FINDING OF NO SIGNIFICANT IMPACT
WITHDRAWAL OF IRRIGATION WATER
WILLOW CREEK PROJECT
MORROW COUNTY, OREGON

Willow Creek Project consists of a dam and lake located on Willow Creek in Morrow County, Oregon, directly upstream from the City of Heppner. Flood control and irrigation are the congressionally authorized primary purposes for the project. Recreation, fish and wildlife, and sedimentation (trapping of sediment from upstream sources) are secondary authorized uses of storage space.

Since construction of the Willow Creek Dam, reservoir operations and regulation of lake levels have been primarily for purpose of flood damage reduction, with project operations aimed at maintaining specific pool capacity in order to fill in response to rain or snowmelt events. Only in recent years has there been a request for use of stored water for the authorized purpose of downstream irrigation. In each of the last 5 years water has been released from the lake for irrigation purposes in response to emergency drought declarations.

The Proposed Action

Local irrigators presented the U.S. Army Corps of Engineers, Portland District (Corps) with a request to provide 2,500 acre-feet of stored water annually from the project for irrigation use during the spring and summer growing season. (Congressional authorization is for up to 3,500 acre-feet of irrigation storage.) The proposal for irrigation specifies a withdrawal schedule that would start as early as April 15 and continue through September 30. Stored water will be used for irrigation by some farmers and ranchers in lieu of groundwater, which has been declining in the region. For some irrigation users, stored water will be their only supplemental source of water in dry years. The proposed action will not change the winter flood damage reduction operations of the project, but will increase the amount of storage capacity available during the rest of the year.

Environmental Effects

The proposed action includes an earlier and lower drawdown of the lake which will impact the warmwater fishery of the reservoir by reducing successful spawning of largemouth bass and pumpkinseed, and decreasing black crappie rearing success. Largemouth bass and pumpkinseed spawn in shallower water and as a result, their nests may be dewatered as the water level in the lake is drawn down during their spawning season. Black crappie spawn earlier, but the young fry tend to move to the pelagic zone which makes them more susceptible to stranding than the more demersal fry of other warmwater species. Consequently, the lake would likely become a predominantly smallmouth bass/bluegill fishery since these species spawn deeper and/or earlier. This appears to be an unavoidable impact to these non-native warmwater fish species, though the severity of the adverse impact depends upon how much water is withdrawn prior to the end of the annual reproductive season for these species (on or about 10 July each year). No federally listed fish or wildlife species will be affected by the proposal.

At the time of Willow Creek Dam's authorization, there was a Fish and Wildlife Coordination Act report and it was acknowledged then that dams have some negative impacts on stream fisheries. It is for Congress under the US Constitution to weigh the balancing of fish concerns with the other project purposes when authorizing the project. In this case, Congress knew and acceded to certain moderate impacts on the Willow Creek fishery.

Despite public concerns to the contrary, irrigation withdrawals are not expected to impact water quality in the reservoir. From 1984 through 1992 the reservoir was operated at a lower full pool elevation of 2063. Since then the operating full pool has been to elevation 2076. Water quality information has been collected for the last two decades and has encompassed varying pool elevations at Willow Creek Lake. In comparing water quality data from 1984 through 2003, the two different operating pool elevations show no significant difference in temperature, nutrient load, pH, and dissolved oxygen. Therefore we do not expect water quality in the reservoir to be impacted by irrigation withdrawals and subsequent lower pool elevation in Willow Creek Lake. It should be noted that the Portland District will continue to monitor and assess water quality issues at Willow Creek Lake.

Recreation

Water-based recreation would be affected as the earlier, lower drawdown would reduce the lake area available for recreational boating use. However, the use of the boat ramp should not be affected because it was designed to be usable to minimum pool (elevation 2047 feet). In addition to the decreased surface area, the drawdown would expose muddy slopes and banks that are aesthetically unappealing and restrict access to the shoreline of the lake. Some economic losses in the local area may occur because of the reduction in water-based recreation use. Sport fishing opportunities may be decreased as the population of largemouth bass and crappie, two popular warmwater game fish species, are likely to be reduced by the proposed drawdown. However, the small-mouth bass and bluegill populations will likely increase with reduced competition from other similar species and the Oregon Department of Fish and Wildlife (ODFW) will continue to stock catchable trout in the lake annually, which will continue to provide recreational fishing opportunities.

Public Input

The Corps issued a draft Environmental Assessment (EA) on October 31, 2007 for a 30-day public and agency review. By public request, the comment period was extended to 45 days. A total of 60 comment letters were received on the draft EA. Based on requests during the initial public comment period, a public information meeting was held in Heppner on February 19, 2008 and the public comment period was extended to March 5, 2008. Approximately 85 people attended the meeting. An additional 27 comment letters were received after the meeting. Opposition to the project is primarily focused on the potential loss of recreation and fishing and the potential, subsequent monetary impact on the people and businesses of Heppner. Support for the project is based on the irrigators' accessibility to a reliable supplemental water source throughout the growing season with potential for farm-based economic gains for the community, and the conservation of groundwater.

Though the species balance of warmwater game fish is expected to change in Willow Creek Lake, there is every reason to believe that there will continue to be a viable warmwater game fish population available to the fishing public at Willow Creek Lake. Issues such as lake access and usability of the boat dock in low water are problems that can be resolved by coordinating efforts of state, federal, and local agencies and organizations.

Additional Considerations

On March 21, 2008, the Corps, ODFW, Oregon Water Resources Department, and the irrigators met to discuss fishery issues at the project. To minimize spawning impacts to largemouth bass, the ODFW recommended holding the lake level steady from June 10 to July 10. It was also noted that other factors, such as the ongoing water quality concerns in the lake, may impact the overall health of the fishery. It was agreed that although irrigation withdrawals will be required by some

irrigators from June 10 through July 10, the irrigation district will work to minimize withdrawals during this period. It was also agreed that an advisory group will be formed to address water quality, fishery, habitat enhancement, and recreational facilities at the project. ODFW will continue annual trout stocking in the lake and in Willow Creek, downstream of the dam.

Final Determination

The Corps is required to make every effort to fulfill all statutory authorized project purposes following the balance of purposes and other directions provided by the Congress in the authorization documents. In the authorizing documents for the Willow Creek project, the Corps is clearly directed by Congress to provide, as a primary purpose, irrigation water up to 3,500 acre-feet from the Willow Creek Lake.

However, the Corps is also required to balance the various authorized purposes and to take into account other legal mandates such as the Endangered Species Act and the Fish and Wildlife Coordination Act. As was noted in the EA, no ESA species will be impacted by the proposed irrigation withdrawals. The Fish and Wildlife Coordination Act (16 USC 662) requires that the Corps coordinate with USFWS and the applicable state agency (Oregon Department of Fish and Wildlife) regarding fish and wildlife impacts of dam decisions. ODFW was consulted throughout the NEPA process. Though it is agreed that the irrigation withdrawals will impact the fishery of the lake, the species impacted are non-native species and even though there is expected to be a change in the balance of species, there will still be warmwater game fish available for recreational fishing at the lake which meets the ODFW mission.

There will be impacts to recreation on the lake, but fears that all recreational opportunities at the lake will be lost when the irrigation withdrawals begin are not supported by the evidence provided in the EA. The fact that Willow Creek has a minimum pool requirement means that water will be available for fish and wildlife and recreational uses even in very dry years.

While acknowledging the impacts discussed above, the Corps is required by NEPA to make a determination of the significance of impacts. A checklist of considerations that help in making the determination of whether impacts of a project rise to the level of "significantly affecting the human environment" is provided at 40CFR 1508.27. Following is the checklist from (1) to (10):

(1) [This item is a reminder that 'significant impacts' can include both beneficial and harmful impacts.]

(2) Public health and safety: no adverse impact. Irrigation is generally beneficial to public health and safety.

(3) Unique characteristics of geographical area: Willow Creek is similar to many other small streams and rivers in Oregon's high desert country – most of which are unimpeded by Corps or other dams.

(4) Are effects on quality of human environment controversial: Willow Creek is a small project which provides some measure of flood damage reduction for the town of Heppner. This benefit to the local community is not a matter of local controversy and will not be impacted by the proposed irrigation withdrawals.

There is controversy between various project users, with irrigators requesting water drawdown and recreational user wanting the lake level higher for fishing and boating during the summer months. Public meetings and comments largely reflect one or the other position

with little recognition of the balancing of purposes required by the Corps. Irrigation withdrawals, as authorized, will reduce water levels and will impact recreational use. But the studies conducted and public discussions have made these impacts clear to all, and steps have and will be taken to offset adverse impacts to the extent practicable. These include efforts by the Corps to improve water quality in the lake and the continued management of the lake fishery by ODFW to optimize the altered lake fishery resources for recreational fishing. The community of Heppner and most dam beneficiaries benefit both from local agriculture and recreation opportunities afforded by the dam.

(5) Are the risks uncertain or unique: The only risk in the operation of Willow Creek with irrigation withdrawals is the well-known risk of what future annual rainfalls will be. The statistical range is known, but actual yearly rainfall is not known until it occurs. This is a common risk with all Corps flood control dams and projects, and the Corps uses past rainfall records and calculated rule curves to manage reservoir levels.

(6) Future Precedents: Willow Creek is the only District dam and reservoir of its type. Actions taken at Willow Creek have no precedent value elsewhere on District dams and projects, nor are the issues and decisions precedent with regard to other projects and dams. Under both federal and Oregon law, each project is individually evaluated on its own unique characteristics and geographical setting.

(7) Cumulative Impacts: There are no identified cumulative impacts from the proposed irrigation activities. Proposed efforts by the Corps to improve water quality and continued management of the fishery resource by ODFW will minimize even the small to moderate unavoidable adverse impacts.

(8) National Register of Historic Places and other historical and culturally significant places: There are no identified impacts on any protected historical or cultural feature.

(9) ESA: There are no identified impacts on any listed ESA species, as per the discussion above.

(10) Other Legal Requirements: There are no known violations of any other federal, state, or local law in the proposed action. Rather the proposed action will carry out and implement specific federal law provisions for the project.

OTHER CONCERNS AND FACTORS: Any human action has minor to moderate impacts and consequences. The EA and FONSI have listed all of the important considerations, and their environmental impacts, both individually and cumulatively are NOT SIGNIFICANT as "significant" has been defined by NEPA law, regulations, and case law.

Based upon the Environmental Assessment prepared for this project, I have determined that the proposed action would not significantly affect the quality of the human environment and that an Environmental Impact Statement is not required.

Date: 17 APR 08

for THOMAS E. O'DONOVAN
COL, EN
Commanding