

WRIA 8 Salmon Habitat Project List

Bear and Cottage Lake Creeks

Monday, October 02, 2017

APPLICABLE STRATEGIES LEGEND:



Protect and restore floodplain connectivity



Protect and restore cold water sources and reduce thermal barriers to migration



Protect and restore forest cover and headwater areas



Protect and restore marine water and sediment quality, especially near commercial and industrial areas



Protect and restore functional riparian vegetation



Improve juvenile and adult survival at the Ballard Locks



Provide adequate stream flow



Improve water quality



Protect and restore channel complexity



Reduce predation on juvenile migrants and lake-rearing fry



Restore sediment processes necessary for key life stages



Integrate salmon recovery priorities into local and regional planning, regulations, and permitting (SMP, CAO, NPDES, etc.)



Restore shallow water rearing and refuge habitat



Remove (or reduce impacts of) overwater structures



Restore natural marine shoreline



Continue existing and conduct new research, monitoring, and adaptive management on key issues



Reconnect and enhance creek mouths





Remove fish passage barriers






Reconnect backshore areas and pocket estuaries






Increase awareness and support for salmon recovery



Restoration Downstream of Railroad Bridge			Description	Opportunities, Constraints, and other Considerations	Applicable Strategies
Project Number	BCLC-R2-1-INS		Restore 300 foot section of Bear Creek downstream of the railroad bridge. Enhance riparian buffers and add large wood to the channel.	Sound Transit 3 intends to use the bridge footprint as the path of future light rail expansion. Work in this area likely to occur in conjunction with that effort.	 Channel Complexity  Riparian Vegetation
Four-Year Work Plan?	Project Location				
No	Redmond				
Estimated Project Costs					
Acquisition	Restoration	Total			



Remove Railroad Bridge Channel Constriction			Description	Opportunities, Constraints, and other Considerations	Applicable Strategies
Project Number	BCLC-R2-2-INS		Remove the constriction of the Bear Creek channel caused by the remnant of the railroad bridge, which likely causes erosion downstream of bridge.	Sound Transit 3 project will result in a new bridge. Could perhaps combine this with BLCL-R2-1INS but plans aren't yet certain.	 Channel Complexity
Four-Year Work Plan?	Project Location				
No	Redmond				
Estimated Project Costs					
Acquisition	Restoration	Total			



Restoration in Bear Creek Park			Description	Opportunities, Constraints, and other Considerations	Applicable Strategies
Project Number	BCLC-R3-1-BB		On publicly owned lands in Reach 3 (primarily Bear Creek Park), remove invasive plants and replant with native vegetation. Add large wood to the channel in areas lacking instream complexity.	Actively planting in phases. Right bank nearly finished. Left bank partially complete.	 Riparian Vegetation  Channel Complexity
Four-Year Work Plan?	Project Location				
Yes	Redmond				
Estimated Project Costs					
Acquisition	Restoration	Total			



Protect WSDOT Parcel in Reach 3			Description	Opportunities, Constraints, and other Considerations	Applicable Strategies
Project Number	BCLC-R3-2-LB		The Washington Department of Transportation owns property off NE Redmond Way in this reach. If the Department sells this property, it should be protected from development.		 Riparian Vegetation
Four-Year Work Plan?	Project Location				
No	Redmond				
Estimated Project Costs					
Acquisition	Restoration	Total			



Evans/Bear Creek Restoration at Keller Farm			Description	Opportunities, Constraints, and other Considerations	Applicable Strategies
Project Number	BCLC-R4-1-BB		Restore instream and riparian habitat of Bear Creek and Evans Creek through the former Keller Farm property. Reconfigure the channel where it has been widened due to past farm practices, enhance the riparian area, and add large wood to the channel.	City of Redmond is in process to certify some of the site as a wetland mitigation bank. Other activities—such as instream restoration, off channel and backwater habitat, and forested buffer restoration—may occur separate from the mitigation-funded elements.	 Channel Complexity  Riparian Vegetation
Four-Year Work Plan?	Project Location				
Yes	Redmond				
Estimated Project Costs					
Acquisition	Restoration	Total			



Enhance Riparian Buffers			Description	Opportunities, Constraints, and other Considerations	Applicable Strategies
Project Number	BCLC-R4-2-BB		Enhance riparian buffers to reduce inputs of fine sediments into the creek from farm land (land not associated with Keller Farm project).	As of 2017, the left bank is mostly complete. Design and implementation of right bank is associated with the Keller Farm wetland mitigation bank.	 Riparian Vegetation  Sediment Processes
Four-Year Work Plan?	Project Location				
No	Redmond				
Estimated Project Costs					
Acquisition	Restoration	Total			

Juel Park Restoration		Description	Opportunities, Constraints, and other Considerations	Applicable Strategies	
		Remove rubble from Bear Creek, add large wood to the channel, and restore riparian buffers at Juel Park.		 Channel Complexity	 Riparian Vegetation
Project Number	BCLC-R6-1-BB				
Four-Year Work Plan?	Project Location				
No	Redmond				
Estimated Project Costs					
Acquisition	Restoration				





Middle Bear Creek Natural Area Additions (NE 116th to second Avondale Rd crossing)		Description	Opportunities, Constraints, and other Considerations	Applicable Strategies	
		Acquire parcels consistent with the King County's goals for conservation to protect intact forested and riparian habitat and enable future restoration.		 Riparian Vegetation	 Forest Cover
Project Number	BCLC-R6-2-BB				
Four-Year Work Plan?	Project Location				
No	King County				
Estimated Project Costs					
Acquisition	Restoration				



Restoration at Friendly Village			Description	Opportunities, Constraints, and other Considerations	Applicable Strategies
Project Number	BCLC-R6-3-BB		Work throughout the Friendly Village Mobile Home Park to restore riparian areas and increase in-channel complexity for juvenile rearing habitat.	Phase I completed by Adopt A Stream Foundation. Phase II design is complete and awaiting funding for implementation.	 Channel Complexity  Riparian Vegetation
Four-Year Work Plan?	Project Location				
Yes	Redmond				
Estimated Project Costs					
Acquisition	Restoration	Total			


Floodplain Restoration South of NE 95th Street			Description	Opportunities, Constraints, and other Considerations	Applicable Strategies
Project Number	BCLC-R6-4-BB		On the city-owned parcel just south of NE 95th Street, install backwater channels, alcoves, and large wood in the stream and improve riparian habitat.	The project is approximately 500-ft long and ends at the Friendly Village property line. Construction is anticipated for 2018. The project was originally created for pure enhancement, but the city needed to delay the 95th Street bridge replacement until 2024, so some of the project is slated for mitigation related to the non-conforming bridge.	 Channel Complexity  Riparian Vegetation
Four-Year Work Plan?	Project Location				
No	Redmond				
Estimated Project Costs					
Acquisition	Restoration	Total			



Floodplain Restoration South of NE Novelty Hill Road			Description Restore the floodplain and channel of Bear Creek on the former Reid property, located just north of the City-owned parcel on NE 95th. Site has extensive invasive plant species, which should be a component of the restoration.	Opportunities, Constraints, and other Considerations	Applicable Strategies	
Project Number	BCLC-R6-5-BB					
Four-Year Work Plan?	Project Location				Channel Complexity	Riparian Vegetation
No	King County					
Estimated Project Costs						
Acquisition	Restoration	Total				


Lower Bear Creek Natural Area Restoration			Description On publicly-owned lands between Novelty Hill Road and the Little Bit property, increase channel complexity and restore riparian areas to enhance juvenile rearing habitat.	Opportunities, Constraints, and other Considerations King County installed large wood in the channel in 2012-13. Additional opportunity for large wood may remain, and invasive treatment still likely needed. Klapp restoration at Mackey Creek confluence completed in 2015. Former Doyle property restoration to occur in 2017.	Applicable Strategies	
Project Number	BCLC-R6-6-BB					
Four-Year Work Plan?	Project Location				Channel Complexity	Riparian Vegetation
Yes	King County					
Estimated Project Costs						
Acquisition	Restoration	Total				



Little Bit Floodplain Restoration			Description	Opportunities, Constraints, and other Considerations	Applicable Strategies
Project Number	BCLC-R6-7-LB		Restore floodplain and historic side channels on property owned by Little Bit Therapeutic Riding Center. Control invasive plants and replant the riparian area.		 Channel Complexity  Riparian Vegetation
Four-Year Work Plan?	Project Location				
No	King County				
Estimated Project Costs					
Acquisition	Restoration	Total			
NE 116th Bridge Replacement and Restoration			Description	Opportunities, Constraints, and other Considerations	Applicable Strategies
Project Number	BCLC-R6-8-BB		Remove existing bridge abutments and rip-rap, create a more natural channel configuration, and plant native riparian vegetation at NE 116th and Avondale.		 Channel Complexity  Riparian Vegetation
Four-Year Work Plan?	Project Location				
No	King County				
Estimated Project Costs					
Acquisition	Restoration	Total			



NE 95th Street Bridge Replacement and Restoration			Description Remove existing bridge abutments and rip-rap, create a more natural channel configuration, and plant native riparian vegetation.	Opportunities, Constraints, and other Considerations	Applicable Strategies	
Project Number	BCLC-R6-9-BB					
Four-Year Work Plan?	Project Location				Channel Complexity	Riparian Vegetation
Yes	Redmond					
Estimated Project Costs						
Acquisition	Restoration	Total				


Monticello Creek Fish Passage Improvement			Description Improve fish passage at the fishway under Avondale Road just north of 116th. City is implementing actions upstream as an outcome of their Monticello Creek Basin Plan, and improving passage would benefit multiple species. Chinook usage is modeled per Salmonscape, and the barrier is identified in WDFW's fish passage database.	Opportunities, Constraints, and other Considerations	Applicable Strategies	
Project Number	BCLC-R6-10-INS					
Four-Year Work Plan?	Project Location				Passage Barriers	
No	Redmond					
Estimated Project Costs						
Acquisition	Restoration	Total				


Lower Bear Creek Natural Area Protection			Description	Opportunities, Constraints, and other Considerations	Applicable Strategies
Project Number	BCLC-R6-11-BB		Continue acquisition efforts to expand the Lower Bear Creek Natural Area to protect spawning and rearing habitat and allow for future restoration to enhance riparian and in-stream habitat.	King County currently negotiating acquisitions consistent with this project, including the Reid and Little Bit parcels. Acquisition to target all parcels (or creek-bearing portions of parcels through conservation easement or lot line adjustment) on both banks of creek between 106th and 116th, consistent with King County's goals for conservation.	 Channel Complexity  Riparian Vegetation
Four-Year Work Plan?	Project Location				
Yes	King County				
Estimated Project Costs					
Acquisition	Restoration	Total			


Protect Forested Area near The Farm			Description	Opportunities, Constraints, and other Considerations	Applicable Strategies
Project Number	BCLC-R7-1-BB		Protect forested area near The Farm through fee acquisition or transfer of development rights/conservation easements. Site is located along Avondale near NE 127th.		 Forest Cover
Four-Year Work Plan?	Project Location				
No	King County				
Estimated Project Costs					
Acquisition	Restoration	Total			



Middle Bear Creek Natural Area Additions (Second Avondale Rd crossing to NE 127th)			Description Acquire parcels consistent with the King County's goals for conservation to protect intact forested and riparian habitat and enable future restoration.	Opportunities, Constraints, and other Considerations	Applicable Strategies  Riparian Vegetation  Forest Cover
Project Number	BCLC-R7-2-BB				
Four-Year Work Plan?	Project Location				
No	King County				
Estimated Project Costs					
Acquisition	Restoration	Total			


Middle Bear Creek Natural Area Additions (NE 127th to NE 133rd)			Description Acquire parcels consistent with the King County's goals for conservation to protect intact forested and riparian habitat and enable future restoration.	Opportunities, Constraints, and other Considerations	Applicable Strategies  Riparian Vegetation  Forest Cover
Project Number	BCLC-R7-3-BB				
Four-Year Work Plan?	Project Location				
No	King County				
Estimated Project Costs					
Acquisition	Restoration	Total			



Reforest 10-Acre Wetland Area on Golf Course (Wetland 30)			Description	Opportunities, Constraints, and other Considerations	Applicable Strategies
Project Number	BCLC-R8-1-LB		Reforest the 10-acre wetland area on the golf course that is part of dedicated open space for property.	Need to determine if wetlands are hydraulically connected to creek.	 <p>Riparian Vegetation</p>
Four-Year Work Plan?	Project Location				
No	King County				
Estimated Project Costs					
Acquisition	Restoration	Total			


Swanson Horse Farm Restoration			Description	Opportunities, Constraints, and other Considerations	Applicable Strategies
Project Number	BCLC-R8-2-BB		Restoration needed on Swanson Horse Farm property on NE 141st St. Reduce fine sediment inputs and restore riparian areas. Pursue a farm plan to address impacts to Bear Creek.		 <p>Riparian Vegetation</p>
Four-Year Work Plan?	Project Location				
Yes	King County				
Estimated Project Costs					
Acquisition	Restoration	Total			



Restoration Feasibility Study of Ponds on Golf Course			Description	Opportunities, Constraints, and other Considerations	Applicable Strategies
Project Number	BCLC-R8-3-LB		Determine whether or not ponds on golf course are hydrologically connected to Bear Creek and a source of warm water. If found to add to temperature problems on the creek, plant the south side of ponds to shade them.	High end golf course—would be expensive.	 <p>Riparian Vegetation</p>
Four-Year Work Plan?	Project Location				
No	King County				
Estimated Project Costs					
Acquisition	Restoration	Total			


Middle Bear Creek Natural Area Additions (NE 133rd to NE 141st)			Description	Opportunities, Constraints, and other Considerations	Applicable Strategies
Project Number	BCLC-R8-4-BB		Acquire parcels consistent with the King County's goals for conservation to protect intact forested and riparian habitat and enable future restoration.		 <p>Riparian Vegetation</p>  <p>Forest Cover</p>
Four-Year Work Plan?	Project Location				
No	King County				
Estimated Project Costs					
Acquisition	Restoration	Total			


Middle Bear Creek Natural Area Additions (NE 141st to Struve Creek)			Description	Opportunities, Constraints, and other Considerations	Applicable Strategies
Project Number	BCLC-R9-1-BB		Acquire conservation easements or fee acquisition along Bear Creek to create an uninterrupted corridor for restoration between NE 141st and Struve Creek.	Granston property acquired in 2011. Parcels to the south have recently-constructed large, expensive homes; easements may be more appropriate.	 <p>Riparian Vegetation</p>
Four-Year Work Plan?	Project Location				
Yes	King County				
Estimated Project Costs					
Acquisition	Restoration	Total			


Middle Bear Creek Natural Area Restoration (NE 141st to Struve Creek)			Description	Opportunities, Constraints, and other Considerations	Applicable Strategies
Project Number	BCLC-R9-2-INS		Add large wood to Bear Creek and restore the riparian area in the Middle Bear Creek Natural Area between NE 141st and Struve Creek. Include conifer underplanting, especially in areas lacking conifers currently.		 <p>Channel Complexity</p>  <p>Riparian Vegetation</p>
Four-Year Work Plan?	Project Location				
No	King County				
Estimated Project Costs					
Acquisition	Restoration	Total			


Protect Blocks of Contiguous Riparian Forest between Struve Creek and Tolt Pipeline			Description Protect forested parcels upstream of the Struve Creek confluence to the Tolt Pipeline crossing to expand the Middle Bear Creek Natural Area.	Opportunities, Constraints, and other Considerations Current focus is on acquisition but restoration activities should be developed in the future.	Applicable Strategies  Forest Cover
Project Number	BCLC-R10-1-BB				
Four-Year Work Plan?	Project Location				
No	King County				
Estimated Project Costs					
Acquisition	Restoration	Total			


Restoration at Tolt Pipeline Crossing			Description Remove bank hardening and restore riparian area at Tolt pipeline crossing. Remove creosote pilings.	Opportunities, Constraints, and other Considerations This site is used for public fish viewing so a benefit of this project would be an opportunity to educate the public about what good fish habitat looks like. Some horse watering is acceptable, especially if signage can be installed or maintained to inform equestrian users of best practices and when salmon are in the stream.	Applicable Strategies  Channel Complexity  Riparian Vegetation
Project Number	BCLC-R11-1-BB				
Four-Year Work Plan?	Project Location				
No	King County				
Estimated Project Costs					
Acquisition	Restoration	Total			


Upper Bear Natural Area Additions (Tolt Pipeline to Woodinville-Duvall Road)			Description	Opportunities, Constraints, and other Considerations	Applicable Strategies
Project Number	BCLC-R13-1-BB		Acquire parcels consistent with the King County's goals for conservation to protect intact forested and riparian habitat and enable future restoration.	Current focus is on acquisition but restoration activities should be developed in the future.	 Forest Cover
Four-Year Work Plan?	Project Location				
No	King County				
Estimated Project Costs					
Acquisition	Restoration	Total			


Revegetation of Wetland 12			Description	Opportunities, Constraints, and other Considerations	Applicable Strategies
Project Number	BCLC-R14-1-LB		Plant native vegetation in the wetland area on the south side of Woodinville-Duvall Road.	Site is publicly owned.	 Riparian Vegetation
Four-Year Work Plan?	Project Location				
No	King County				
Estimated Project Costs					
Acquisition	Restoration	Total			


Paradise Lake Natural Area Additions			Description	Opportunities, Constraints, and other Considerations	Applicable Strategies
Project Number	BCLC-R15-1-BB		Protect habitat and forest cover on the Stevens and Doolittle properties and adjacent parcels within this reach of Bear Creek through conservation easement or fee acquisition.	King County has acquired in fee or through easements several parcels in this area.	 Forest Cover
Four-Year Work Plan?	Project Location				
Yes	King County				
Estimated Project Costs					
Acquisition	Restoration	Total			


Paradise Lake Natural Area Restoration			Description	Opportunities, Constraints, and other Considerations	Applicable Strategies
Project Number	BCLC-R15-2-BB		Restore lands within the Paradise Lake Natural Area. In particular, this portion of Bear Creek has issues with yellow flag iris.		 Riparian Vegetation
Four-Year Work Plan?	Project Location				
No	King County				
Estimated Project Costs					
Acquisition	Restoration	Total			


Upper Bear Creek Forest Cover Protection – Paradise Valley Conservation Area Additions			Description	Opportunities, Constraints, and other Considerations	Applicable Strategies
Acquire fee interests or conservation easements in Snohomish County on forested headwaters of Bear Creek.			Priority should be lands east of Paradise Valley Conservation Area.	 <p>Forest Cover</p>	
Project Number	BCLC-R15-3-BB				
Four-Year Work Plan?	Project Location				
No	King County				
Estimated Project Costs					
Acquisition	Restoration	Total			



Paradise Valley Conservation Area Restoration			Description	Opportunities, Constraints, and other Considerations	Applicable Strategies
Remove invasive plants and plant riparian buffer along Bear Creek throughout Paradise Valley Conservation Area.			Especially problematic are holly and hawthorn.	 <p>Riparian Vegetation</p>	
Project Number	BCLC-R16-1-BB				
Four-Year Work Plan?	Project Location				
Yes	King County				
Estimated Project Costs					
Acquisition	Restoration	Total			


Riparian Restoration and Invasive Species Control – Bear and Cottage Lake Creeks			Description	Opportunities, Constraints, and other Considerations	Applicable Strategies
Project Number	BCLC-1-BB				
Four-Year Work Plan?	Project Location				
Yes	Basinwide				
Estimated Project Costs					
Acquisition	Restoration	Total			
			Control invasive knotweed and other priority invasive species on a coordinated basis to improve riparian habitat, on public and private properties. After initial control is achieved, regularly monitor, detect, and rapidly respond to any new infestations. Implement planting with native species in treated areas.	Some work has been implemented and other work is underway to address this need.	 <p>Riparian Vegetation</p>




Improve Floodplain Connectivity - Cottage Lake Creek Reach 1			Description	Opportunities, Constraints, and other Considerations	Applicable Strategies
Project Number	BCLC-2-BB				
Four-Year Work Plan?	Project Location				
Yes	King County				
Estimated Project Costs					
Acquisition	Restoration	Total			
			Improve floodplain connectivity along 2,750 linear feet in lower Cottage Lake Creek by removing riprap or artificial constrictions.	Left bank owned by KC Roads.	 <p>Floodplain Connectivity</p>


Riparian Restoration at Nicholls Farm			Description	Opportunities, Constraints, and other Considerations	Applicable Strategies
Project Number	BCLC-3-BB		Restore riparian conditions along Cottage Lake Creek on Nicholls Farm. Reduce fine sediment inputs.		 <p>Riparian Vegetation</p>
Four-Year Work Plan?	Project Location				
No	King County				
Estimated Project Costs					
Acquisition	Restoration	Total			


Nicholls Farm Acquisition			Description	Opportunities, Constraints, and other Considerations	Applicable Strategies
Project Number	BCLC-4-BB		Protect 40-acre parcel on Cottage Lake Creek at Nicholls Farm.		 <p>Riparian Vegetation</p>
Four-Year Work Plan?	Project Location				
Yes	King County				
Estimated Project Costs					
Acquisition	Restoration	Total			

Add Large Wood in Cross Roads Development			Description	Opportunities, Constraints, and other Considerations	Applicable Strategies
Project Number	BCLC-5-INS		Corridor owned by homeowners association—site has 250’ buffers but no easement, and lots of invasives. Add wood to channel and restore riparian area. Determine whether conservation easement would be useful to ensure protection. Neighborhood is in vicinity of NE 143rd.		 Channel Complexity  Riparian Vegetation
Four-Year Work Plan?	Project Location				
No	King County				
Estimated Project Costs					
Acquisition	Restoration	Total			

Tolt Pipeline Crossing Restoration - Cottage Lake Creek			Description	Opportunities, Constraints, and other Considerations	Applicable Strategies
Project Number	BCLC-6-INS		Remove bank hardening and restore riparian area at Tolt pipeline crossing. Remove creosote pilings.		 Channel Complexity
Four-Year Work Plan?	Project Location				
No	King County				
Estimated Project Costs					
Acquisition	Restoration	Total			

Bassett Pond Natural Area Additions			Description	Opportunities, Constraints, and other Considerations	Applicable Strategies
Project Number	BCLC-7-BB		Acquire priority parcels along Cottage Lake Creek in the vicinity of NE 165th and up to the Cottage Lake outlet to expand the Bassett Pond Natural Area and enable future restoration.		 Riparian Vegetation  Forest Cover
Four-Year Work Plan?	Project Location				
No	King County				
Estimated Project Costs					
Acquisition	Restoration	Total			
Restore Bog in Bassett Pond Natural Area			Description	Opportunities, Constraints, and other Considerations	Applicable Strategies
Project Number	BCLC-8-RB		Restore bog, including possibly filling cross channels and ditches. Remove spirea.	Lots of restoration has already occurred through wetland mitigation funding.	 Riparian Vegetation
Four-Year Work Plan?	Project Location				
No	King County				
Estimated Project Costs					
Acquisition	Restoration	Total			

Cold Creek Natural Area Additions			Description	Opportunities, Constraints, and other Considerations	Applicable Strategies
Project Number	BCLC-9-BB		Acquire parcels from Bassett Pond Natural Area upstream to Woodinville – Duvall Road to expand the Cold Creek Natural Area and protect the Cold Creek headwaters and aquifer.		 Forest Cover
Four-Year Work Plan?	Project Location				
No	King County				
Estimated Project Costs					
Acquisition	Restoration	Total			

Cottage Lake Outlet Fish Screen			Description	Opportunities, Constraints, and other Considerations	Applicable Strategies
Project Number	BCLC-10-INS		Explore the feasibility of installing a fish screen at the outlet of Cottage Lake Creek to prevent stocked trout from migrating downstream.	Rainbow trout routinely found at Bear Creek smolt trap in lower Bear Creek.	 Predation
Four-Year Work Plan?	Project Location				
No	King County				
Estimated Project Costs					
Acquisition	Restoration	Total			