

Floodplains Reimagined Evaluation Criteria

Table of Evaluation Criteria

This table outlines all of Floodplain Reimagined Evaluation Criteria in two categories: Habitat Suitability and Land Use. For more detail, see the individual Evaluation Criteria.

Evaluation Criteria		Cover Type					Season		Depth (in)		Velocity (ft/s)		Connectivity to Channel	Optimal Duration (days)
		Wetlands	Rice	Other Ag	Grasslands	Riparian	Start	End	Min	Max	Min	Max		
Habitat Suitability	Juvenile Salmon Floodplain Rearing	X	X	X		X	1-Nov	30-Jun	7.2	None	None	1.5	Required	14
	Secondary Productivity/ Export Potential	X	X	X	X	X	1-Oct	30-Jun	>0	None	None	0.33	Assumed	10
	Nonbreeding Waterfowl	X	X	X			15-Aug	31-Mar	>0	12	None	None	None	Unknown
	Nonbreeding Shorebirds	X	X	X			1-Jul	15-May	>0	4	None	None	None	Unknown
	Sandhill Crane - Roosting	X	X	X			1-Oct	15-Mar	>0	8	None	None	None	Unknown
	Sandhill Crane - Foraging	X ¹	X ¹	X ¹			1-Oct	15-Mar	0	2	None	None	None	Unknown
Land Use	Agriculture Compatibility		X	X			1-Mar	15-Oct	None	30% Wet Area	None	None	None	None
	Waterfowl Hunting	X ²	X ²				4th Sat in Oct	Final Day of	12	None	None	None	None	None

							Waterfowl Hunt Season ³						
	Wetland Management	X ²	X ²			4 th Sat in Oct	31-Mar	Berm Height ⁴	None	None	None	None	None

¹Within 5km of a known roost

²Managed fields only

³Waterfowl Hunt seasons starts on the second to last Saturday in October, lasting for approximately 100 days, then the following 2 weekends are special hunt weekends. The last day of the special hunt weekends determines the season end, usually the second or third Sunday in February. In this effort, the waterfowl hunting season is assumed to occur with the same relative timing every year, though it is acknowledged that each year a new regulatory framework is proposed, and therefore these values could change in reality.

⁴Berm Height is 14 inches for managed rice fields, 22 inches for managed wetlands. Access impacts are applied when the berm height is exceeded, and infrastructure damage impacts are applied when the berm height + 6 inches is exceeded.

Can we address compatibilities below this table?

Potentially compatible at the same time: For now, black fill = incompatible at the same time; X = at least some overlap in each of the criteria above – though could use some color coding to indicate more or less overlap?

		Habitat Suitability						Land Use Impacts		
		Juvenile Salmon Floodplain Rearing	Secondary Productivity/ Export Potential	Nonbreeding Waterfowl	Nonbreeding Shorebirds	Sandhill Crane – Roosting	Sandhill Crane - Foraging	Agriculture Compatibility	Waterfowl Hunting	Wetland Management
Habitat Suitability	Juvenile Salmon Floodplain Rearing		X	X		X		X	X	X
	Secondary Productivity/ Export Potential	X		X	X	X		X	X	X
	Nonbreeding Waterfowl	X	X		X	X		X	X	X
	Nonbreeding Shorebirds		X	X		X		X		X
	Sandhill Crane - Roosting	X	X	X	X			X		X
	Sandhill Crane - Foraging									
Land Use Impacts	Agriculture Compatibility	X	X	X	X	X			X	
	Waterfowl Hunting	X	X	X				X		X
	Wetland Management	X	X	X	X	X			X	

Attempted version with some color coding (brighter green = most compatible ones to highlight/easiest to achieve together; light green = limited opportunity/more difficult to manage; for now, arbitrarily < 6" overlap in depth and/or limited overlap in timing)

		Habitat Suitability						Land Use Impacts		
		Juvenile Salmon Floodplain Rearing	Secondary Productivity/ Export Potential	Nonbreeding Waterfowl	Nonbreeding Shorebirds	Sandhill Crane – Roosting	Sandhill Crane - Foraging	Agriculture Compatibility	Waterfowl Hunting	Wetland Management
Habitat Suitability	Juvenile Salmon Floodplain Rearing							X	X	X
	Secondary Productivity/ Export Potential							X	X	X
	Nonbreeding Waterfowl							X	X	X
	Nonbreeding Shorebirds							X		X
	Sandhill Crane - Roosting							X		X
	Sandhill Crane - Foraging							X		
Land Use Impacts	Agriculture Compatibility	X	X	X	X	X	X		X	
	Waterfowl Hunting	X	X	X				X		X
	Wetland Management	X	X	X	X	X			X	

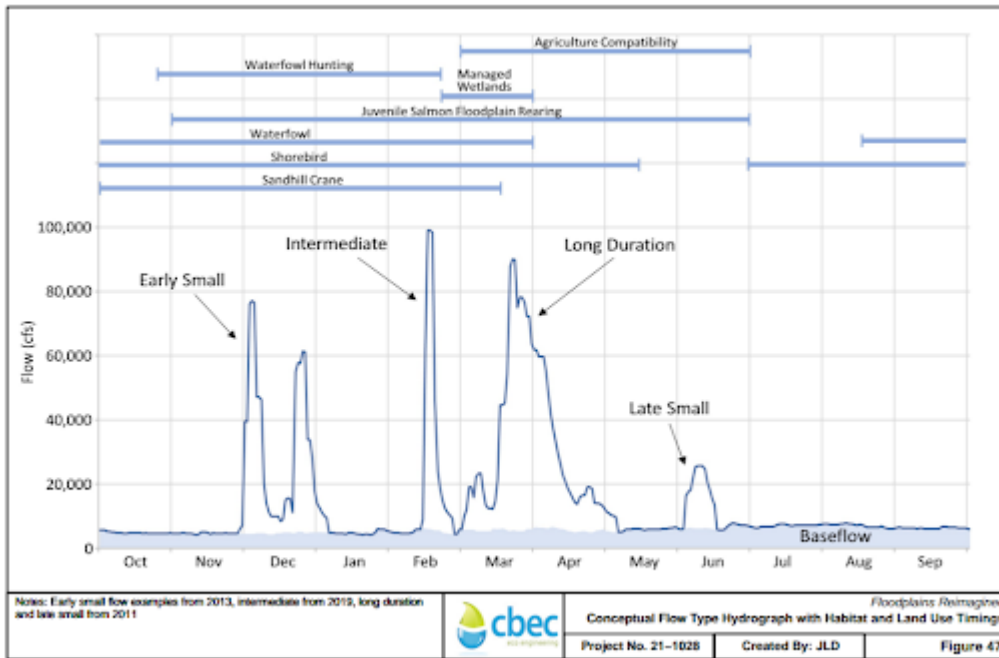
Takeaways so far (copied over into the takeaways doc):

- lots of potential for multiple benefits at the same time and place, but not every single metric at the same time.
- Limited ability for juvenile salmon floodplain benefits to overlap with bird benefits; most potential with waterfowl (and waterfowl hunting) and maybe roosting Sandhill Cranes (remembering that depth limits for birds represent optimal depths and there may be some marginal benefits above these limits)
- Secondary productivity/export potential can overlap with juvenile salmon floodplain benefits and/or any of the bird metrics (depending on depth)

Options for supplemental graphics to address compatibility:

Sutter Bypass example:

Floodplain Reimagined model figure:



Ideas likely for future phases (though we started getting into this a bit for baseline conditions):

- Baseline conditions (or scenarios if we have them)
 - Annual summaries
 - Suitability sum/score for each criterion for each year
 - Without the weighting criteria, compare area-days in a table or graph where multiple benefits are accruing versus just one. For example (simple):

Year	Juvenile salmon only (ac-days of suitable area)	Waterfowl only (ac-days of suitable area)	Juvenile salmon + waterfowl (ac-days of suitable area)
Year 1	100	50	25
Year 2	25	100	10

- Annual time series
 - Time series of weighted suitable area for each criterion plus separate plot showing area of overlap between two or more criteria (could have multiple lines on the plot potentially, representing different combinations of criteria)
- Maps
 - Daily maps can show where multiple benefits are happening in the same place
 - Annual summary maps could show the suitability sum map for each individual criteria and then a map showing days of overlap (perhaps a series of maps with pairs of criteria if there are more than two criteria)