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**Implementation of the FCRPS BiOp Tributary
Monitoring and Evaluation Framework**

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Hood River, OR


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Outline

- Goals of tributary monitoring and evaluation framework
- Framework description
- Uncertainties and constraints
- CHaMP and ISRP comments
- Proposed next steps



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Goals of Tributary Monitoring and Evaluation Framework

- **Council's Fish & Wildlife Program –**
Habitat-based program “to rebuild healthy, naturally producing fish and wildlife populations by protecting, mitigating, and restoring habitats and biological systems within them”
- **FCRPS BiOp –**
“Protect and improve tributary habitat based on biological needs and prioritized actions ... to achieve specified habitat quality and fish survival improvements”

• [RPA 35]

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Goals of Tributary Monitoring and Evaluation Framework

- Select restoration projects based on habitat limiting factors and prioritize to achieve specified habitat quality improvements
- Empirically verify that estimated habitat quality improvements have been achieved
- ❖ **Achieve “success” faster with the minimum expenditure of resources**

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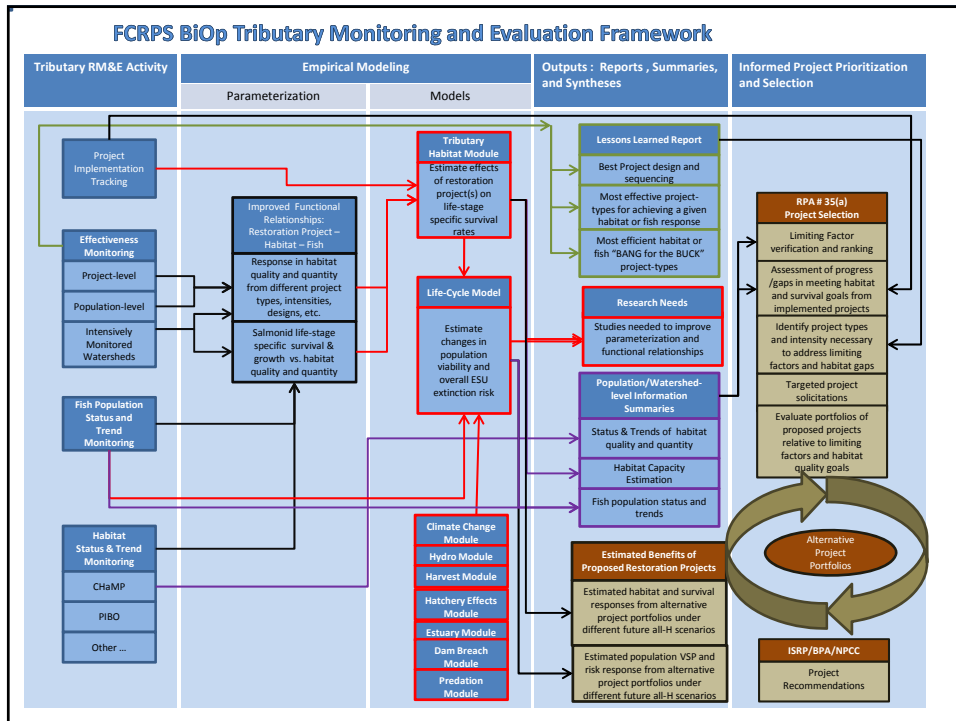


Tributary Monitoring and Evaluation Framework

- Diagram the relationships among the various RM&E elements, and how they inform:



- » Lessons learned
- » Empirically-driven project selection and prioritization
- » Verification of habitat-quality and fish-survival improvements



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Tributary Monitoring and Evaluation Framework

- Diagram the relationships among the various RM&E elements, and how they inform:
 - » Lessons learned
 - » Empirically-driven project selection and prioritization
 - » Verification of habitat-quality and fish-survival improvements
- Accompanying narratives detail: leads, products, timelines, regional coordination, and check-in points to identify efficiencies

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Constraints and Uncertainties

- Pressing timelines for implementing the framework elements
 - » 2010 BiOp requires that all habitat and fish monitoring be in place by 2011
 - » 2013 Comprehensive Evaluation
 - » Full implementation in FY2012 essential
- AA/NOAA “framework” will address uncertainties by describing linkages and detailing products, analytical methods, timelines, and check-ins

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CHaMP & ISRP Comments



- Field test CHaMP protocols
 - » CHaMP protocols informed by ~7 years of ISEMP implementation
 - » 2010 field testing in John Day (Bridge Creek), SF Salmon, Lemhi, and Entiat
 - » FY2011 'pilot' implementation would provide field testing in a variety of ecological and logistical settings
 - » CHaMP committed to iterative refinement of protocols

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CHaMP & ISRP Comments

- Coordinate with other habitat monitoring programs
 - » Side-by-side testing with PIBO and WA Ecol. in FY2012
 - » AAs/NOAA committed to using all available compatible data in assessments
 - » CHaMP "digital" data collection will facilitate rapid information sharing
 - » Check-ins will inform results-based refinement and alignment of protocols

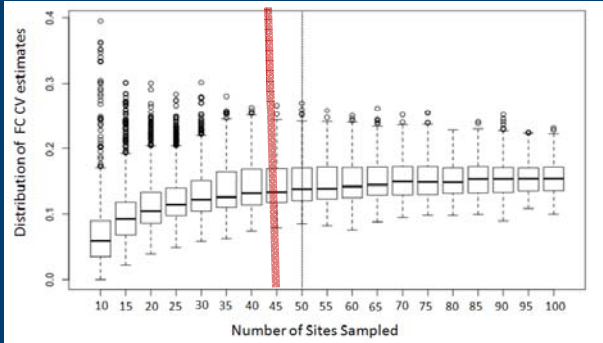




CHaMP & ISRP Comments

Evaluate sampling more metrics at fewer sites
v. fewer metrics at more sites

» CHaMP power analysis using ISEMP data supports the proposed sampling design and # of sites

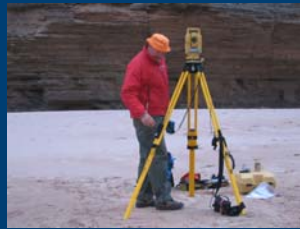


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CHaMP & ISRP Comments

- ISRP check-in 1-2 years
 - » BPA & CHaMP committed to providing regular check-ins with ISRP and other regional partners



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- Describe integration with fish monitoring

Domain	MPG	Population	IMW	Fish Monitoring		Habitat Monitoring		
				Existing	FY2011	FY11 Mod. ISEMP	FY11 CHaMP	FY12 CHaMP
Snake River	South Fork Salmon	South Fork	X	X		X		
	Middle Fork Salmon	Big Creek			X			X
	Upper Salmon	Lemhi		X	X		X	
		Pahsimeroi				X		X
		Yankee Fork				X		
	Clearwater*	Lolo Creek*		X				X
	Lower Snake	Tucannon			X			X
		Asotin*			X			X
	Grande Ronde	Upper Grande Ronde			X			X
		Catherine Creek		X	X		X	
Imnaha		Imnaha*		X			X	
Upper Columbia	Upper Columbia	Wenatchee	X	X		X		
		Entiat	X	X		X		
		Methow	X	X		X		
		Okanogan*	X	X			X	
Middle Columbia*	Eastern Cascades*	Klickitat River*		X				X
	Yakima*	Topenish*		X				X
	John Day*	Lower Mainstem*		X	X		X	
		North Fork*		X	X		X	
		Upper Mainstem*		X	X		X	
		Middle Fork*		X	X		X	
		South Fork*		X	X		X	
	Umatilla/ Walla Walla*	Umatilla*		X				X
Lower Columbia*	Gorge*	Wind*			X		X	



* Steelhead only

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CHaMP & ISRP Comments

- Incremental implementation
 - » Incompatible with BiOp requirements, timelines, and 2013 Comprehensive Evaluation

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Proposed Next Steps

- What can NOAA do to increase Council members' and Council staff's support of full CHaMP implementation in FY2012?
 - » Increase understanding of CHaMP's critical role in informing the larger framework
 - » Incorporate ISRP comments and Council staff recommendations in AA/NOAA framework document
 - » Engage Council and include Council staff in development and approval of AA/NOAA framework document

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What's Next?

- This isn't all about RM&E
 - » On-the-ground restoration projects that address the primary limiting factors for priority anadromous populations
 - » Demonstrated habitat quality and survival improvements
 - » Results-based refinements informing a more streamlined and efficient RM&E program