



DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

RIN 0648-XD142

Endangered and Threatened Species; Take of Anadromous Fish

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

ACTION: Issuance of four scientific research and enhancement permits.

SUMMARY: Notice is hereby given that NMFS has issued Permit 17913 to Stillwater Sciences, Permit 17551 and Permit 18181 to the California Department of Fish and Wildlife (CDFW), and Permit 1415 to the United States Fish and Wildlife Service (USFWS).

ADDRESSES: The approved application for each permit is available on the Applications and Permits for Protected Species (APPS), <https://apps.nmfs.noaa.gov> website by searching the permit number within the Search Database page. The applications, issued permits and supporting documents are also available upon written request or by appointment: NMFS West Coast Region, 650 Capitol Mall, Room 5-100, Sacramento, CA 95814 (ph: (916) 930-3600, fax: (916) 930-3629).

FOR FURTHER INFORMATION CONTACT: Amanda Cranford at (916) 930-3706, or e-mail: Amanda.Cranford@noaa.gov.

SUPPLEMENTARY INFORMATION:

Authority

The issuance of permits and permit modifications, as required by the Endangered Species Act of 1973 (16 U.S.C. 1531-1543) (ESA), is based on a finding that such permits/modifications: (1) Are applied for in good faith; (2) Would not operate to the disadvantage of the listed species which are the subject of the permits; and (3) Are consistent with the purposes and policies set forth in section 2 of the ESA. Authority to take listed species is subject to the conditions set forth in the permits. Permits and modifications are issued in accordance with and are subject to the ESA and NMFS regulations (50 CFR parts 222-226) governing listed fish and wildlife permits.

Species Covered in This Notice

This notice is relevant to federally endangered Sacramento River (SR) winter-run Chinook salmon (*Oncorhynchus tshawytscha*), threatened Central Valley (CV) spring-run Chinook salmon (*O. tshawytscha*), threatened California Central Valley (CCV) steelhead (*O. mykiss*), and threatened southern distinct population segment (SDPS) of North American green sturgeon (*Acipenser medirostris*).

Permits Issued

Permit 17913

A notice of the receipt of an application for a scientific research and enhancement permit (17913) was published in the Federal Register on March 28, 2013 (78 FR 18963). Permit 17913 was issued to Stillwater Sciences on September 6, 2013 and expires on December 31, 2018.

Permit 17913 is for two studies to be carried out in the Tuolumne River between river mile (RM) 52.5 and RM 0, and in the San Joaquin River between RM 79 (Gardner Cove) and RM 90 (Laird Park). The Tuolumne River fisheries monitoring project will evaluate and

measure ESA-listed salmonid and non-listed fish species distribution, population abundance, habitat utilization, and habitat quality in the lower Tuolumne River in Stanislaus County, California. This project will monitor the effects of water diversion facilities maintained by the Turlock and Modesto Irrigation Districts on ESA-listed salmonids and non-listed fish species and the effects of past and ongoing habitat restoration actions to provide information and guide future habitat restoration and management actions within the Tuolumne River watershed. This study includes observational snorkel surveys as well as direct collection and handling of juvenile fall-run Chinook salmon and CCV steelhead using beach seine methods. Any captured juvenile CCV steelhead will be handled (sedated and measured for length and weight), placed in an aerated bucket to recover, and released downstream of the capture site.

The Tuolumne River *O. mykiss* Temperature Adaptation Assessment project will examine temperature tolerances of juvenile salmonid life stages that inhabit the lower Tuolumne River. Fish collected for this project may potentially include ESA-listed CCV steelhead. Up to 50 juvenile *O. mykiss* will be collected from the Tuolumne River during summer months (June-September) of each year using beach seine methods between La Grange powerhouse (RM 52.2) and Roberts Ferry Bridge (RM 39.5). Individual test fish will be placed in Brett swim tubes and tested for physiological performance, measuring both a routine, or resting (minimum) respiratory rate and a swimming (maximum) respiratory rate at a single test temperature. Test fish would be allowed to fully recover prior to release in the lower Tuolumne River.

Permit 17551

A notice of the receipt of an application for a scientific research and enhancement permit (17551) was published in the Federal Register on March 28, 2013 (78 FR 18963). Permit 17551

was issued to the CDFW's Region II on September 9, 2013 and expires on December 31, 2018.

The overall goal of this project is to increase knowledge with regards to the behavior of young of the year and yearling SDPS green sturgeon from the Sacramento River and their presumed nursery grounds of the Sacramento-San Joaquin Delta and subsequently the ocean staging habitat of San Francisco Bay. Information on timing, survival, and transition rates through the bay and Delta region are necessary for understanding potential risks to juvenile green sturgeon.

The study proposed for Permit 17551 will be a collaborative effort between the University of California Davis Biotelemetry Laboratory and CDFW. Objectives are to: (1) Develop capture methods for monitoring of juvenile green and white sturgeon in the lower Sacramento River and Sacramento-San Joaquin Delta; (2) Describe spatial and temporal movements during emigration from the lower Sacramento River to the tidally influenced reaches of the upper Delta; (3) Assess the seasonal migration and survival through engineered flood plains (Yolo Bypass); and (4) Describe spatial and temporal use of the Sacramento-San Joaquin Delta and behavior and emigration timing to San Francisco Bay. CDFW is proposing to capture (tangle nets, modified fyke nets), handle (measure lengths and weights, surgical implantation of acoustic tags), and release juvenile SDPS green sturgeon once adequately recovered.

Permit 18181

A notice of the receipt of an application for a scientific research and enhancement permit (18181) was published in the Federal Register on September 25, 2013 (78 FR 59005). Permit 18181 was issued to the CDFW's Region II on January 14, 2014 and expires on December 31, 2018.

The primary purpose of Permit 18181 will be to assess entrainment following inundation at weir structures in the Central Valley during high flow events and within the Colusa Basin Drainage Canal (CBDC). If entrainment occurs, fish will be rescued and relocated to the lower Sacramento River near Tisdale Weir, in Sutter County, California. The objectives of the proposed rescue and monitoring are to: (1) Capture, tag and relocate SR winter-run Chinook salmon and other species of management concern in the lower reaches of the CBDC or at Wallace Weir within the Yolo Bypass to estimate the number of fish entering the CBDC; (2) Construct and place modified fyke traps at key locations within the interior of the CBDC system to capture, tag and relocate stranded fish if the weirs lower in the system are not successful at stopping fish; (3) Assess the level of entrainment behind Fremont and Tisdale weirs and evaluate the survival and behavior of entrained adults that are rescued and relocated following increased flows and flooding; and (4) Identify conditions resulting in high levels of entrainment specific to each location.

The take associated with rescue and research activities involving ESA-listed salmonids and SDPS green sturgeon will include: capture (resistance board weir, fyke traps, block nets, hoop nets, beach seines), handling (measurements, weights, fin clips for genetic analysis, application of Floy tags, surgical implantation of acoustic tags), transport (if applicable) and the release of ESA-listed salmonids and SDPS green sturgeon back into the Sacramento River.

Permit 1415

A notice of the receipt of an application for modification of a scientific research and enhancement permit (1415) was published in the Federal Register on September 25, 2013 (78 FR 59005). Permit 1415 was issued to the USFWS, Red Bluff Fish and Wildlife Office on February

6, 2014 and expires on December 31, 2018.

The overall purpose of the projects is to provide monitoring data for various evaluations, including restoration actions, stream flow assessments, management actions, and life-history investigations. Species under investigation include SR winter-run Chinook salmon, CV spring-run Chinook salmon, CCV steelhead, and SDPS green sturgeon. Streams targeted for research and monitoring include Battle Creek, Clear Creek, and the mainstem of the upper Sacramento River (i.e., upper river and surrounding watersheds).

Take resulting from the proposed research and monitoring activities will involve observations (snorkel surveys, redd counts and escapement/stream surveys) or capture (by trawl, seine, fyke-net trap, benthic D-net, substrate samplers, hook and line, backpack electrofishing, weir trap, trammel or gill net, rotary screw trap, egg mats, or by dip net), handling (sedation, fin clipping, tissue sampling, coded-wire tag extraction, otolith extraction), marking (Bismark brown Y stain), tagging (acoustic, passive integrated transponder [PIT]), and release of fish in association with eight separate projects.

Dated: February 19, 2014.

Angela Somma, Chief, Endangered Species Division,
Office of Protected Resources,
National Marine Fisheries Service.

