

Response to ISRP Comments  
ProjectID 29053  
Icicle/Wenatchee Habitat Acquisition  
Sponsor: Chelan-Douglas Land Trust (CDLT)  
FY 03 Request: \$1,536,000  
5YR Estimate: \$1,665,500

Note these budget numbers have changed in response to the ISRP comments. The year 2003 number is lower, and the 5YR estimate is higher due to increased emphasis on monitoring. The biggest unknown in this budget is the cost of a Hep analysis. I budgeted \$50,000 for this in response to comments from a contractor, but this seems far too high, and likely could be greatly reduced.

Three maps of the property were sent as PDF files on a CD. Please make sure those maps are printed and attached to this document.

Short Description: Acquire and protect a critical 50-acre area of salmonid spawning and rearing habitat at the confluence of the Icicle and Wenatchee Rivers.

**ISRP Comment: The two-page objectives, tasks, and methods section is too brief for scientific review. Supporting documentation and detailed methods should be given for each of the tasks.**

The focus of this project is to acquire and protect a critical property. However in response to the ISRP comments we have reorganized and added additional detail to the assessment and monitoring objectives of the project. Specific ISRP comments are printed in bold and specific responses follow the ISRP comments.

*Objective 1: Identify highly functioning spawning and rearing habitat per the recommendations of the Subbasin Summary and the regional STRATEGY.*

The WICO property was selected for acquisition based on the recommendations of the Wenatchee Subbasin Summary (2001), limiting factor analysis (Andonaegui, 2001), and the draft version of A STRATEGY TO PROTECT AND RESTORE SALMONID HABITAT IN THE UPPER COLUMBIA REGION (Bugert, 2001), a document prepared by the Regional Technical Team (RTT) of the Upper Columbia River Salmon Recovery Board. These documents all indicate the priority importance of salmonid stocks in the Wenatchee Subbasin and the need to protect remaining areas of complex, highly functioning habitat. The STRATEGY states:

“The Wenatchee River is unique among subbasins in the Upper Columbia Region in that it supports the greatest diversity of populations and overall abundance of salmonids, yet is facing the greatest risk of habitat loss and degradation.”

“All remaining intact areas on the mainstem (Wenatchee) should be protected and floodplain function restored...”

Specific recommendations include:

- Protect remaining floodplain and riparian habitat with emphasis placed on habitat downstream of the Leavenworth Hatchery. (Icicle River)
- Protect existing riparian habitat and channel migration floodplain function. (Wenatchee River)
- Restore channel migration to normative function. (Wenatchee River)
- If restoration is not possible, improve fish access to oxbows and historical side channels. (Wenatchee River)

The WICO property at the confluence of the Wenatchee and Icicle Rivers has long been known as one of the most productive spawning areas on the entire Wenatchee River. Historically Indians from various tribes met here to fish and camp. To this day it remains one of the most productive spawning areas for summer chinook and steelhead in the Wenatchee Subbasin. See redd counts in the project application. The property becomes even more important in light of recent attempts to restore coho to the Icicle and to restore spring chinook and steelhead runs to the upper Icicle.

This property is also a priority because it helps to block up and protect a significant amount of contiguous habitat on both sides of the river. Map 1 shows that the WICO property is adjacent to a 22-acre parcel owned by the Washington Department of Fish and Wildlife (WDFW). To the north and south of the WICO property lie other key floodplain properties that the CDLT is hoping to protect in the future. On the west side of the river, the City of Leavenworth owns nearly a mile of shoreline. Much of this shoreline, particularly in the vicinity of Blackbird Island, is excellent habitat. Other areas, such as the golf course, immediately across the river from the WICO property, are places where riparian vegetation could be restored. Thus the WICO property is a key piece of a much more comprehensive effort to protect the core of the Leavenworth Valley. The project is widely supported by local residents, other agencies, and the Mayor and City Council of Leavenworth. See the letters attached to the original project proposal.

**ISRP Comment: The Icicle is a key watershed designated by the Forest Service.**

The Icicle was designated as a key watershed in the Northwest Forest Plan (United States Forest Service) because it is a highly functioning watershed that is currently a refugia for bull trout and can serve as an anchor for fish recovery in the Wenatchee Subbasin. The likely removal of fish passage barriers at the Leavenworth National Fish Hatchery makes the Icicle even more important. The coho reintroduction project by the Yakama Nation in the Icicle also makes habitat protection in the lower Icicle a very high priority. The off-channel habitat on the WICO property is critical to restoring coho to the Icicle. The highest priority for the Icicle is to protect remaining floodplain and riparian habitat downstream of the Leavenworth Hatchery (Bugert, 2001). The WICO property can serve as an anchor point and building block for fish recovery in the Icicle (Ken McDonald, U.S.F.S., and Regional Technical Team member, personal communication).

In summary, the WICO property is one of the highest priority properties in the highest priority subbasin in the Upper Columbia Region and deserves immediate protection.

*Objective 2: Acquire the identified property.*

We have negotiated with the landowner and have every reason to believe that he will sell the property for the appraised value. The estimated selling price for the property as presented in this project is \$1.5 million. We have not yet had the property appraised, but it appears that \$1.5 million is probably greater than the appraised value. So, in essence we are asking the BPA to fund the acquisition of the property up to \$1.5 million, or its appraised value, if lower. We estimate the appraised value will be closer to \$1.0 million. If the appraised value is more than \$1.5 million the Chelan-Douglas Land Trust will seek other funding sources to complete the deal. The Salmon Recovery Funding Board is a likely source of additional funds. The Tributary Fund being created as a result of the HCP being developed by Chelan and Douglas County PUDs is another potential source of funding for acquisition and eventually for maintenance and restoration.

Some people have asked if it is necessary to acquire the property to protect the habitat given current environmental regulations, e.g., the Shoreline Management Act and the Growth Management Act. The property owner claims to have a vested development application that would allow him to circumvent existing development regulations. The matter may ultimately end up in court. Regardless of the outcome of the development application, Chelan County continues to allow flood plain development that is very detrimental to habitat and floodplain function. The property owner is currently looking for ways to hold the Icicle in its channel so it does not continue to move across his property. Further channelization of the Icicle and the Wenatchee should be avoided wherever possible. The highest priority for the region is to maintain floodplain function, the channel migration zone, and habitat complexity. The surest and most cost-effective way to protect this habitat is to acquire it.

*Objective 3: Perform a baseline assessment of the property to determine baseline conditions of existing stream channel, bank conditions, and wildlife habitat.*

**ISRP Comments: The proponents need to work with the game division of the WDFW to include a HEP analysis for value of wildlife, and identification of mitigation credit to BPA for loss of wildlife habitat.**

The WDFW is currently unable to complete a HEP analysis on this property because they are working to do Hep analyses on their own properties. Thus, if the BPA requests a HEP analysis for this project the CDLT will try to get help from WDFW, but will likely have to hire a contractor to do this work. Keith Wolf, Senior Biologist for Golder Associates, estimates that a thorough baseline assessment and Hep analysis could cost as much as \$50,000. That figure seems very high, but I have included it in the budget. This would provide a very thorough assessment of the baseline conditions on the property and be the starting point for management and restoration activities.

Chelan County plans to do a channel migration zone study of the Wenatchee River that will also provide valuable baseline information about this project. Chelan County has also applied for funding to do a FLIR (Forward Looking Infrared) flight over the Wenatchee to identify off-channel habitat and thermal refugia. This will likely provide valuable baseline information about the WICO property.

*Objective 4: Improve off channel rearing habitat.*

**ISRP Comment: This property seems to include important complex channel-off-channel, wetland, etc. habitat. The side channel adjacent to the property is apparently connected to the main channel during high spring flows. The proponents should further discuss the possibility of reconnecting this side channel for year round flow.**

This property includes important off channel rearing habitat and has the potential to support substantially more off-channel rearing habitat. See Maps 1, 2, and 3. Maintaining and restoring high quality, watered, off-channel habitat in the mainstream Wenatchee River is essential to provide for the year-round spawning, rearing, and migratory habitat needs of all life history stages of spring and summer chinook salmon, steelhead, sockeye, and bull trout in the subbasin and is one of the highest priorities for the subbasin (Andonaegui, 2001).

Personal communication with Bob Steele of the Washington Department of Fish and Wildlife confirms the importance of the off-channel rearing habitat on this property. Bob estimates that thousands of juvenile spring chinook, summer chinook, steelhead, and coho use this habitat. He bases his estimates on samples taken by electro fishing, hand netting, and visual observation. We estimate that there is approximately one thousand lineal feet and one half acre of high quality rearing area in the main section of off channel habitat. About 650 feet of this is on or near the project property. The problem with this area is that juveniles are sometimes stranded in deeper sections of the channel, particularly where an old borrow pit forms a deep pond. The channel should be modified to insure escapement of juveniles.

Additional habitat could be enhanced and created by deepening the old river channel that runs along the north side of the property east to East Leavenworth Road. See Maps 1, 2, and 3. High water and periodic overflow from the Icicle Irrigation District ditch allow juvenile salmonids to rear in this area. Approximately 850 feet of additional off channel habitat could be enhanced and created by improving water flow in this channel. Even greater opportunities for off channel habitat enhancement exist. The attached maps show that this is part of an old channel of the Icicle that starts about one half mile upriver and runs east of Leavenworth road and then connects to the previously mentioned channel on the project property. The map shows the old channel and the numerous wetlands associated with it. It would be possible to reconnect this entire channel to the Icicle above and the Wenatchee River below. This would create a tremendous amount of additional off channel habitat. The key to this ambitious project is to acquire the WICO property at the downstream end and work carefully with the Fromm family, the major property owner at the upstream end of the old channel.

The Washington Department of Fish and Wildlife and Trout Unlimited both have a strong interest in working with CDLT to improve and enhance this habitat. We have also recently

learned that efforts to allow salmonids to get around the dam at the Leavenworth National Fish Hatchery may require the U.S. Fish and Wildlife Service to mitigate for the loss of wetlands near the hatchery. The wetlands on the WICO property are an obvious choice to protect as mitigation. The CDLT will vigorously pursue collaborative projects and additional sources of funding to improve off channel rearing habitat on the property.

**ISRP Comment: The proponents should clarify how much of the property is adjacent to the Icicle and Wenatchee Rivers. In comparison how much of the adjacent WDFW 22-acre site is adjacent to the Icicle and Wenatchee Rivers? A map of the area would be helpful.**

The WICO property borders about 300 feet of the Icicle River and about 300 feet of the Wenatchee River. The property borders about 660 feet of the main side channel between the WDFW property and the WICO property. The WDFW property borders about 600 feet on the Wenatchee and about 650 feet of the side channel. It is important to recognize that most of the WICO property is floodplain with some wetlands. Thus it has great value not only for its riparian and off-channel areas, but as functioning floodplain. This is one of the last undeveloped food plain areas on the lower Icicle and is thus an extremely high priority for protection. See the attached Maps 1, 2, and 3.

*Objective 5: Develop a management and stewardship plan for the property.*

**ISRP COMMENT: The organization seems to be quite reputable with in-kind cost shares.**

The CDLT is in an ideal position to work with other groups and funding sources to secure additional resources to protect, restore, and manage the WICO property. We have already applied for funds from the Salmon Recovery Funding Board for this property. We work closely with Trout Unlimited, the Icicle Fund, and the Icicle Canyon Coalition, three active local groups concerned with habitat protection, and restoration. WDFW, U.S. Fish and Wildlife Service, the Yakama Nation, and the Chelan County PUD are all potential partners for protecting the lower Icicle. The United States Forest Service also has a keen interest in protecting the lower Icicle. Through the Wyden Amendment, the U.S.F.S. may be able to secure funding to improve habitat on private property (Ken McDonald, U.S.F.S., personal communication).

Task 1: Collaborate with agencies, neighbors, and other groups to address ecological, sociological, and recreational needs.

Method: Organize a group of local biologists, administrators, and citizens to develop a management plan for the property. CDLT has done this before and is capable of spearheading a collaborative effort.

Task 2: Develop a vegetation management plan for the property.

Method: Allow passive revegetation to occur where possible. Develop a plan to re-establish native riparian vegetation. Control noxious weeds and invasive species with the help of local organizations and a group of committed volunteers.

Task 3: Monitor the growth of riparian vegetation and production of LWD. This is consistent with efforts to the RTT recommendation to monitor riparian coverage from fixed stations on a periodic schedule. This would involve monitoring representative sites on the ground and the use of aerial photography.

*Objective 6: Monitor the use of the property by spawning and rearing salmonids.*

**ISRP Comment: A detailed monitoring and evaluation section should be given with reference to actual methods to be used to select study sites and collect data. The specific sample areas, methods, and sampling frequency and intensity (i.e., how many samples of what type where and when) need to be specified.**

Monitoring and evaluating the benefits of habitat protection, particularly for localized projects is very difficult. Monitoring for such projects can be addressed not only at the specific site but also at the subbasin level as part of a larger-scale monitoring project. The Upper Columbia River Regional Technical Team is establishing a comprehensive monitoring plan for the Columbia Cascade Province that will be consistent with the protocols recommended by the Interior Columbia Basin Technical Recovery Team. The goal is to collect habitat data that will be compatible with Tier 2 monitoring requirements. The WICO property is likely to be an important monitoring site in the overall monitoring strategy being developed by the Regional Technical Team (Ken McDonald, U.S.F.S., Regional Technical Team member, personal communication). The Strategy developed by the RTT recommends that the Icicle be established as a Regional Indicator Watershed. The RTT recommends monitoring stream channel sinuosity, width/depth ratio, and riparian coverage from fixed stations on a periodic schedule (i.e., every 3 years). Aerial reconnaissance should also be continued (Bugert, 2001).

The WICO property will also be included in a channel migration zone study that will be conducted on the Wenatchee River. This study will lead to recommendations about how the WICO property and adjacent properties can best be managed.

Specific onsite monitoring of use of the Wenatchee River and Icicle River adjacent to the WICO property is ongoing. The Chelan County PUD does annual redd counts for spring and summer chinook. The WDFW counts steelhead redds. The USFWS monitors use of the site by bull trout. The Yakama Nation counts coho redds in the lower Icicle. This monitoring will continue and be enhanced by the acquisition of the WICO property.

Monitoring use of the property by juvenile salmonids is more difficult. WDFW occasionally estimates juvenile use of the off channel habitat between WDFW and the WICO property by electro fishing, net sampling, and visual observation. This monitoring has not been performed systematically. The CDLT will work with WDFW to establish a regular monitoring protocol that is consistent with the protocols that are being developed for the subbasin. We will disseminate all relevant information documenting the use of this property by salmonids to all interested parties. This will be done by sharing information among agencies and conservation groups, and by posting information on the CDLT website. Any information that can document the importance of protecting habitat will be helpful to the entire salmon recovery effort.

## References

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[Map 1 pdf](#)  
[Map 2 pdf](#)  
[Map 3 pdf](#)