

# Lake Sammamish Initiative: Status of Short-Term Actions

Project	Scope	April 1996	March 1997	September 1997	August 1998	December 1998	December 1999	December 2000	December 2001	December 2002	December 2003	December 2004	December 2005
<b>1. Valley Growers Nursery</b>	Improve runoff from nursery; incorporate storm water controls into future Park 'n Ride Lot	Site clean up and stabilization carried out by the City of Issaquah in June and July 1995; DOT and Metro scheduled to construct lot in 1996.	First phase has been completed. Runoff problems concerning live-stock solved; area has been regraded and seeded. Second phase: Issaquah Parks and Metro Transit are conducting active negotiations; retrofitting has been funded by Metro Transit.	No change	No change	Area is being developed as park and ride lot by King County/ Metro. Final paving to be completed by 4/30/99.	Park 'n Ride lot is finished. Project is completed with stormwater ponds.						
<b>2. Issaquah State Fish Hatchery</b>	Connect hatchery discharge from pond cleanings to Metro sanitary sewer diverting wastewater from creek and lake.	Shoreline improvement funds located for hatchery waste water diversion expenses. Metro advertised for a change in the water rights diversion point which would allow the hatchery to consume water (thus sending it to Renton treatment plant). Ok from Dept. of Ecology is pending. Cost for diversion estimated at \$50,000; \$15,000 per year for maintenance. Moving ahead either now or in 1997 is dependent on Hatchery upgrades.	Water right diversion permitted by Dept. of Ecology. Hook-up fee to divert pond washings to sewer system estimated at \$325,000. Annual O& M expected to be \$20,000 - 25,000. No funds identified at this point. On-site treatment options are being evaluated in conjunction with Hatchery upgrade.	Feasibility study of treatment and diversion alternatives being conducted; completion scheduled for October 1997.	Feasibility study completed in Spring '98. Final solution being discussed by DFW, King Co., and Issaquah. Decision pending Fall '98.	Waste water treatment facility still being planned for implementation at the hatchery. The new facility will have a water re-use component as well as demonstrating new technology for waste water treatment.	Requests for Proposals for design and construction of a solar aquatic water purification greenhouse was advertised by King County Wastewater Treatment Division. The structure will provide further treatment for hatchery cleaning operation waters. In addition to water treatment, the facility will provide educational exhibits describing wastewater treatment, water recycling, water reuse and the importance of retaining in-stream flows for salmon. Estimated construction start date is spring 2001.	A Notice to Proceed for Design to Construct was issued in June, 2000. Sverdrup Civil has proceeded with initial design. the project was placed in a holding pattern in September 2000 when design and construction costs escalated. Any construction start date will be determined later in 2001.	WDFW determined that maintenance costs for the greenhouse proposal would be prohibitive and has requested an alternative proposal involving outdoor wetland treatment. The project has been transferred to SWEES in KC WLR.	CPOSA staff in WLRD evaluated several alternatives for work at the hatchery. WTD selected option to contribute funds towards environmental education at the hatchery. Staff revised environmental education signage proposed by Friends of Issaquah Salmon Hatchery. WTD will contribute \$50,000 to preparation and installation of the signs in early 2003.	\$50,000 in WTD funding for an educational kiosk was provided to the Friends of the Issaquah Salmon Hatchery (FISH) in 2003. Installation to be completed in first quarter of 2004.	Completed.	

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<b>3. Sunset Quarry</b>	Correct runoff problems generated by quarry operations	Minimum grading fees are being paid in order that permits do not expire. Work to reroute Tibbetts Creek/construct additional holding ponds has not been initiated to date. Private / Public mitigation partnership is being evaluated.	Pacific Topsoils has leased 50 acres of the site. The company is interested in correcting runoff problems and has hired a consultant to develop plans. Dept. of Ecology and Dept. of Development and Environmental Services are working with company to develop management plan. King County Parks is negotiating to purchase the remaining 70 acres (no mitigation needed on this part of the property).	Evaluation of site mitigation for 50 acres is underway. King County Parks has final review of management plan.	No change	Perimeter properties not needing reclamation have been acquired. Remaining 45-55 acres need reclamation prior to King County purchase. Final plan for reclamation has hit snag with seller over steep cliff portion of property. Once solved, King Co. has purchase agreement in place w/ first right of refusal.	Restoration plan was resubmitted to DDES in October 1999 for approval.	Reclamation permit in limbo pending (1) submittal of additional hydrologic and geologic information from property owner Pacific Topsoils; and (2) clarification of reclamation and bond obligations following sale of property to Pacific Topsoils. King County Parks still holds purchase option for site pending State and County approved reclamation.	DDES terminated its review of the proposed revised reclamation plan after Pacific Topsoils failed to respond to requests for supplemental technical information to support their proposed design.	A Stop work was issued to Pacific Topsoils for working with an expired permit and in a manner contrary to what is allowed under their permit and current plans. The operator appealed the SWO and a hearing is forthcoming.	Pacific Topsoils revised their operating plan to allow the continuation of topsoil processing. A large portion of the processing area was paved in 2003 and PTI plans to monitor runoff to confirm compliance with the lake protection standards. Inspections have shown these drainage facilities are functioning adequately, even during large storm events. The upper portion of the site, where reclamation was to occur, is experiencing slides, resulting in increased sedimentation in May Creek.	A Notice of Violation was issued for BMP implementation issues. Wheel wash was upgraded, sediment ponds were reestablished. A significant amount of ESC was added to the site that has reduced some of the turbidity problems. Naturally occurring slides on upper site have not been completely stabilized, however the majority of the area affected by the slides drains to May Creek and not Lake Sammamish.	Pacific Topsoils submitted to DDES a drainage plan as part of a permit application to mitigate the paving that was done without permits. This application is still under review. The BMP's have been implemented and WLR's Notice of Violation reported last year has been rescinded.

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<b>4. Bianca Mine</b>	Stabilize eroding mine spoils on Tibbetts Creek tributary	King County capital project: design and permits 1995-1996; construction in 1997. Cost estimated at \$620,000.	Land has been annexed to City of Issaquah. King County has completed the alternative design report and is working with Issaquah to transfer responsibility. Final construction costs will depend upon solution chosen. Evaluation of solution has been added to the East Village EIS assessment and Issaquah capital projects list.	Issaquah evaluating cost share options with King County.	No change	Cost sharing currently being explored between East Village development and Corps of Engineers.	The City of Issaquah completed a development agreement with Intracorp for the Cougar Mountain East Village development to take ownership of this property. City is working with the Corps of Engineers through the Lake Washington Ecosystem Restoration Study to address bank stabilization and habitat improvement options for this property. A feasibility study is underway.	Project still under evaluation	City is working with Intracorp on developing a stabilization plan per the developer agreement. Corps of Engineers involvement ended after City determine that project could be implemented more quickly under a City-Intracorp funded project.	City and Intracorp successfully completed the Bianca Mine Stabilization Project in November at a cost of \$200k. City to monitor and maintain site for several years to ensure plant survival.	Monitoring and maintenance continue.	Monitoring and maintenance continue.	Project completed.
<b>5. Interpace Mine</b>	Stabilize eroding mine spoils on Tibbetts Creek tributary	SWM is currently preparing preliminary project scope and cost estimates; dependent on geotechnical analysis. SWM will coordinate with land owner for solution.	Preliminary scope and cost estimates complete. The project is on the King County CIP list for funding through a 1998 bond.	No change	Proposed for construction in '99 if bond goes through.	Since problem is on private property and the result of owners actions, a cost share remedy will be offered. Offer not extended to owner - awaiting prioritization from watershed group.	Project was proposed to the US Army Corps of Engineers for cost-sharing, but was recently denied. Project will likely be dropped.	No change.	No change.	No change.	Santana Trucking is currently operating site and has applied for a sand and gravel permit. They have installed erosion control, but the site is still a significant source of sediment to Tibbetts Creek.	Santana Trucking has implemented some ESC controls that are minimally effective. New plans as required under the periodic review process with DDES have not yet been submitted. A number of water quality complaints were received about this site.	Santana appealed the periodic review but the Hearings Examiner's July decision upheld it. In September, Santana requested a reconsideration of the Hearing Examiner's decision. The outcome is pending. More WQ complaints received.

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<b>6. Inspection Program for New Development</b>	Continue enhanced erosion and sediment control program through inspector assigned to Lake Sammamish watershed	Position to be integrated into the DDES inspection program. Position was grant funded in 1995; \$80,000 was budgeted for position starting in 1996 and filled in January.	Program will be continued with King County sub-basin dedicated inspector in 1997. Contractor education and coordination with public and private sectors will be developed across jurisdictions.	Continuation of Lake Sammamish inspector position proposed in King County Water and Land Resources 1998 budget. Evaluation of expanded program is included in Sammamish Watershed list of regional projects.	Proposed in DDES budget through new fee ordinance for continuation in 1999.	4 TESC field inspectors are now funded through fee ordinance and ESA. One continues to be dedicated to Lake Sam.	The TESC program continues in King County and the City of Issaquah and has been initiated by the new City of Sammamish.	No change	Western boundary of drainage area annexed by City of Bellevue. TESC program continues to inspect permits issued by County. TESC inspection for City permits not included in ILA's.	With the incorporation of the City of Sammamish and annexations by Issaquah on the eastern side of the lake, and the annexation by Bellevue on the western side of the lake, the Program's services to the Lake Sammamish drainage area are limited to activities permitted by DDES prior to incorporation and annexation.	No change.	King County no longer has an "enhanced" ESC program as all DDES inspectors are responsible for ESC inspections on individual sites. King County inspection activities in the Lake Sammamish basin continue to be very limited as a result of annexations and incorporations.	No change.

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7. Basin-wide education program	Continue and expand education programs in all 4 jurisdictions to inform residents of household best management practices and source controls	Media campaign; bus placards; real estate training; new resident packets; \$150,000 per year.	Expanded educational program focusing on best management practices and source controls for businesses, landscapes, forest practices, agricultural practices, and households will be implemented in the basin in 1997.	Program continuation proposed in King County Water and Land Resources 1998 budget.	Proposed for continuation in WLRD budget for 1999 and also included in Issaquah, Bellevue, and Redmond budget proposals.	Education activities continue throughout the basin and in the Cities of Issaquah, Bellevue & Redmond.	Education activities continue throughout the basin and in the Cities of Issaquah, Bellevue & Redmond. In addition, a stewardship program has been active in the Sammamish Basin during 1999.	No Change—stewardship services were not given to the City of Sammamish and most of the ELS basin		Stewardship program is active in the Issaquah Basin with ongoing education activities provided by both the City of Issaquah and King County Water and Land Resources Division. City of Redmond partnered with King Co in presenting a series of three workshops within Lake Sammamish Basin on Natural Yard Care. City of Redmond continues city-wide effort in volunteer stewardship, water conservation education, Salmon Watchers Program, and recycling.	City of Redmond continues city-wide effort in volunteer stewardship, water conservation education and recycling. King County WLR coordinated the Salmon Watcher Program with Lake Sammamish cities. City of Issaquah and King County WLR are erecting interpretive signs at restoration sites. City of Issaquah has an active volunteer water quality monitoring program. A citizen/agency workgroup called Issaquah Basin Action Team (IBAT) to promote education and outreach in the basin. King County WLR works collaboratively with Sammamish cities to work with landowners to restore streamside native vegetation.	City of Redmond and Issaquah continue city-wide effort in volunteer stewardship, water conservation education and recycling. King County WLR coordinated the Salmon Watcher Program with Lake Sammamish cities. City of Issaquah and King County WLR erected interpretive signs at restoration sites. A citizen/agency workgroup called Issaquah Basin Action Team (IBAT) to promote education and outreach in the basin. King County WLR works collaboratively with Sammamish cities to work with landowners to restore streamside native vegetation. Natural Yard Care Program is working with Issaquah and Redmond.	City of Redmond and Issaquah continue city-wide effort in volunteer stewardship, water conservation education and recycling. King County WLR coordinated the Salmon Watcher Program with Lake Sammamish cities. A citizen/agency workgroup called Issaquah Basin Action Team (IBAT) to promote education and outreach in the basin. IBAT is currently planning on establishing a salmon viewing program for the Issaquah basin. WLR is providing information to Ecology towards the development of the DIP for fecal coliform. King County WLR works collaboratively with Sammamish cities to work with landowners to restore streamside native vegetation. Natural Yard Care Program is working with Issaquah and Redmond.

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<b>8. Sensitive Lake Standards for New Development</b>	Incorporate new standards for water quality control (50% removal of TP) into King County Surface Water Design Manual update; cities to investigate adoption of similar standards.	Already adopted in King County for Issaquah Creek Basin. For remainder of watershed, public rule takes effect in three months. Continuing evaluation incorporated into Task Force Model.	King County final drainage manual is in review; adoption of 50 percent total phosphorus lake protection standard for KC portion is expected in 1997. Standard in use in Issaquah for large developments via permit conditions; in Redmond through SEPA; no proposal in Bellevue at this time.	Standard being implemented through SEPA in the non-Issaquah Creek drainage basin in King County to extent possible. Manual adoption expected by end of 1997 or first quarter of 1998.	Adopted by King County ordinance in January '98 for Lake Sammamish Basin. Adopted in June '98 as part of revised Design Manual Ordinance for all of King County.	Done	Implementation continues.	No change	No change	No change.	No change.	No change.	No change.
<b>9. Kelly Ranch</b>	Develop and implement farm management plan; fence and re-vegetate banks of Tibbetts Creek.	King Conservation District developed plan July 1995; homeowner installed partial fence.	Property is for sale. Several interested parties have come forward including a condominium developer and East Village developer.	No change	No change.	Property now annexed to City of Issaquah. City is investigating riparian protection options.	City of Issaquah is in discussion with Kelly's about conservation and construction easements along both sides of Tibbetts Creek in order to implement improvements as part of the Tibbetts Creek Greenway project.	Owner has refused a conservation easement, but the City is still pursuing a construction easement in the belief that the construction investment will be protected through the City's Sensitive Areas Ordinance.	Funding for restoration work at Kelly Ranch was included in Developer Agreement between Cougar Mountain East Village (Intracorp) and City of Issaquah. \$100k. Use of farm for horses has reduced significantly (only a few left).	City is incorporating Kelly ranch channel restoration and buffer enhancements into Tibbetts Creek Greenway Project – Tibbetts Manor Reach, scheduled for construction in 2003.	The Kelly Ranch was included in the 2003 Tibbetts Creek Greenway Project stream restoration project at Tibbetts Valley Park. This \$760,000 City of Issaquah project restored about 1500 feet of stream. The work on the Kelly Ranch was not as extensive as the work in the Park. However, past concerns about water quality impacts from the Kelly Ranch horses is largely gone as he only has a few horses left.	Monitoring of the stream restoration project continues.	Project completed.

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<b>10. Weowna Park</b>	Correct severe erosion created by Phantom Creek by reconstructing stream channel	City authorized action October 1995; ILA with County Parks; Task Force advising design options; cost dependent upon final design. MOU signed between Bellevue and King County for cost share.	Consultant had been hired to complete design work. City of Bellevue has completed site survey. Final designs being developed spring 1997. Construction expected in summer 1997.	Public evaluation of final design alternatives completed in Summer 1997.	Trail work began in 1997. Bellevue currently working on final construction.	Completed.							
<b>11. Idylwood Creek</b>	Correct drainage problems and bank erosion along creek	Evaluation and design 1995-1996; County coordination with Bellevue and Redmond. Still in progress.	Divided into two parts: 1. Severe bank erosion has occurred in several locations; city drainage has been jeopardized. The area was stabilized by the City of Redmond during the summer of 1996. 2. A basin level project will be developed in spring/fall 1997 (Idylwood Park); construction expected in mid-1998.	No change	Most severe area being addressed.	Enhanced design report completed on entire basin and includes control of erosion as well as fish passage improvements.	Stormwater Facilities Plan for Idylwood Creek completed by RW Beck. Includes evaluation of alternatives for a high-flow bypass, in-stream & riparian zone restoration & stabilization, and fish passage under West Lake Sammamish Parkway. High-flow by-pass and Phase 1 (Idylwood Park) of instream habitat improvements & bank stabilization scheduled for construction in 2001.	Draft Design report completed by RW Beck, Feb 2001, includes high flow bypass, fish passage improvements under West Lake Sammamish Parkway and modifications to Idylwood Creek downstream from WLSP. HPA from WSDFW has been approved. Biological assessment has been written and submittal to National Marine Fisheries Service for review. Construction is anticipated to begin in 2002.	Proceeding as forecast. NMFS has approved the project. Advertising for bids in mid-March 2002 and anticipate issuing the notice to proceed in June.	Construction of 3500 lf of bypass pipe, culvert improvements for fish passage and 700 feet of channel reconstructed substantially completed in Dec 2002 at cost of approx \$3.5 mil. Monitoring plan forthcoming.	Monitoring plan for previous work scheduled for April 2004. Preliminary design in progress for improvements to 1700 lf of channel in upper reach. Construction anticipated in 2005 with funding from Clean Water Fund Loan. Several easements have been granted by private property owners. City of Redmond negotiating for remaining easements.	Monitoring scheduled to begin in Spring of 2005. Final Design and permitting in progress for improvements to 1700 lf of channel in upper reach. Construction anticipated in summer of 2005 with funding from Clean Water Fund Loan. Several easements have been granted by private property owners. City of Redmond negotiating for remaining easements.	The construction of Upper Idylwood was completed this Fall. The contractor's warranty is in effect for one year. Post-construction monitoring is under way on both the upper Reach (constructed in 2005) and the lower reach (completed in 2002).

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12. Regional Stormwater Treatment Feasibility Study	The objective of this study is to determine the feasibility of developing a regional stormwater treatment facility in the Lake Sammamish Basin. This issue was previously identified as a concern in the Lake Sammamish Water Quality Management Report (1996).						Grant funding (\$250,000) was obtained from US EPA in fall 1999. We are currently in the process preparing an RFP to hire a consultant to assist with the project.	A contractor has been selected and the scope and budget for the project should be finalized in 2001.	A contract was signed with Gray and Osborne, Inc. in mid-2001. Work was initiated on the project in September 2001. The contractor continues to progress with the project.	Contractor has completed a draft report. Preliminary assessment indicated that regional treatment is not a feasible option at this time. Final report will be prepared in Spring 2003.	The final study was published and a new scope of work developed for unexpended grant funds. The new scope of work outlines a process to determine the effectiveness of water quality facilities in the Lake Sammamish basin that are built in compliance with the Lake Protection Standards. Their phosphorous removal goal is implemented through stormwater treatment facilities, including wetponds and sand filters and the study will try to determine if these treatment facilities actually achieve the goal.	Work on the treatment effectiveness study continues. Completion is expected in April, 2005.	The study was completed in 2005. Samples were analyzed for total suspended solids, total and ortho-phosphorus, hardness, pH, particle size distribution and selected total and dissolved metals (copper, zinc, lead and cadmium). The outflow pollutants were reduced for all pollutants except cadmium and lead in one of the two ponds. One of the two ponds achieved greater than 50% removal of total and ortho-phosphorus. The other study pond did not meet the 50% reduction goal, however, the influent concentration of phosphorus was below the concentration range that the treatment goal was intended for. However, the total and ortho-phosphorus levels in both pond outlets were nearly identical. These data will be used by King County to better understand the effectiveness of stormwater facilities designed to meet the Sensitive Lake Protection standards.