG to FWS  |
| 3. McNary National Wildlife Refuge (includes Strawberry and Hanford Islands) | 3,029        | Under Cooperative Agreement between CE & FWS   |
| <b>Washington Department of Game</b>   |              |  |
| 1. McNary Habitat Management Area  | 5,619        | Under license from CE  |
| 2. Walla Walla River Wildlife Habitat Management                             | 1,959        | Under license from CE  |
| 3. Burbank Heights Wildlife Habitat Management Unit                          | 275          | Wildlife Mgmt.   |
| <b>Corps of Engineers</b>  |              |  |
| 1. McNary Wildlife Nature Area   | 318          | Wildlife Park--<br>No hunting  |
| 2. Horse Heaven  | 246          | Wildlife Mgmt.   |
| 3. Island Refuge   | 9            | Wildlife Mgmt.   |
| 4. Mouth of Walla Walla River Habitat Management Unit                        | 69           | Wildlife Mgmt.   |
| <b>City of Richland, Washington</b>  |              |  |
| 1. Yakima River Wildlife Nature Area City of Richland lease                  | 1,121        | Wildlife park under lease to City of Richland--Idle land--no wildlife management or hunting. |

the U.S. Fish and Wildlife Service. In addition, the State of Washington leases 30 acres to the U.S. Fish and Wildlife Service. These two areas are located along the northern boundary of the refuge. The U.S. Fish and Wildlife Service funds all the development, operations and management on these lands (Coe, 1983).

(c) Mitigation Implemented

In 1952 the Washington Department of Game began managing, at its own expense, 8,913 acres in the McNary HMA. Since 1952 the acreage has varied slightly. Recently 1,121 acres at the mouth of the Yakima River were turned over to the City of Richland. The City of Richland has left the land idle and does not allow hunting.

In 1955, the U.S. Fish and Wildlife Service began managing, at its own expense, the McNary NWR consisting of 2,849 acres. By 1974 the number of acres increased to 3,629. This includes 331 acres purchased by the U.S. Fish and Wildlife Service and 5 acres received as a gift. Neither of these additions are mitigation for project-caused losses (Coe, 1983).

The loss of nesting and rearing areas formerly used by waterfowl has been partially compensated by production at the McNary HMA, McNary NWR, and other areas currently used by waterfowl.

Habitat developments at the McNary HMA and the McNary NWR have been instrumental in increasing waterfowl production in the area. Temporary (under license, cooperative agreement or lease) management rights for these areas have been given to Washington Department of Game and U.S. Fish and Wildlife Service (except for 234 acres in fee title), but no funding for development, operation, and maintenance of fish and wildlife areas has ever been allocated from project funds. Considering the above factors, mitigation for habitat losses which can be directly attributed to the McNary Project include management rights at the McNary HMA and McNary NWR, baseline (undeveloped) habitat conditions at the two refuges, plus any subsequent habitat improvements by the U.S. Army Corps of Engineers.

VI. CURRENT STUDIES AND PLANNING

McNary Lock and Dam Project - There are no plans to further mitigate wildlife losses attributable to the original McNary Project. To accurately determine mitigation needs, an objective comparison of pre- and post-impoundment habitat conditions is needed. This study should include using pre- and post-impoundment aerial photography (Table 1) to map habitat types,

surveying adjacent habitats to estimate quality of inundated habitat, and evaluating post-impoundment habitat conditions surrounding Lake Wallula. Comparing pre- and post-project habitat conditions should be accomplished using a habitat-based evaluation procedure to estimate habitat gains and losses. Tabor's 1976 report and other inventories can be used to supplement post-impoundment habitat information, while Hanford Reach inventories may be used to supplement pre-impoundment information.

Canada Goose Brooding Habitat Study - A cooperative 1-year study by the Walla Walla District Corps of Engineers and U.S. Fish and Wildlife Service on Canada goose brooding habitats between Crow Butte Island and Richland, Washington on the Columbia River was completed in 1983. These data are being analyzed and may influence future waterfowl management decisions in the McNary project area.

Columbia Basin Waterfowl Redistribution Plan - As a result of increased food availability and other habitat conditions in the Umatilla Basin Area, excessive numbers of wintering waterfowl are present. The U.S. Fish and Wildlife Service, Oregon Department of Fish and Wildlife, and Washington Department of Game are involved in a cooperative effort to relocate excess wintering waterfowl to the north Columbia Basin and Southwest Idaho (The Columbia River Waterfowl Redistribution Plan, 1983).

Corps of Engineers Wildlife Management Programs - The U.S. Army Corps of Engineers has initiated and funded programs for resident wildlife and waterfowl at several habitat management units on project lands. Management practices vary in intensity from location to location and may include mowing, fencing, crop and wildlife habitat plantings, erosion control measures, stocking and development of public use facilities such as nature trails. Habitat management units are located at Yakima Delta Wildlife Management Area (300 to 400 acres), McNary Natural Wildlife Area (500 acres), Horse Heaven (246 acres), Cold Springs Junction and Recreation Area Habitat Management Unit (250 acres), Juniper Canyon Habitat Management Unit (acreage uncalculated), and mouth of the Walla Walla River (70 to 100 acres) (Sunday, 1984).