

CANDIDATE INDICATOR	QUESTION OF INTEREST							THEMES			
	1. What is the biological integrity in the LCRE and is it improving or declining?	What is juvenile salmon performance (i.e., life history strategy diversity, spatial structure, growth, foraging success) in the lower Columbia River, and is it improving or declining?	What are the limiting factors that affect the status of a population or ESU within the estuary and are they improving or declining?	What is habitat quality and is it improving or declining?	What are indicator species and are their populations increasing or decreasing?	2. What are the effects of climate change on estuary ecosystem condition and are they increasing or decreasing?	3. What are the pollutants of concern and are their concentrations increasing or decreasing?	4. What are the biophysical processes and are those processes improving or declining?	Biophysical processes	Biota	Habitat Structure and Function
Inundation (magnitude, duration, frequency, timing and rate of change)			X			X				X	
water temperature			X			X				X	X
pH			X			X				X	X
dissolved oxygen			X			X				X	X
salmon density		X				X			X		
salmon genetics		X				X			X		
timing of salmon habitat use		X				X			X		
salmon diet		X				X			X		
fish/salmon species community composition		X				X			X		
prey availability		X	X			X			X	X	
salmon condition		X	X						X		
salmon growth		X	X			X			X		
salmon lipid content			X						X		
salmon mortality			X						X		
salmon foraging success			X						X		
habitat suitability index model			X							X	X
habitat coverage (i.e. landcover)				X						X	
vegetation diversity and cover	X		X	X					X	X	
invasive species (presence and extent)				X					X	X	
habitat complexity				X						X	
carbon, nutrient flux				X		X		X			X
primary and secondary production				X		X			X		X
sediment grain size				X						X	
macrodetrital inputs				X					X	X	
flood attenuation				X						X	

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sediment supply and trapping				x							x	
water storage				x							x	
presence/absence of indicator species					x					x		
abundance of indicator species					x					x		
indicator species richness and composition					x					x		
ESA listed species recovering					x					x		
nutrients, pathogens, prioritized pollutants of concern			x				x					x
benthic macroinvertebrates (index of integrity)							x			x		x
net ecosystem metabolism								x	x			
sediment transport								x	x			
habitat forming processes								x	x			
carbon sequestration								x	x			