

Section 9 - Project Implementation

The purpose of this Feasibility Study is to determine the feasibility of implementing an off channel aboveground surface water storage project that would benefit both farms and fish. The following was determined:

1. There is water available in the Fifteenmile Creek watershed for storage.
2. There are apparently suitable sites to build dams to store the water. The Henderson Hollow Site appears to offer the most feasible option.
3. Water rights can be obtained for an aboveground storage project.
4. The project has the potential to benefit the stream ecology by reducing in-stream temperatures up to 5°C while adding up to 5 cubic feet per second of stream flow.
5. Conservation and efficiency projects can provide only limited additional water (less than 16 percent of the potential storage project).
6. There are no identified environmental impacts that cannot be mitigated for.
7. The \$13.2 million project is expensive. This would cost about \$325 per acre-foot per year, with an agricultural value of about \$52 per acre-foot per year. The ecological value of in-stream water is estimated between \$152 and \$342 per acre-foot per year.
8. In-stream lease or purchase options appear to be more cost-effective. In-stream lease options cost up to \$73 per acre-foot per year, while purchase options cost up to \$1,000 per acre-foot.

The following should occur to implement an aboveground storage project in the Fifteenmile Creek watershed.

1. *Survey Senior Water Right Holders.* The option to lease or purchase senior water rights for in-stream use could be a more cost-effective way of improving stream flows and temperatures. The senior water right holders should be surveyed to determine the viability of this option.
2. *Develop a Holder for the Storage Rights.* A legal entity needs to be identified that will own and operate the storage facility. This would most likely be an irrigation district formed from landowners in the watershed. This could be an individual or a public agency. The Fifteenmile Watershed Council or Wasco County Soil and Water Conservation District would not be this entity.
3. *Acquire Storage Rights.* The irrigation district would then submit an application for storage rights on Fifteenmile Creek. The final amount of water that can be stored will then be set by the Oregon Water Resources Department with diversion rates and times.
4. *Confirm the Options to be Pursued.* There are several options that can be included or excluded from the complete project. There is also the option of constructing the project in stages in order to spread the cost over a longer period of time. All stakeholders need to be in agreement on the

approach to be taken in implementing the project. Some aspect of the project may be placed at a higher priority.

5. *Acquire a Right to Purchase the Storage Site.* An agreement to purchase the storage site should then be obtained subject to the acquisition of sufficient project funding. Without an earnest money agreement or other agreement to purchase the property, it may be difficult to obtain the property for a reasonable price once project funding is established. It is also prudent to wait to purchase the property until all aspects of implementation are developed and funding is obtained.
6. *Acquire Funding for and Complete the Preliminary Design.* The preliminary design would cover the design aspects required by the Oregon Water Resources Department Dam Safety Program for approval of a storage structure on a particular site. This includes surveying the site, locating the dam, core drilling and sampling the foundation under the dam site, sizing the spillway, completing the dam breach analysis, performing an earthwork balance, etc. The preliminary design would provide an updated cost estimate that would be used to obtain construction funding.
7. *Acquire Final Design and Construction Funding.* Funding for design and construction would then be obtained. This would include all environmental permits and clearances.
8. *Purchase the Project Property.* Once funding is secured, the property needed for the project would then be purchased.
9. *Obtain Environmental Permits and Clearances.* Any applicable National Environmental Policy Act documents, fill/removal permits, biological assessments, etc., would then be completed.
10. *Design and Construct the Project.* With all other preliminary matters completed, the project could then be designed and constructed.
11. *Select and implement preferred permitting mechanisms for use of stored water and protection of water left in stream.*