## **Icicle Workgroup Guiding Principles and Metrics**

This summary describes the IWG Guiding Principles and how they are quantified for the development of an integrated project list. Full qualitative descriptions of the guiding principles are included in the IWG Operating Procedures. Metrics for guiding principles are subject to feasibility, funding, and permitting.

<b>Guiding Principle</b>	Metric		
Improve Instream	Icicle Creek Historic Channel:	Flow improvement	
Flows	• 60 cfs minimum flows (drought years) <sup>1</sup>	needed (in projects)	
	• 100 cfs minimum flows (non-drought years), short-term	to meet total	
	$goal^1$	minimum flows:	
	• 250 cfs minimum flows (non-drought years), long-term goal <sup>1</sup>	40 63	
	• 2,600 cfs maximum flow to preserve habitat function <sup>1</sup>	$40 \text{ cfs}^3$	
Improve	• Meet U.S. v. Oregon and other agreements specifying fish production requirements		
sustainability	• 57 cfs supply protected long-term (at least 20 cfs conservation goal)		
of LNFH	• Diverse source availability (temperature, pathogen-free) to maximize fish health		
	<ul> <li>Structures minimize unintended fish passage impediments</li> </ul>		
Protect Tribal and	• Catch per unit of effort (CPUE) improved		
Non-Tribal harvest	<ul> <li>Maintain multi-species harvest opportunities</li> </ul>		
	• Tribal Impacts Assessment and Adaptive Management Plan being implemented,		
	addressing attraction flows, sediment transport, fish migration/straying, site access		
	and amenities		
Improve Domestic	• 2,300 acre-feet of reliable year-round supply (3 cfs average, 6 cfs peak)		
Supply Improve	Automate / Optimize Alpine Lakes Reservoirs for improved reliability (plus		
Agricultural	• Automate 7 Optimize Alphie Lakes Reservoirs for improved reliability (plus instream flow benefit) <sup>2</sup>		
Reliability	• Restore/repair Eightmile Lake Reservoir up to 2,500 acre-feet (1,125 ac-ft additional		
	instream flow/domestic benefit) <sup>2</sup>		
	• Current interruptible agricultural users have firm supply in average water years /		
	agriculture water bank (2 to 4 cfs)		
Enhance Icicle	Improve passage at Boulder Field		
Creek Habitat	• Make investments in physical habitat improvement with consideration for high flow		
	habitat and low flow refuge, minimize fish passage impediments, and improve		
	limiting factor spawning/rearing		
	Offset project-related terrestrial impacts with land acquisition/	easements	
Comply with State	<ul> <li>Identify and engage regulators in the process</li> </ul>		
and Federal Law,	• Environmental review completed (project check)		
and Wilderness	• All projects appropriately permittable (project check)		
Acts	• All diversions (LNFH, IPID, COIC) appropriately screened (p	roject check)	

<sup>1</sup> Approved as an IWG decision on September 16, 2014.

Provisional, updated information subject to re-ratification by IWG

<sup>2</sup>One dissenting opinion.

<sup>3</sup>Based on a review of historic stream gage records, and subtracting diversions, the Instream Flow Committee characterized the existing average low flow in Reach 4 as approx. 63 cfs, and the drought low flow as 10-20 cfs. To meet a Guiding Principle average flow target of 100 cfs and a drought low flow target to 60 cfs, approx. 40-50 cfs in project flow benefit is needed.