A photograph of a river flowing through a dense forest. The water is dark and turbulent, with white foam from rapids. The banks are covered in lush green trees and bushes. The text is overlaid in the center of the image.

Coordinated Assessments Data Gathering Preliminary Results

Bruce Schmidt, PSMFC
Kathryn Thomas, PNAMP

Approach

Step 1

Goal: Determine availability of 3 Indicators & supporting metrics

Methods:

- Deploy temporary Data Technician for each agency
- Agency set priorities for starting populations
- Obtain Indicators & Metrics
 - Population scale
 - Ask: Are the indicators and metrics available?
 - Data Exchange Template (DET)

DET Metadata Sheet

Salmon VSP Data Exchange Template				
Field Name	Natural Spawner Abundance	Smolt to Adult Return	Recruits per Spawner	Smolt to Adult Return (ISS)
<i>Last update</i>	4/4/2011	3/11/2011	4/4/2011	3/14/2011
<i>Data technician submitter</i>	M. Brabec	M. Brabec	M. Brabec	M. Brabec
<i>Agency or Tribe</i>	IDFG	IDFG	IDFG	IDFG
<i>Agency or Tribal contact</i>	Pete Hassemer	Charlie Petrosky	D. Venditti	D. Venditti
<i>Contact phone</i>				
<i>Contact email</i>	pete.hassemer@idfg.idaho.gov	charlie.petrosky@idfg.idaho.gov	david.venditti@idfg.idaho.gov	david.venditti@idfg.idaho.gov
<i>Worksheet status (drop-down for each cell)</i>	Interim	Interim	Interim	Interim
<i>Where are these indicators maintained? If online, please provide the URL.</i>	https://www.webapps.nwfsc.noaa.gov/apex/f?p=238:home:0	http://www.fpc.org/documents/CS/S/2010_CSS_Annual_Report--Final.pdf	https://www.webapps.nwfsc.noaa.gov/apex/f?p=238:home:0	Idaho Supplementation Studies, Brood Year 2006 Cooperative Report; Venditti et al.
<i>Where are the supporting metrics maintained? If online, please provide the URL.</i>		http://www.monitoringmethods.org/Method/Details/353#	http://www.fishlib.org/cgi-bin/koha/opac-detail.pl?biblionumber=6338	http://www.monitoringmethods.org/Protocol/Details/92
<i>Comments</i>	Indicator derivation described via draft summaries by Tom Cooney and Pete Hassemer.	This is an aggregate SAR for populations to Lower Granite Dam.		Complete SAR is not calculated but juvenile information is available
Field Name	Field Definition	Expected Value	Data	
<i>ESU/DPS</i>	Which ESU or DPS does this population fit in?	Drop-down (Click on data box for drop-down button)	Snake River Spring/Summer Chinook	
<i>Population name</i>	Population name as specified in the PopNames worksheet (see tab below). Ideally, this should be the name as defined by the CBFWA population list.	Choose name from list on PopNames page (see tab below)	Marsh Creek SpSu Chinook	

DET

Natural Origin Spawner Abundance

F62 Spawner - recruit relationships for spring and summer Chinook salmon populations in several Columbia and Snake

Natural Spawner Abundance This is the estimate of natural origin spawner abundance for one population in one year. It is derived from several metrics, the primary one being the estimate of Total Returns (all fish reaching a defined point) which is then adjusted for losses prior to spawning. Such losses include harvest after the return estimate was calculated, removal of natural origin fish for broodstock and natural mortality prior to spawning. Thus, the input metric is Total Returns (all the fish coming back to a specific location) and the output metric is Total Spawners (those returning fish that

1 Thus, the input metric is Total Returns (all the fish coming back to a specific location) and the output metric is Total Spawners (those returning fish that

2 **Line Number** **Field Name** **Field Definition** **Expected Value** **Data** **Comments**

3 Section A. Natural Spawner Abundance. This is the specific Indicator of interest. All subsequent information is requested ONLY in the context of explaining the calculation of this Indicator, even if the other information has value on its own for another purpose. All subsequent information is requested ONLY in the context of explaining the calculation of this Indicator for the population and year designated for this worksheet. Report the estimate for the most recent year it is available.

10	A1	Natural Spawner Abundance	Estimated number of natural origin (parents spawned in the wild) spawners contributing to spawning. The intent is to provide the estimated abundance for the entire population. If no total population estimate is calculated, provide the available estimate for the largest possible portion of the population, and explain in the Comments.	Number of Fish	177	SPS Database Query: "Natural Spawners with Jacks"
	A2	Spawning year	The year in which these returning adults spawn. Same as "run" or "return" year in most cases, except when the population spawns over January 1 (two calendar years). In that case, fall spawners (salmon) should be considered as spawning in the first year, while spring spawners (steelhead) should be considered as spawning the second	Year	2008	

DET

Smolt to Adult Return

C7 Year of smolt migration. Calculated from multiple return years

Smolt to Adult Return (SAR): The SAR ratio is the survival from a beginning point as a smolt to an ending point as an adult. It is used to assess the combined survival during outmigration, marine existence, and return migration. If more than one SAR (e.g., different types (A6) or locations(A7)) was calculated for this population this year, copy this page and complete for each SAR estimate. For an estimate of the entire population, "returns" means the total number of adults returning, and usually is a larger estimate than the number of spawners for that return year. The SAR may be for a wild, hatchery or mixed population. The SAR may be calculated based on estimates of total population size, population size from a specific portion (usually geographic) of the population, or may be calculated from a representative sample (trapped wild or from a hatchery) or group that is marked and released for this purpose. The primary objective is to report the SAR that most closely represents the entire population. Report the SAR for the most recent migration year for which all returns (usually over multiple years) are considered complete.

Line Number	Field Name	Field Definition	Expected Value	Data	Comments
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Section A. Smolt To Adult Return estimate: This is the specific Indicator of interest. All subsequent information is requested ONLY in the context of explaining the calculation of this Indicator for the population and time interval designated for this worksheet. Report on the most recent outmigration year for which returns over all return years are considered complete.

A1	Smolt to Adult Return	The point estimate of the number of returning adults, divided by the point estimate of the number of smolts that produced those returning adults X 100.	Percent	0.98%	pg. 148-CSS Report, LGR-GRA without Jacks
A2	Outmigration year	Year for which this Smolt to Adult Return ratio is calculated, defined as the year the group migrated to sea. The fish from one outmigration year typically will return from the ocean over several years. We are only seeking data for the most recent outmigration year for which return data are complete. Or if none are complete, then the most recent outmigration year for which return data are reasonably available.	Year	2007	

Home Insert Page Layout Formulas Data Review View

Paste Clipboard Font Conditional Formatting as Table Cell Styles Insert Delete Format Cells Sort & Find & Filter Select Editing

DET

Recruits per Spawner

E5 =E26

Line Number	Field Name	Field Definition	Expected Value	Data	Comments
1	Recruit per Spawner The number of progeny from a particular brood year that survive and return as adults to a specific location (Recruits), divided by the number of spawners that produced them (Total Parent Spawners). Calculated for one individual brood year (the year the returning adults were spawned). If more than one Recruit per Spawner ratio estimate is calculated (for example, recruits that return to a given dam, recruits to a watershed, or recruits to the spawning grounds), please copy this page and fill out one page for each ratio that was calculated for the target population.				
9	Section A. Recruits per Spawner. All subsequent information is requested ONLY in the context of explaining the calculation of this Indicator, even if the other information has value on its own for another purpose. All subsequent information is requested ONLY in the context of explaining the calculation of this Indicator for the population and time interval designated for this worksheet. Report for the most recent complete year for the population.				
10	A1	Recruits per Spawner	Ratio of the Total Returning Adults (recruits) from the designated brood year (year on line A2) divided by the Total Parent Spawners responsible for that brood year	Number (Ratio)	-2.229843539 SPS Database Query: Ln(R/S)
11	A2	Brood Year	The brood year for which the Recruit per Spawner ratio is calculated. Used to tie adult returns (over multiple return years) to a specific spawning year for this population. When spawning occurs across years, for steelhead use the later calendar year even if a population spawns mainly in the earlier year. For salmon use the earlier year if spawning spans years.	Year	2003
12	A3	Approach to defining brood year	How do the local biologists define the brood year for this population if different than definition in Line A2? Describe here. Are the 'brood year' and 'spawning year' considered to be the same?	Text	Petrosky et al, pg 51. "...each year's cohort of spawners (brood year)..."

Approach

Step 1

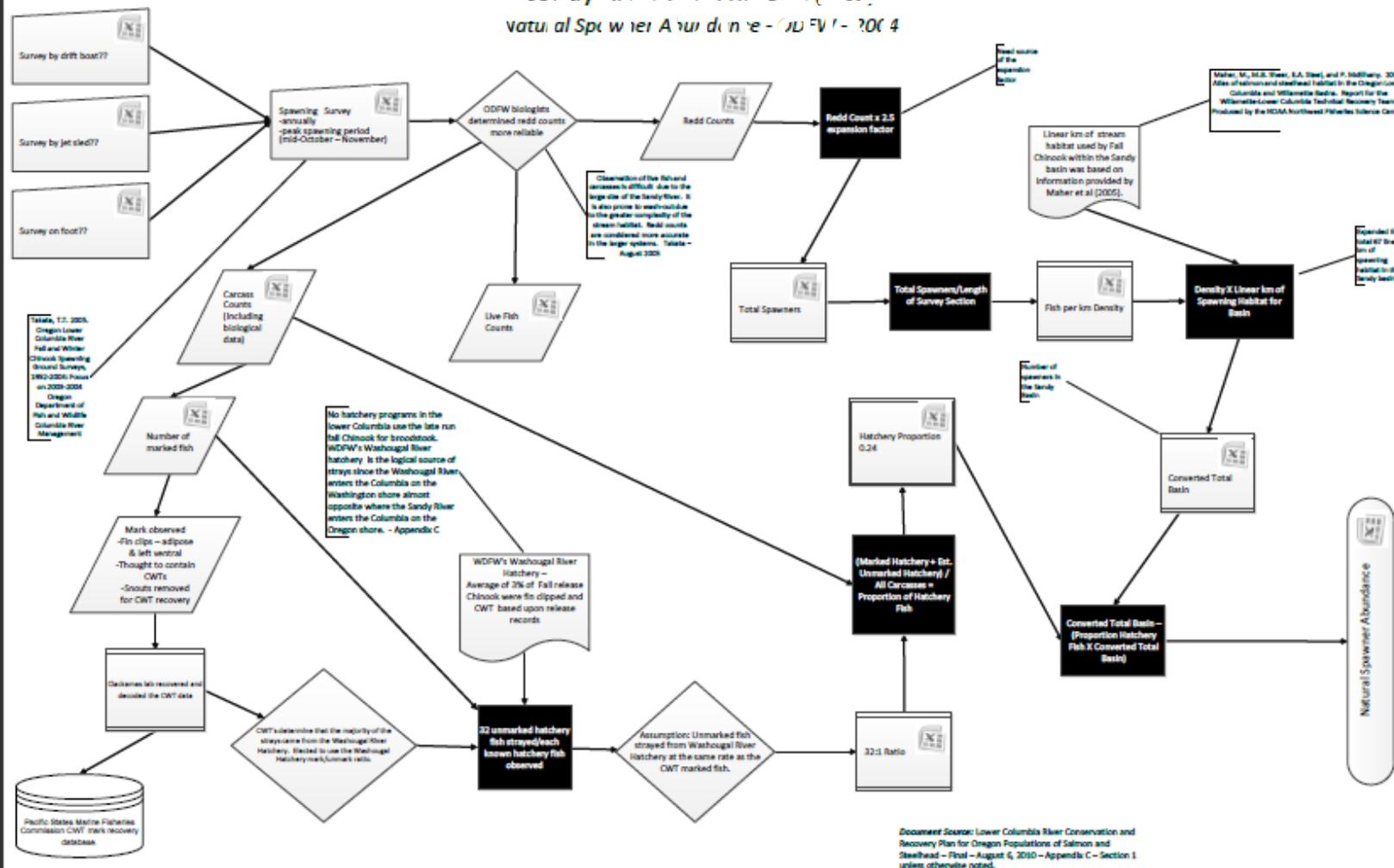
Goal: Determine availability of 3 Indicators & supporting metrics

Methods:

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 - Population scale
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 - Data Exchange Template (DET)
 - Data Analysis Flow Diagram (DAFD)

DAFD -example

Sandy River Fall Chinook (late) Natural Spawner Abundance - ODFW 1 - 2004



Document Source: Lower Columbia River Conservation and Recovery Plan for Oregon Populations of Salmon and Steelhead - Final - August 6, 2010 - Appendix C - Section 1 unless otherwise noted.

Legend

Document	Survey	Measurement	Metric	Indicator	High Level Indicator	Calculation	Off page reference (judging information used on another flow diagram)	Off page reference (providing information from another flow diagram)	Decision	Annotation	Data flow	Data not directly related to the target population	MS Access database	MS Excel spreadsheet	Other electronic data

Revision:	1	12/17/2011
Date:	12/17/2011	
File:	SandyChF_NSA_ODFW_2004_DAFD_A_v21.pdf	
Origin Path:	NSA_ODFW_2004_DAFD_A_v21	
Author:	John A. Beckwith	

Approach

Step 2

Goal: Synthesis of preliminary information

Methods:

- Identify gaps and needs based on experience and inference:
 - Data
 - Data accessibility
 - Inconsistencies
 - Hardware
 - Software
 - Etc.
- Report initial findings

Approach

Step 3

Goal: Support development of GNP

Methods:

- Gather remaining Indicators & Metrics
- Track gaps and needs
- Assist with GNP report
- Assist with data sharing strategy

Preliminary Results

- Progress to date
- Lessons learned from DET and DAFDs
- Availability of Indicators and Metrics
- Initial gaps and needs

