

Project Timeline									
2006-2011	October, 2012	November 7, 2012	December 14, 2012	2013	2013-2014	2013-2014	2014	2014+	2024
Completed environmental studies and conceptual design	Environmental scoping begins under SEPA, Co-Lead Agencies Ecology and Okanogan County Issue Determination of Significance	SEPA Scoping Open House	Deadline for submitting written comments on Determination of Significance	Pilot testing to confirm conditions predicted through groundwater modeling	Well testing to confirm groundwater availability and analyze impairment potential	System design and construction	Project start up; begin pumping to increase storage volume	Hydrologic monitoring and adaptive management	Pumping reduced to maintain surface and groundwater levels

## Twin Lakes Aquifer Coalition



Big Twin is a popular recreational lake with a trophy trout fishery.



Water levels have declined in Barnsley Lake and an adjacent depression known as "The Kettle" that were formerly wetted year-around. This photo was taken in July of 2004.



As with Big Twin, Little Twin Lake water levels have declined substantially since 2001.

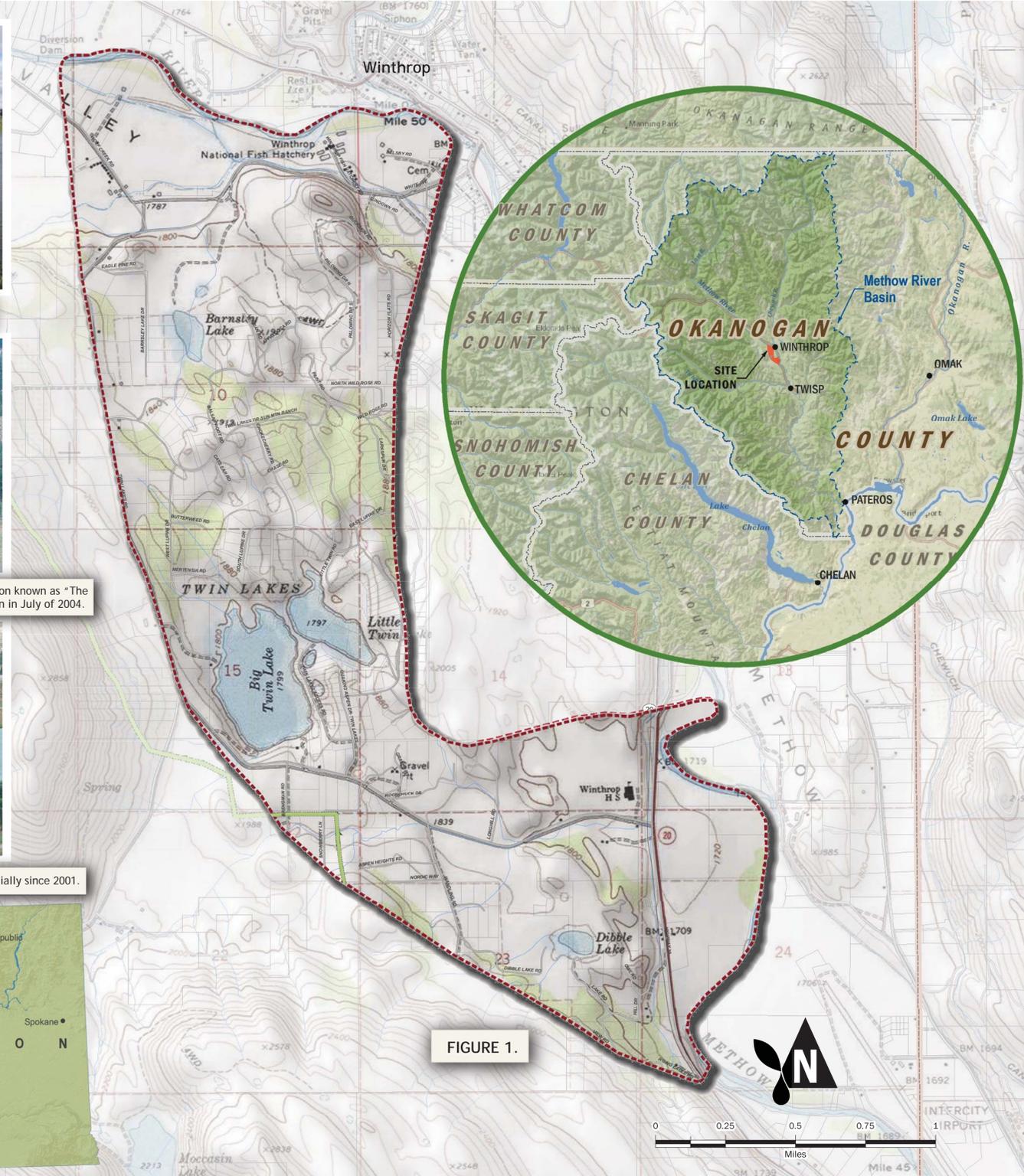
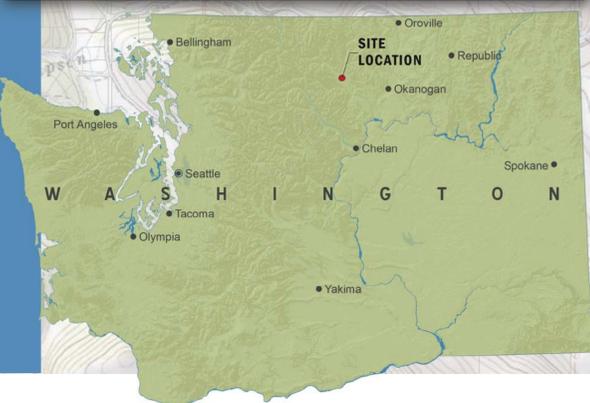


FIGURE 1.

The Twin Lakes Water Storage Project involves increasing water stored in surface water bodies and the aquifer associated with these water bodies located southeast of Winthrop, Washington (Figure 1). Declining lake levels observed in the Twin Lakes area of Okanogan County since 2001 (Figure 2) are due in part to conversion of unlined irrigation canals to pressurized pipe in the recharge area of the lakes. To address declining lake levels, the Twin Lakes Aquifer Coalition (TLAC) applied for a groundwater right under application G4-34915 on October 7, 2003. Amended in August 2012, the application requests a maximum withdrawal rate of 2,000 gallons per minute (gpm) and an annual quantity of 800 acre-feet (AFY) for each of the first 10 years the project is operating and 550 AFY for long-term maintenance during subsequent years.

Through the proposed purpose of use identified in the amended water right application, the Twin Lakes Water Storage Project is anticipated to provide the following benefits:

- Restore and maintain Twin Lakes Aquifer levels
- Restore and maintain recreational trout fishing in Big and Little Twin Lakes
- Restore and maintain riparian habitat and lowland habitat for aquatic species and mammals that use Barnsley and Twin Lakes
- Water storage enhancement for increasing streamflow in the mainstem Methow River during low flow periods
- Mitigation for new out-of-stream uses through the Department of Ecology's Office of Columbia River Columbia River

In 2004, the Washington State Legislature provided \$750,000 to Department of Ecology (Ecology) to evaluate and issue decisions on water right applications for restoration of Twin Lakes. Several scientific and engineering studies have been completed to evaluate the feasibility, impact and benefits to the environment of restoring Twin Lakes by increasing water storage.

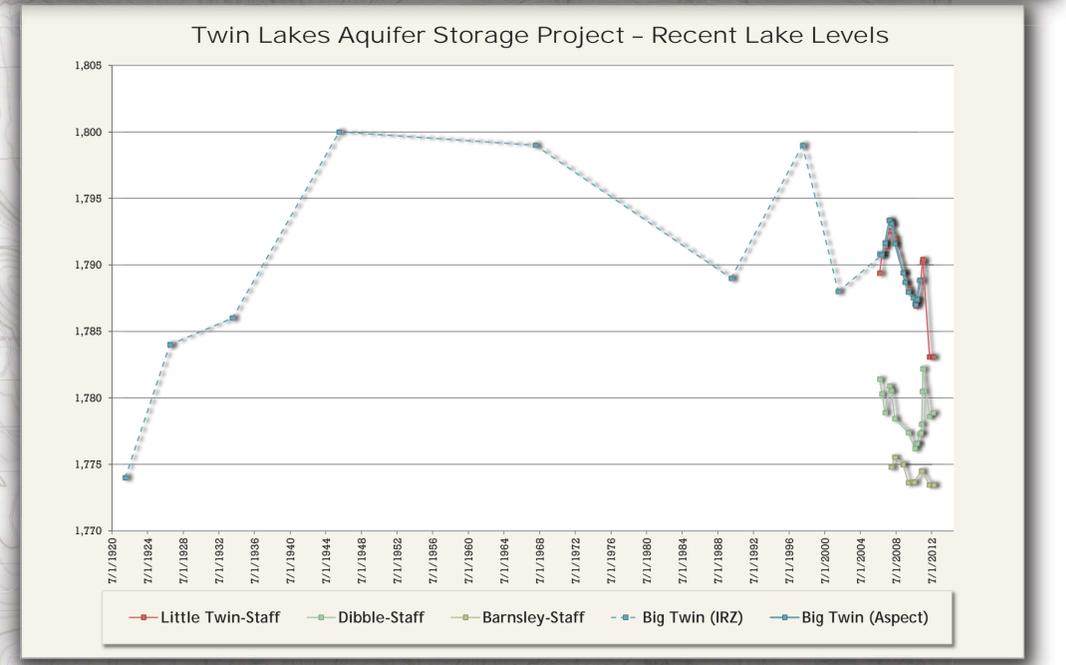


FIGURE 2. Historic water levels for Big Twin Lake estimated from air photo analysis (IRZ, 2003b) and observed water levels for Big Twin, Little Twin, Dibble and Barnsley Lakes measured by Aspect Consulting and TLAC beginning in 2006.