Calendar Year 2018 Coordinated Assessments Predicted Data Additions

as of **September 17, 2018**

StreamNet
Fish Data for the Northwest

Executive Summary

Coordinated Assessments (CA) is an effort to provide population-scale high level indicators (HLIs) for salmon and steelhead populations in the Columbia River basin. The HLIs included are: 1) estimates of population size at the parr, smolt, and spawner life stages; 2) smolt to adult return rates; 3) recruits per spawner; and 4) proportionate natural influence of integrated natural/hatchery populations. Personnel associated with the BPA-funded StreamNet project are responsible for gathering and compiling these data, and making them available via the StreamNet web site. In addition to the population-scale HLI data, indexes of abundance related to the various populations ("related data" or "trends") are also gathered and made available on the web site.

For each data type, the StreamNet partner organizations were asked to identify the salmon and steelhead population in the Columbia River basin for which they expected to add data in calendar year 2018. The Yakama Nation and Nez Perce Tribe were also asked to provide these predictions. In cases where a data type for a population would not be provided in 2018, they were asked to identify whether such data could be provided for that population given sufficient resources, or if instead it is simply impossible to calculate that type of data for that specific population. A summary of their responses is presented here.

The predictions provided here are as anticipated on September 17, 2018, and are displayed as the number of populations for which data are expected (or not) to be provided to the central CA database at PSMFC (and managed by the StreamNet project). In cases where more than one organization indicated they would provide data for the same population, that population is included only once in these predictions. For each data type, two numbers are provided: estimated data additions for all populations; and estimates only for the 69 Tier-I / Tier-II (high priority) populations identified by the Bonneville Power Administration. For context, the number of populations with existing data as of the end of 2017 are also provided; however, this report is meant as a summary rather than an in-depth analysis, so no attempt is made to identify or explain differences between existing and predicted data.

Executive Summary (Continued)

The graphs and tables of predicted data additions do not identify which populations are included. Maps are included to assist with this.

This is the third iteration of this survey. In 2016 there were 213 TRT populations listed, 201 TRT populations were listed in the 2017 survey, and 225 populations (including component populations of superpopulations) were listed in the 2018 Survey. These changes are due to NOAA population revisions, elimination (or inclusion) of extirpated/extinct populations (varies by survey), and changes in interpretation and reporting.

When states and tribes were asked to evaluate and predict CA data flow, follow up conversations elicited the following responses about why populations have fallen into the “no” (calculation theoretically possible but unable to provide), or “X” categories (cannot calculate).

State agencies have reported that they never intended to obtain or provide data on all of the populations. In addition, a lack of resources that impacts reporting has been a common and continuing theme. Tribes have stated previously that they did not intend to consider sharing data with CAX until they have the potential to do it electronically. The Tribal Data Project appears to be making excellent progress on that front. BPA has previously reported that if it’s not possible to calculate indicators at the population level for BiOp purposes then they may not wish to fund the monitoring. However, in response there has been some discussion about the fact that from a management perspective, if the population is important, yet it’s impossible to calculate the indicator, BPA should be cautious using survey results as justification for cutting funding from projects, as their data may be the best available. It is also important to note that many of the people we asked for more information are not funded by StreamNet or BPA, and we asked for time and effort that may not be a priority for them. Also to be noted is that there is substantial data flow for populations not listed as a “priority” by BPA.

Asked states and tribes to qualitatively evaluate CA data additions for all extant populations in the Columbia basin and report as follows:

Yes = **We will provide data in calendar year 2018.**

No = **Indicator calculation for this population is at least theoretically possible; however, we will be unable to provide data in 2018.**

X = **It is not possible to calculate this indicator for this population.**

Populations Included

To be included in the following slides, a population must:

- be in the Columbia Basin
- not be extirpated
- not be a superpopulation
  - component populations of superpopulation ARE included

When >1 organization plans to submit data for a population, the information was pooled.

2018 Predicted Coordinated Assessments Data Additions

Abundance estimates & indexes of abundance

Natural Origin Spawner Abundance				
Agency	Yes	No	X	Total
All	50	10	9	69
%	72	14	13	100

Juvenile Outmigrants				
Agency	Yes	No	X	Total
All	25	24	20	69
%	36	35	29	100

Presmolt Abundance				
Agency	Yes	No	X	Total
All	7	24	38	69
%	10	35	55	100

Related Data				
Agency	Yes	No	X	Total
All	40	20	9	69
%	58	29	13	100

Rates & proportions

Smolt to Adult Return Rate				
Agency	Yes	No	X	Total
All	14	31	24	69
%	20	45	35	100

Recruits per Spawner				
Agency	Yes	No	X	Total
All	35	22	12	69
%	51	32	17	100

PNI				
Agency	Yes	No	X	Total
All	6	29	34	69
%	9	42	49	100

69 populations including component populations of superpopulations.
Excludes extirpated populations and superpopulations.

Table 1b. 2018 predicted coordinated assessments data additions for priority populations.

2018 Predicted Coordinated Assessments Data Additions

Abundance estimates & indexes of abundance

Natural Origin Spawner Abundance				
Agency	Yes	No	X	Total
All	138	42	45	225
%	61	19	20	100

Juvenile Outmigrants				
Agency	Yes	No	X	Total
All	40	55	130	225
%	18	24	58	100

Presmolt Abundance				
Agency	Yes	No	X	Total
All	7	52	166	225
%	3	23	74	100

Related Data				
Agency	Yes	No	X	Total
All	123	61	41	225
%	55	27	18	100

Rates & proportions

Smolt to Adult Return Rate				
Agency	Yes	No	X	Total
All	21	61	143	225
%	9	27	64	100

Recruits per Spawner				
Agency	Yes	No	X	Total
All	60	72	93	225
%	27	32	41	100

PNI				
Agency	Yes	No	X	Total
All	8	56	161	225
%	4	25	72	100

225 populations including component populations of superpopulations.
Excludes extirpated populations and superpopulations.

Table 1a. 2018 predicted coordinated assessments data additions for all populations.

Predicted in 2018 vs. Actual Data at End of 2017

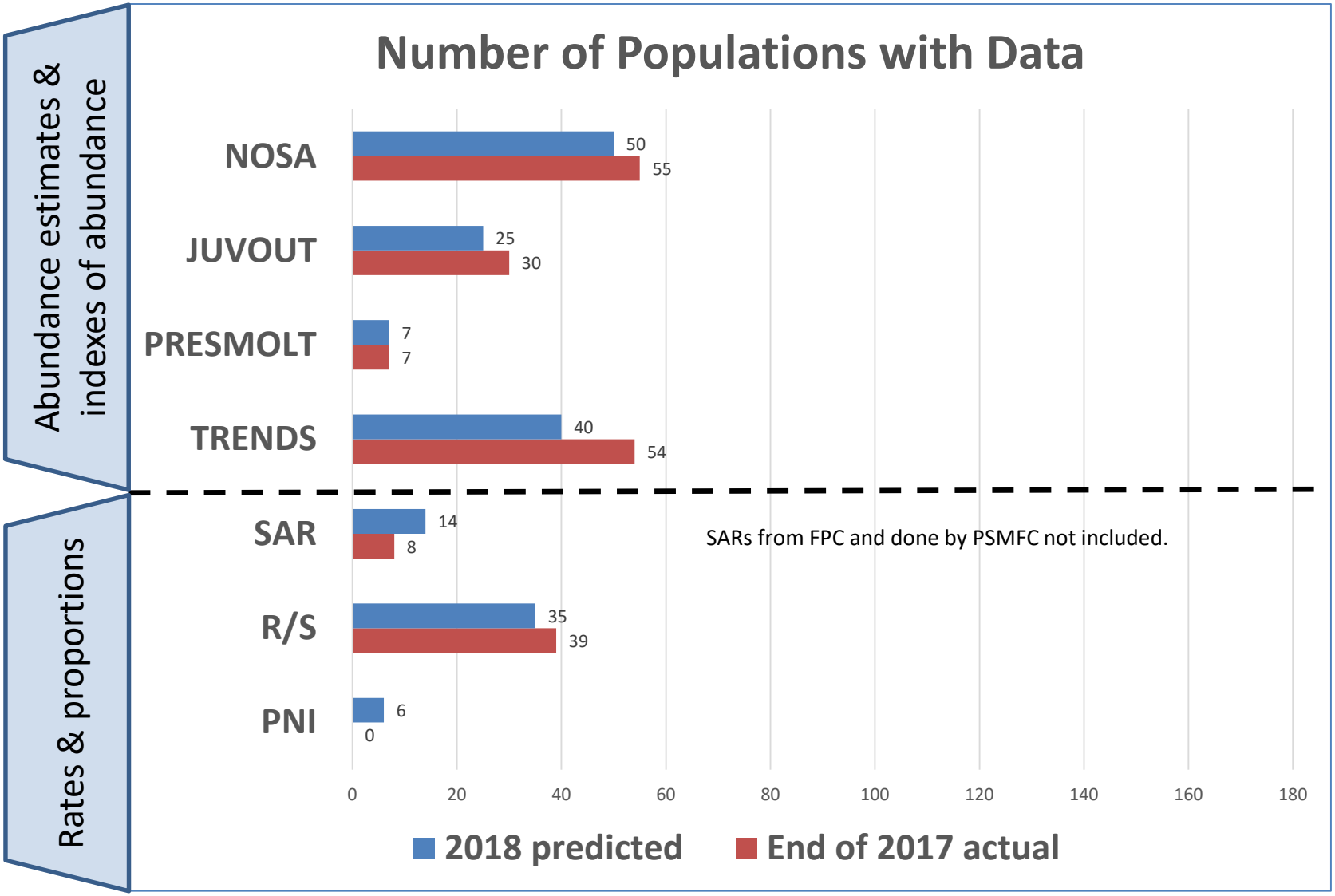


Figure 1b. 2018 predicted coordinated assessments data additions for priority populations compared to actual existing data as of 12/31/2017.

Predicted in 2018 vs. Actual Data at End of 2017

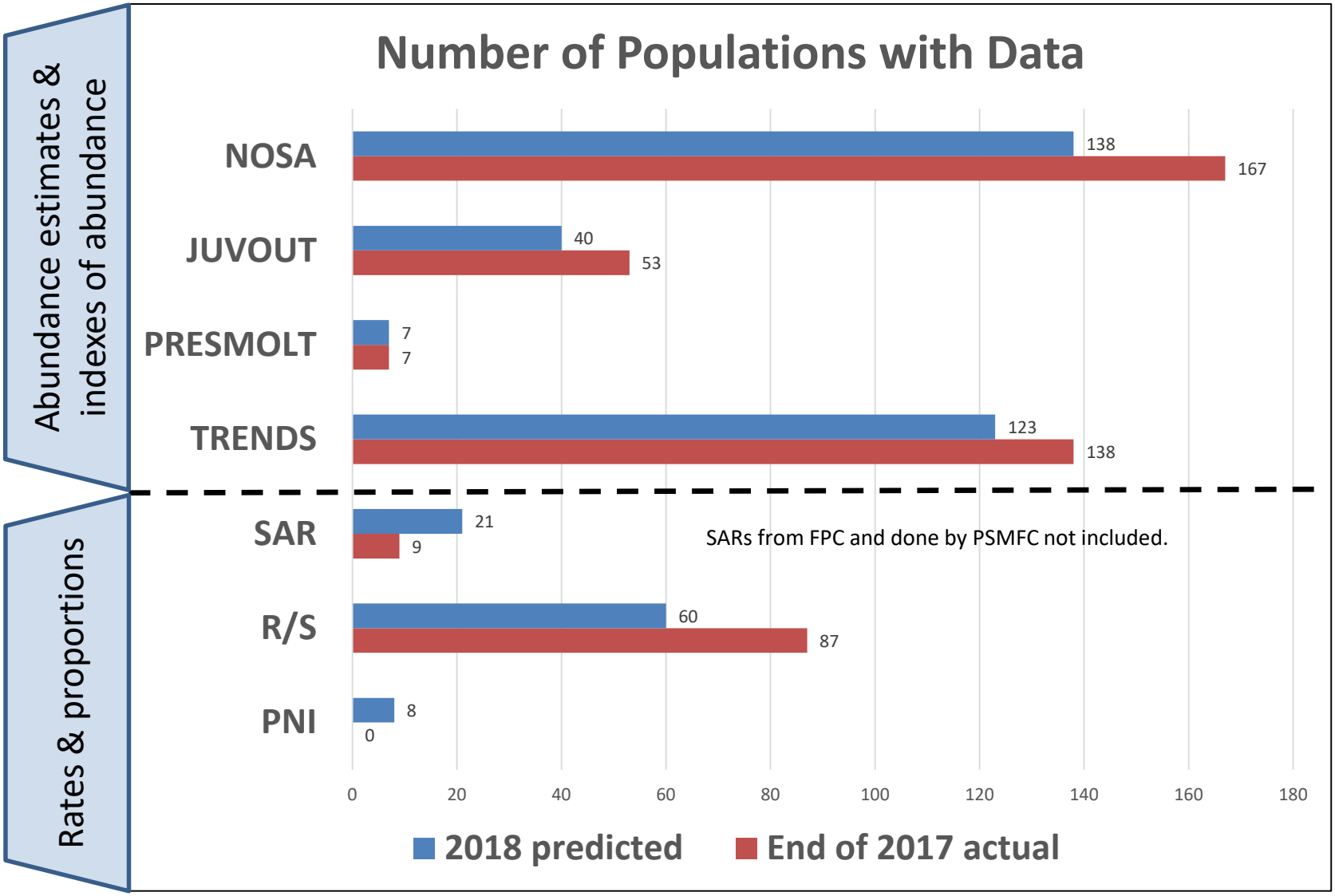
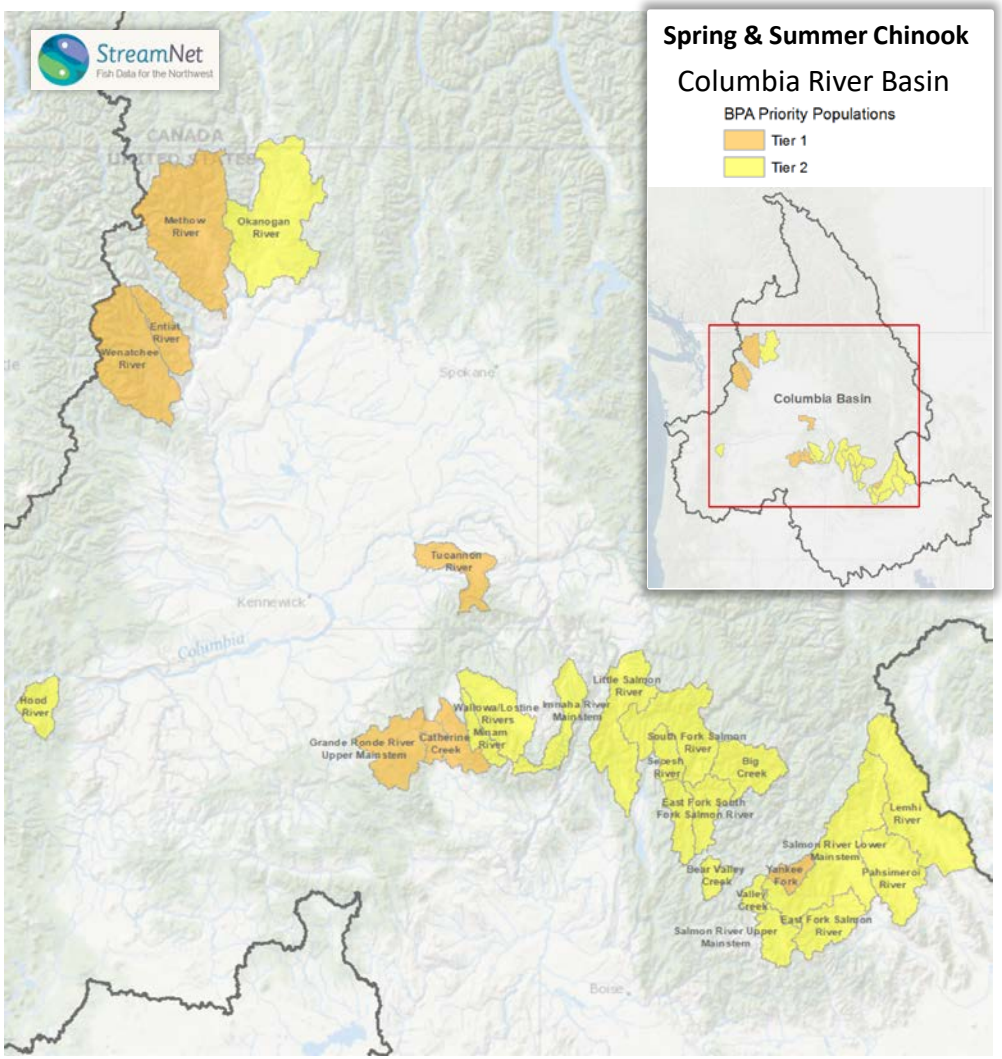


Figure 1a. 2018 predicted coordinated assessments data additions for all populations compared to actual existing data as of 12/31/2017.

Maps of 2018 Predictions by Data Type: BPA Priority Populations

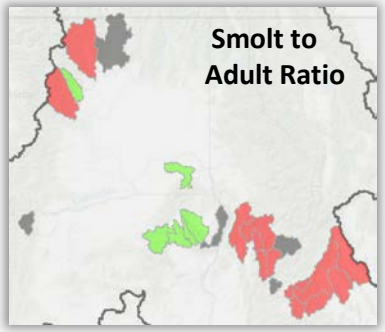


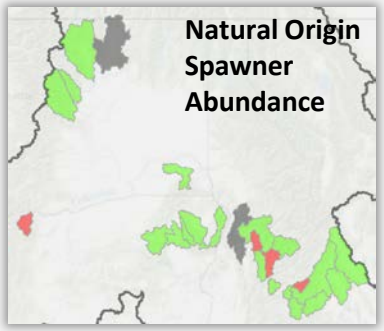
Coordinated Assessments

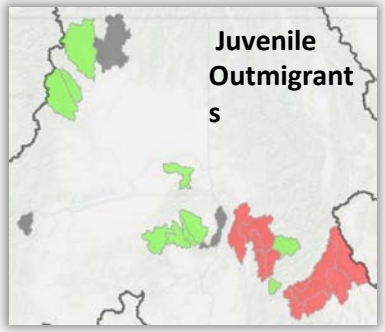
FY18 Data Flow Predictions

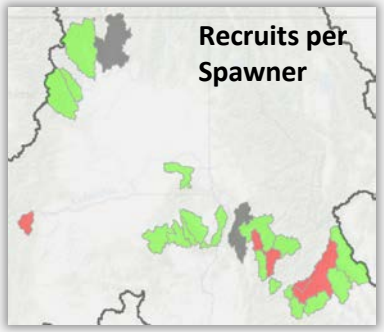
- Yes in 2018
- Not expected in 2018
- Indicator is not possible to calculate

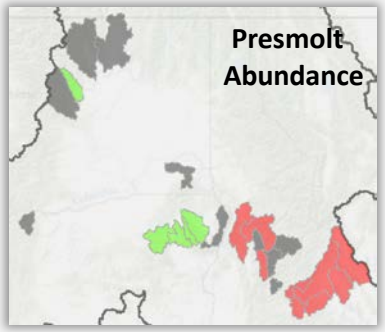
*This map series identifies the predicted indicator data to be submitted by project partners in FY 2018 based on survey results from September 2018. Results are limited to extant populations that have been identified as Tier 1 or 2 priorities by BPA.

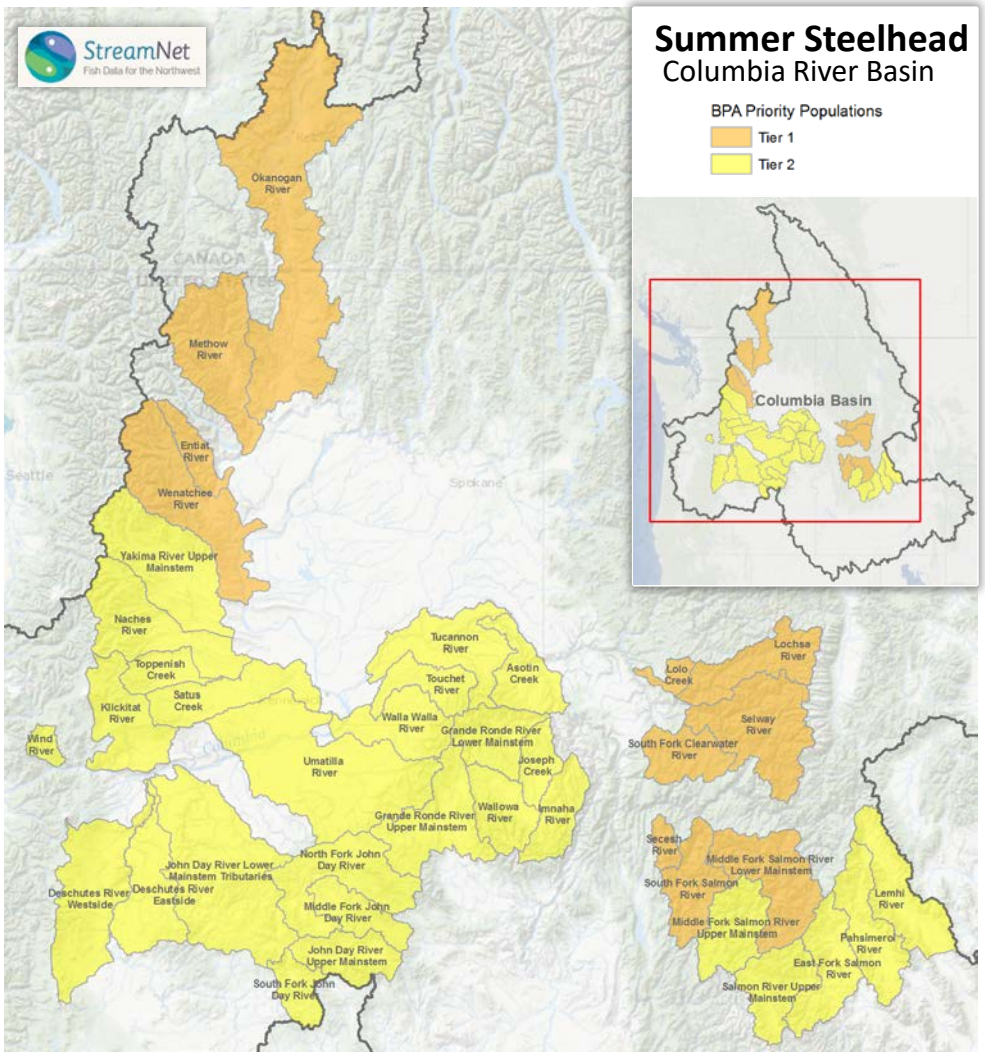












Summer Steelhead
Columbia River Basin

BPA Priority Populations

- Tier 1
- Tier 2

Coordinated Assessments

FY18 Data Flow Predictions

- Yes in 2018
- Not expected in 2018
- Indicator is not possible to calculate

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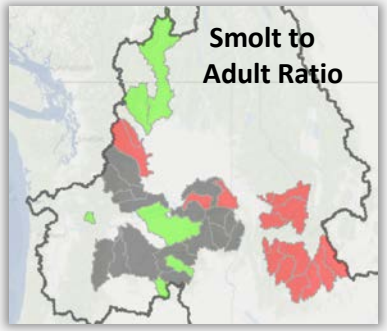
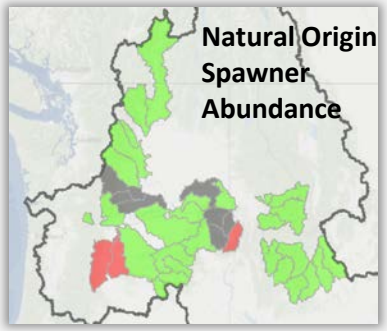
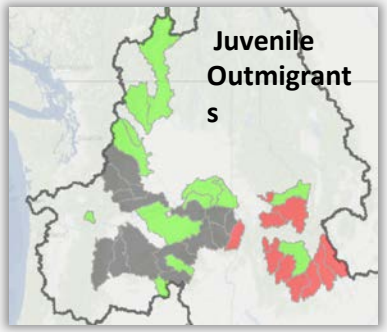
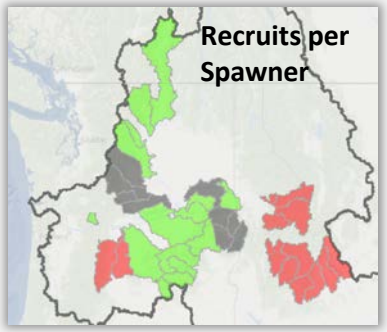
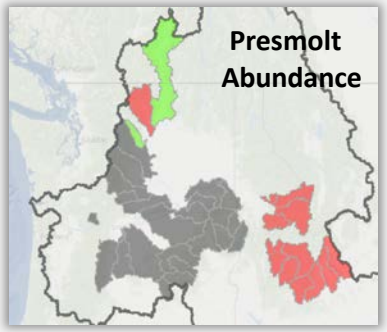


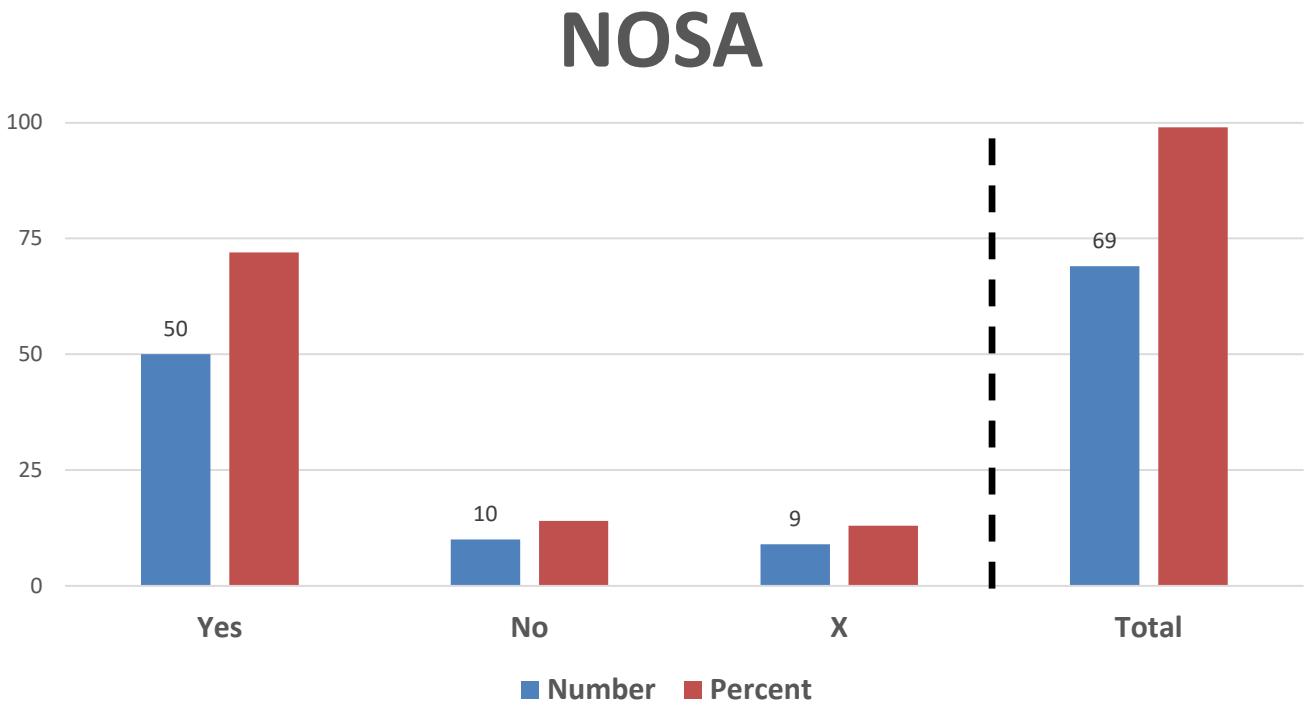








Reporting by Data Type: BPA Priority Populations



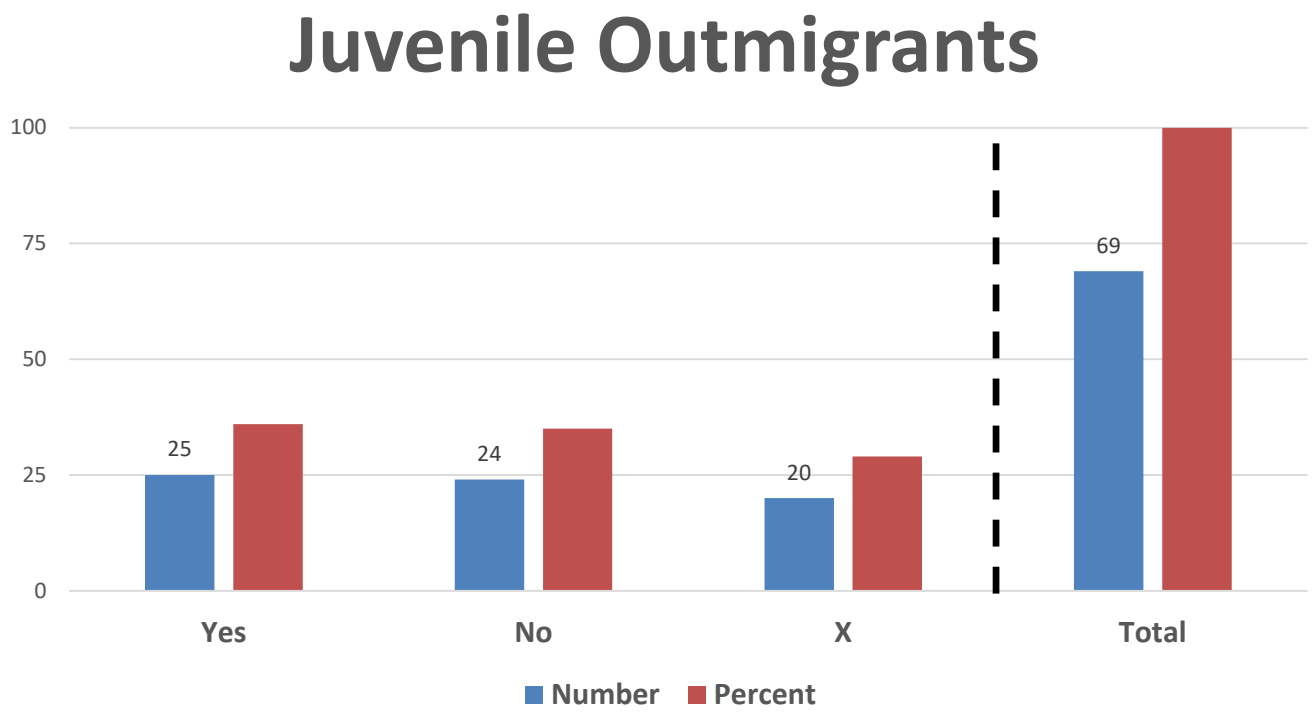
Yes = We can calculate this indicator and will be providing data in 2018.

No = Indicator calculation for this population is at least theoretically possible, however we will be unable to provide data in 2018.

X = It is not possible to calculate this indicator for this population.

Data type	Title	Yes	No	X	Total
NOSA	Number	50	10	9	69
	Percent	72	14	13	99

Figure 2b. 2018 predicted natural origin spawner abundance data additions for priority populations.



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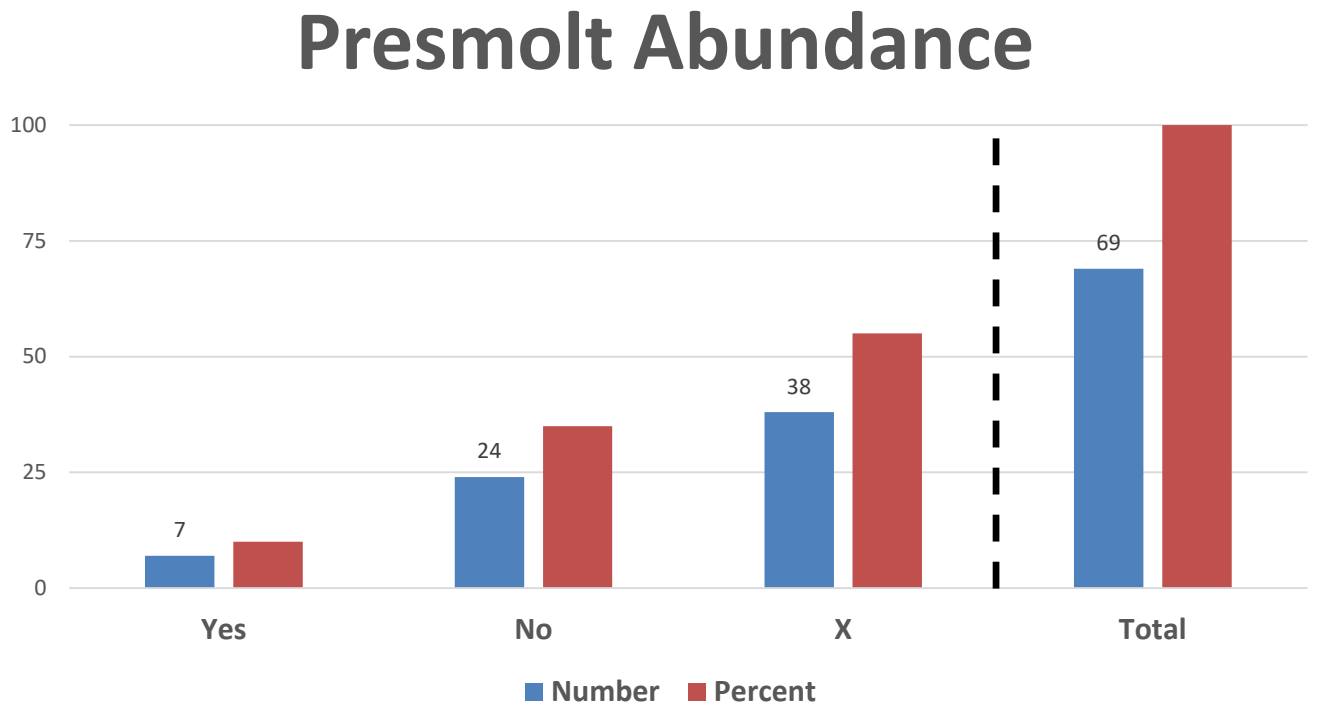
No = Indicator calculation for this population is at least theoretically possible, however we will be unable to provide data in 2018.

X = It is not possible to calculate this indicator for this population.

Data type	Title	Yes	No	X	Total
Juvenile Outmigrants	Number	25	24	20	69
	Percent	36	35	29	100

Figure 3b. 2018 predicted juvenile outmigrants data additions for priority populations.



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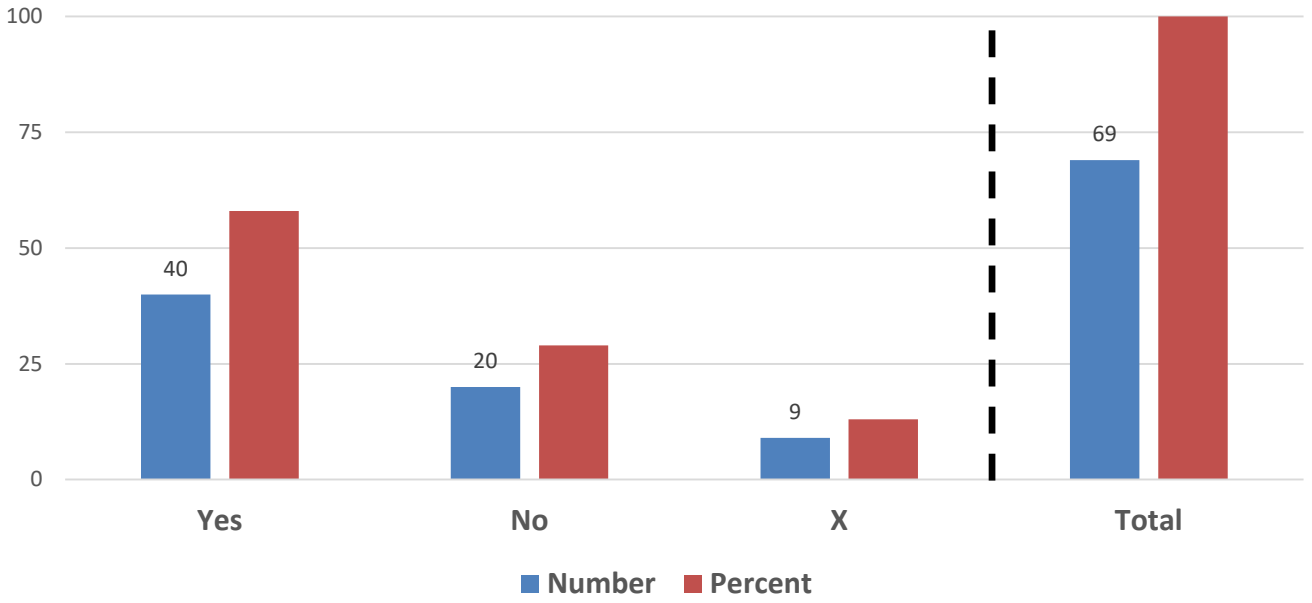
X = It is not possible to calculate this indicator for this population.

Data type	Title	Yes	No	X	Total
Presmolt Abundance	Number	7	24	38	69
	Percent	10	35	55	100

Figure 4b. 2018 predicted presmolt abundance data additions for priority populations.

Related Data (Trends)



Yes = We can calculate this indicator and will be providing data in 2018.

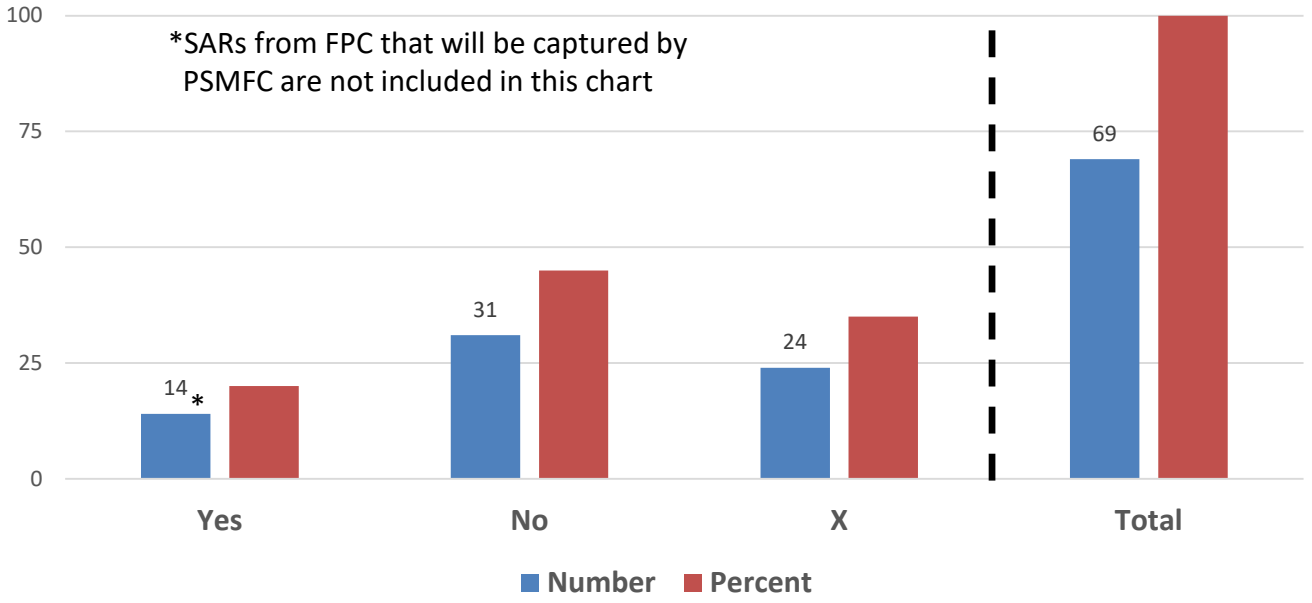
No = Indicator calculation for this population is at least theoretically possible, however we will be unable to provide data in 2018.

X = It is not possible to calculate this indicator for this population.

Data type	Title	Yes	No	X	Total
Related Data	Number	40	20	9	69
	Percent	58	29	13	100

Figure 5b. 2018 predicted "related data" (indexes of abundance) data additions for priority populations.

Smolt to Adult Return Rate



Yes = We can calculate this indicator and will be providing data in 2018.

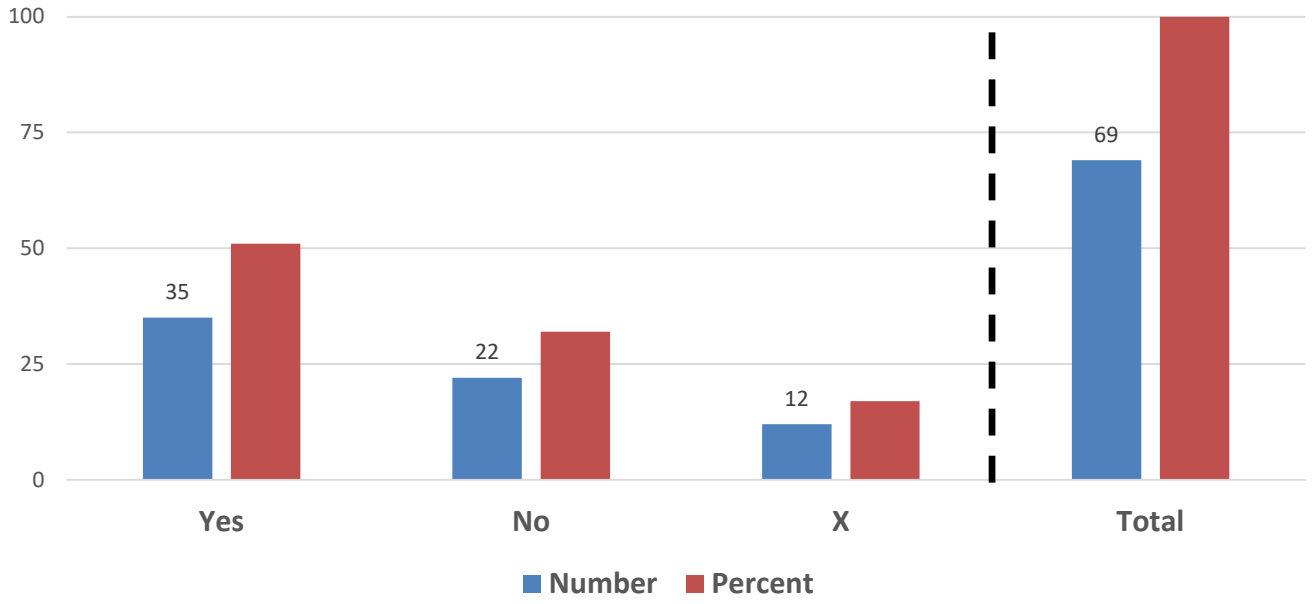
No = Indicator calculation for this population is at least theoretically possible, however we will be unable to provide data in 2018.

X = It is not possible to calculate this indicator for this population.

Data type	Title	Yes	No	X	Total
Smolt to Adult Return Rate	Number	14	31	24	69
	Percent	20	45	35	100

Figure 6b. 2018 predicted smolt-to-adult return rate data additions for priority populations.

Recruits per Spawner (R/S)



Yes = We can calculate this indicator and will be providing data in 2018.

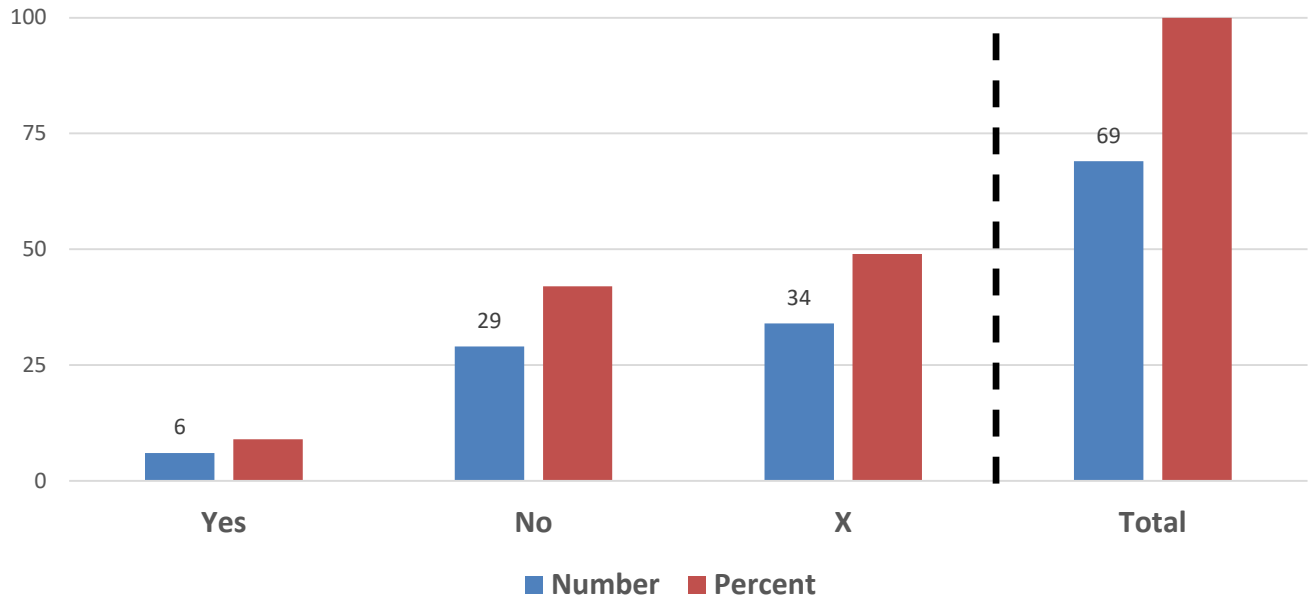
No = Indicator calculation for this population is at least theoretically possible, however we will be unable to provide data in 2018.

X = It is not possible to calculate this indicator for this population.

Data type	Title	Yes	No	X	Total
Recruits Per Spawner	Number	35	22	12	69
	Percent	51	32	17	100

Figure 7b. 2018 predicted recruits per spawner data additions for priority populations.

Prop. Natural Influence (PNI)



Yes = We can calculate this indicator and will be providing data in 2018.

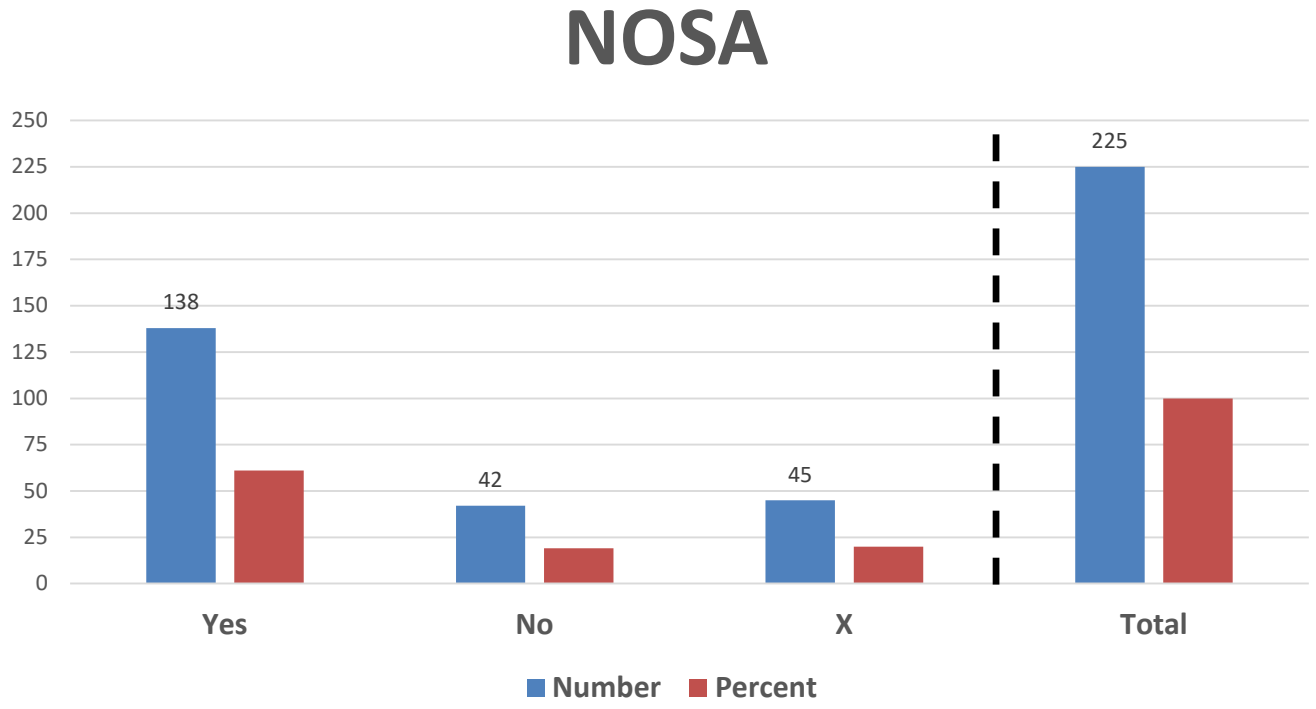
No = Indicator calculation for this population is at least theoretically possible, however we will be unable to provide data in 2018.

X = It is not possible to calculate this indicator for this population.

Data type	Title	Yes	No	X	Total
PNI	Number	6	29	34	69
	Percent	9	42	49	100

Figure 8b. 2018 predicted proportionate natural influence data additions for priority populations.

Reporting by Data Type: All Populations



Yes = We can calculate this indicator and will be providing data in 2018.

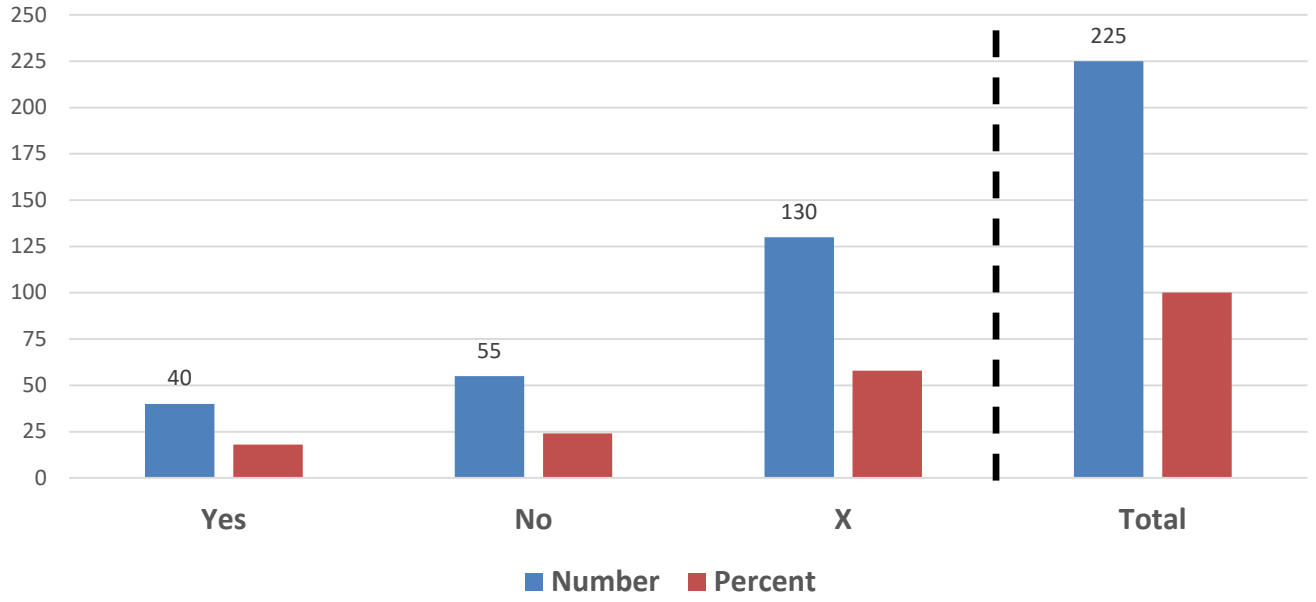
No = Indicator calculation for this population is at least theoretically possible, however we will be unable to provide data in 2018.

X = It is not possible to calculate this indicator for this population.

Data type	Title	Yes	No	X	Total
NOSA	Number	138	42	45	225
	Percent	61	19	20	100

Figure 2a. 2018 predicted natural origin spawner abundance data additions for all populations.

Juvenile Outmigrants



Yes = We can calculate this indicator and will be providing data in 2018.

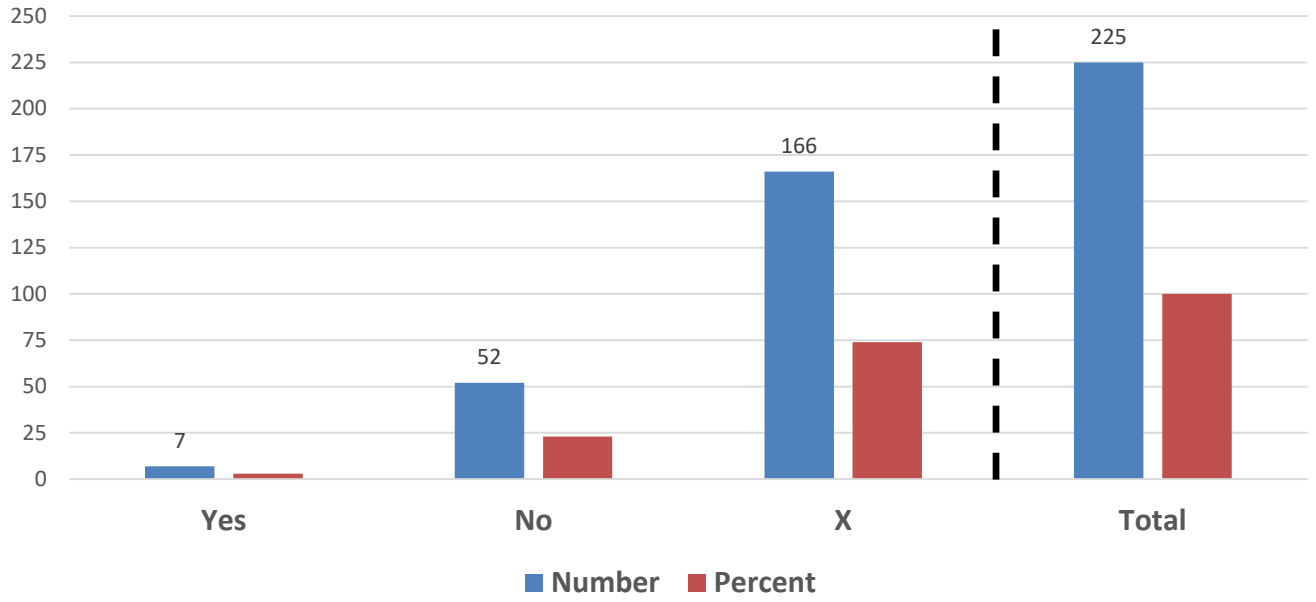
No = Indicator calculation for this population is at least theoretically possible, however we will be unable to provide data in 2018.

X = It is not possible to calculate this indicator for this population.

Data type	Title	Yes	No	X	Total
Juvenile Outmigrants	Number	40	55	130	225
	Percent	18	24	58	100

Figure 3a. 2018 predicted juvenile outmigrants data additions for all populations.

Presmolt Abundance



Yes = We can calculate this indicator and will be providing data in 2018.

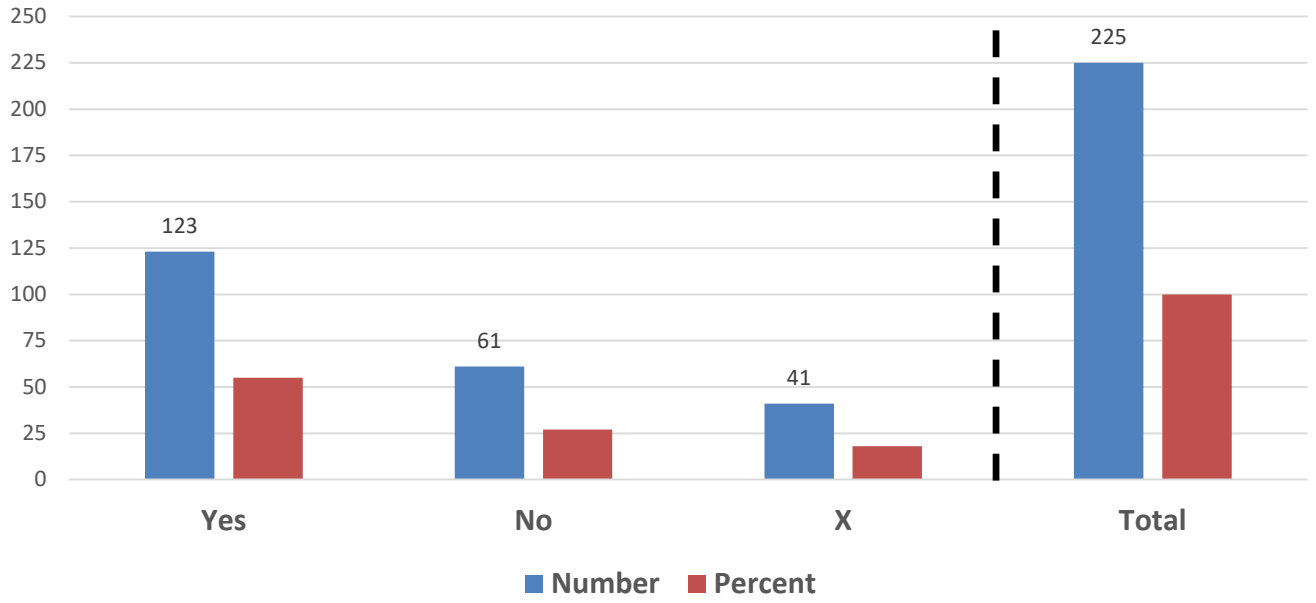
No = Indicator calculation for this population is at least theoretically possible, however we will be unable to provide data in 2018.

X = It is not possible to calculate this indicator for this population.

Data type	Title	Yes	No	X	Total
Presmolt Abundance	Number	7	52	166	225
	Percent	3	23	74	100

Figure 4a. 2018 predicted presmolt abundance data additions for all populations.

Related Data (Trends)



Yes = We can calculate this indicator and will be providing data in 2018.

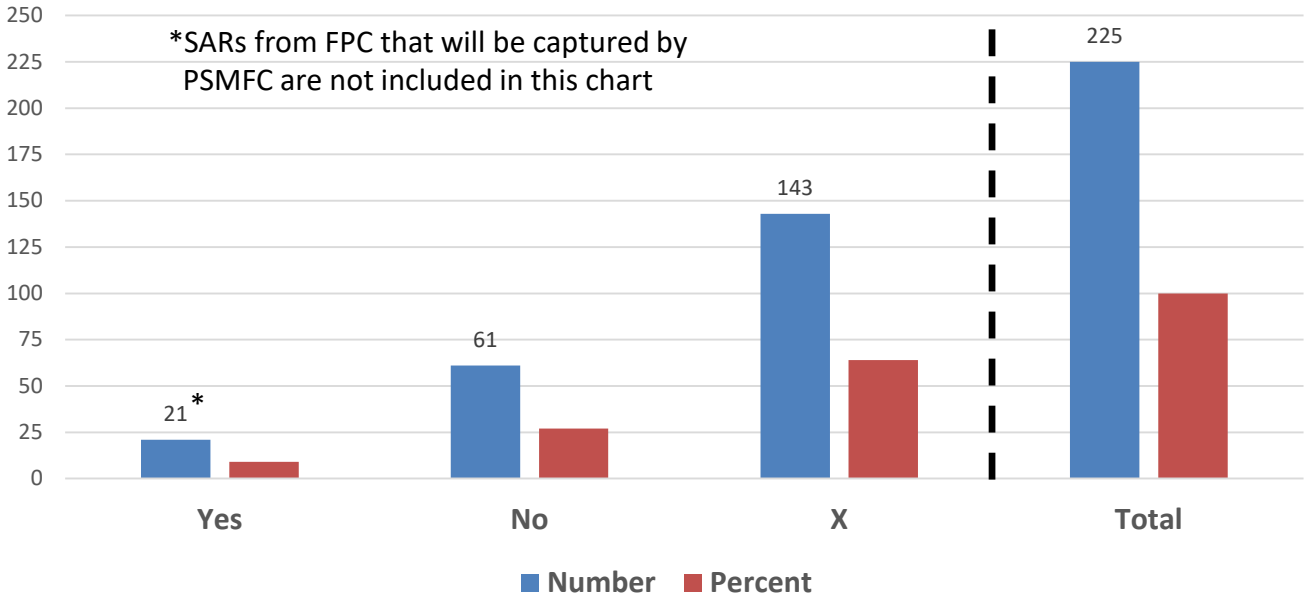
No = Indicator calculation for this population is at least theoretically possible, however we will be unable to provide data in 2018.

X = It is not possible to calculate this indicator for this population.

Data type	Title	Yes	No	X	Total
Related Data	Number	123	61	41	225
	Percent	55	27	18	100

Figure 5a. 2018 predicted "related data" (indexes of abundance) data additions for all populations.

Smolt to Adult Return Rate



Yes = We can calculate this indicator and will be providing data in 2018.

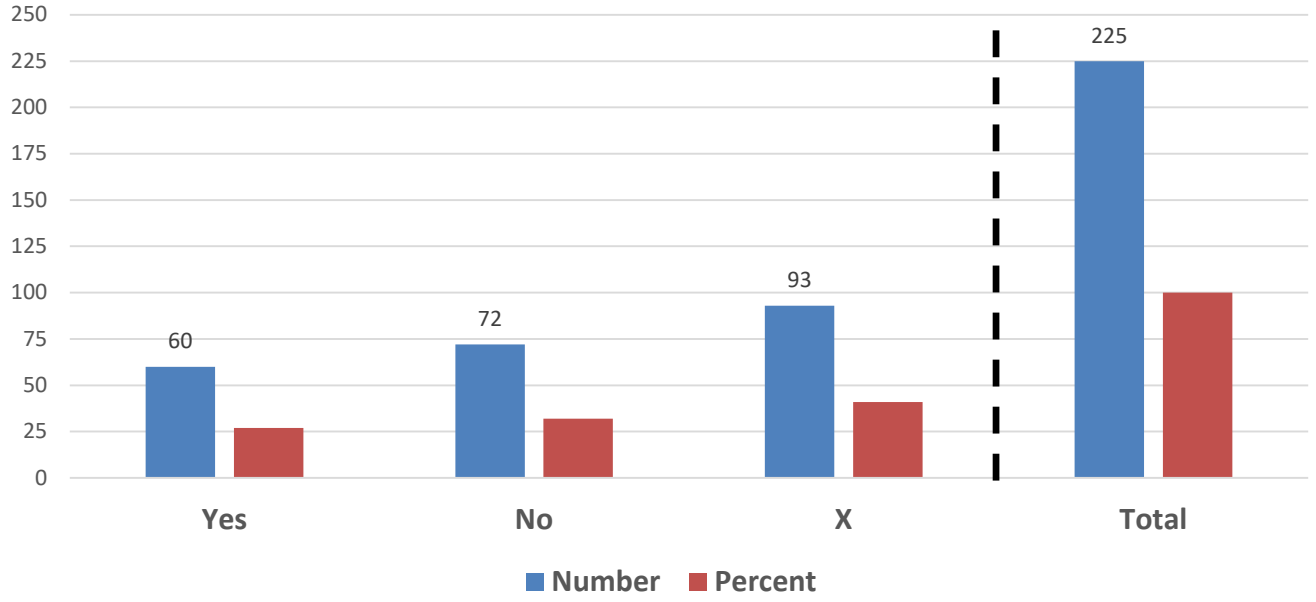
No = Indicator calculation for this population is at least theoretically possible, however we will be unable to provide data in 2018.

X = It is not possible to calculate this indicator for this population.

Data type	Title	Yes	No	X	Total
Smolt to Adult Return Rate	Number	21	61	143	225
	Percent	9	27	64	100

Figure 6a. 2018 predicted smolt-to-adult return rate data additions for all populations.

Recruits per Spawner (R/S)



Yes = We can calculate this indicator and will be providing data in 2018.

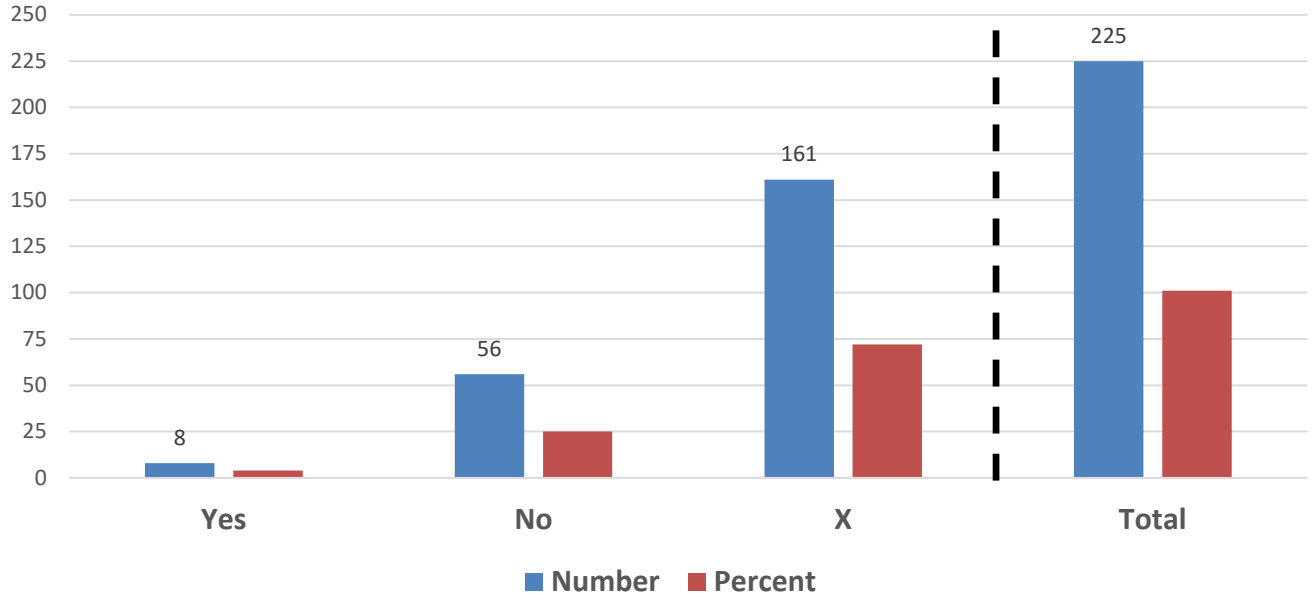
No = Indicator calculation for this population is at least theoretically possible, however we will be unable to provide data in 2018.

X = It is not possible to calculate this indicator for this population.

Data type	Title	Yes	No	X	Total
Recruits Per Spawner	Number	60	72	93	225
	Percent	27	32	41	100

Figure 7a. 2018 predicted recruits per spawner data additions for all populations.

Prop. Natural Influence (PNI)



Yes = We can calculate this indicator and will be providing data in 2018.

No = Indicator calculation for this population is at least theoretically possible, however we will be unable to provide data in 2018.

X = It is not possible to calculate this indicator for this population.

Data type	Title	Yes	No	X	Total
PNI	Number	8	56	161	225
	Percent	4	25	72	100

Figure 8a. 2018 predicted proportionate natural influence data additions for all populations.