## Action #2: Harvest strategy

## Action Goal: Demonstrate there is a robust and precautionary harvest strategy in place PI 1.2.1

A. Zhivoglyadov writes in his report (2022):

"The main element of the salmon fishery management strategy in the Far Eastern region, taking into account the peculiarities of the life cycle of Pacific Salmon, is to achieve an optimal level of spawning escapement to rivers for specific water bodies or groups of water bodies. To date, the prevailing approach in addressing the issue of regulating the number of salmon at the spawning grounds states that the ratio of spawning ground area to nest area is corresponding to the optimal (or "normative") number of producers, exceeding which leads to reconstruction of redds." This postulate formed the basis of the proposals for the 2022 Harvest Strategy.

The main goal of the 2022 Sakhalin Oblast Pacific Salmon Harvest Strategy (hereinafter - the Strategy) is spelled out as follows: "to achieve their (*Pacific Salmon – Lyudmila's commentary*) maximum possible catches by conducting rational fisheries that ensure the spawner's run to the rivers occur in the volumes necessary to optimally fill the spawning grounds and fulfill the programs of hatchery breeding of this group of fish."

The Strategy contains the basic elements of salmon fishery management, including:

1. Places of production (catch) – the geographical division of the districts of the Sakhalin Oblast for the local accounting of incoming information and the prompt adoption of measures depending on the fishing situation in each particular area.

2. Recommended system of fishery management and fishery restrictions for Pink Salmon - one of the measures was the opening of fishing in areas adjacent to the mouths of the rivers only when the spawning grounds are filled by 50 percent or more.

3. Terms of opening and prohibition of fishing for Pink Salmon - for Kunashir Island from August 01 to September 10.

4. Passing days (periods) for Pink Salmon – for Kunashir Island there are no established passing days.

5. Recommended system of fisheries management and fishery restrictions for Chum Salmon - considering that the stock of Chum Salmon in the Sakhalin Oblast is formed mainly by hatchery-raised fish, this section describes the measures for organizing the catch of Chum Salmon by enterprises engaged in its artificial reproduction. For Kunashir, no restrictive measures were prescribed for the Chum Salmon fishery.

SakhNIRO also offered lists of rivers for collecting data on the timing and intensity of the run, on the filling of spawning grounds (state monitoring). In particular, for Kunashir Island three rivers were established: Ilyushina, Asin, Sernovodka.

The strategy was adopted on April 08, 2022, at a meeting of the Far Eastern Scientific & Fishery Council (hereinafter – DVNPS) in Vladivostok (https://fish.gov.ru/wp-content/uploads/2022/05/protokol\_dvnps\_080422.pdf?ysclid=lg56b68tcu 686518858).

In the Sakhalin-Kuril region, the "normal" values were in place, proposed back in 1969-1971 by F.N. Rukhlov and calculated based on the square area of the spawning redd. For Pink Salmon, this is 2 ind./m2, for Chum Salmon - 1.6 ind. per 1 sq.m. of spawning areas. The same standards were used to assess the entry of Pink Salmon and Chum Salmon to the spawning grounds of Kunashir Island (Rukhlov, 1969; cited by Zhivoglyadov, 2022).

During the season, the Anadromous Fish Commission in the Sakhalin Oblast

(hereinafter – the Commission) was guided in its decisions by the adopted Strategy and operational scientific recommendations provided by SakhNIRO and SakhRybVod. The implementation of the Strategy and the decisions of the Commission were widely covered by the media. Publications on this topic were posted on the news sites Sakh.info, Sakh.online, Fishnews, on the websites of the Governor of the Sakhalin Oblast and the Sakhalin Oblast Fishery Association (hereinafter – ARSO).

Preliminary results of the fishery were summed up on November 18, 2022 at a meeting of the DVNPS in Vladivostok. The opinions of the participants of the last meeting, as expected, were divided: the experts of Russian Federal Research Institute of Fisheries and Oceanography (hereinafter – VNIRO) evaluated the results positively, in the opinion of many fishermen, the forecasts of scientists again turned out to be of poor quality. According to the optimistic forecast of scientists, the total catch of salmon in 2022 was expected to be 322,000 tons, of which 190,000 – Pink Salmon. In fact, the fishers were able to catch 271,000 tons, which amounted to 84 percent of the predicted volume. Pink Salmon accounted for around 147 thousand tons (190 thousand - forecasted), Chum Salmon – for 73 thousand tons (90 thousand - forecasted) (http://www.vniro.ru/ru/novosti/novosti-za-2022-god/dalnevostochnyj-nauchno-promyslovyj-sov et-opredelil-obemy-vylova-lososej-na-2022-god ).

At the same time, it was noted that before the start of the fishing season, scientists also issued a conservative version of the forecast for the fishing season. And now it turned out to be comparable with the results of the fishery. According to it, the total catch of salmon was expected at 264 thousand tons, which included 133 thousand tons of Pink Salmon (<u>https://sakh.online/news/16/2022-11-18/itogi-lososevoy-putiny-na-dalnem-vostoke-stali-sporny mi-dlya-uchenyh-i-rybakov-352888</u>).

SakhNIRO scientists noted that a decrease in Pink Salmon catches in Kunashir Island has been observed since 2004. The intensity of spawning runs to Kunashir Island seems insufficient to ensure the optimal numbers of Pink Salmon at the local spawning grounds. In this regard, in 2022, SakhNIRO recommended not to organize a Pink Salmon fishery on the island. However, in the end, fishing was allowed in the amount of 0.4 thousand tons. The total catch in 2022 was only 3 tons.

Forecast volume of Chum Salmon catch for Kunashir was 900 tons. The catch of this species in the 2022 season amounted to only 353 tons (36% of the forecast volume).

As of February 15, preliminary discussions of the Forecasts for salmon harvest season of 2023 and draft of the regional strategies, including the Strategy for Sakhalin Oblast, have already taken place.

Information on the discussion of the draft Salmon Harvest Strategy of the Sakhalin Oblast for 2023 was posted on the website:

https://fishkamchatka.ru/articles/the far east and siberia/48833/:

A series of meetings began to discuss regional strategies for fishing for Pacific salmon in the Far East. The first discussion took place in Yuzhno-Sakhalinsk on February 06, 2023. The meeting was attended by VNIRO specialists, representatives of regional authorities, employees of the border department of the FSB of Russia in the Sakhalin Oblast, representatives of public and industry associations, as well as indigenous peoples of the North, Siberia and the Far East.

Discussion of the key aspects of the fishing season has become a traditional stage of preparation for the fishing season. From the materials approved at the regional level, the Strategy for the entire salmon fishery in the Far East will be formed in the future. It is very important for science to make a correct prediction and minimize possible errors. When developing strategies, the specifics of regional fishing and two important factors are taken into account: on the one hand, it is necessary to guarantee the filling of spawning grounds and the conservation of aquatic biological resources, and on the other hand, to enable fishermen to prepare for the fishing season and effectively carry it out."

The information about the meeting held on February 09, 2023, to discuss the preliminary forecast for the salmon season in 2023 was published at the website of the Administration of the Governor of Kamchatka Region

(https://kamgov.ru/apparat/news/bolee-380-tysac-tonn-lososej-planiruetsa-vylovit-na-kamcatke-v -2023-godu-59537?ysclid=lf5qirj14k998043947):

"At the Kamchatka Fishery Council, the volumes of the predicted catch of Pacific Salmon in the Kamchatsky Krai in 2023 were discussed. The meeting was attended by the Deputy Head of the Federal Fisheries Agency, Vasily Sokolov, the Director of the VNIRO institute, Kirill Kolonchin, executive authorities involved in the regulation of the industry, control and supervisory authorities, fishing enterprises and public organizations.

Albina Kanzeparova, Deputy Director of the VNIRO Department of Anadromous Fish of Russia, noted that in 2023 the third most successful catch in the line of odd years and the fourth in all years of accounting is expected. In the Far East, it is planned to harvest 511,000 tons of Pacific Salmon. The first place according to the forecast of salmon catch in 2023 is occupied by the Kamchatsky Krai - 383 thousand tons, then the Sakhalin Oblast - 77 thousand tons, the Khabarovsk Krai - 27 thousand tons, the Magadan Oblast - 16 thousand tons, the Chukotka Autonomous Okrug - seven thousand tons and Primorsky Krai less than one thousand tons (https://kamgov.ru/apparat/news/bolee-380-tysac-tonn-lososej-planiruetsa-vylovit-na-kamcatke-v -2023-godu-59537?ysclid=lf5qirj14k998043947).

The organization of salmon fishing in the upcoming season of 2023 and the main provisions that are proposed to be included in the fishing strategy in 2023 were also discussed.

The final documents approving the forecast and Strategy will be drawn up during the spring meeting of the DVNPS».

## List of literary and internet sources used:

Zhivoglyadov A.A. The final report for the subcontractor agreement dated April 01, 2022 on topic: «DESCRIPTION OF STOCKS AND REPRODUCTION OF PINK and CHUM SALMON OF KUNASHIR ISLAND (SAKHALIN OBLAST)». December 2022.

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