



DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

[RTID 0648-XD258]

Endangered and Threatened Species; Take of Anadromous Fish

AGENCY: National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), Commerce.

ACTION: Notice of receipt of application for ten permit renewals, one permit modification, and eight new permits.

SUMMARY: Notice is hereby given that NMFS has received 18 scientific research permit application requests relating to Pacific salmon, steelhead, green sturgeon, rockfish, and eulachon. NMFS has also received one permit application to enhance the propagation and survival of one listed salmonid species (Snake River steelhead). The proposed activities in all permits are intended to increase knowledge of species listed under the Endangered Species Act (ESA) and to help guide management and conservation efforts.

DATES: Comments or requests for a public hearing on the applications must be received at the appropriate address or fax number (see **ADDRESSES**) no later than 5 p.m. Pacific standard time on *[INSERT DATE 30 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER]*.

ADDRESSES: Written comments on the applications should be sent to the Protected Resources Division, NMFS, 1201 NE Lloyd Blvd., Suite 1100, Portland, OR 97232-1274. Comments may also be sent via fax to 503-230-5441 or by email to nmfs.wcr-apps@noaa.gov (include the permit number in the subject line of the letter, fax, or email). The applications may be viewed online at:

https://apps.nmfs.noaa.gov/preview/preview_open_for_comment.cfm. Permit application instructions are available from the address above, or online at <https://apps.nmfs.noaa.gov>.

FOR FURTHER INFORMATION CONTACT: Rob Clapp, Portland, OR, 541-231-2314, *Robert.Clapp@noaa.gov*.

SUPPLEMENTARY INFORMATION:

Species Covered in This Notice

The following ESA-listed species are covered in this notice:

Chinook salmon (*Oncorhynchus tshawytscha*): threatened Lower Columbia River (LCR); threatened Puget Sound (PS); threatened Snake River (SnkR) spring/summer-run; threatened SnkR fall-run; endangered Upper Columbia River (UCR) spring-run; threatened Upper Willamette River (UWR); threatened Central Valley spring-run (CVS); endangered Sacramento River (SacR) winter-run; and threatened California Coastal (CC).

Steelhead (*O. mykiss*): threatened LCR; threatened Middle Columbia River (MCR); threatened PS; threatened SnkR; threatened UCR; threatened UWR; threatened Northern California (NC); threatened Central California Coast (CCC); threatened California Central Valley (CCV); and endangered Southern California (SC).

Chum salmon (*O. keta*): threatened Hood Canal Summer-run (HCS); and threatened Columbia River (CR).

Coho salmon (*O. kisutch*): threatened LCR; threatened Oregon Coast (OC) coho; threatened Southern Oregon/Northern California Coast (SONCC); and endangered CCC.

Sockeye salmon (*O. nerka*): endangered SnkR; and threatened Ozette Lake (OL).

Eulachon (*Thaleichthys pacificus*): threatened southern Distinct Population Segment (SDPS).

Green sturgeon (*Acipenser medirostris*): threatened SDPS.

Rockfish (*Sebastes spp.*): endangered Puget Sound/Georgia Basin (PS/GB) bocaccio (*Sebastes paucispinis*); and threatened PS/GB yelloweye rockfish (*S. ruberrimus*).

Authority

Scientific research permits and permits to enhance propagation or survival are issued in accordance with section 10(a)(1)(A) of the ESA (16 U.S.C. 1531 *et seq.*) and regulations governing listed fish and wildlife permits (50 CFR 222-226). NMFS issues permits based on findings that such permits: (1) are applied for in good faith; (2) if granted and exercised, would not operate to the disadvantage of the listed species that are the subject of the permit; and (3) are consistent with the purposes and policy of section 2 of the ESA. The authority to take listed species is subject to conditions set forth in the permits.

Anyone requesting a hearing on an application listed in this notice should set out the specific reasons why a hearing on that application would be appropriate (see **ADDRESSES**). Such hearings are held at the discretion of the Assistant Administrator for Fisheries, NMFS.

Applications Received

Permit 15169-3R

The National Park Service (NPS) is seeking to renew a permit that would authorize them to take juvenile and adult CC Chinook salmon, CCC coho salmon, and CCC steelhead as part of a long-term monitoring program within the NPS's San Francisco Bay area network. The research includes seven studies within, or proximate to, NPS lands in: Lagunitas Creek, Olema Creek, Pine Gulch, Redwood Creek, and Rodeo Creek, and Easkoot Creek in Marin County; West Union and San Vicente Creeks in San Mateo County; Alhambra and Franklin Creeks in Contra Costa County; and Tomales Bay, CA. Study 1 monitors salmonid smolt outmigration. Study 2 is a juvenile salmonid diet composition study. Study 3 is a spawner survey study. Study 4 focuses on summer/fall juvenile salmonid distribution, population abundance, and habitat monitoring. Study 5 is a juvenile salmonid winter habitat utilization study. Study 6 uses a

floating resistance-board weir-trap to monitor adult salmonid spawning. Study 7 is a biotelemetry study in the Tomales Bay watershed. The research would continue a long-term monitoring program and would benefit affected species by identifying species trends that are used to guide management practices, develop and implement restoration actions, and evaluate conservation action success—all of which would serve to benefit listed salmonids and their habitats along the central California coast.

The researchers propose to capture juvenile fish via backpack electrofishing, beach seining, screw trapping, and fyke- and hoop-netting. Juvenile fish would be captured, handled, and released. They would also be observed during snorkel surveys. A subsample of captured juveniles would be anesthetized, tissue-sampled and receive passive integrated transponder (PIT) tags. Adult fish would primarily be collected via weir, but a few individuals would be captured via screw trap and fyke net. Adults would also be observed during spawning and snorkel surveys. Adults captured at the weir would be captured, handled (anesthetized, weighed, measured, and checked for marks or tags), and released. A subsample of captured adults would be anesthetized, tissue-sampled and PIT-tagged. Some tissues may be collected from carcasses encountered during the spawning surveys. The researchers do not intend to kill any listed fish, but a small number may die as an inadvertent result of the proposed activities.

Permit 16329-4R

The Oregon Department of Environmental Quality (DEQ) is seeking to renew a permit that currently authorizes them take juvenile and adult CR chum salmon; LCR, UWR, UCR spring-run, SnkR fall-run, and SnkR spring/summer-run Chinook salmon; LCR, OC, and SONCC coho salmon; and LCR, UWR, MCR, UCR, and SnkR basin steelhead in all Oregon State waters. The purpose of the research is to assess environmental impairment from pollutants and evaluate the effectiveness of management activities in protecting and restoring aquatic ecosystems. The scientific research permit

would authorize listed species to be taken under four DEQ programs: (1) Biomonitoring Program, (2) Oregon Toxics Monitoring Program, (3) Mixing Zone Surveys, and (4) Spill Impact and Cleanup Effectiveness Evaluations. Together, these programs are used to assess watershed and aquatic community health, determine the presence and effects of contaminants, and gauge the effectiveness of waste treatment and spill cleanup procedures. The information gathered would help the DEQ fulfill its mission to assess, restore, enhance, and maintain the quality of Oregon's waters, as directed by state and Federal laws. The research would benefit listed species by providing information on watershed health and contaminants—information that would be used to inform efforts to protect and restore salmonid habitat.

The DEQ proposes to capture fish from spring through fall using backpack and boat electrofishing, seining, and angling. After capturing the fish, the researchers would quickly transfer them to buckets of aerated water, weigh and measure some of them, and release them near the site of their capture within 20 minutes. No drugs or anesthesia would be used. The researchers propose to intentionally kill small numbers of non-listed, resident fish. The researchers would not intentionally kill any ESA-listed fish, but a small number may die as an unintended result of the research activities.

Permit 16506-4R

Mike Podlech, an independent researcher, is seeking to renew a research permit that would authorize him to take juvenile and adult CCC coho salmon and CCC steelhead while monitoring population trends in Squaw Creek, Pescadero Creek, and Mill Creek, CA. The research would benefit affected species by providing population data to inform ongoing watershed restoration and salmonid recovery efforts. The research includes three studies. The objective of Study 1 (Squaw Creek) is to continue a 39-year monitoring program of the juvenile CCC steelhead population in a largely undisturbed watershed. Study 2 (Pescadero Creek) aims to expand upon limited baseline CCC steelhead and

CCC coho salmon population data and initiate long-term smolt outmigration monitoring in a degraded watershed. Mill Creek (Study 3) would take place in a tributary to San Vicente Creek, the southernmost watershed with a remnant natural CCC coho salmon population. Salmonid populations in the San Vicente Creek watershed have been studied extensively over the past two decades, but the Mill Creek tributary has received relatively little attention. However, a legacy dam was removed from Mill Creek in 2021 and juvenile CCC coho salmon were detected in the stream for the first time in 2022. Study 3 is intended to monitor the trajectory of the population and measure the upstream range of CCC coho salmon in this tributary and thereby help inform future management decisions for the benefit of the listed coho.

Under the three studies, juveniles would be collected via backpack electrofishing and fyke nets. Juvenile fish would be captured, handled, and released. A subsample of captured juveniles would be anesthetized, tissue-sampled and PIT-tagged. Though adult fish would not be targeted, a few individuals might be collected via fyke net. All captured adults would simply be handled and released. The researchers do not intend to kill any ESA-listed fish, but a small number may die as an inadvertent result of the proposed activities.

Permit 16544-2R

The California Department of Fish and Wildlife's (CDFW's), South Coast Region is seeking to renew a permit that would authorize them to take juvenile and adult SC steelhead in order to monitor the species' population status, trends, spatial structure, and life history diversity in an area stretching from Topanga Canyon to Santa Maria, CA. This long-term monitoring study would benefit SC steelhead by providing data to inform management decisions and recovery efforts.

Juvenile fish would be collected via backpack electrofishing, dip net, fyke net, minnow trap, weir, hook-and-line angling, and beach seine. They would also be observed

during snorkel surveys. Most juvenile fish would simply be captured, handled, and released, but a subsample would be anesthetized, tissue-sampled and PIT-tagged. Adult fish would be collected via dip net, hook-and-line angling, beach seine, trap, and weir, and they would also be observed during snorkel surveys. Spawned adults or post-spawn carcasses would be enumerated during spawning surveys. A subsample of captured adults would be anesthetized, tissue-sampled and PIT-tagged. The researchers do not intend to kill any ESA-listed fish, but a small number may die as an inadvertent result of the proposed activities.

Permit 17551-4R

The CDFW is seeking to renew a permit that would authorize them to take juvenile and adult SacR winter-run Chinook salmon, CVS Chinook salmon, and CCV steelhead, and juvenile SDPS green sturgeon. The purpose of this study is to monitor SDPS green sturgeon recruitment to the juvenile life stage and to learn more about green sturgeon movement patterns (including ocean entry) and habitat use in the lower Sacramento River, the Sacramento-San Joaquin Delta, and greater San Francisco. Though green sturgeon are the target species, Chinook salmon and steelhead may be encountered, but they would immediately be released if that happens. This study would benefit green sturgeon by providing information on their temporal and spatial movement patterns, rearing habitat preferences, and survival. This information, in turn, would be used to improve species and water management in the region.

Juvenile green sturgeon would be collected by gill netting them. A subsample of the juveniles would be anesthetized, tissue-sampled and PIT-tagged. The researchers do not intend to kill any ESA-listed fish, but a small number may die as an inadvertent result of the proposed activities.

Permit 19400-4R

ICF International (a consulting firm) is seeking to renew a permit that would authorize them to take juvenile SacR winter-run Chinook salmon, CVS Chinook salmon, CCV steelhead, and SDPS green sturgeon in order to determine how juvenile salmonids use the San Francisco estuary for rearing. This study would benefit affected species by providing a better understanding of fine-scale distribution patterns of fishes in navigation channels and near dredge operations in the San Francisco Estuary. This, in turn, would inform ongoing and proposed restoration projects. The research includes two studies: (1) investigating the use of alternative monitoring techniques including SONAR and environmental DNA (eDNA) to monitor fish species near restoration projects and dredge operations, and (2) evaluating non-invasive sampling methods to supplement physical fish collection by pairing trawls with acoustic methods and eDNA data to provide an estimate of rare species biomass and habitat use.

Juvenile fish would be collected via plankton nets, bottom trawl, and midwater trawl. Juvenile fish would be captured, handled, and released. The researchers do not intend to kill any ESA-listed fish, but a small number may die as an inadvertent result of the proposed activities.

Permit 20047-3R

The University of Washington (UW) is seeking to renew a permit that would authorize them to continue to take annually juvenile PS Chinook salmon, PS steelhead, PS/GB DPS bocaccio, PS/GB DPS yelloweye rockfish, HCS chum salmon, and adult SDPS eulachon in order to study the fish communities associated with tideflats with and without seagrass in Puget Sound and coastal Washington. This study would fill current information gaps on how habitat structure impacts higher trophic levels in nearshore habitats in the Pacific Northwest, and benefit ESA-listed salmon and steelhead recovery by reducing the uncertainty around current ecosystem linkages that are used to select habitat sites to preserve and restore.

Juvenile salmon, steelhead, and rockfish and adult eulachon would be collected via beach seine, handled (weighed, measured, and checked for marks or tags), and released. The researchers are not proposing to kill any of the ESA-listed fish being captured, but a small number of fish may be killed as an inadvertent result of these activities.

Permit 22303-2R

The NMFS West Coast Region is seeking to renew a permit that would authorize them to take adult LCR Chinook salmon, CC Chinook salmon, SacR winter-run Chinook salmon, CVS Chinook salmon, and SDPS green sturgeon in order to characterize the physical interaction between green sturgeon and bottom trawl nets used in the CA halibut fishery that operates out of Half Moon Bay and San Francisco, CA. This study would benefit green sturgeon by providing information to evaluate and develop methods to minimize gear interactions and bycatch of green sturgeon.

Adult green sturgeon would be collected bottom trawl. Green sturgeon adults would be captured, handled (anesthetized, weighed, measured, and checked for marks or tags), and released. Though green sturgeon are the target species, LCR, CC, SacR and CVS Chinook salmon might also be encountered. The researchers do not intend to kill any ESA-listed fish, but a small number may die as an inadvertent result of the proposed activities.

Permit 22700-2R

The Monterey Bay Salmon and Trout Project is seeking to renew a permit that would authorize them to take adult CCC coho salmon and CCC steelhead in order to gather data on their genetics and life histories in the San Lorenzo River watershed, CA. This study would benefit affected species by providing abundance assessments and life history data and thereby help facilitate recovery actions.

Adult fish would be collected from a fish ladder at the Felton Diversion Facility weir on the San Lorenzo River. Adult fish would be captured, handled (weighed, measured, and checked for marks or tags), and released; a subsample of them would be anesthetized, tissue-sampled, and PIT-tagged. The researchers do not intend to kill any ESA-listed fish, but a small number may die as an inadvertent result of the proposed activities.

Permit 22939-2R

TRPA Fish Biologists (a consulting firm) is seeking to renew a permit that would authorize them to take juvenile SacR winter-run Chinook salmon, CVS Chinook salmon, CCV steelhead, and SDPS green sturgeon while conducting seasonal presence/absence and relative abundance surveys for native fish species in a delta wetland area known as The Big Ditch on the Peterson Ranch in eastern Solano County, California. Before this study, no information was available on ESA-listed species presence or seasonal use of the Big Ditch Project area. The study would benefit the affected species by continuing to provide baseline information on seasonal fish use and thereby inform habitat restoration actions.

Juvenile fish would be collected via beach seine and minnow trap. Juvenile fish would be captured, handled, and released, and a subsample of them would be anesthetized, tissue-sampled and PIT-tagged prior. The researchers do not intend to kill any ESA-listed fish, but a small number may die as an inadvertent result of the proposed activities.

Permit 25466-2M

TRPA Fish Biologists are seeking to modify a permit that currently authorizes them to take juvenile and adult CCV steelhead with the purpose of providing information on fish distribution, relative abundance, and diversity in Ulatis Flood Control Project (Ulatis Project) stream channels. The Ulatis Project is located in the Vacaville-Elmira

urban corridor in CA and is made up of approximately 43.5 miles (~70km) of realigned and engineered stream channels that were created to alleviate recurring floods in the lower Ulatis watershed. The modification would entail adding sampling locations (middle and upper Ulatis and Alamo Creek channels); it would also require adding small amounts of take for juvenile CCV steelhead. The study would benefit CCV steelhead by providing biological data (lengths, weights, and counts) on the fish populations in the lower basin. This information would be used to monitor CCV steelhead distribution and diversity and to assess population responses to managed flows.

Juvenile fish would be collected via backpack electrofishing. A subsample of captured juveniles would be anesthetized, tissue-sampled and PIT-tagged prior to release. The researchers do not intend to kill any ESA-listed fish, but a small number may die as an inadvertent result of the proposed activities.

Permit 25795

Washington State University (WSU) is seeking a new permit that would authorize them to annually take adult PS Chinook salmon, PS steelhead, HCS chum salmon, and SDPS green sturgeon in order to study the reproductive physiology of pink salmon and genetics and population structure of Pacific spiny dogfish in Puget Sound. The study of pink salmon reproductive biology is likely to benefit ESA-listed salmon and steelhead by providing a better understanding of the molecular processes governing the regulation of age at maturity and tissue remodeling in Pacific salmonids using an unlisted model organism. The age at maturity of Pacific salmon and steelhead has important implications for their migratory behavior and reproductive timing and success.

Fish would be collected via hook-and-line angling over approximately 4 days of sampling between July and September in multiple locations in the Strait of Juan de Fuca and Puget Sound. ESA-listed species are not being targeted by this sampling, but up to one adult from each hatchery or natural-origin component of the above species may be

unintentionally captured. Any ESA-listed species captured would be handled (checked for marks or tags and potentially measured) and quickly released. The researchers are not proposing to kill any of the listed fish being captured, but a small number of fish may be killed as an inadvertent result of these activities.

Permit 25808

The U.S. Marine Corps is seeking a new permit that would authorize them to take juvenile and adult SC steelhead during the course of documenting their biodiversity and freshwater habitat in the three largest watersheds located on U.S. Marine Corps Base Camp Pendleton: Santa Mateo Creek, San Onofre Creek, and the Santa Margarita River, CA. The study would benefit SC steelhead by providing species presence and habitat suitability data to inform future management and recovery strategies (*e.g.*, helping locate and preserve drought refugia).

Juveniles would be collected via backpack electrofishing and observed at weirs, fish ladders, and dams, and during snorkel surveys. Juvenile fish would be captured, handled, and released. A subsample of captured juveniles would be anesthetized, tissue-sampled and PIT-tagged. Adults would be observed at weirs, fish ladders, and dams and during snorkel surveys. The researchers do not intend to kill any listed fish, but a small number may die as an inadvertent result of the proposed activities.

Permit 27030

The Idaho Department of Fish and Game (IDFG) is seeking a 5-year permit to enhance the propagation and survival of SnkR steelhead in Big Bear Creek in northern Idaho. Under this permit, the IDFG would trap adult natural steelhead in the Big Bear Creek watershed and transport them to a point upstream of Big Bear Falls (a semi-impassable barrier) and release them back into Big Bear Creek. The adults would be anesthetized, tissue-sampled, radio-tagged, and transported in 50-gallon (~189.27 L) aerated tanks approximately 2 miles (~3.22 km) upstream. In addition, the IDFG would

use backpack electrofishing to sample juvenile steelhead upstream from the falls, and a screw trap to sample them at the mouth of Big Bear Creek. All captured juveniles would be anesthetized, weighed, measured, tissue-sampled, and PIT-tagged.

The purpose of this project is to improve steelhead access to spawning and juvenile rearing habitat above Big Bear Falls. Rearing capacity in the Big Bear Creek watershed is limited, and life cycle modelling indicates enhanced adult steelhead passage at the falls could increase smolt production by an additional 5,000 smolts per year. Transporting adult steelhead around Big Bear Falls would benefit listed fish by increasing available habitat capacity in the drainage and thereby potentially alleviate density-dependent effects and increase population productivity. The IDFG does not intend to kill any of the fish being captured, but a small number may die as an inadvertent result of the activities.

Permit 27068

The Makah Tribe is seeking a new permit that would authorize them to take juvenile and adult fish from every species listed in the first part of this notice except for SDPS eulachon and green sturgeon. This proposed work would expand salmon research under four specific areas of investigation: (1) improving knowledge of Chinook salmon ecology in marine waters of northwestern Washington (with a focus on winter and early spring); (2) better understanding how offshore troll fishery gear affects Chinook and Coho salmon injury and mortality rates (specifically with regard to hook size); (3) improving understanding of the factors limiting Lake Ozette sockeye salmon recovery; and (4) monitoring the recent increase in abundance of invasive European green crabs (EGC) in Makah Bay, its tributaries, and the Strait of Juan de Fuca. Each of these studies would provide information addressing data gaps or current threats that would help the Makah Tribe manage their fisheries resources, and inform recovery actions for ESA-listed salmonid species.

As part of the first effort, adult or subadult salmon or steelhead may be collected by hook-and-line angling. This study targets Chinook and coho salmon, so any other salmon or steelhead would be handled (weighed, measured, and checked for marks and tags) and released. Captured Chinook and coho salmon would be handled and have scale and fin clip samples collected, and those in suitable condition would be anesthetized and tagged with popup satellite archival tags or acoustic tags as appropriate based on their size. During investigations of hooking injury and mortality rates, adult or subadult fish would be collected by hook-and-line angling using barbless J hooks of variable size (1/0 and 6/0), handled (weighed, measured, and checked for marks and tags), checked for hooking location and any injuries, and then have the hook removed and be released following catch-and-release best practices. No ESA-listed species are specifically targeted in either of these studies, but some may be unintentionally captured as a part of this effort and ESA-listed Chinook and coho salmon species are components of the target species of salmon being studied in these areas.

For the Lake Ozette sockeye salmon study, both juvenile and adult salmon would be collected. Juveniles would be collected via minnow or screw traps (or smolt wheel), and adults would be collected via weir or gill/tangle netting. Juvenile fish would be captured, handled (measured, weighted, and checked for marks or tags), anesthetized, and tagged with surgically implanted acoustic tags prior to release. Captured adults would be handled (measured, weighted, and checked for marks or tags), anesthetized, tissue-sampled, and tagged with surgically implanted acoustic tags prior to release. Lastly, the effort to monitor the presence and abundance of invasive EGC involves setting small minnow traps, shrimp pots, or modified fukui traps that may unintentionally capture juvenile ESA-listed fish. Any fish unintentionally captured would be released from traps and returned to the water at the site of capture with as little handling as possible. The

researchers are not proposing to kill any of the listed fish being captured, but a small number of fish may be killed as an inadvertent result of these activities.

Permit 27150

The IDFG is seeking a 5-year permit to conduct three studies in the Clearwater River basin in Idaho. They are (1) Standard Resident Fish Stream Surveys, (2) Juvenile *O. mykiss* Composition in the Lower Clearwater River Drainage, and (3) Seasonal Resident Fish Movement and Angler Encounter Rates. Studies 1 and 3 would be conducted concurrently, and all three would involve capturing juvenile SnkR steelhead via boat electrofishing. Approximately half of the captured fish would simply be handled, measured, identified, and released. The rest of the captured fish would also be tissue-sampled, and some would be marked for the purpose of determining recapture rates. Some of the captured fish may also be anesthetized to reduce handling and sampling stress.

The purposes of the work are (1) to gather information on fish distribution, abundance, and composition—with an emphasis on evaluating the distribution and impacts of non-native predator fish; (2) assess the genetic and behavioral influences that hatchery-produced steelhead in the Clearwater River watershed have on ESA-listed, natural *O. mykiss* in the area; and (3) monitor westslope cutthroat trout distribution and movement. The three projects, collectively, would benefit ESA-listed steelhead by helping managers monitor the species' abundance, composition, density, distribution, age structure, growth, and sources of mortality. Additionally, the work would help managers better understand interactions between the listed fish, their non-native predators, other conspecific (but not listed) fish, and the angling community. All the information to be gained would be used to inform management decisions regarding fishing regulations and seasons, predator control measures, and various recovery actions for the listed SnkR

steelhead. The researchers do not intend to kill any of the fish being captured, but a small number may die as an inadvertent result of the activities.

Permits 27299 and 27469

Cramer Fish Sciences is seeking two new permits that would authorize them to take juvenile and adult SacR winter-run Chinook salmon during the course of conducting two Chinook egg-to-fry survival studies in the Sacramento River, CA, between Keswick Dam and the confluence of the river and Clear Creek. The purpose of both these studies is to estimate Chinook salmon egg mortality and temperature exposure as well as intergravel water velocity and dissolved oxygen concentration in artificial redds placed in Chinook fall- and winter-run spawning habitat. Additionally, egg survival would be evaluated in natural fall- and winter-run redds that are predicted to be exposed to temperatures above mortality thresholds. Though SacR winter-run Chinook are not the target species, a few individual fish might be encountered or observed during stream or snorkel surveys. The research is not expected to kill any ESA-listed fish.

Permit 27513

Stillwater Sciences is seeking a new permit that would authorize them to take juvenile NC steelhead, CC Chinook salmon, and CCC coho salmon while assessing aquatic habitat conditions and fish use in the lower Navarro River and its estuary in California—including some of the river's lower tributary reaches (Marsh, Flume, Murray, Barton, Ray, and Mustard gulches). The research would benefit ESA-listed species by providing information on opportunities and constraints for salmonid habitat restoration in the estuary and lower mainstem Navarro River corridor. Documenting seasonal salmonid distribution, habitat use, and relative abundance of fish species would help managers develop and prioritize restoration actions for the lower Navarro River and estuary and contribute to those actions' effectiveness.

Juvenile fish would be collected via dip net, beach seine, and minnow trap and observed during snorkel surveys. Juvenile fish would be captured, handled, and released; a subsample would be anesthetized, tissue-sampled and PIT-tagged. The researchers do not intend to kill any ESA-listed fish, but a small number may die as an inadvertent result of the proposed activities.

This notice is provided pursuant to section 10(c) of the ESA. NMFS will evaluate the applications, associated documents, and comments submitted to determine whether the applications meet the requirements of section 10(a) of the ESA and Federal regulations. The final permit decisions will not be made until after the end of the 30-day comment period. NMFS will publish notice of its final action in the **Federal Register**.

Dated: August 15, 2023.

Angela Somma,

Chief, Endangered Species Division,

Office of Protected Resources, National Marine Fisheries Service.

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