

YAKIMA RIVER BASIN
ECOSYSTEM RESTORATION
YAKIMA COUNTY, WASHINGTON

APPENDIX C
Measures Screening Table

June 2018

**Integrated Feasibility Report and
Environmental Assessment**



US Army Corps
of Engineers®
Seattle District

Planning Objectives										Constraints																										
Scoring Scale Definition		Score		Restore connectivity of river to floodplain habitats					Cannot result in increased flood risk or decreased life safety					Must be implemented in a way as to ensure capture of old gravel pits does not cause harm/damage																						
No Change from Existing Conditions, or Impacts to Other Infrastructure		0		Improve riparian areas					Must be implemented in a way as to ensure capture of old gravel pits does not cause harm/damage					Must be implemented in a way that does not lead to capture of Buchanan Lake																						
Ecosystem Benefit Low, or Ease of Implementation Low		1		Restore side channels					Recreation facilities (trails) that are displaced will need to be replaced																											
Ecosystem Benefit Moderate, or Ease of Implementation Moderate		2		Promote native plant diversity																																
Ecosystem Benefit																																				
Effectiveness																																				
Measures		Acres of Habitat Restored		Justification		Restoration of Habitat-Forming/Sustaining Processes		Justification		Assumed Magnitude of Off-Site / Downstream Benefit		Justification		Addresses Planning Objectives		Justification		Completeness																		
DID #1 FLOODPLAIN PROCESS RESTORATION		3		Most acres		Restores habitat forming channel formation/meander processes & groundwater exchange processes		3		700 acres of downstream benefits		3		Addresses objectives.		3		Does Not Rely on Elements Outside of the Project to Deliver Benefits																		
FLOODPLAIN TOPOGRAPHIC RESTORATION		1		Less acreage		Restores habitat forming channel/meander processes & groundwater exchange processes.		3		Minimal downstream eco benefit given smaller scale		3		Addresses objectives.		3		Would achieve restoration objectives independently.																		
KOA FLOODPLAIN RESTORATION		2		Moderate acreage		Restores habitat forming channel/meander processes & groundwater exchange processes.		3		Channels formed here could continue into downstream area;		3		Addresses objectives.		3		This measure would treated as dependent on DID#1 measure; no dependencies external to project.																		
SPORTSMAN ISLAND CHANNEL RESTORATION		2		Moderate acreage		Restores habitat forming channel/meander processes & groundwater exchange processes.		3		Upstream and downstream benefits (Downstream benefits restored, dynamic sediment distribution processes support habitat structure suitable for native fish)		3		Addresses objectives.		3		Would achieve restoration objectives independently. Necessary property and/or flood easements already held by County.																		
SPORTSMAN UPSTREAM GROIN REMOVAL		1		Less acreage		Restores hydraulic processes at upstream end of Sportsman channels		2		Increases likelihood of channel formation through Sportsman Island		3		Addresses objectives.		3		This measure would be treated as dependent on Sportsman measure; no dependencies external to project.																		
LAKE BUCHANAN SPURS		1		Less acreage		Restores hydraulic process at upstream end of Sportsman channels		2		Increases likelihood of channel formation through Sportsman Island		3		Addresses objectives.		3		This measure would be treated as dependent on Sportsman measure; no dependencies external to project.																		
VICTORY LANE SETBACK		1		Less acreage		Restores habitat forming channel/meander processes & groundwater exchange processes.		1		Lack of connectivity to floodplain immediately downstream. Small scale.		3		Addresses objectives.		3		Would achieve restoration objectives independently.																		
OLD Y9 CHANNEL RESTORATION		1		Less acreage; some has already been done by removing levee		Restores habitat forming channel/meander processes & groundwater exchange processes.		2		Downstream benefits - hydraulics more conducive to channel formation through Terrace Heights point bar?		3		Addresses objectives.		1		Depends on modifying Roza wastewater and Terrace Heights bridge																		
NOB HILL FLOODPLAIN RESTORATION		1		Less acreage		Restores habitat forming channel/meander processes & groundwater exchange processes.		2		Removes constraints to natural flow just upstream of DID#1 floodplain restoration area.		3		Addresses objectives.		3		Would achieve restoration objectives independently.																		
BLUE SLOUGH AUTOMATED HEADGATE		3		Narrow, but long area of benefit; when flooding and as channels meander, more acreage will benefit		Restores hydrological connection of river to eastern portion of target area, enabling channel formation/meander and groundwater exchange processes there.		3		Complements DID1 by restoring hydrology on eastern side of natural floodplain w/in project footprint and downstream		3		Addresses objectives.		2		Relies on ongoing O&M of headgate at Sportsman Park																		
BLUE SLOUGH CULVERTS		3		Narrow, but long area of benefit; when flooding and as channels meander, more acreage will benefit		Improves effects of automated headgate by allowing flows conducive to use throughout the year for all life stages of fish		3		Complements DID1 by restoring hydrology on eastern side of natural floodplain w/in project footprint and downstream		3		Addresses objectives.		3		This measure would be treated as dependent on Headgate measure; no dependencies external to project.																		
LOWER BLUE SLOUGH CONNECTION		2		Introduces hydrology to lower portion of DID #1 setback area and floodplain to the south		Restores hydrological connection of river to southeastern portion of target area, enabling channel formation/meander and groundwater exchange processes there.		3		Complements DID1 by restoring hydrology on eastern side of natural floodplain w/in project footprint and downstream		3		Addresses objectives.		2		This measure would treated as dependent on DID#1 measure; no dependencies external to project.																		

Measures	Ecosystem Benefit												Ease of Implementation												
	Effectiveness						Completeness						Acceptability				Efficiency								
	Acre(s) of Habitat Restored	Justification	Restoration of habitat-forming processes	Justification	Assumed Magnitude of Off-Site / Downstream Benefit	Justification	Addressing Objectives	Justification	Does Not Rely on Elements Outside of the Project to Deliver Benefits	Justification	Completeness of Regional Planning Efforts and Goals	Justification	Considers Constraints	Justification	Impacts to Existing Flood Control Features and Induced Flooding Risks	Justification	Real Estate Complexity	Justification	Overall Constructability of Alternative	Justification	Impacts to Utilities or Existing Infrastructure	Justification	Scale to Warrant or Justify USACE participation	Justification	Total Score
WSDOT PILOT CHANNELS	2	Moderate acreage	2	Restores habitat forming channel formation/meander processes & groundwater exchange processes.	2	Restoration of dynamic sediment distribution processes that support habitat structure suitable for native fish	3	Addresses objectives.	3	Would achieve restoration objectives independently. Necessary property and/or flood easements already in public ownership	2	Addresses restoration goals, but lesser magnitude than DID1	3	Does not conflict w/ constraints.	3	Reduces erosive pressure on levees; increases storage	3	Public lands	3	Straightforward construction	3	No utilities	2	Moderate scale	31
GREENWAY TRAIL ARMOR REMOVAL	2	Moderate acreage	3	Restores habitat & groundwater exchange processes but to a lesser degree than other measures.	2	When channels form naturally, hydrology would be introduced to floodplain downstream	3	Addresses objectives.	3	Would achieve restoration objectives independently. Necessary property and/or flood easements already in public ownership	1	Minimal (but positive) impact at regional scale	3	Does not conflict w/ constraints.	3	No impacts	3	Public lands	3	Straightforward construction	3	No utilities	1	Sponsor could implement independently	30
SPRING CREEK RECONNECTION	2	Moderate acreage	3	Restores habitat forming channel formation/meander processes & groundwater exchange processes.	3	Most benefit area is upstream of measure footprint; fish passage restored to stream.	3	Addresses objectives.	3	Would achieve restoration objectives independently. Necessary property and/or flood easements already in public ownership	3	Immediate restoration of identified key habitat that is scarce in the region	3	Does not conflict w/ constraints.	3	No impacts	3	Public lands	3	Straightforward construction	3	No utilities	1	Sponsor could implement independently	33