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## Chapter 6. RECOMMENDATIONS



A bee nest is located within this cavity in an Oregon white oak. Near Elmira, Lane Co., Oregon.

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More work is needed to elaborate the policy suggested by this project. The following is a list of five recommendations that would greatly assist planners and, eventually, legislators in deciding the best way to conserve biodiversity in the Willamette River Basin.

1. The results of the habitat evaluation shown in this project are the first step in evaluating the effect of the scenarios on the wildlife species. They are sufficient to suggest that the restoration policy proposed in the conservation cluster scenario may be beneficial for terrestrial vertebrates. A **wildlife population dynamics study** is now required to investigate whether the size, pattern and location of the new habitat areas will sustain viable populations of species of concern. The relative changes in populations in the conservation clusters landscape should be compared with those from the plan trend landscape to determine the relative impact of the proposed restorations. Under the PNW-ERC Trajectories of Change project, the wildlife population model, PATCH, was used to follow-up evaluation of habitat trends (Schumaker et al., 2002). This tool could be similarly applied to the landscapes produced by this project.

2. Other **conservation efforts around the country should be investigated** for lessons learned concerning mitigation. In particular, conservation banking has been implemented in California to mitigate for development (California Dept. of Fish and Game, 2002). This is a policy analogous to that proposed in this project, except that off-site instead of on-site mitigation is typically used. Consultation is needed with California fish and game experts to determine the success or failure of their program.

3. An **economics analysis** is needed to develop the appropriately balanced mitigation formula to ensure that the policy is sufficiently attractive to developers while being sufficiently useful for wildlife. Further, a cost-benefit analysis should be considered to evaluate the impact of development in these resource lands.

4. Following policy development, a **trial program should be carried out in a single county** to test and monitor the results. An adaptive management approach should be used and the policy amended until an optimal balance between human and wildlife needs is achieved. Such an approach has been used before in the basin. A secondary lands policy was considered, implemented, and finally discarded by LCDC following a trial period. A wildlife habitat incentives program was tested first in Polk County before being opened up to landowners throughout the basin.

5. The basin lacks a **comprehensive, regional conservation plan** that would ensure biodiversity is maintained. Such a plan needs to be developed, and mapped spatially. Several recent studies (Defenders of Wildlife, 1998; Hulse, Gregory and Baker, 2002) have proposed conservation networks that aim to recover native ecosystems diminished by modern land use. The Nature Conservancy is currently working on another. These need to be integrated into one plan that is adopted by the State. Federal, State and county lands must be a part of this plan so that actions by each managing agency are complementary. Once this is done, the tools that are applicable to the different types of lands within the plan can be developed, tested, and instituted as policy.

Further, it is essential that this plan be integrated with both existing and future land use planning policies. If potential competing uses are not identified, conflicts in the future will be inevitable.

The policy tested in this project is just one of several tools that may be useful in achieving the desired results. Others include initiatives such as the Forest Legacy program and incentive programs. Watershed councils provide other avenues by which restoration on private lands may be accomplished by willing landowners. All these tools use different funding mechanisms, drawing from private and public sources. However, using development to leverage conservation, profits landowners at the same time as profiting nature. It places a value on habitat as a source of mitigation credits, and thus

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encourages good stewardship, and active management.

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This is a topic that could be studied for many years. We do not have perfect knowledge of where plant and animals species currently exist within the basin, and the status of their populations. We do not have perfect models that can predict with certainty what will happen to both wildlife and human systems if we embark on a particular program or policy. And, we probably never will, no matter how much research is carried out. But, now, time is not on the side of either humans or wildlife. Within 60 years, the anticipated doubling of the population will have increased the stress on both human and natural infrastructure. As observed in the northern part of the Willamette River basin, large properties are increasingly at risk of division as

population densities increase and exceptions to land use regulations are granted. Flexible, agile programs become increasingly more difficult to implement as ownerships multiply within an area. Options decrease, costs increase.

We now know enough to begin to craft and implement adaptive solutions to the rising pressures within the basin. We can begin this process in parallel with the above recommendations. This project has explored a policy and has shown benefit for both humans and natural ecosystems. Precedents exist for innovative solutions to land use practices and policy within Oregon. I suggest that we now take up the issue of rural housing, and reexamine our options in conjunction with existing State land use goals. By using ecologically sensitive development as an engine for expanding the conservation network, we *can* make a place for nature while benefiting humans.



Growing native plants for restoration projects, Marion Co., Oregon