Northwest **Power** and **Conservation** Council

June 3, 2014

MEMORANDUM

TO: Council Members

FROM: Stacy Horton, Policy Analyst, Washington

SUBJECT: Final 2012 Hatchery Fin Clip Report

Chris Wheaton of StreamNet will be presenting the results of the Final 2012 Hatchery Fin Clip Report. Language in the Draft Columbia River Basin Fish and Wildlife Program calls for hatchery fish to be 'visibly marked' in order to accurately assess the survival of naturally spawning populations, to distinguish naturally spawning fish from hatchery fish, and to provide information on program investments.

Specific Draft Program Language regarding the marking of hatchery fish can be found on the following pages:

- Page 21: "Moreover, the presence of unmarked hatchery fish in the river system makes it difficult to accurately assess survival of naturally spawning populations and distinguish hatchery fish. Without this information, it is difficult to know where and whether program investments are successful."
- Page 77: (One of the Segregated Hatchery Principles): "Fish produced in this type of program must be visibly marked so as to be immediately identifiable at the time of handling (e.g., during harvest and at weirs)."
- Page 77: (One of the General Measures): "Continue and expand terminal fishing opportunities and mark-selective fisheries designed to harvest all returning fish in a fashion that does not impact naturally spawning fish."
- Page 79 (One of the Integrated Hatchery Principles): "Fish produced as part of an integrated program must be visibly marked."

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The Council last had a report on fin clipping in 2001, also prepared by StreamNet. At that time, 77.4% of the Spring/summer Chinook were marked, 82.2% of the coho, and 43.0% of the fall Chinook. In the 2012 Hatchery Fin Clip Report, we've learned that 85.19% of Spring/summer Chinook are now fin clipped, 86.86% of the coho, and 84.88% of the fall Chinook.

Species	2001 Fin Clip Report % Marked	2012 Fin Clip Report % Marked
Spring/summer Chinook	77.4	85.19
Coho	82.2	86.86
Fall Chinook	43	84.88

Mr. Wheaton will be presenting the findings from the 2012 analysis in a series of very interesting maps and graphs, and will provide more specific information from the report on fin clipping.

The Final 2012 Hatchery Fin Clip Report is included as an attachment to this memorandum.

enclosure

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March 27, 2014

Member Tom Karier

Northwest Power and Conservation Council
851 S.W. Sixth Avenue, Suite 1100
Portland, OR 97204
Portland, Oregon 97204

Dear Member Karier:

Attached are revised maps with hatchery release and fin clip information for the 2012 calendar year, in response to your request for information about this subject. Since our initial tables we have been in contact with state and federal agencies and tribes to conduct one more quality control check on this information. Now that this check has been completed we have made some revisions to the original maps to reflect the few corrections that we received. The maps depict the total number of each species by run, as released in calendar year 2012. The releases are organized by state, and associated with a "primary hatchery" (more on this below). Also represented is the percentage of each species that were fin clipped.

Agency/State	Chinook	Sp./Summer			Chinook,	Fall			Coho		
	# Released	# Marked	%		# Released	# Marked	%		# Released	# Marked	%
USFWS	7,583,420	3,067,967	40.5%		19,736,385	848,217	4.3%		4,509,456	3,061,530	67.9%
Idaho	5,070,147	4,796,491	94.6%		2,604,816	397,339	15.3%		440,348	0	0.0%
Oregon	9,041,487	7,141,942	79.0%		17,161,393	4,486,704	26.1%		7,939,167	6,527,897	82.2%
Washington	8,212,121	8,142,416	99.2%		19,767,341	19,762,023			14,790,518	13,157,255	89.0%
2000 totals	29,907,175	23,148,816			59,269,935	25,494,283			27,679,489	22,746,682	
% Admarked			77.4%				43.0%				82.2%

Table 1. Preliminary summary of total and adipose clipped salmon released in CY2000 in the Columbia River Basin. (Schmidt, B. Overview of Adipose Fin Clipping in the Columbia Basin, 2001)

I have also included a historic table showing the releases and the percentage of hatchery salmon released in 2000 with an adipose fin clip (Table 1). In Table 1 tribal releases are included in the state or federal figures. This information was developed by StreamNet in 2001 in response to a previous Council request.

Agency Type	Clipped	Unclipped	Total	Percent Clipped	Percent Unclipped
Other	4,491,994	1,986	4,493,980	99.96%	0.04%
State	82,753,191	16,297,770	99,050,961	83.55%	16.45%
Tribal	4,923,223	1,906,194	6,829,417	72.09%	27.91%
USFWS	22,372,625	2,357,801	24,730,426	90.47%	9.53%
Total	114,541,033	20,563,751	135,104,784	84.78%	15.22%

Table 2. Preliminary summary by agency of total and fin-clipped salmon released in CY2012 in the Columbia River Basin.

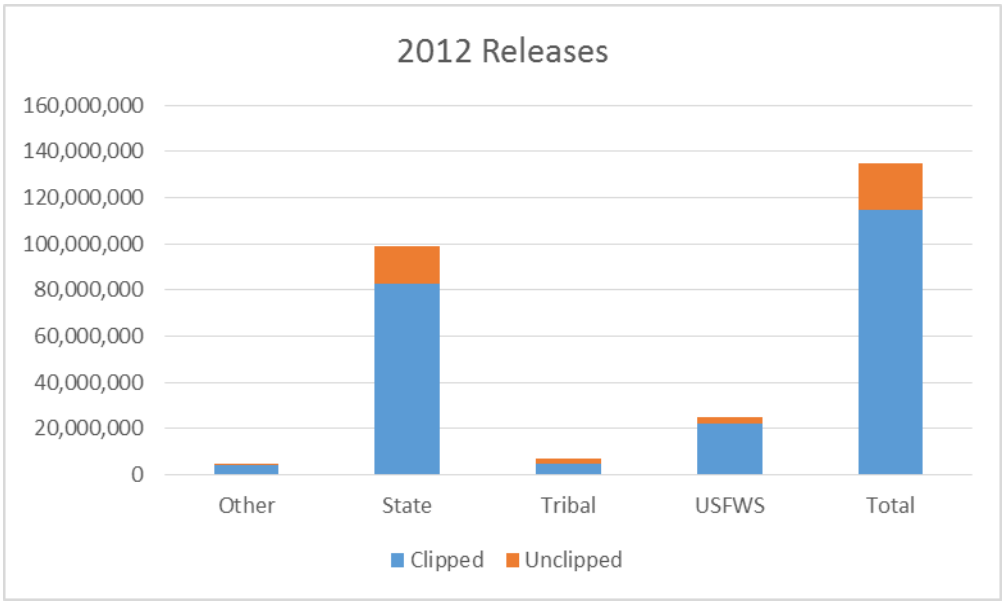


Figure 1. Preliminary summary by agency of total and fin-clipped salmon released in CY2012 in the Columbia River Basin.

Species/Run			Clipped	Unclipped	Total	Percent Clipped	Percent Unclipped
Chinook Fall			56,050,050	9,982,165	66,032,215	84.88%	15.12%
Chinook Sp./Summer			31,032,364	5,444,541	36,476,905	85.07%	14.93%
Chum			74,893	425,486	500,379	14.97%	85.03%
Coho			14,648,255	2,216,756	16,865,011	86.86%	13.14%
Sockeye			266,732	166,613	433,345	61.55%	38.45%
Steelhead			12,468,739	2,328,190	14,796,929	84.27%	15.73%
Total			114,541,033	20,614,620	135,155,653	84.75%	15.25%

Table 3. Preliminary summary by species by agency of total and fin-clipped salmon released in CY2012 in the Columbia River Basin.

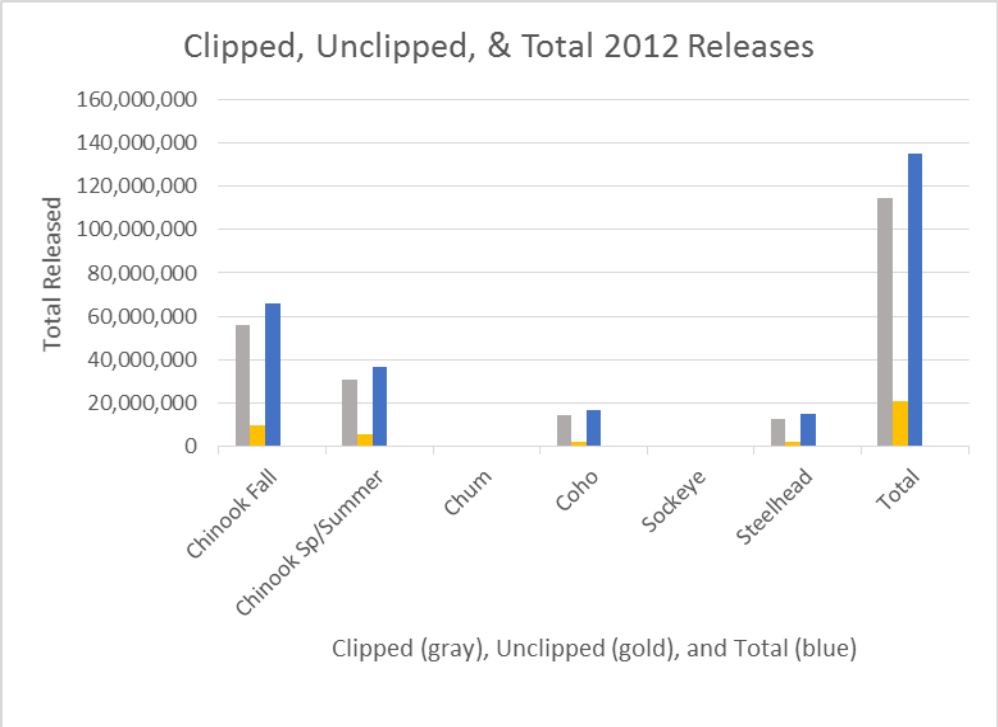


Figure 2. Preliminary summary by species by agency of total and fin-clipped salmon released in CY2012 in the Columbia River Basin.

Data for both the CY 2000 and CY 2012 information are derived from the Regional Mark Information System (RMIS) database. The RMIS system here at PSMFC is a cooperative effort of the many state, federal, private, and tribal entities that rear and release fish in the Pacific Northwest. Even with this second review, it is still possible that errors in the data remain. I would suggest that in use these data be

referred to as “best available estimates” in case some errors or omissions are discovered upon deeper review.

In making these tables, the RMIS database was searched for various fin clips that indicate fish are of hatchery origin. Other marks were ignored, meaning fish that were coded wire tagged but not marked with a fin clip show up in the “unclipped” category. The 2000 information separated only those fish that were adipose clipped. Presumably any other mark types were included in the overall “released” category in 2000.

The policies guiding marking are too complex to discuss here. Suffice it to say that marking is determined by state, tribal, and federal agency policy. The majority of hatchery production released above Bonneville Dam is managed under the jurisdiction of the U.S. vs. Oregon Management Agreement. It is important to recognize that regardless of which entity operates the hatchery facility (state, tribal, or federal), the parties are implementing the Agreement, including specific fish marking strategies.

Another complexity is that large, multi-state programs, such as Snake River fall Chinook, are difficult to depict with graphics that are organized by State. The Snake River Fall Chinook Program has a comprehensive marking strategy, developed by the U.S. vs. Oregon Parties, encompassing 3 states, and these graphics are unable to characterize that complexity of organization and coordination that is associated with this particular type of program.

This summary does not include information or qualification of the purpose of the hatchery programs – harvest, supplementation, conservation/restoration, recovery, or a combination of these purposes. The majority of supplementation hatchery programs, which are used to assist with reintroduction, conservation, and recovery, are located in the Upper Columbia and Snake Basins. Unclipped fish may be released in these areas in order to contribute to spawning populations. Many of the fish that are identified as “unclipped” in this summary may actually be marked with a coded-wire or genetic tag, so that they can be identified as hatchery-origin. The graphic analysis only represents them as “unclipped”, and care should be taken to not categorize them as “unmarked”.

The release information is organized by “primary hatchery”, which is generally the primary rearing facility. The data is not organized by release site, and the term “fish stocked’ on the maps does not necessarily mean that the hatchery was the stocking location. In some cases a significant portion of the releases do not occur at the primary facility. For instance, in Oregon, many of the spring Chinook from Lookingglass Hatchery are actually acclimated and released in the Imnaha, Lostine, Catherine Creek and Upper Grande Ronde rivers.

Each release was categorized by agency type, and the release numbers were summed by agency type in the final results. In some cases, groups of fish are moved from one agency type to another during the rearing cycle. The agency type for each release is the manager of the hatchery listed as the “primary hatchery”. The “other” category is made up entirely of fish released in the lower river by the Clatsop County Fisheries program (CCF). These fish are generally reared at state facilities in Oregon, and then transported to net pens in the lower river, acclimated, and released.

Excluded from this report are releases by schools. These are not believed to be significant numerically, and include things such as small batches of fish raised in classroom incubators and released into water

bodies by students, generally as fry. Also excluded are releases by fishing clubs and other educational groups. The total number of excluded fish is 632,680 (0.47% of the fish released). Of these excluded fish, 31% were fin clipped.

If you are interested in digging more deeply into this subject, background data containing information on individual facilities and other hatchery production information is available. Thank you for turning to StreamNet for this information. We are happy to be of service.

Sincerely,

Chris Wheaton, StreamNet Program Manager
Pacific States Marine Fisheries Commission

Columbia Basin Hatchery Releases and Clipping Rates

CHRIS WHEATON, PSMFC - STREAMNET

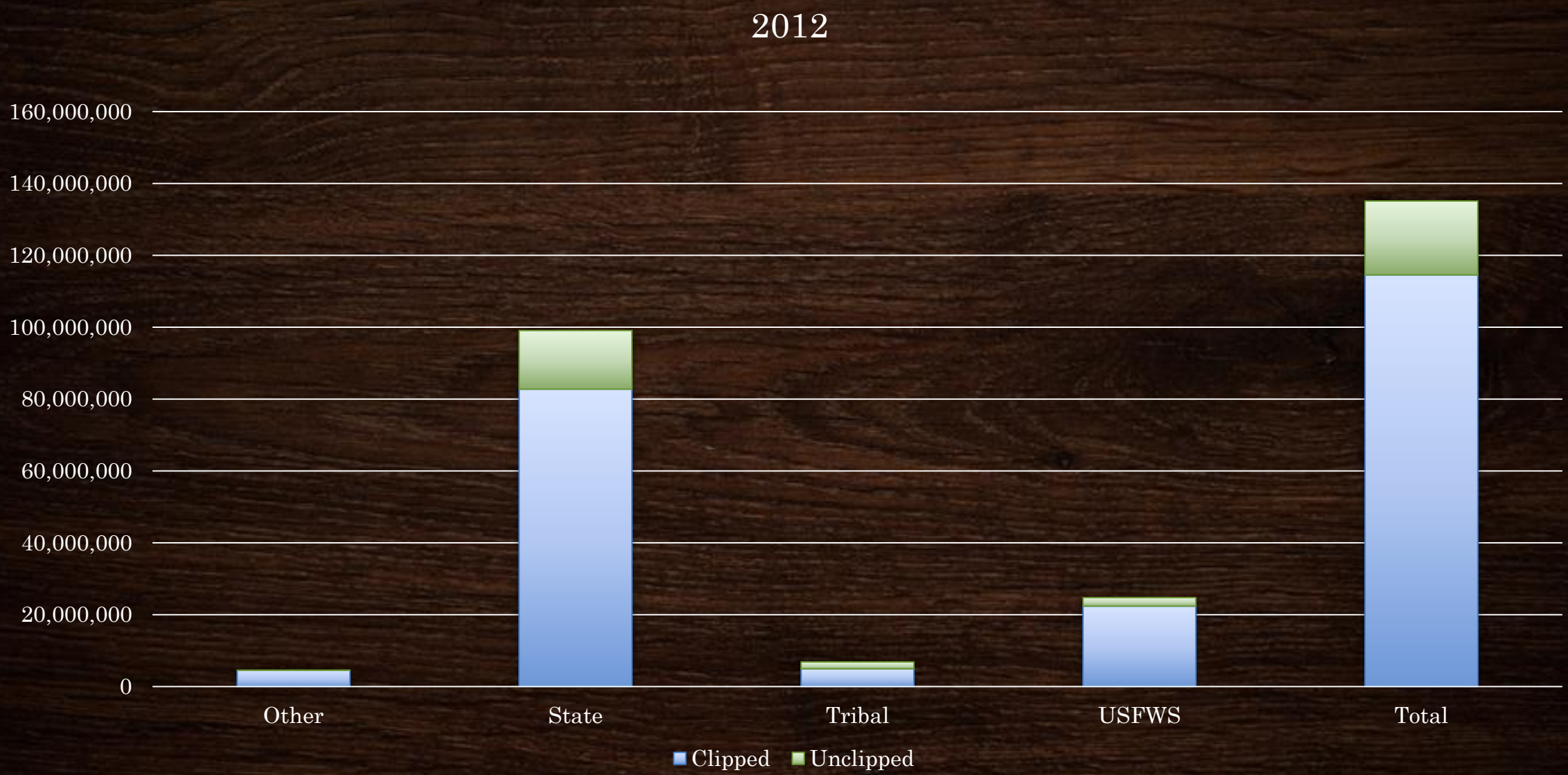
Report Completed at the Request of Member Karier

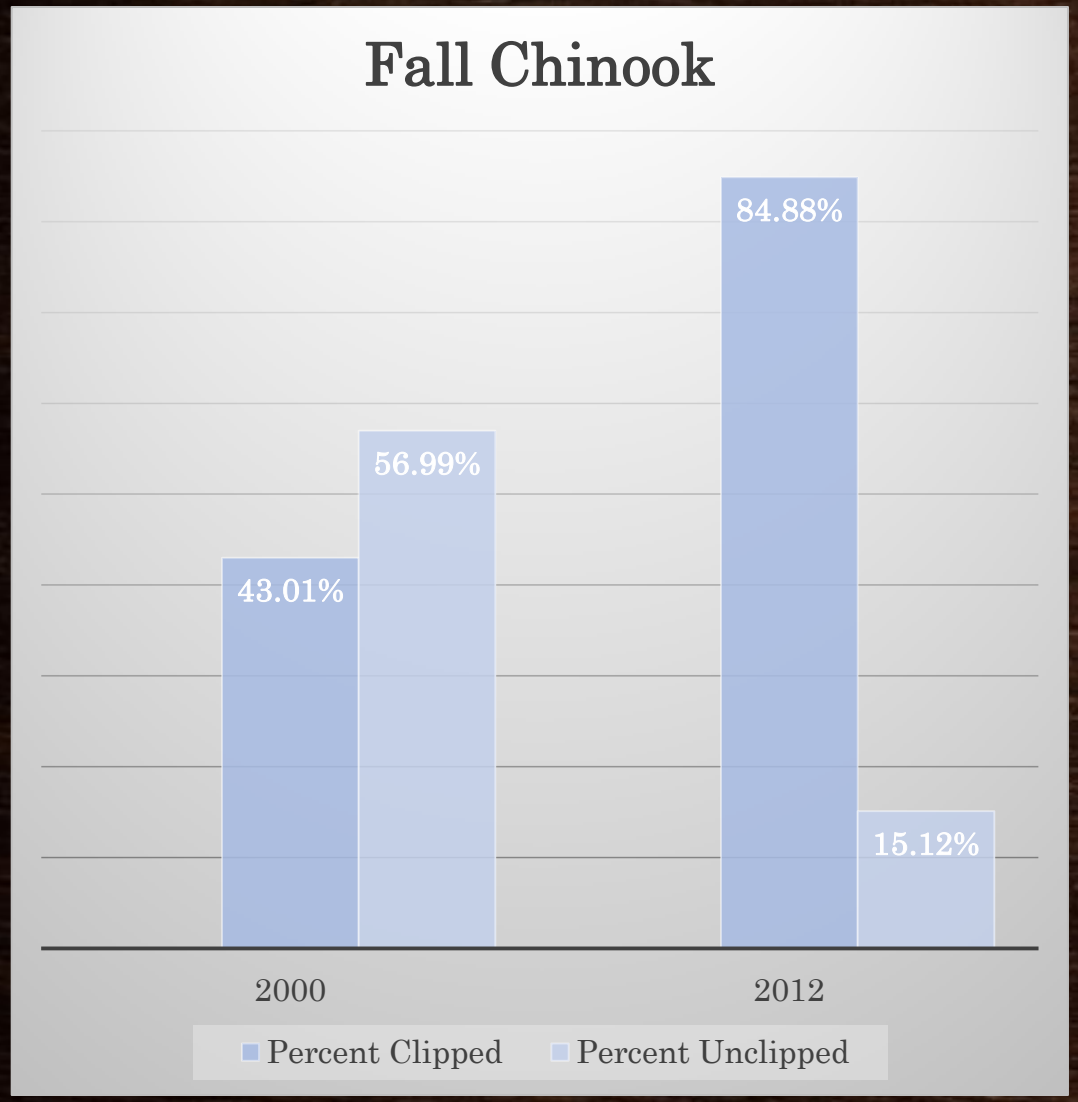
- Replicates a similar report produced in 2001
- Data is from the Regional Mark Information System (RMIS)
- RMIS is a cooperative effort of the many state, federal, tribal, and private entities that rear and release fish in the Pacific Northwest
- The RMIS Database is administered by PSMFC staff at the Regional Mark Processing Center

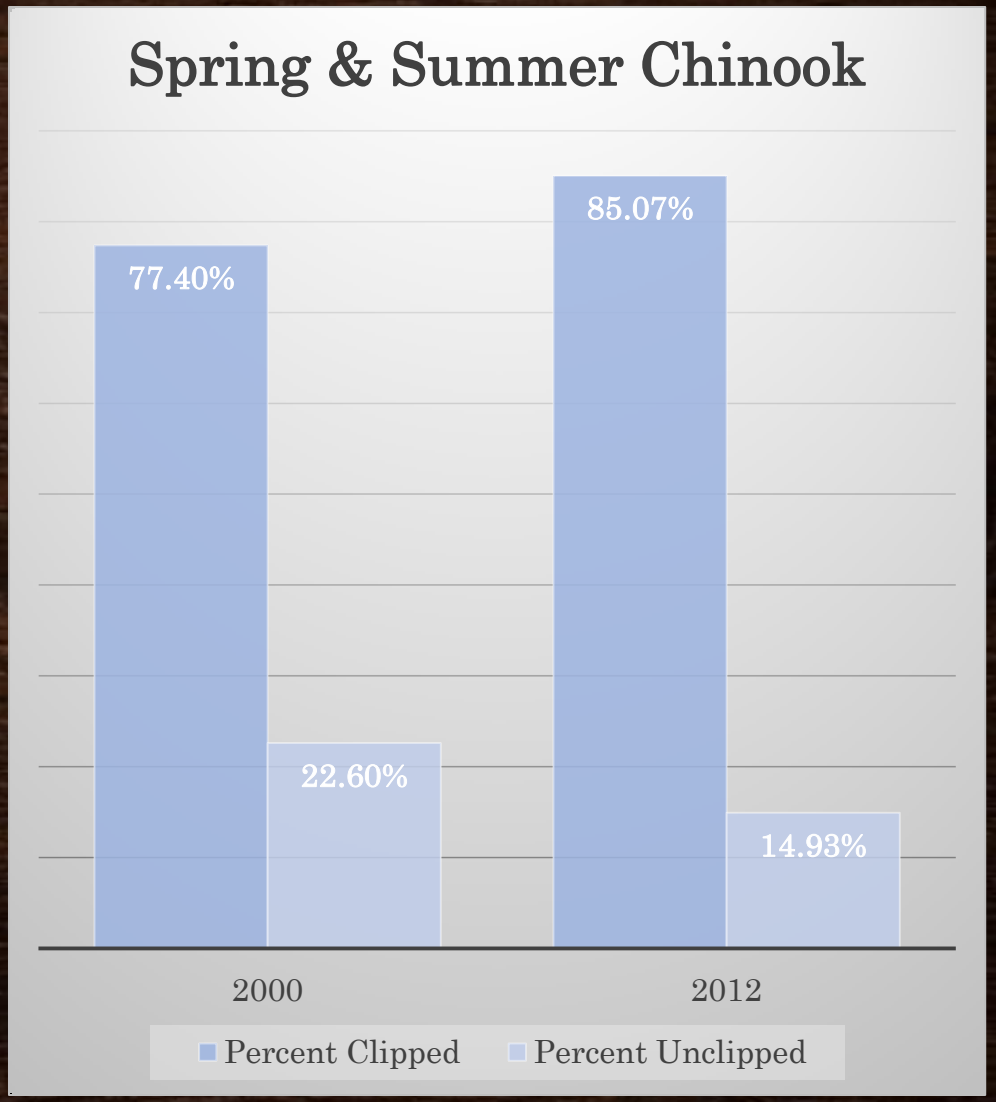
Caveats

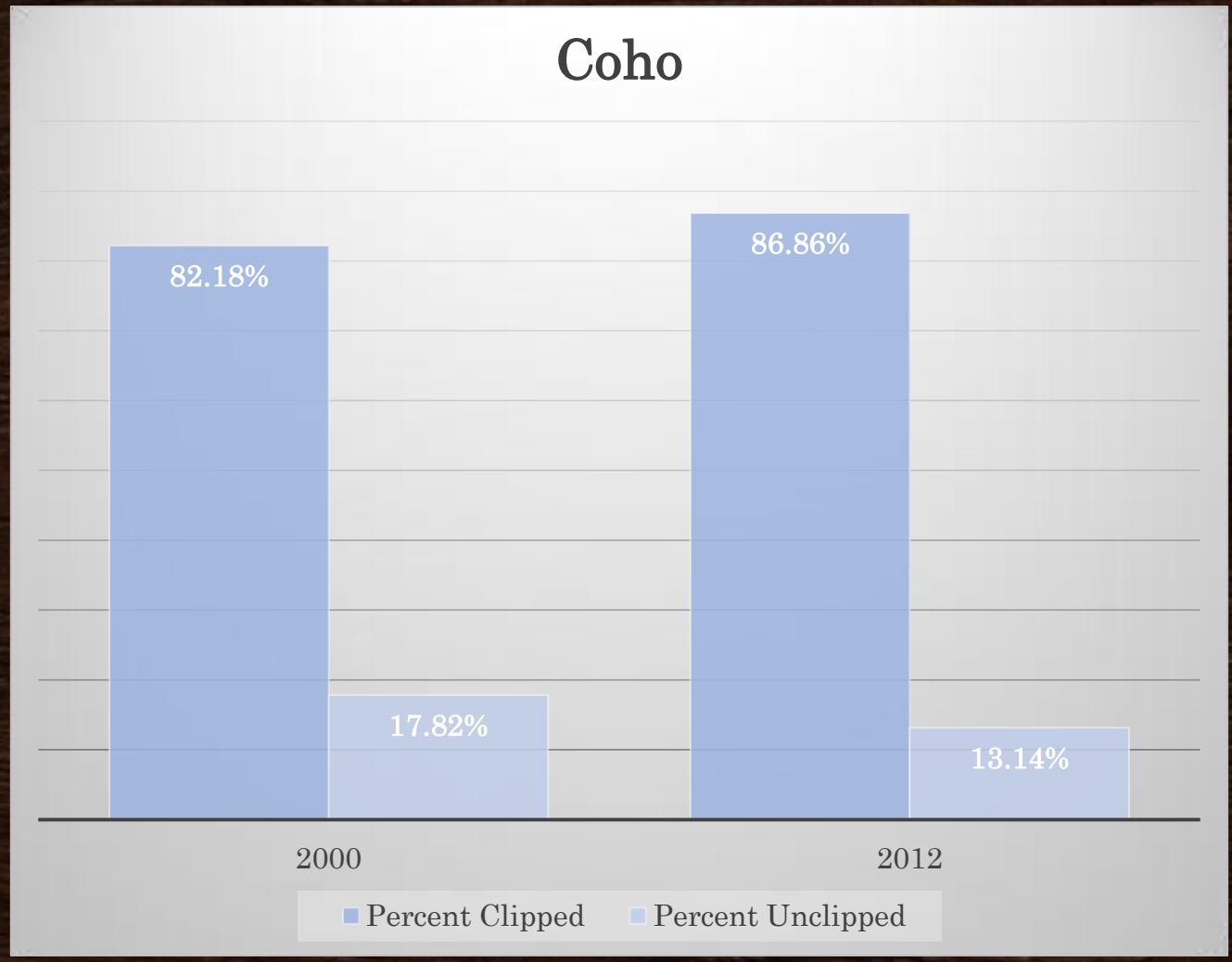
- RMIS searched for “fin clips”. Other marks (Coded wire tags, genetic marks, etc. would not be included if not combined with a fin clip)
- No attempt made to capture the complex arrangements and agreements surrounding various clipping issues (U.S. v. Oregon, etc.)
- No distinctions made between types of programs (Supplementation, restoration, harvest)
- Releases shown by “primary hatchery”. Many fish are moved during rearing and release; not captured in this large scale depiction.


2000
*does not include steelhead, chum, or sockeye
140,000,000
120,000,000
100,000,000
80,000,000
60,000,000
40,000,000
20,000,000
0
USFWS
Idaho
Oregon
Washington
Total
Clipped
Unclipped


2012
160,000,000
140,000,000
120,000,000
100,000,000
80,000,000
60,000,000
40,000,000
20,000,000
0
Other
State
Tribal
USFWS
Total
Clipped
Unclipped

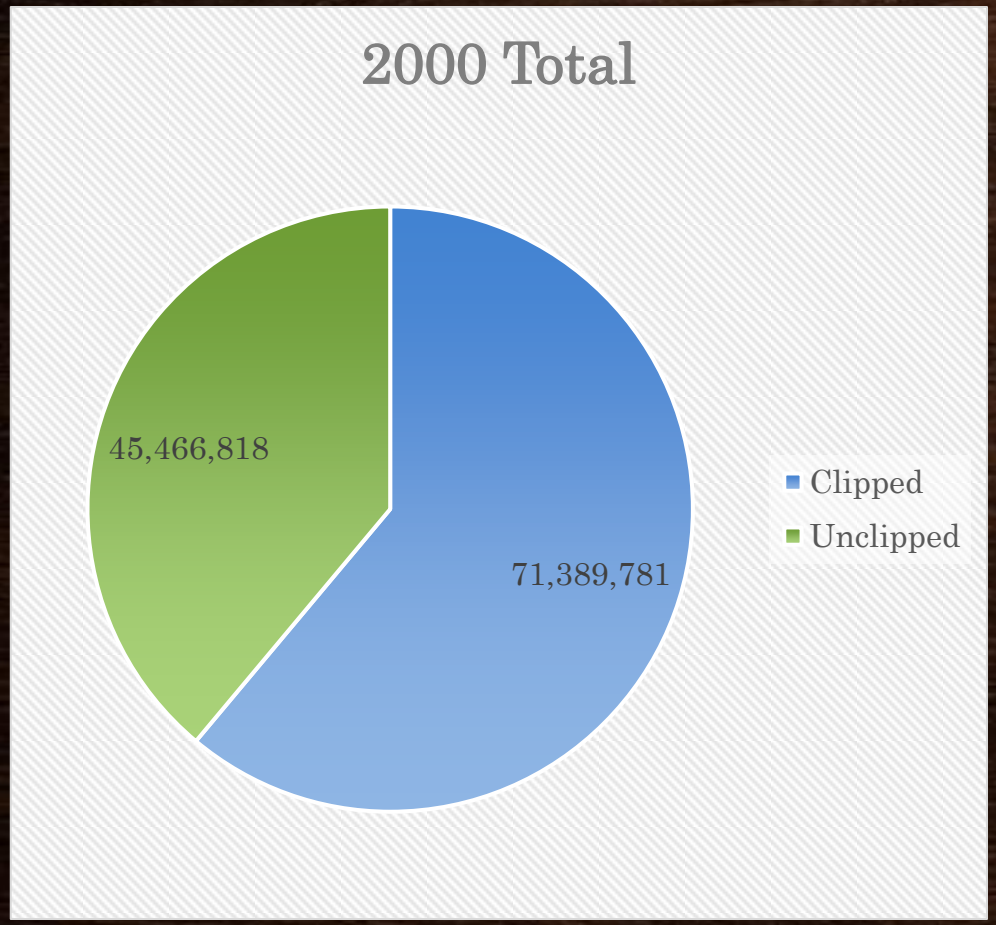

Fall Chinook
84.88%
56.99%
43.01%
15.12%
2000
2012
Percent Clipped
Percent Unclipped

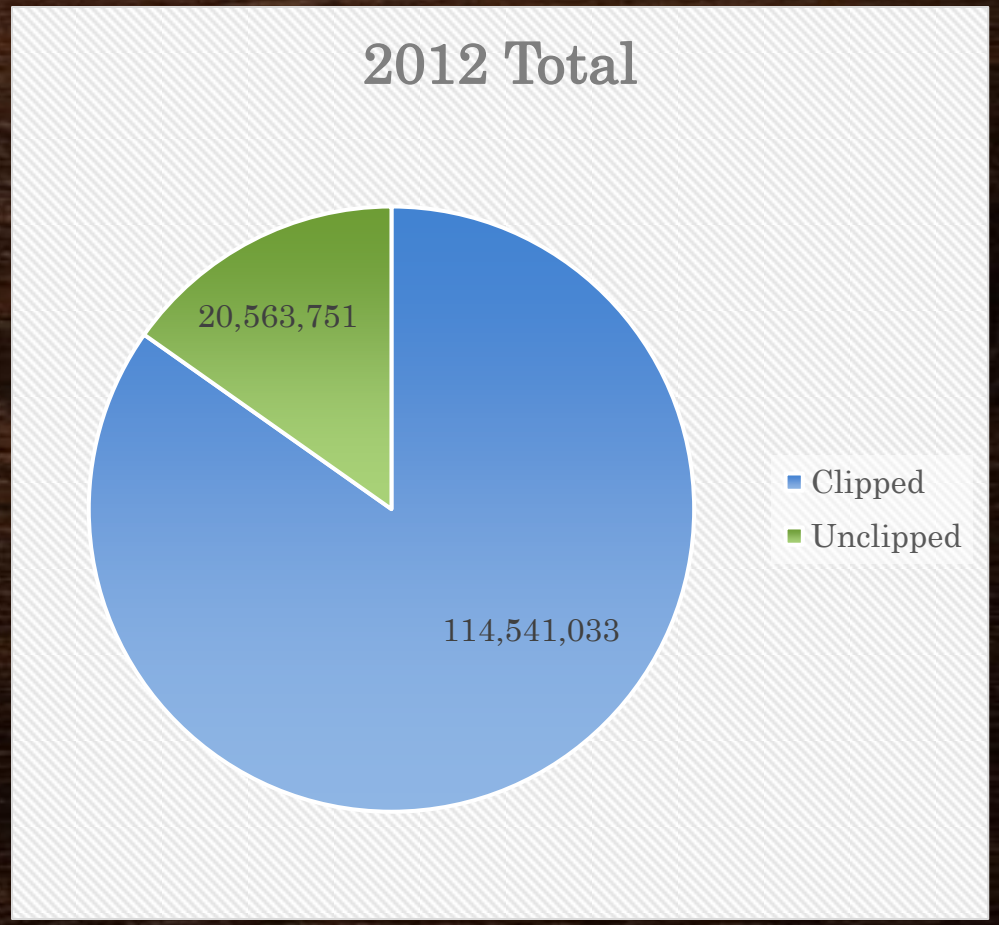

Spring & Summer Chinook
85.07%
77.40%
22.60%
14.93%
2000
2012
Percent Clipped
Percent Unclipped

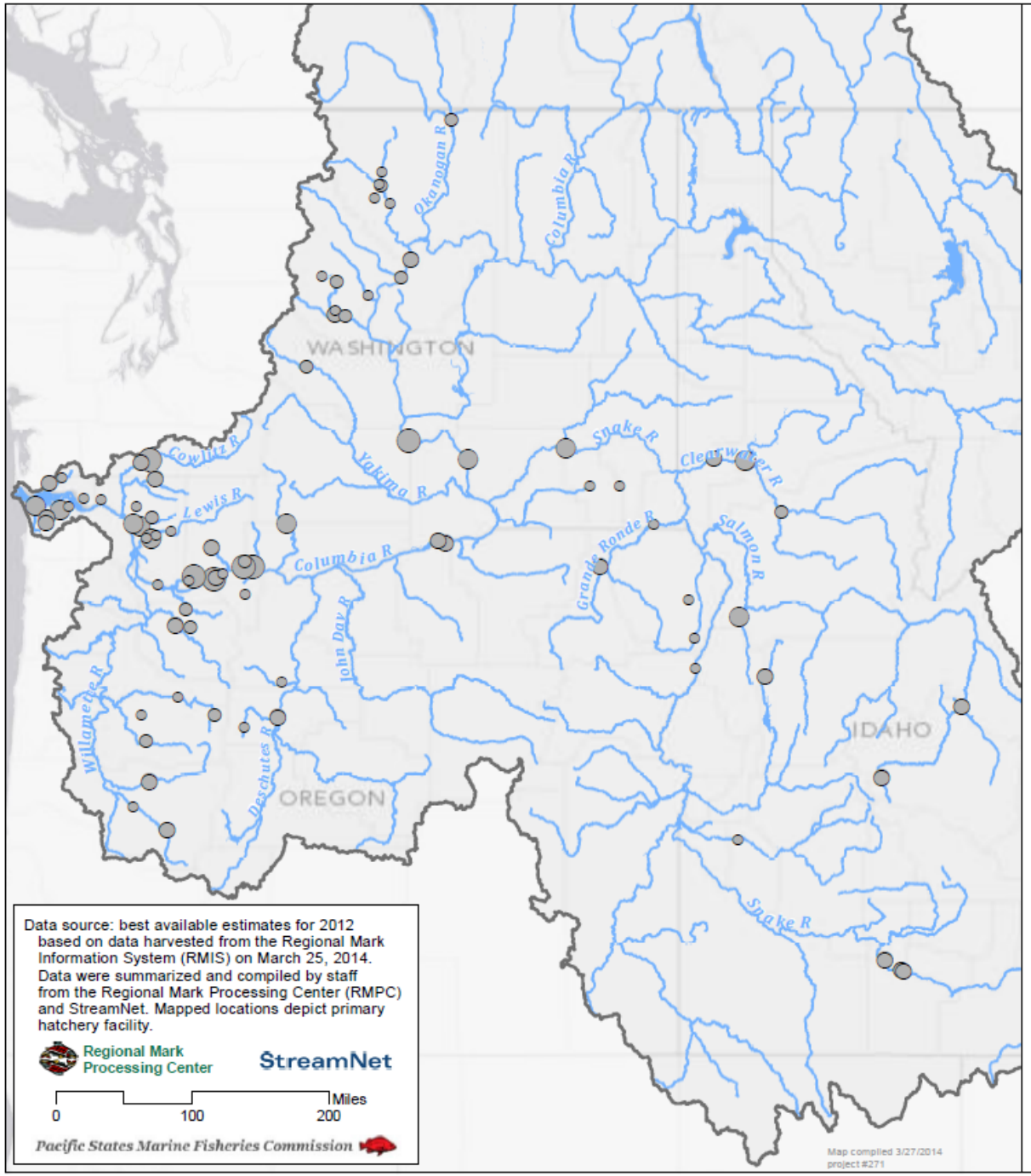

Coho
82.18%
17.82%
86.86%
13.14%
2000
2012
Percent Clipped
Percent Unclipped

Comparative Clipping Rates

* 2000 did not include steelhead, chum, or sockeye



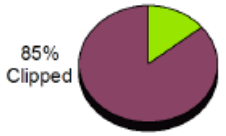




2012 Columbia Basin Fin Clipping Statistics

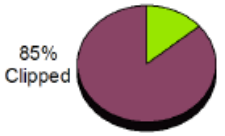
Unclipped Clipped

Fall Chinook



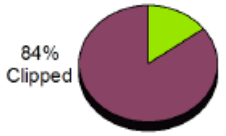
66,032,215 fish stocked

Spring/Summer Chinook



36,426,036 fish stocked

Steelhead



14,796,929 fish stocked

Coho

16,865,011 fish stocked

Chum

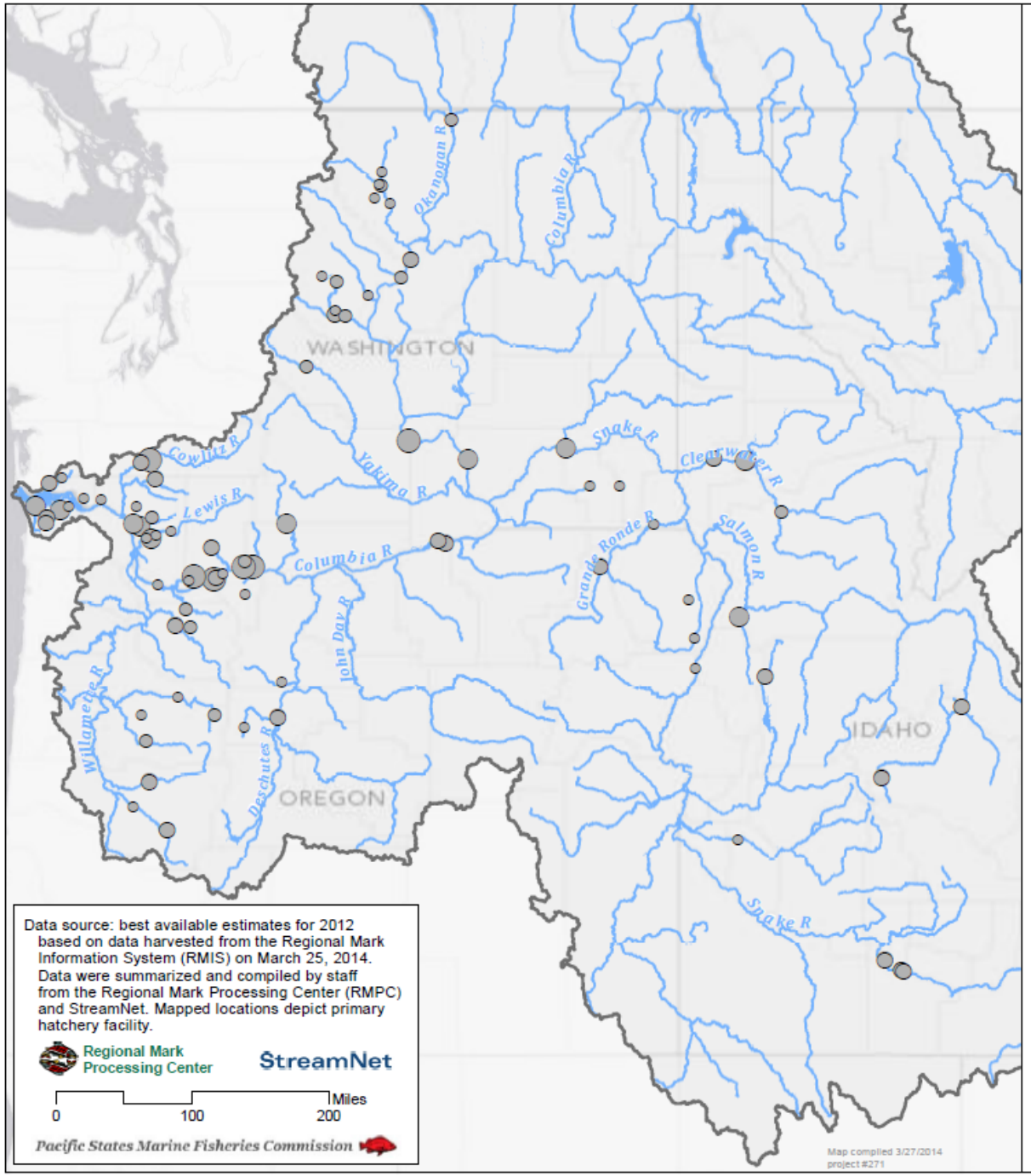
500,379 fish stocked

Sockeye

433,345 fish stocked

Hatchery - Total Fish Stocked

- 1 - 500,000
- 500,001 - 1,000,000
- 1,000,001 - 2,500,000
- 2,500,001 - 5,000,000
- 5,000,001 - 12,000,000
- Columbia Basin



2012 Columbia Basin Fin Clipping Statistics

Unclipped Clipped

State Totals

99,050,961 fish stocked

USFWS Totals

24,679,557 fish stocked

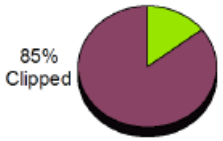
Tribal Totals

6,829,417 fish stocked

Other Totals

4,493,980 fish stocked

Total



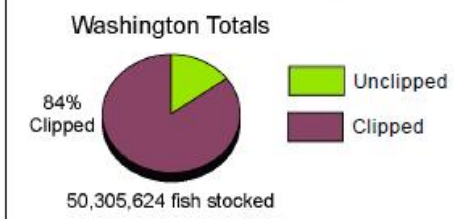
135,053,915 fish stocked

Hatchery - Total Fish Stocked

- 1 - 500,000
- 500,001 - 1,000,000
- 1,000,001 - 2,500,000
- 2,500,001 - 5,000,000
- 5,000,001 - 12,000,000
- Columbia Basin

2012 Washington Hatchery Fin Clipping Statistics

Fall Chinook

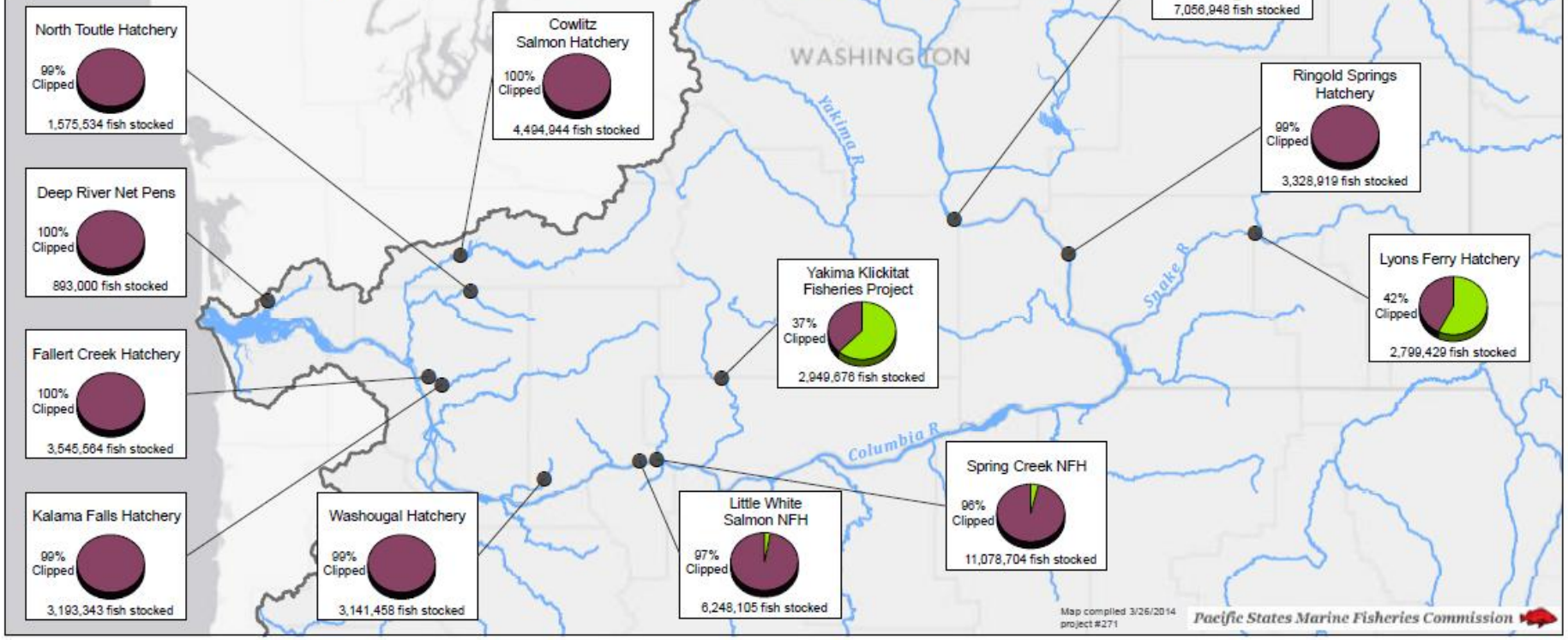


Data source: best available estimates for 2012 based on data harvested from the Regional Mark Information System (RMIS) on March 25, 2014. Data were summarized and compiled by staff from the Regional Mark Processing Center (RMPC) and StreamNet. Mapped locations depict primary hatchery facility.

Regional Mark Processing Center

StreamNet

0 50 100 Miles

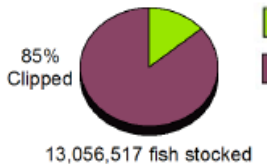


Map compiled 3/26/2014
project #271

Pacific States Marine Fisheries Commission

2012 Washington Hatchery Fin Clipping Statistics

Spring/Summer Chinook



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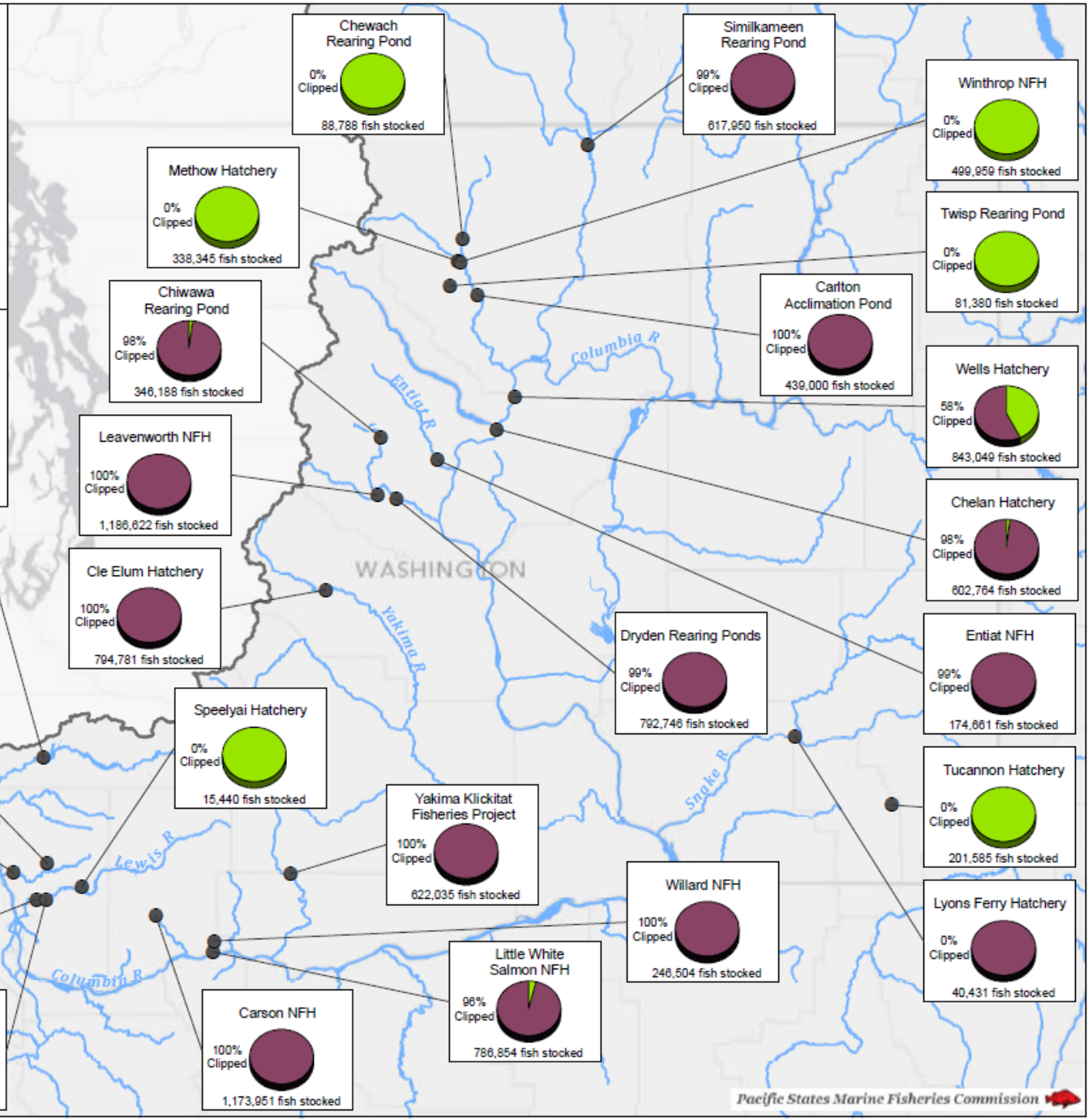
Regional Mark Processing Center

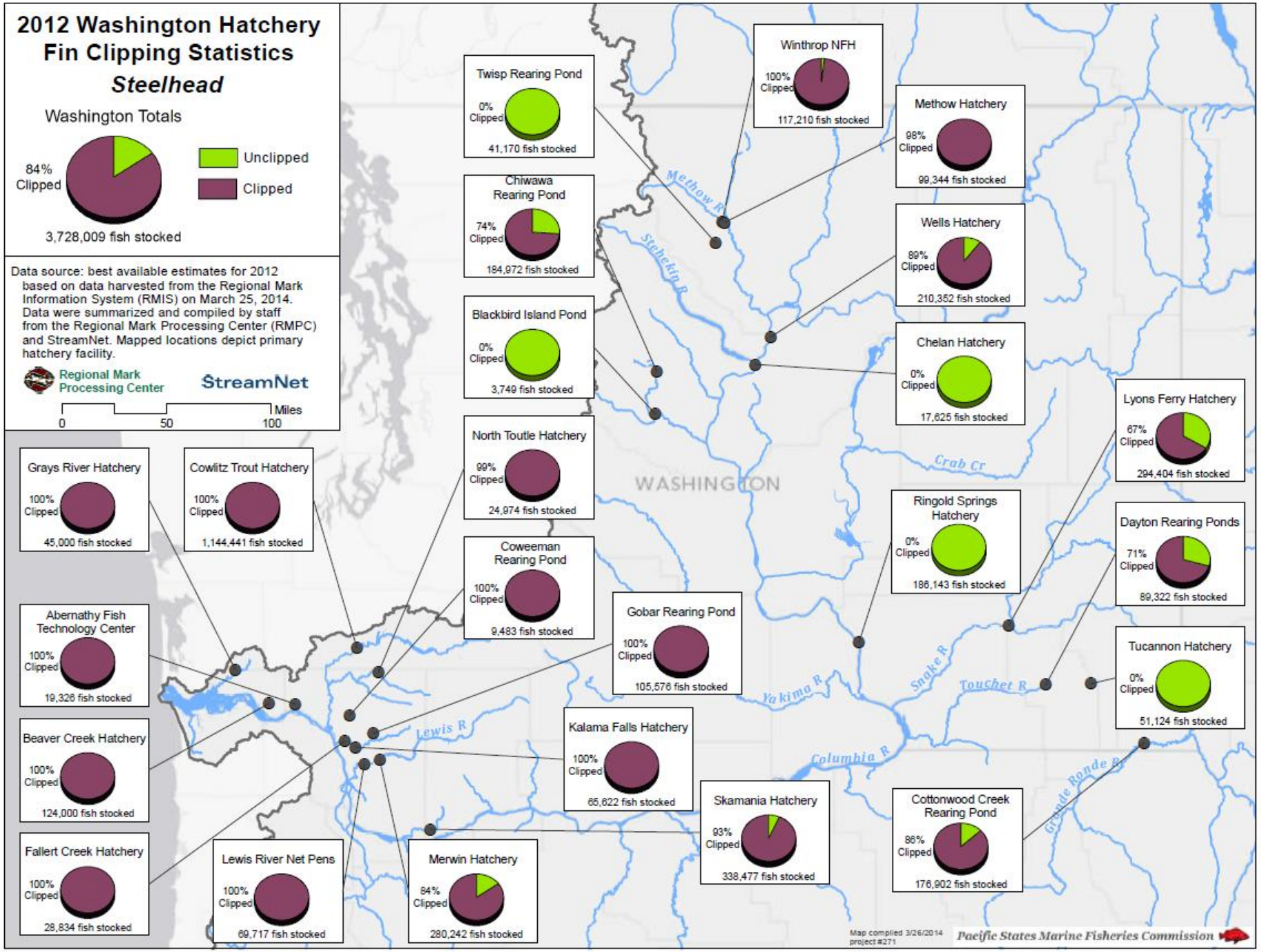
StreamNet

0 50 100 Miles



Map compiled 3/26/2014
project #271

Pacific States Marine Fisheries Commission


2012 Washington Hatchery Fin Clipping Statistics
Steelhead
Washington Totals
84% Clipped
Unclipped
Clipped
3,728,009 fish stocked
Data source: best available estimates for 2012 based on data harvested from the Regional Mark Information System (RMIS) on March 25, 2014. Data were summarized and compiled by staff from the Regional Mark Processing Center (RMPC) and StreamNet. Mapped locations depict primary hatchery facility.
Regional Mark Processing Center
StreamNet
Miles
0
50
100
Twisp Rearing Pond
0% Clipped
41,170 fish stocked
Winthrop NFH
100% Clipped
117,210 fish stocked
Methow Hatchery
98% Clipped
99,344 fish stocked
Chiwawa Rearing Pond
74% Clipped
184,972 fish stocked
Wells Hatchery
89% Clipped
210,352 fish stocked
Blackbird Island Pond
0% Clipped
3,749 fish stocked
Chelan Hatchery
0% Clipped
17,625 fish stocked
Lyons Ferry Hatchery
67% Clipped
294,404 fish stocked
North Toutle Hatchery
99% Clipped
24,974 fish stocked
Grays River Hatchery
100% Clipped
45,000 fish stocked
Cowlitz Trout Hatchery
100% Clipped
1,144,441 fish stocked
Ringold Springs Hatchery
0% Clipped
186,143 fish stocked
Dayton Rearing Ponds
71% Clipped
89,322 fish stocked
Coweeman Rearing Pond
100% Clipped
9,483 fish stocked
Gobar Rearing Pond
100% Clipped
105,576 fish stocked
Abernathy Fish Technology Center
100% Clipped
19,326 fish stocked
Tucannon Hatchery
0% Clipped
51,124 fish stocked
Beaver Creek Hatchery
100% Clipped
124,000 fish stocked
Kalama Falls Hatchery
100% Clipped
65,622 fish stocked
Skamania Hatchery
93% Clipped
338,477 fish stocked
Cottonwood Creek Rearing Pond
86% Clipped
176,902 fish stocked
Fallert Creek Hatchery
100% Clipped
28,834 fish stocked
Lewis River Net Pens
100% Clipped
69,717 fish stocked
Merwin Hatchery
84% Clipped
280,242 fish stocked
WASHINGTON
Methow R
Stehekin R
Crab Cr
Lewis R
Yakima R
Snake R
Touchet R
Columbia R
Grande Ronde R
Map compiled 3/26/2014
project #271
Pacific States Marine Fisheries Commission

2012 Washington Hatchery Fin Clipping Statistics

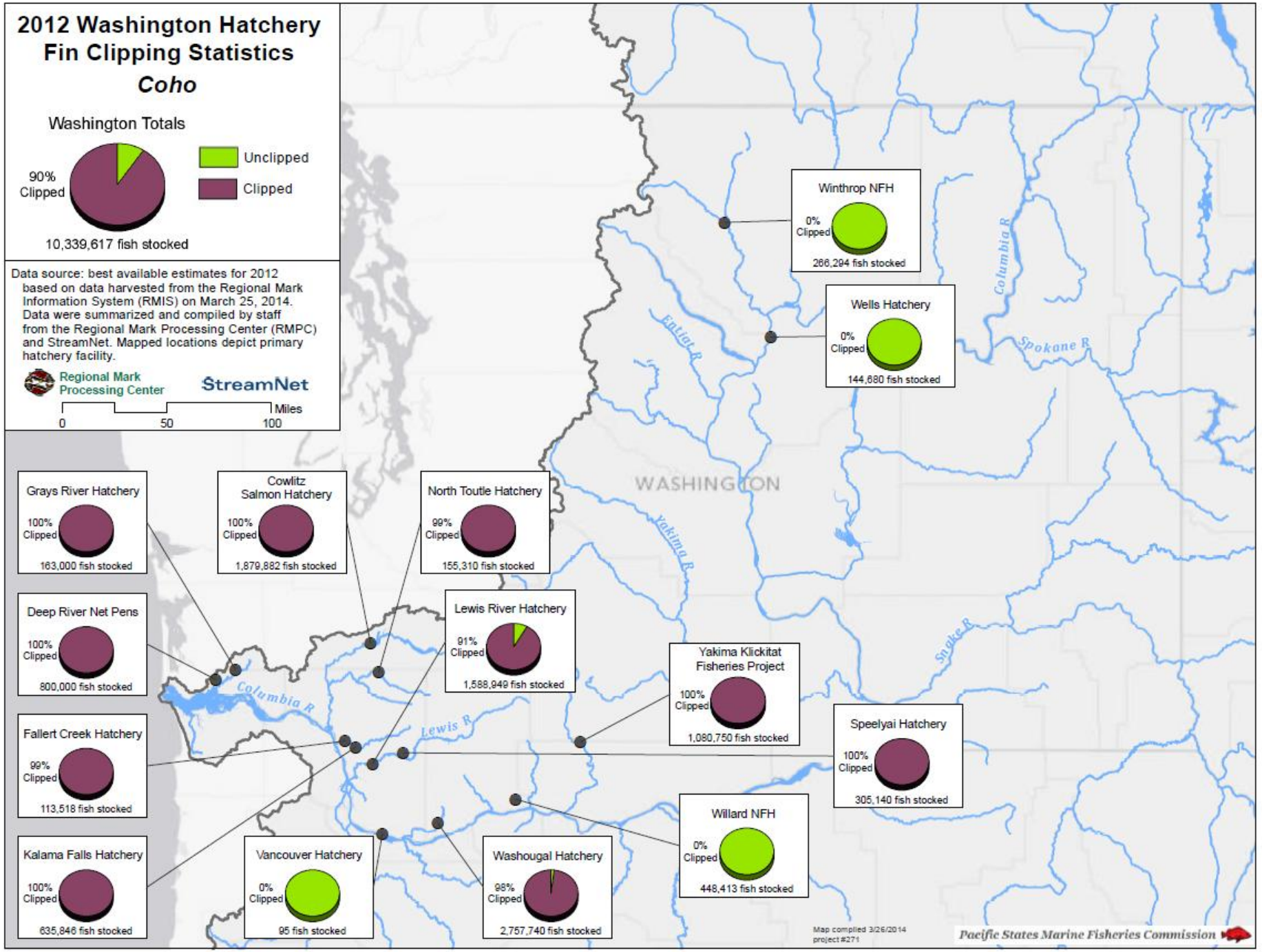
Coho

Data source: best available estimates for 2012 based on data harvested from the Regional Mark Information System (RMIS) on March 25, 2014. Data were summarized and compiled by staff from the Regional Mark Processing Center (RMPC) and StreamNet. Mapped locations depict primary hatchery facility.

Regional Mark Processing Center

StreamNet

0 50 100 Miles



2012 Washington Hatchery Fin Clipping Statistics

Chum

Washington Totals

390,289 fish stocked

Data source: best available estimates for 2012 based on data harvested from the Regional Mark Information System (RMIS) on March 25, 2014. Data were summarized and compiled by staff from the Regional Mark Processing Center (RMPC) and StreamNet. Mapped locations depict primary hatchery facility.

Regional Mark Processing Center

StreamNet

0 50 100 Miles

WASHINGTON

Okanogan R

Columbia R

Entiat R

Spokane R

Palouse R

Cowlitz R

Yakima R

Snake R

Lewis R

Columbia R

Grays River Hatchery

0% Clipped

206,000 fish stocked

Lewis River Hatchery

0% Clipped

109,396 fish stocked

Washougal Hatchery

100% Clipped

74,893 fish stocked

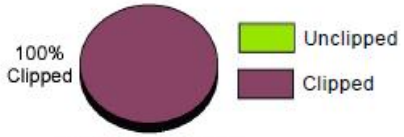
Map compiled 3/26/2014
project #271

Pacific States Marine Fisheries Commission

2012 Washington Hatchery Fin Clipping Statistics

Sockeye

Washington Totals



256,120 fish stocked

Data source: best available estimates for 2012 based on data harvested from the Regional Mark Information System (RMIS) on March 25, 2014. Data were summarized and compiled by staff from the Regional Mark Processing Center (RMPC) and StreamNet. Mapped locations depict primary hatchery facility.

Regional Mark Processing Center

StreamNet

0 50 100 Miles

Lake Wenatchee Net Pens

100% Clipped

256,120 fish stocked

WASHINGTON

Methow R

Okanogan R

Columbia R

Entiat R

Spokane R

Cowlitz R

Yakima R

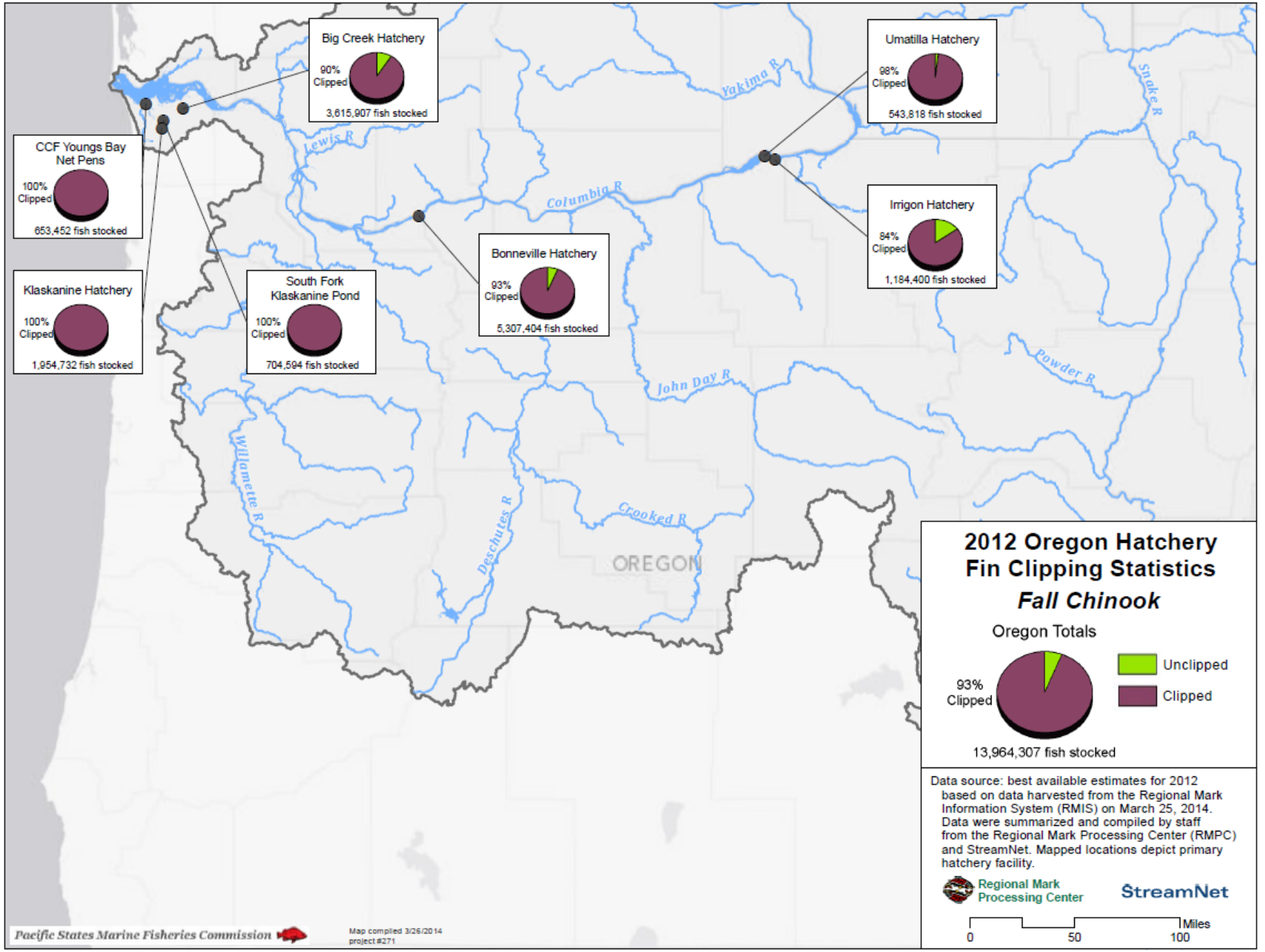
Snake R

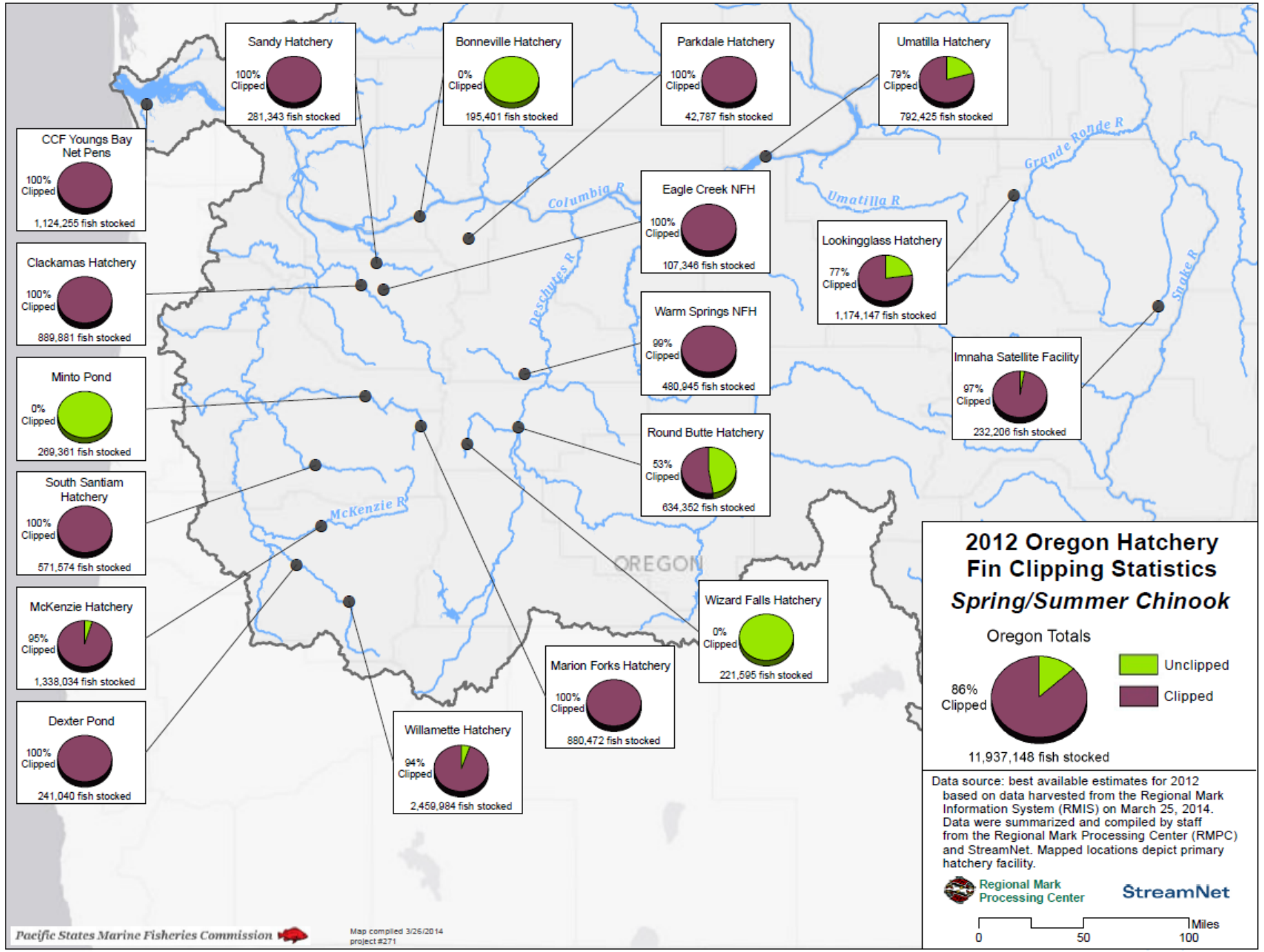
Lewis R

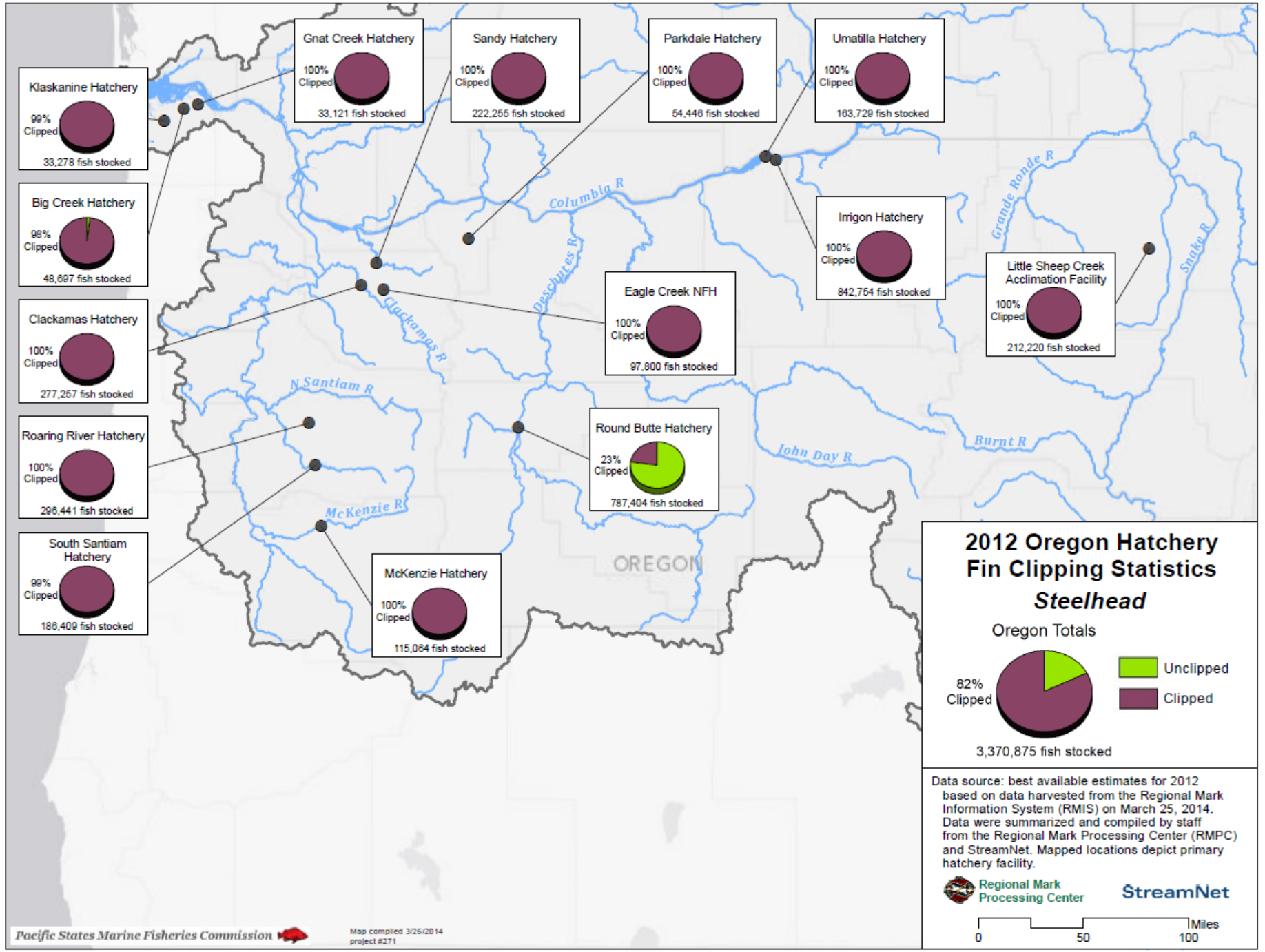
Columbia R

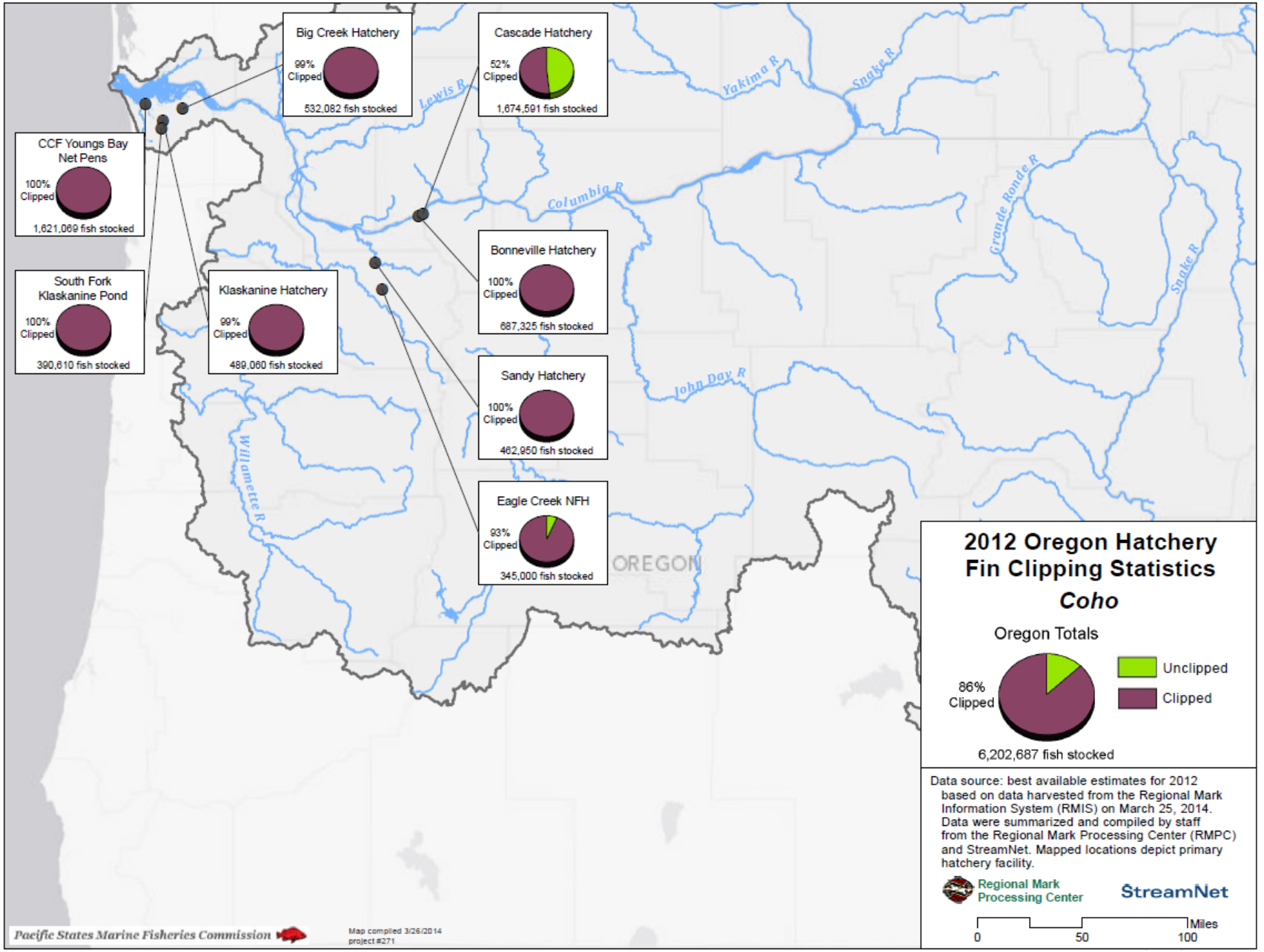
Map compiled 3/26/2014
project #271

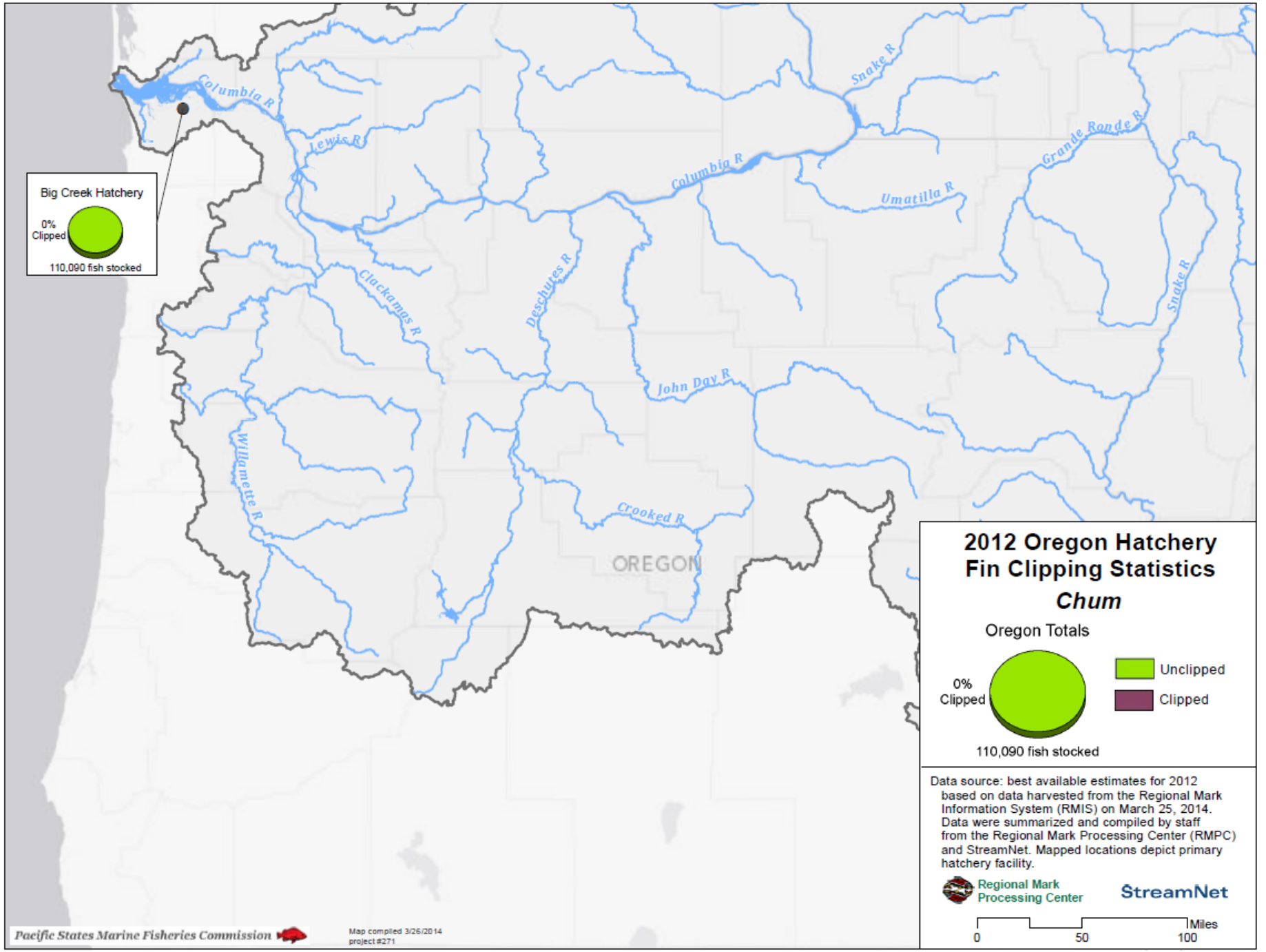
Pacific States Marine Fisheries Commission

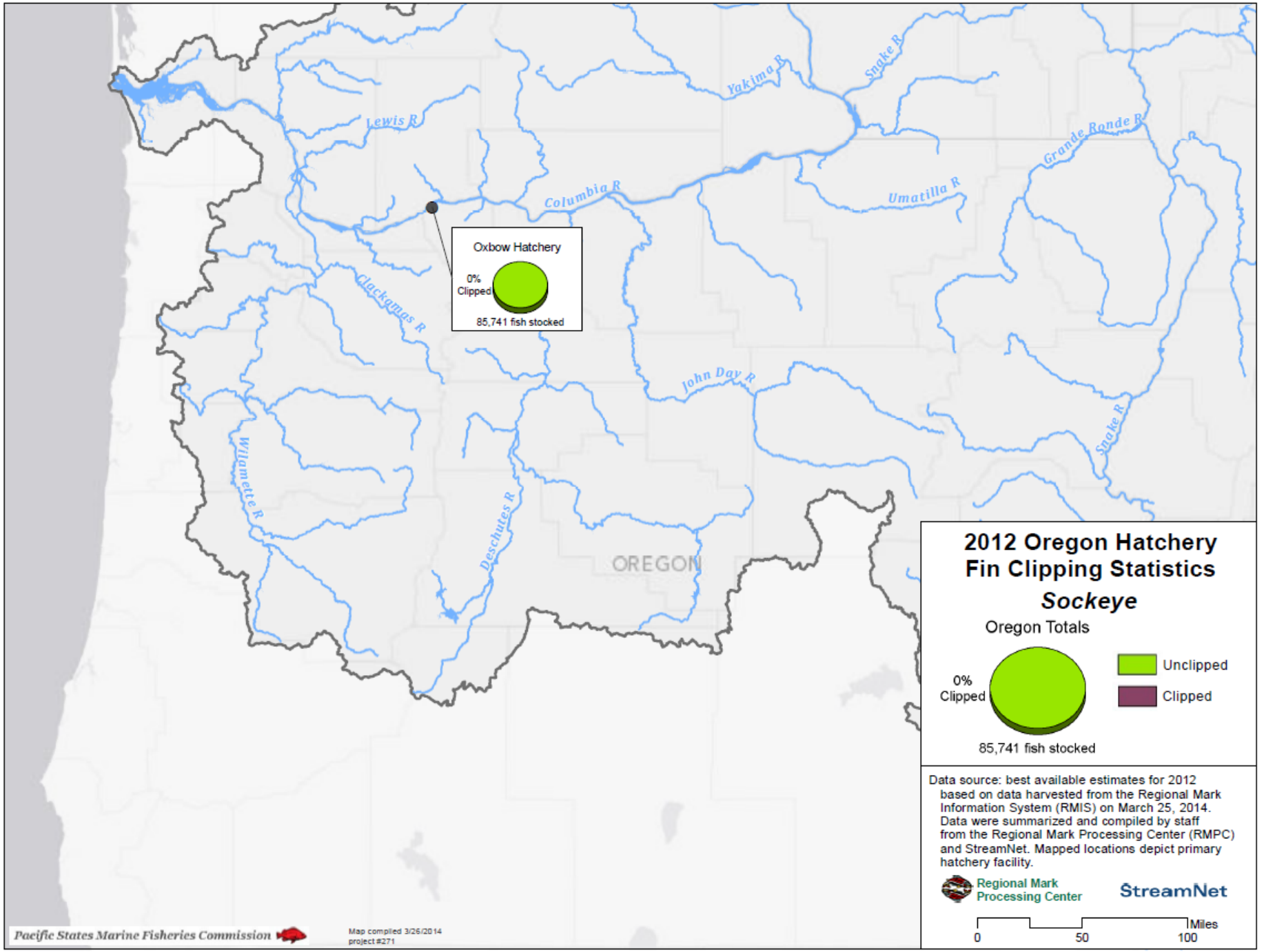

Big Creek Hatchery
90% Clipped
3,615,907 fish stocked
Umatilla Hatchery
98% Clipped
543,818 fish stocked
CCF Youngs Bay Net Pens
100% Clipped
653,452 fish stocked
Irrigon Hatchery
84% Clipped
1,184,400 fish stocked
Klaskanine Hatchery
100% Clipped
1,954,732 fish stocked
South Fork Klaskanine Pond
100% Clipped
704,594 fish stocked
Bonneville Hatchery
93% Clipped
5,307,404 fish stocked
Yakima R
Snake R
Lewis R
Columbia R
Powder R
John Day R
Willamette R
Deschutes R
Crooked R
OREGON
2012 Oregon Hatchery Fin Clipping Statistics
Fall Chinook
Oregon Totals
93% Clipped
Unclipped
Clipped
13,964,307 fish stocked
Data source: best available estimates for 2012 based on data harvested from the Regional Mark Information System (RMIS) on March 25, 2014. Data were summarized and compiled by staff from the Regional Mark Processing Center (RMPC) and StreamNet. Mapped locations depict primary hatchery facility.
Regional Mark Processing Center
StreamNet
Miles
0
50
100
Pacific States Marine Fisheries Commission
Map compiled 3/26/2014
project #271

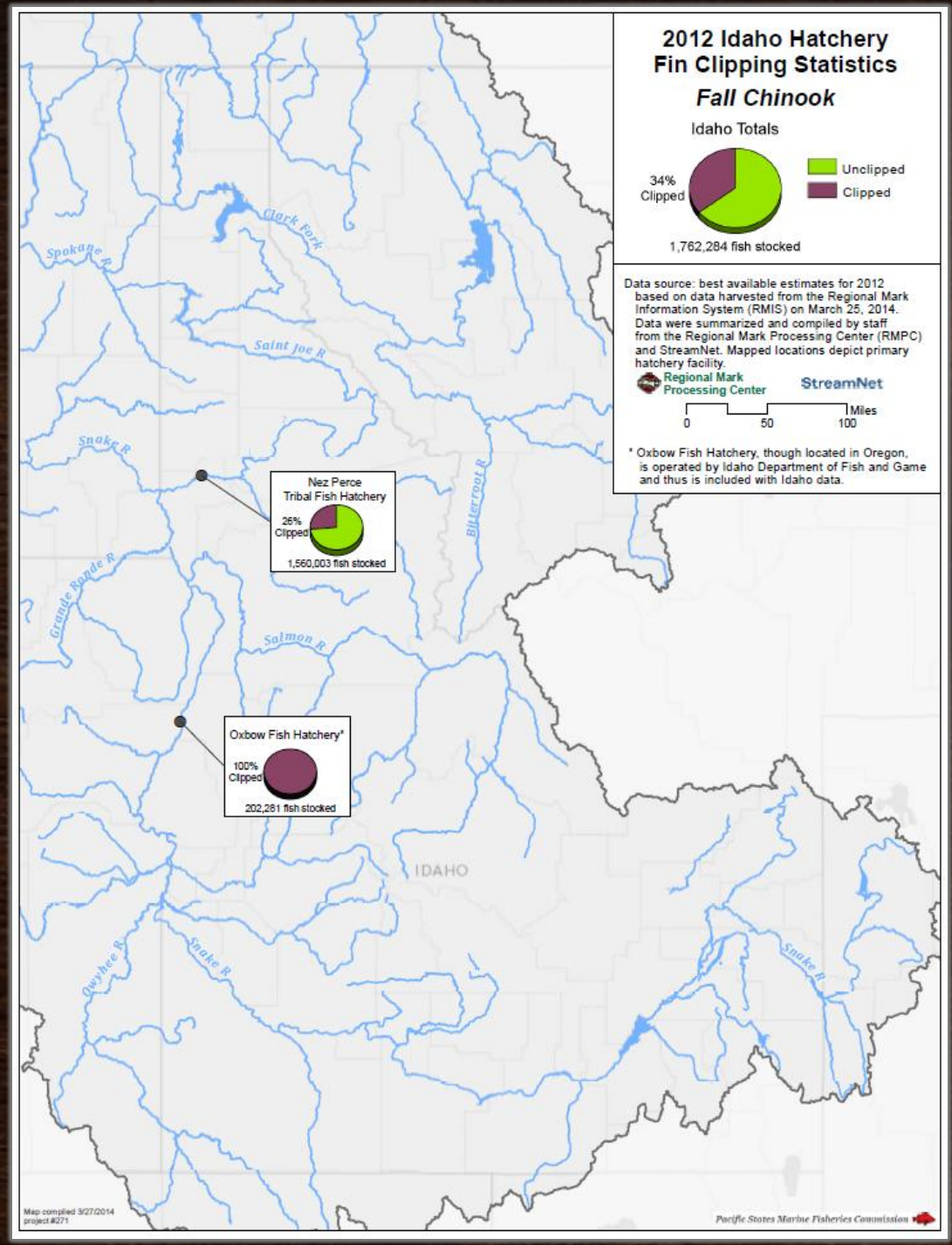

Sandy Hatchery
100% Clipped
281,343 fish stocked
Bonneville Hatchery
0% Clipped
195,401 fish stocked
Parkdale Hatchery
100% Clipped
42,787 fish stocked
Umatilla Hatchery
79% Clipped
792,425 fish stocked
CCF Youngs Bay Net Pens
100% Clipped
1,124,255 fish stocked
Clackamas Hatchery
100% Clipped
889,881 fish stocked
Minto Pond
0% Clipped
269,361 fish stocked
South Santiam Hatchery
100% Clipped
571,574 fish stocked
McKenzie Hatchery
95% Clipped
1,338,034 fish stocked
Dexter Pond
100% Clipped
241,040 fish stocked
Eagle Creek NFH
100% Clipped
107,346 fish stocked
Warm Springs NFH
99% Clipped
480,945 fish stocked
Round Butte Hatchery
53% Clipped
634,352 fish stocked
Lookingglass Hatchery
77% Clipped
1,174,147 fish stocked
Imnaha Satellite Facility
97% Clipped
232,206 fish stocked
Wizard Falls Hatchery
0% Clipped
221,595 fish stocked
Marion Forks Hatchery
100% Clipped
880,472 fish stocked
Willamette Hatchery
94% Clipped
2,459,984 fish stocked
Columbia R
Deschutes R
McKenzie R
Umatilla R
Grande Ronde R
Snake R
OREGON
2012 Oregon Hatchery Fin Clipping Statistics
Spring/Summer Chinook
Oregon Totals
86% Clipped
Unclipped
Clipped
11,937,148 fish stocked
Data source: best available estimates for 2012 based on data harvested from the Regional Mark Information System (RMIS) on March 25, 2014. Data were summarized and compiled by staff from the Regional Mark Processing Center (RMPC) and StreamNet. Mapped locations depict primary hatchery facility.
Regional Mark Processing Center
StreamNet
Miles
0
50
100
Pacific States Marine Fisheries Commission
Map compiled 3/26/2014
project #271

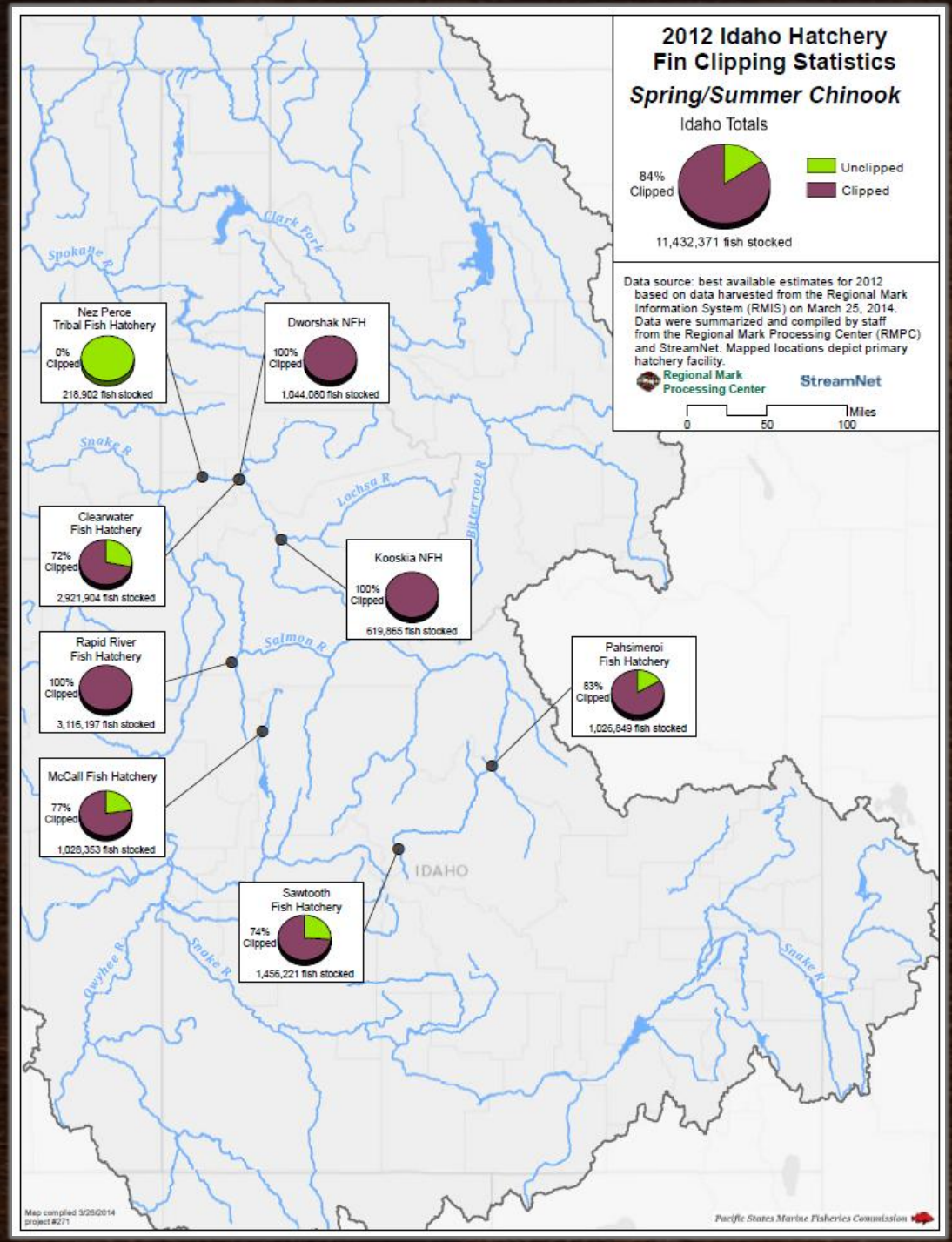

Gnat Creek Hatchery
100% Clipped
33,121 fish stocked
Sandy Hatchery
100% Clipped
222,255 fish stocked
Parkdale Hatchery
100% Clipped
54,446 fish stocked
Umatilla Hatchery
100% Clipped
163,729 fish stocked
Klaskanine Hatchery
99% Clipped
33,278 fish stocked
Big Creek Hatchery
98% Clipped
48,697 fish stocked
Clackamas Hatchery
100% Clipped
277,257 fish stocked
Roaring River Hatchery
100% Clipped
296,441 fish stocked
South Santiam Hatchery
99% Clipped
186,409 fish stocked
Irrigon Hatchery
100% Clipped
842,754 fish stocked
Little Sheep Creek Acclimation Facility
100% Clipped
212,220 fish stocked
Eagle Creek NFH
100% Clipped
97,800 fish stocked
Round Butte Hatchery
23% Clipped
787,404 fish stocked
McKenzie Hatchery
100% Clipped
115,064 fish stocked
Columbia R
Deschutes R
Clackamas R
N Santiam R
McKenzie R
John Day R
Burnt R
Grande Ronde R
Snake R
OREGON
2012 Oregon Hatchery Fin Clipping Statistics
Steelhead
Oregon Totals
82% Clipped
Unclipped
Clipped
3,370,875 fish stocked
Data source: best available estimates for 2012 based on data harvested from the Regional Mark Information System (RMIS) on March 25, 2014. Data were summarized and compiled by staff from the Regional Mark Processing Center (RMPC) and StreamNet. Mapped locations depict primary hatchery facility.
Regional Mark Processing Center
StreamNet
Miles
0
50
100
Pacific States Marine Fisheries Commission
Map compiled 3/26/2014
project #271

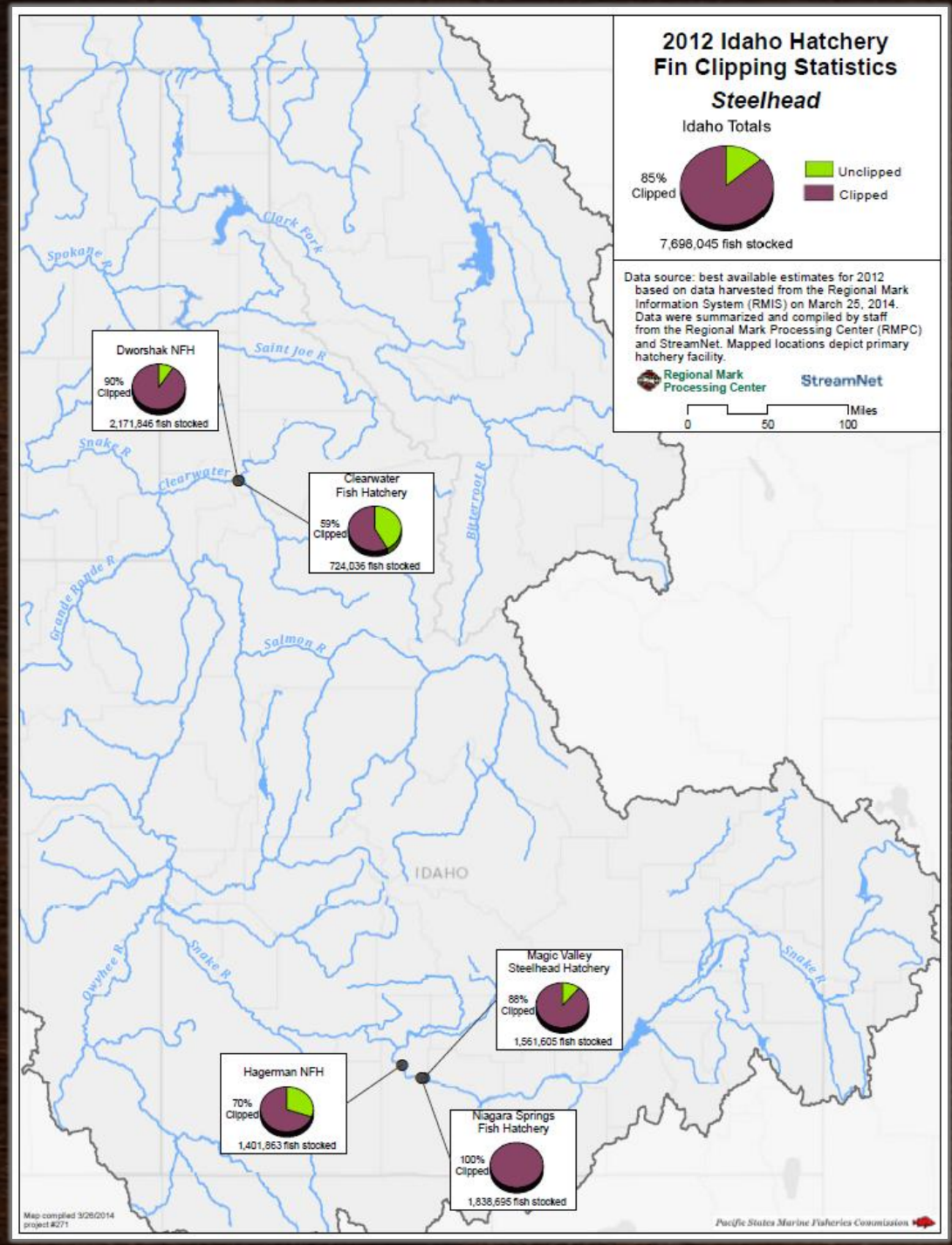

Big Creek Hatchery
99% Clipped
532,082 fish stocked
Cascade Hatchery
52% Clipped
1,674,591 fish stocked
CCF Youngs Bay Net Pens
100% Clipped
1,621,069 fish stocked
South Fork Klaskanine Pond
100% Clipped
390,610 fish stocked
Klaskanine Hatchery
99% Clipped
489,060 fish stocked
Bonneville Hatchery
100% Clipped
687,325 fish stocked
Sandy Hatchery
100% Clipped
462,950 fish stocked
Eagle Creek NFH
93% Clipped
345,000 fish stocked
Lewis R
Yakima R
Snake R
Columbia R
Grande Ronde R
Snake R
John Day R
Willamette R
OREGON
2012 Oregon Hatchery Fin Clipping Statistics
Coho
Oregon Totals
86% Clipped
Unclipped
Clipped
6,202,687 fish stocked
Data source: best available estimates for 2012 based on data harvested from the Regional Mark Information System (RMIS) on March 25, 2014. Data were summarized and compiled by staff from the Regional Mark Processing Center (RMPC) and StreamNet. Mapped locations depict primary hatchery facility.
Regional Mark Processing Center
StreamNet
Miles
0
50
100
Pacific States Marine Fisheries Commission
Map compiled 3/26/2014
project #271

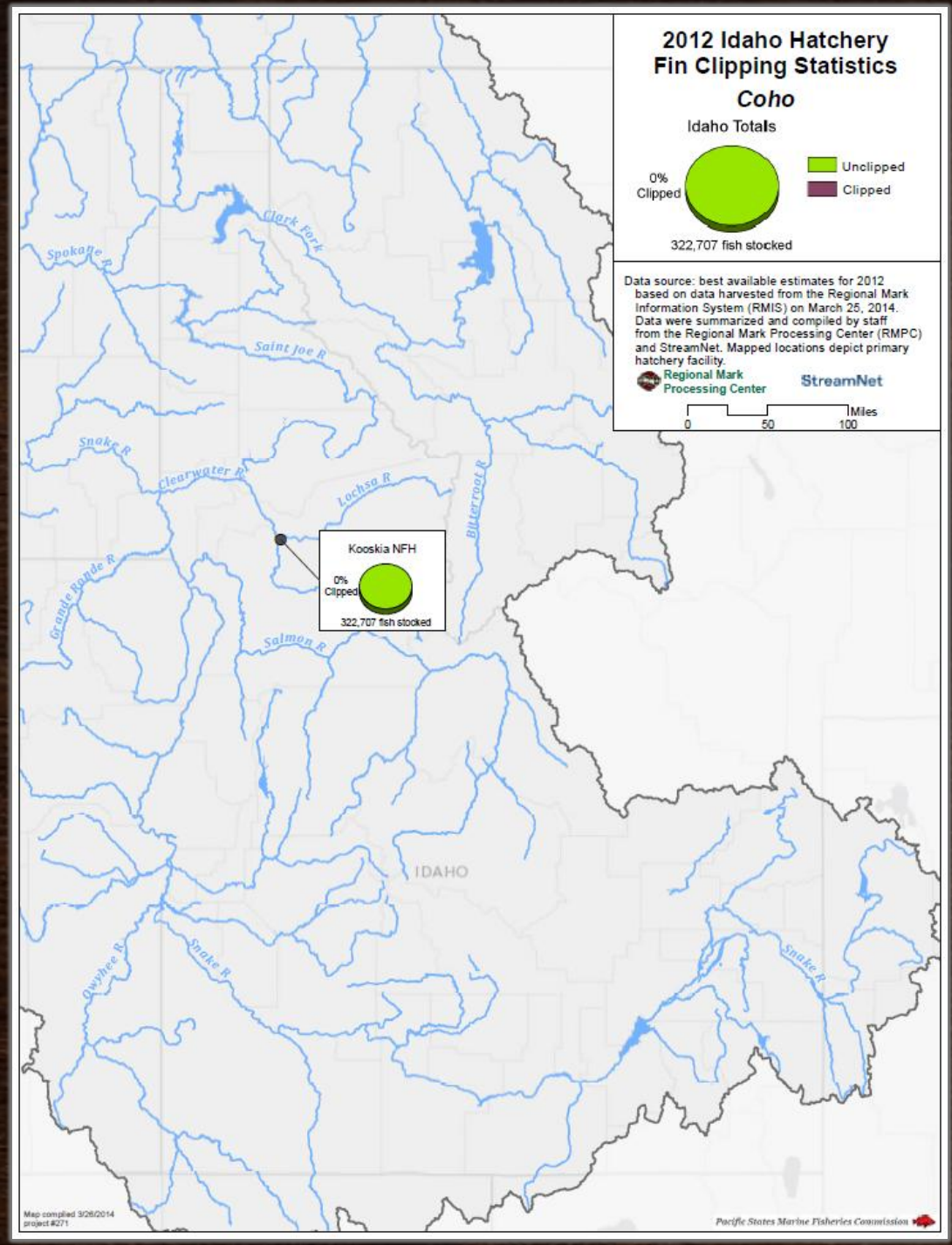

Big Creek Hatchery
0% Clipped
110,090 fish stocked
Columbia R
Lewis R
Snake R
Columbia R
Grande Ronde R
Umatilla R
Clackamas R
Deschutes R
Snake R
John Day R
Willamette R
Crooked R
OREGON
2012 Oregon Hatchery Fin Clipping Statistics
Chum
Oregon Totals
0% Clipped
Unclipped
Clipped
110,090 fish stocked
Data source: best available estimates for 2012 based on data harvested from the Regional Mark Information System (RMIS) on March 25, 2014. Data were summarized and compiled by staff from the Regional Mark Processing Center (RMPC) and StreamNet. Mapped locations depict primary hatchery facility.
Regional Mark Processing Center
StreamNet
Miles
0
50
100
Pacific States Marine Fisheries Commission
Map compiled 3/26/2014
project #271

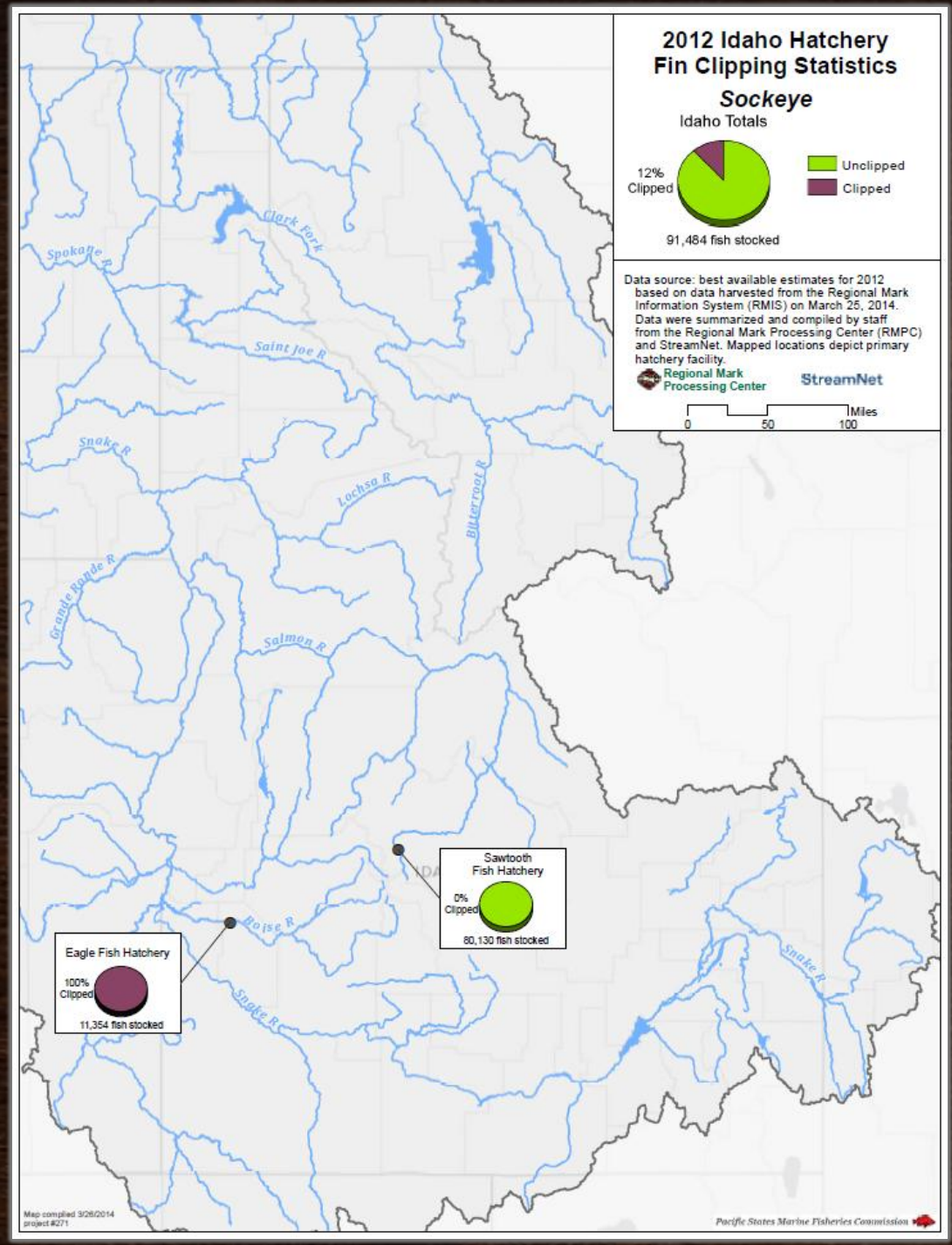

Lewis R
Yakima R
Snake R
Grande Ronde R
Columbia R
Umatilla R
Oxbow Hatchery
0% Clipped
85,741 fish stocked
Clackamas R
John Day R
Snake R
Willamette R
Deschutes R
OREGON
2012 Oregon Hatchery Fin Clipping Statistics
Sockeye
Oregon Totals
0% Clipped
Unclipped
Clipped
85,741 fish stocked
Data source: best available estimates for 2012 based on data harvested from the Regional Mark Information System (RMIS) on March 25, 2014. Data were summarized and compiled by staff from the Regional Mark Processing Center (RMPC) and StreamNet. Mapped locations depict primary hatchery facility.
Regional Mark Processing Center
StreamNet
Miles
0
50
100
Pacific States Marine Fisheries Commission
Map compiled 3/26/2014
project #271


2012 Idaho Hatchery
Fin Clipping Statistics
Fall Chinook
Idaho Totals
34%
Clipped
Unclipped
Clipped
1,762,284 fish stocked
Data source: best available estimates for 2012 based on data harvested from the Regional Mark Information System (RMIS) on March 25, 2014. Data were summarized and compiled by staff from the Regional Mark Processing Center (RMPC) and StreamNet. Mapped locations depict primary hatchery facility.
Regional Mark Processing Center
StreamNet
0
50
100
Miles
* Oxbow Fish Hatchery, though located in Oregon, is operated by Idaho Department of Fish and Game and thus is included with Idaho data.
Nez Perce Tribal Fish Hatchery
25% Clipped
1,560,003 fish stocked
Oxbow Fish Hatchery*
100% Clipped
202,281 fish stocked
Clark Fork
Spokane R
Saint Joe R
Snake R
Grande Ronde R
Salmon R
Bitterroot R
Owyhee R
IDAHO
Map compiled 3/27/2014
project #271
Pacific States Marine Fisheries Commission


2012 Idaho Hatchery
Fin Clipping Statistics
Spring/Summer Chinook
Idaho Totals
84%
Clipped
Unclipped
Clipped
11,432,371 fish stocked
Data source: best available estimates for 2012 based on data harvested from the Regional Mark Information System (RMIS) on March 25, 2014. Data were summarized and compiled by staff from the Regional Mark Processing Center (RMPC) and StreamNet. Mapped locations depict primary hatchery facility.
Regional Mark Processing Center
StreamNet
0
50
100
Miles
Nez Perce Tribal Fish Hatchery
0% Clipped
218,902 fish stocked
Dworshak NFH
100% Clipped
1,044,060 fish stocked
Clearwater Fish Hatchery
72% Clipped
2,921,904 fish stocked
Kooskia NFH
100% Clipped
619,865 fish stocked
Rapid River Fish Hatchery
100% Clipped
3,116,197 fish stocked
Pahsimeroi Fish Hatchery
83% Clipped
1,026,849 fish stocked
McCall Fish Hatchery
77% Clipped
1,028,353 fish stocked
Sawtooth Fish Hatchery
74% Clipped
1,456,221 fish stocked
Clark Fork
Spokane R
Snake R
Lochsa R
Bitterroot R
Salmon R
Owyhee R
IDAHO
Map compiled 3/26/2014
project #271
Pacific States Marine Fisheries Commission


2012 Idaho Hatchery
Fin Clipping Statistics
Steelhead
Idaho Totals
85%
Clipped
Unclipped
Clipped
7,698,045 fish stocked
Data source: best available estimates for 2012 based on data harvested from the Regional Mark Information System (RMIS) on March 25, 2014. Data were summarized and compiled by staff from the Regional Mark Processing Center (RMPC) and StreamNet. Mapped locations depict primary hatchery facility.
Regional Mark Processing Center
StreamNet
Miles
0
50
100
Clark Fork
Spokane R
Saint Joe R
Snake R
Clearwater
Bitterroot R
Grande Ronde R
Salmon R
IDAHO
Owyhee R
Snake R
Snake R
Dworshak NFH
90%
Clipped
2,171,846 fish stocked
Clearwater
Fish Hatchery
59%
Clipped
724,036 fish stocked
Magic Valley
Steelhead Hatchery
88%
Clipped
1,561,605 fish stocked
Hagerman NFH
70%
Clipped
1,401,863 fish stocked
Niagara Springs
Fish Hatchery
100%
Clipped
1,838,695 fish stocked
Map compiled 3/26/2014
project #271
Pacific States Marine Fisheries Commission


2012 Idaho Hatchery
Fin Clipping Statistics
Coho
Idaho Totals
0%
Clipped
Unclipped
Clipped
322,707 fish stocked
Data source: best available estimates for 2012 based on data harvested from the Regional Mark Information System (RMIS) on March 25, 2014. Data were summarized and compiled by staff from the Regional Mark Processing Center (RMPC) and StreamNet. Mapped locations depict primary hatchery facility.
Regional Mark Processing Center
StreamNet
0
50
100
Miles
Kooskia NFH
0%
Clipped
322,707 fish stocked
Clark Fork
Spokane R
Saint Joe R
Snake R
Clearwater R
Lochsa R
Bitterroot R
Grande Ronde R
Salmon R
IDAHO
Owyhee R
Snake R
Snake R
Map compiled 3/26/2014
project #271
Pacific States Marine Fisheries Commission


2012 Idaho Hatchery
Fin Clipping Statistics
Sockeye
Idaho Totals
12% Clipped
Unclipped
Clipped
91,484 fish stocked
Data source: best available estimates for 2012 based on data harvested from the Regional Mark Information System (RMIS) on March 25, 2014. Data were summarized and compiled by staff from the Regional Mark Processing Center (RMPC) and StreamNet. Mapped locations depict primary hatchery facility.
Regional Mark Processing Center
StreamNet
0
50
100
Miles
Clark Fork
Spokane R
Saint Joe R
Snake R
Lochsa R
Bitterroot R
Grande Ronde R
Salmon R
Boise R
Snake R
Snake R
Sawtooth Fish Hatchery
0% Clipped
80,130 fish stocked
Eagle Fish Hatchery
100% Clipped
11,354 fish stocked
Map compiled 3/26/2014
project #271
Pacific States Marine Fisheries Commission

Questions?