California Voluntary Drought Initiative

VOLUNTARY DROUGHT AGREEMENT
Sacramento River Tributaries: Deer Creek
Deer Creek Irrigation District

This Voluntary Drought Agreement (Agreement) is developed to implement the goals of the California Voluntary Drought Initiative (Initiative). The parties enter into this Agreement in furtherance of the terms, policies and goals of the Initiative (attached). This agreement is between NOAA's National Marine Fisheries Service (NMFS) and the Deer Creek Irrigation District (DCID).

Priority Watersheds

In an effort to focus resources and maximize the efficiency of this Initiative in the shortest time possible, we have chosen to concentrate on priority watersheds where the risk of drought-related effects to Federally-listed fish species are greatest. This section describes those priority watersheds and summarizes their importance to conserving sensitive species.

Deer Creek

The importance of Deer Creek to the survival and recovery of salmon and steelhead in Northern California's Central Valley, is significant. Of the 19 independent spring-run Chinook salmon populations that historically occurred in the Central Valley, the Deer Creek population is one of the last of a small group of naturally-produced populations. Deer Creek is identified in the Central Valley salmon and steelhead recovery plan as Core 1 populations for spring-run Chinook salmon and steelhead. Preserving and restoring Core 1 populations is the foundation of the recovery strategy because Core 1 populations are considered to have the greatest potential to support independent viable populations.

Deer Creek is unique in the Central Valley because it is has no upstream water storage facilities that can be managed to meet the stream flow and water temperature requirements of these fish species, to buffer the effects of drought. Instead, all of the water management facilities and water use occur on downstream reaches near the confluence with the Sacramento River, and their careful management is needed this year, to ensure salmon and steelhead are able to successfully migrate upstream to spawning habitat and downstream to the Sacramento River.

Table 1 lists the months when adult and juvenile forms of Chinook salmon and steelhead are present in the diverted stream sections of lower Deer Creek. Supporting documentation used to create this table was obtained from annual adult salmon and steelhead population monitoring conducted by CDFW's Red Bluff Fisheries Office (Killam and Johnson 2012) and a summary

report of rotary screw trap monitoring conducted on Deer and Mill Creek between 1994 and 2010 (Johnson and Merrick 2012) .

Table 1. – Occurrence, by month, of adult and juvenile Chinook salmon and steelhead in the diverted stream sections of lower Deer Creek. Dark shades indicate peak presence, while white indicates not presence.

Species	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July
Adult spring-run Chinook (upstream migration)										
Adult steelhead (upstream migration)										
Adult fall-run Chinook (upstream migration and spawning)										
Juvenile Chinook (downstream migration)										
Juvenile steelhead (downstream migration)										

Elements of the Voluntary Drought Initiative and Agreements

The general elements of the Initiative include eligibility, designated fish passage flows, and changes in the timing of diversions to help with flow and water temperature management, monitoring and evaluations. The specific elements of the program are tailored by stream and described in this Agreement.

Implementation and Duration

Implementation will occur when water users sign onto this Agreement. Agreements will be implemented during the 2014 drought, and will remain place until December 31, 2014, or as long as any Federal or State drought emergency declarations or designations remain in effect, whichever comes first.

Instream Flows

The flows described in this Agreement were developed based on instream flow studies, data collection efforts and reports associated with fish biology data collection, relevant literature, and the professional knowledge and experience of CDFW and U.S. Fish and Wildlife Service (USFWS) field staff. CDFW and USFWS have conducted flow studies, snorkel surveys, and established video monitoring stations to determine what flow conditions allow salmon and steelhead to move up- and downstream through areas in these streams where physical obstacles (riffle height, dams, and fish ladders, etc.) are a challenge for the fish migration during drought conditions.

The range of instream flows that are proposed in this Agreement are considered by NMFS and CDFW to be the minimal flows that are necessary to allow for adult and juvenile fish migration on lower Deer Creek. The range of flows in this Agreement (which incorporate base flows and pulse flows) incorporate, to the best of our knowledge, the uncertainty associated with a variety of fish passage consideration in these streams, including passage past critical riffles, fish ladders and other obstacles. The range also incorporates consideration for the variable run timing of target fish species. These are not optimal flows, but the minimum, reasonable targets that will minimize the effect of drought while balancing fish and agricultural interests. Flows below those described in this Agreement would be expected to cause significant harm to the target species.

Water users will be working closely with the NMFS and CDFW to ensure that flow contributions are closely coordinated, monitored, and evaluated to determine fish migration success. Adjustments may be needed to fine tune flows in coordination with NMFS and other fish and water agencies field to ensure successful fish passage. NMFS and CDFW will work closely with water users to ensure that minimum fish passage flows are scheduled at the best times to ensure fish passage and survival.

Deer Creek Irrigation District (DCID) has adjudicated rights to divert Deer Creek surface water for irrigation. DCID is entitled to approximately 33 percent of the flow of Deer Creek and Stanford Vina Ranch Irrigation Company (SVRIC) is entitled to 66 percent of the flow from Deer Creek.

Pulse Flows

Previous pulse flows on Deer creeks lasting 24 hours or more have helped to create an attraction flow at the confluence of the tributary creek with the Sacramento River, encouraging fish to enter the stream, and providing the greatest instantaneous improvement to fish passage conditions through critical riffles and diversion structures. Pulse flows also encourage juvenile salmonids to migrate downstream before summer water temperatures become too warm. Coordination between diverting entities and their points of diversion must be conducted so that the duration and magnitude of water delivery interruptions are shared equally by all constituents in their respective service areas. To be most effective, pulse flows must be maintained for a minimum of 24 hours, with the first 12 hours of the event at maximum flow to promote fish attraction, and the remainder of the event stepped down incrementally to reduce potential fish stranding.

Potential Fish Passage issues for lower Deer Creek

Three areas along Deer Creek could be considered possible fish passage barriers:

1. Stanford Vina Ranch Irrigation Company Diversion Dam (SVRIC Dam) including Cone-Kimball diversion.
2. Deer Creek Irrigation District Diversion Dam (DCID Dam).

3. Shallow, "critical passage" riffles located in the 5 miles of stream between SVRIC Dam and the confluence of Deer Creek and the Sacramento River.

Deer Creek Flow Targets

DCID agrees to perform the Deer Creek stream flow conditions as outlined below, and according to the type of diversion activities conducted at a particular site:

1. Bypass Flows: Upon notice from the CDFW, DCID agrees to bypass a portion of the surface water it would otherwise divert from Deer Creek for agricultural use to augment fish transportation flows in Deer Creek, sometimes referred to herein as "Bypassed Water." The amount to be bypassed will be proportional to the streamflow adjudicated to DCID (33.3%). Bypassed Water will be limited to flow releases during the spring and fall, as set forth below.

2. Minimum Base Flow: These flows are required to support fish that may already be in Deer Creek but may not have passed to upper elevations or moved out to the Sacramento River. It is also designed to address the unusual instream conditions created by the drought.

3. Pulse Flows: Pulse flows mimic the sudden increases in stream discharge following rain or snowmelt events which are absent in drought years. Adult salmonids have evolved to take advantage of such conditions when returning to natal tributaries. Previous pulse flows on Deer Creek lasting 24 hours or more have helped to create an attraction flow at the confluence with the Sacramento River, encouraging fish to enter the stream, and providing the greatest instantaneous improvement to fish passage conditions through critical riffles and diversion structures.

Starting on the effective date of this Agreement until June 14, 2014: 50 cubic feet per second (cfs), as long as 100 cfs is coming out of the canyon. There will be a proportional reduction in base flow obligation of 1 cfs for each 1 cfs reduction in natural flow below 100 cfs. As baseflow is reduced below 50 cfs, due to a reduction in natural flow, DCID and SVRIC will contribute to the required baseflow at a 1:2 ratio (1/3 DCID:2/3 SVRIC) to meet baseflow requirements, respectively, based on their proportional water rights. For example, if the natural flow drops to 92 cfs, the baseflow requirement would be 42 cfs, of which DCID would be required to provide 14 cfs, and SVRIC would provide 28 cfs.

June 15 to June 30, 2014: 25 cfs. The portion of this flow to be provided by DCID is 8.3 cfs during the 25 cfs period, as determined by measurements taken at the Parshall flume on the DCID Ditch and the U.S. Geological Survey (USGS) Stream Gage at the mouth of the canyon

above DCID Dam.

October 15 to December 31: 50 cfs is required for out-migrating yearling juvenile spring-run Chinook and coincidentally Central Valley juvenile and adult steelhead, which are federally listed as Threatened. In the event of a rain freshet, base flows could start on October 1, 2014 if mutually agreed to by NMFS, CDFW and DCID. DCID and SVRIC will contribute to the required baseflow at a 1:2 ratio (1/3 DCID:2/3 SVRIC, respectively, based on their proportional water rights.

Magnitude of pulse flows: A minimum of 50 cfs over base flow **or** full natural flows as recorded at the USGS Stream Gage at the mouth of the canyon above DCID Dam. The duration of the pulse flow in terms of time at which peak flow is maintained will be a minimum of 24 hours but not more than 72 hours.

DCID shall create one pulse flow event before June 15, 2014, as requested by CDFW and with 48 hours' notice. Another pulse flow event may be necessary if monitoring detects fish holding below the SVRIC dam. If another pulse flow event is necessary in June, 2014, CDFW will give DCID 48 hours' notice of such requirement.

Other related measures: In cooperation with CDFW staff, DCID shall regularly inspect the fish bypass pipe to verify that they are effectively protecting salmonids and other fish species in accordance with CDFW and NMFS fish screening criteria. Sufficient flow will be supplied from the diversion into a fish bypass to safely and efficiently return fish back to the stream.

DCID will operate the diversion dam and headgate such that flows through the fish ladder and over the dam will facilitate the upstream passage of adult salmonids with minimum delay and injury. DCID will notify CDFW prior to any and all changes which are made to the diversion dam configuration or to the headgate operation which could change the amount of flow through the fish ladder or over the diversion dam. This notice will be provided with a 48-hour notice and will allow for CDFW and DCID staff to meet on-site to make necessary adjustments to both the ladder and diversion works. CDFW will not manipulate dam flashboards or headgate settings but will provide DCID recommendations on those adjustments which will facilitate proper fish ladder operation.

Monitoring and Evaluations

Monitoring and evaluations plans shall be in place to inform the effectiveness of the program. Monitoring and evaluations will be conducted by CDFW staff and reported to and reviewed by NMFS. DCID agrees to provide reasonable access to CDFW and its agents, including equipment access, to the property to carry out any of the management activities listed in this Agreement for the purposes of:

1. Monitoring habitat and stream flow conditions during flow events and/or during post-

rescue/relocation to determine if conditions remain adequate to keep fish alive and provide for passage.

2. Monitoring spring-run Chinook salmon and steelhead abundance, size, and condition prior to any management activities;

At a minimum, monitoring will involve the use of video stations to determine if fish are moving through lower Deer Creek in response to minimum base flows and pulse flow events, and to determine population abundance.

Snorkel surveys will be conducted downstream of diversion structures and critical riffle areas to determine if minimum base flows are passing fish through these areas. It is the intent of NMFS and CDFW to detect any fish stranding issues before mortalities are observed, so that sufficient time is provided to inform diverters and take proactive flow restoration or other fish rescue actions.

For pulse flow evaluations, CDFW field staff will identify fish passage issues by conducting snorkeling surveys downstream of the potential barrier to determine if listed salmonids are in the vicinity of the potential passage issue. Then, once a fish passage issue is identified, CDFW will determine, and make pulse flow recommendations to water users to pulse flows may help to move fish upstream past the area. Water users will make every reasonable attempt to provide the recommended pulse flow.

PARTICIPATING PARTIES

John Edson
President, Board of Directors
Deer Creek Irrigation District

6/2/2014
Date

Maria Rea
Assistant Regional Administrator
NMFS, West Coast Region
California Central Valley Area Office

6/2/2014
Date

California Department of Fish and Wildlife

National Marine Fisheries Service, West Coast Region
California Department of Fish and Wildlife

California Voluntary Drought Initiative

Goals of the Voluntary Drought Initiative

NOAA's National Marine Fisheries Service (NMFS) and the California Department of Fish and Wildlife (CDFW) are among the Federal and State agencies that recognize the severe constraints the 2014 drought is likely to have on water supply, human health and safety, agriculture, and fish and wildlife in California. The California Voluntary Drought Initiative (Drought Initiative) expresses our intention to work with water users in high priority watersheds throughout the State to reduce the negative effects of the drought on salmon and steelhead, and to provide improved regulatory certainty for those who participate in the initiative during this drought.

NMFS is charged by Congress to protect species through the Endangered Species Act (ESA). The ESA provides for formal agreements with individuals and organizations pursuing activities, such as agriculture, that allow them to be conducted while protecting fish and their habitat. These processes generally take time to implement and may simply be impractical for severe drought-related water use this year.

CDFW is the state agency with jurisdiction over the conservation, protection, and management of fish and wildlife; and, in addition to being charged with protecting certain species through the California Endangered Species Act (CESA), is trustee for State fish and wildlife resources.

To address the urgency created by the drought, NMFS and CDFW have developed the Drought Initiative to reduce the effects of the drought on priority salmon and steelhead populations in California during the 2014 drought, while Federal and State drought declarations or designations are in effect. Another goal of the initiative is to provide improved regulatory certainty for those participating individuals and entities during this drought. This initiative creates the opportunity for a written Voluntary Drought Initiative Agreement with willing landowners and water users, a parallel written agreement with CDFW related to incidental take under CESA, or both. It also includes an approach to the application of the ESA's section 9 enforcement standards and similar enforcement under CESA, as they are related to the withdrawal of water from salmon and steelhead-bearing stream and rivers.

This is a temporary, voluntary initiative that is only being implemented during Federal and State drought declarations or designations covering ESA and CESA-listed salmon and steelhead and other species of special concern where they co-occur with ESA or CESA-listed populations.

The purposes of this document are to describe: (a) the rationale for the initiative; (b) the priority watersheds for application of the initiative; and (c) the basic elements of the initiative.

Relationship to Possible Water Rights Curtailments

Governor Brown proclaimed a drought state of emergency on January 17, directing State officials to take all necessary actions to prepare for water shortfalls and instructed the State Water Resources Control Board (State Water Board) to notify water right holders that they may be directed to cease or reduce water diversions from streams and rivers later this season due to low water conditions. On April 25, 2014, Governor Brown issued an Executive Order directing CDFW to work with other State and Federal agencies and landowners in priority watersheds to protect certain species and maximize the beneficial uses of scarce water supplies, including employment of voluntary agreements to secure instream flows, relocate members of those species, or take other measures. NMFS and the CDFW are aware that the State Water Board is currently considering curtailing water rights to respond to current drought conditions. This Drought Initiative, under the ESA and CESA, is limited to those authorities and responsibilities of NMFS and CDFW. The initiative is separate from the State Water Board's authorities or independent actions that it may pursue related to the drought, including emergency curtailments.

Voluntary agreements between the fisheries agencies, water users, or groups of water users, to modify diversions or take other appropriate measures to protect listed species in these priority watersheds can potentially secure instream flows and resolve competing calls for water by water right holders. Mindful of the fact that such agreements cannot supersede water right priorities under the authority of the State Water Board, NMFS and CDFW intend to support any local cooperative solution formalized through an executed agreement between either or both NMFS and CDFW and the water user, or group of water users as an alternative to the State Water Board's priority-based curtailment of any party to such an agreement's water rights in order to prevent unreasonable impacts to fishery resources.

The State Water Board's proposed emergency regulations would allow the Deputy Director to approve local cooperative solutions to protect a fishery in place of Board-issued curtailment orders. The proposed emergency regulations would recognize voluntary water conservation and instream flow agreements between water users, NMFS and CDFW as an alternative method of compliance with the regulations.

Priority Watersheds

In an effort to focus resources and maximize the efficiency of this initiative in the shortest time possible, we have chosen to concentrate on priority watersheds where the risk of drought-related effects to ESA and CESA-listed fish, and other non-listed State species of special concern are greatest. This section describes those priority watersheds and summarizes their importance to conserving sensitive species. These watersheds are also areas where NMFS and CDFW staff have worked to establish conservation partnerships. To date, both NMFS and CDFW have worked collaboratively with agricultural, landowner, and water user organizations and

individuals to manage through this exceptional drought together and maximize the beneficial uses of scarce water supplies. These watersheds are of high salmon and steelhead conservation value as well as locations where our agencies have a likelihood of finding many willing participants in the initiative. This initial focus may expand over time as appropriate into other areas that are prioritized by Federal and State fish management agencies as the drought progresses.

Sacramento River Tributaries

Priority Sacramento River tributaries are Mill, Deer, and Antelope creeks. These streams contain migration, spawning, and rearing habitat for some of the last remaining naturally-produced populations of ESA and CESA-listed threatened Central Valley spring-run Chinook salmon (*Oncorhynchus tshawytscha*), and ESA-listed threatened California Central Valley steelhead (*O. mykiss*). These streams also support high priority naturally-produced populations of fall and late fall-run Chinook salmon (*O. tshawytscha*).

The importance of Deer, Mill, and Antelope creeks to the survival and recovery of salmon and steelhead in Northern California's Central Valley is significant. Of the 19 independent spring-run Chinook salmon populations that historically occurred in the Central Valley, the Deer, Mill, and Antelope creek populations are among the last of a small group of naturally-produced populations. Mill and Deer creeks are identified in the Central Valley salmon and steelhead recovery plan as Core 1 populations for spring-run Chinook salmon and steelhead.

These three streams are unique in the Central Valley because they support naturally-produced populations of salmon and steelhead, yet have no upstream water storage facilities that can be managed to meet the stream flow and water temperature requirements of these fish species or to buffer the effects of drought. Instead, all of the water management facilities and water use occurs on downstream reaches near the confluence with the Sacramento River. The careful management of these facilities and water use is needed this year and this Drought Initiative will attempt to protect salmon and steelhead by increasing their chances that adults will successfully migrate to upstream holding and spawning habitat and juveniles will successfully migrate downstream to the Sacramento River.

Possible Voluntary Drought Initiative actions between the two agencies, landowners, and water users in these three streams include a combination of minimum instream baseflows, periodic pulse flows, and focused monitoring and evaluation at critical passage locations. Past studies on Mill and Deer Creeks have shown that minimum base flows are needed to facilitate upstream and downstream fish passage and that periodic pulse flows mimic the sudden increases in stream discharge following rain or snowmelt events that trigger migration. Adult salmonids have evolved to take advantage of such conditions when returning to natal tributaries. Previous pulse flows on Mill and Deer creeks lasting 24 hours or more have helped to create an attraction flow at the confluence of the tributary creek with the Sacramento River, encouraging fish to enter the stream, and providing the greatest instantaneous improvement to fish passage conditions through

critical riffles and diversion structures. Pulse flows also encourage juvenile salmonids to migrate downstream before summer water temperatures become too warm.

Shasta River

Southern Oregon Northern California coast (SONCC) coho salmon (*O. kisutch*) are listed as threatened under the ESA and CESA. Coho salmon recovery in the Shasta River watershed is a high priority for NMFS and CDFW. The diversity and complexity of the physical and environmental conditions historically present within the Shasta River basin created unique life history strategies and diverse coho salmon habitat. Historical instream river conditions, fostered by unique cold spring complexes, created ideal rearing habitat for juvenile coho salmon throughout their freshwater residency. Information suggests that coho salmon abundance is severely depressed relative to historical population numbers and recent trends show continued decline. Since 2001 adult coho salmon returns to the Shasta River have ranged between 9 and 291 fish, well below viable levels.

Habitat and instream flow restoration activities within the upper Shasta River basin have improved conditions for anadromous salmonids in recent years. Additional habitat restoration efforts like those being considered by the Shasta Valley Conservation Group, the Montague Water Conservation District, the Karuk Tribe, and The Nature Conservancy within the basin will hopefully create conditions that ultimately lead to a viable coho salmon population in the Shasta River. Given the dire water supply conditions that we are faced with this spring and summer, NMFS and CDFW would like to encourage local landowners to engage in collaborative water conservation actions to reduce impacts to incubating embryos, emerging fry and juvenile life stages of coho salmon that are present in Parks Creek and the upper Shasta River. NMFS and CDFW anticipate an opportunity to focus the current collaborative efforts with landowners and water users in the Shasta River into specific actions during this drought through our Voluntary Drought Initiative.

Preliminary monitoring efforts conducted by CDFW fisheries staff estimate that 151 adult coho salmon returned to spawn in the Shasta River during the winter of 2013/2014. Spawning ground surveys conducted by the CDFW found that 47 coho redds were constructed in Parks Creek and the upper Shasta River, upstream of the confluence of Parks Creek with the Shasta River. This Drought Initiative will attempt to protect these spawning sites and other drought related impacts to other life stages of coho salmon. Examples of possible actions in the Shasta River include water conservation measures to protect cold water refugia, and maintaining minimum base flows to ensure fish passage is provided for juvenile coho salmon to access those areas of cold water refugia.

Scott River

The Scott River coho salmon population is identified by NMFS and CDFW as a high priority population for the recover the SONCC coho salmon Evolutionarily Significant Unit (ESU). The

diversity and complexity of the physical and environmental conditions found within the Scott River basin have contributed to the evolutionary legacy of coho salmon in the SONCC ESU, and contributed to this population being considered a Functionally Independent population. In the winter of 2013/2014, approximately 2,600 adult coho salmon returned to the Scott River. Due to low flow conditions during the spawning season, tributaries were not accessible for adult coho salmon, and the majority of coho salmon redds were constructed in the mainstem Scott River. Hydrological conditions have recently improved in the Scott River Basin, primarily as a result of rainfall. Due to a low volume of snowpack, combined with basin-wide water use, the mainstem Scott River is predicted to go dry in the vicinity of coho redds and therefore increase mortality of eggs and larval fish.

NMFS and CDFW have worked collaboratively with the Scott River Water Trust, Scott River Watershed Council, Karuk Tribe, Siskiyou Resource Conservation District, and U.S. Forest Service to formulate potential strategies for rescue and relocation of juvenile salmonids during the upcoming season. Fish rescue has been identified as a strategy to increase the chance of survival for juvenile salmon and steelhead in the Scott River watershed. CDFW has served as lead agency, carrying out fish rescue activities in the Scott River watershed since the 1950s. Drought Initiative Voluntary Agreements or the parallel agreements with CDFW regarding CESA in the Scott River during this drought will likely include actions related to fish rescue and monitoring, among other things.

Another possible voluntary action in this watershed is to work with the Scott River Water Trust, who is currently developing strategies with landowners to curtail water use in an effort to provide protective over-summering conditions for rearing juvenile coho salmon. Other contingency efforts being considered include relocating juvenile coho salmon from mainstem habitats that are at risk of becoming dewatered to areas of the Scott River basin where that risk is less, or in a worst case relocating to a captive holding facility.

Russian River

The Russian River is a large coastal basin north of San Francisco, which supports three salmonid species listed under the ESA. Coho salmon are listed as endangered under the ESA and CESA and Chinook salmon and steelhead are listed as threatened under the ESA. This watershed historically supported the largest population of coho salmon in the ESU and, due to its size and location, was likely a population source for many smaller watersheds. The coho salmon population has subsequently collapsed and, without the intervention of recent conservation hatchery efforts, they would likely be extirpated.

Since 2001, the Russian River Coho Salmon Captive Broodstock Initiative has been breeding coho salmon from local genetic stock and releasing them as juveniles into historic coho salmon streams. The number of streams managed for coho salmon re-introduction has expanded over the years, but they include: Mill Creek (tributary to Dry Creek), Mark West Creek, Green Valley Creek, and Dutch Bill Creek.

The 2014 drought has impacted coho salmon spawning during 2014. Access to preferred spawning habitat in the tributaries was limited due to low-flow conditions and the spawning migration of many adults was delayed while they were forced to hold in the mainstem Russian river over two and a half months. Despite these challenges, the broodstock initiative estimates approximately 200 adults returned to the Russian River. This is a substantial improvement over the single digit returns seen in many of the last 15 years.

The maintenance of surface water in streams of the Russian River is a challenge due in part to high water demand from agriculture, municipal and rural residential developments. NMFS and CDFW are involved in several parallel initiatives attempting to address these challenges. For example, Federal, State, County, and private representatives, with funding from the National Fish and Wildlife Foundation, are working with willing landowners to offset the need to divert water for irrigation or domestic purposes by developing water storage systems. Recently, as a response to drought, CDFW and the State Water Board announced that they will expedite approval for the installation of storage tanks by landowners who currently divert water from coastal streams under the State Water Board's Small Domestic Use registration program. Installing tanks to divert and store water will help improve local regional water supply reliability while also relieving pressure for in-stream diversions during drier months when fish need it most. This Drought Initiative will attempt to leverage these kinds of partnership ideas and efforts already underway to protect salmon and steelhead survival in the Russian River during this exception drought.

Benefits for Water Users Who Participate in the Voluntary Drought Initiative

Improved Regulatory Certainty

In each of these priority streams and watersheds identified in this Voluntary Drought Initiative, NMFS and CDFW seek to provide as much improved regulatory certainty as possible for enrolling landowners and water users. Drought is producing substantial challenges for all sectors of California. To date, NMFS and CDFW have found that open dialogue with drought-affected landowners and water users regarding voluntary steps to reduce the significant risks to threatened and sensitive species from drought has been a way to achieve mutual beneficial outcomes.

Because state and federal species laws are different in some respects, the actual implementation mechanisms may vary between any participating entity and NMFS or CDFW. For example, in each of the watersheds, NMFS and CDFW expect to enter into voluntary agreements as described in this document. Under existing state authorities and pursuant to executive orders related to the current drought emergency, CDFW may also employ voluntary written agreements as a tool to improve regulatory coverage for incidental take of species under CESA. Depending on the situation, there could be one written agreement covering each agency, or one agreement per each agency. Participation in the Drought Initiative means execution of either such agreement. Most importantly, the Drought Initiative represents the shared commitment of

NMFS and CDFW that voluntary, collaborative solutions memorialized in writing can best minimize the impacts of water use and other activities and provide improved regulatory certainty for local communities during this period of exceptional drought.

For each priority stream and watershed, NMFS and CDFW expect to promptly reach out to landowners, water users, or other entities and fast-track discussions about standard terms or activities for these voluntary agreements. Each agency intends to dedicate adequate capacity and senior level involvement to move discussions and agreements for execution. These agreements would detail the actions proposed to occur in collaboration with the enrolling participant. Improved regulatory certainty and coverage will be tied expressly to the agreed upon actions described in any agreement and limited in time only for the period of this drought.

Finally, in order to reduce the associated risks of landowners or water users risk subsequent to entering into a voluntary agreement under this Drought Initiative, NMFS and CDFW will agree to endorse any voluntary agreement signed by a participant and the two fish agencies to the SWRCB as an alternative means to satisfy Board emergency regulations in place of a Board-issued water rights curtailment order.

ESA Enforcement

Under the ESA, NMFS has responsibility to protect and recover listed species including salmon and steelhead in California. The NMFS Office of Law Enforcement, often working with State and other Federal agencies, investigates activities or inactivity that may result in the unlawful take of these species, and refers suspected unlawful activity to the Enforcement Section of the NOAA Office of the General Counsel for civil prosecution, or to the Department of Justice for criminal prosecution. Protection of ESA listed salmon and steelhead are a priority for NOAA across their range, and NOAA uses management plans and takes enforcement actions to help ensure the protection and recovery of these species.

At this time, severe and unprecedented drought conditions are affecting parts of California. To help address the concerns those conditions present, NMFS is working with those withdrawing water from California streams and rivers to take into account those needs and at the same time carry out its responsibilities towards ESA listed salmon and steelhead by taking the extraordinary steps outlined in this Drought Initiative. NMFS is thus seeking to encourage participation in the Drought Initiative, and, to that end, will in making decisions about bringing or referring enforcement actions and about appropriate penalties, consider participation in the Drought Initiative an important mitigating factor when a Drought Initiative participant unintentionally takes ESA listed fish species while withdrawing water or carries out other action that affects fish passage while complying with a Voluntary Drought Initiative Agreement. To obtain this special consideration, a Drought Initiative participant must establish that it has implemented the specified water mitigation measures described in a Voluntary Drought Initiative Agreement and fully complied with the requirements of an agreement. NOAA will actively pursue enforcement actions against those who act negligently, recklessly, or intentionally in violation of the ESA.

CESA Enforcement

CDFW recognizes that several populations of Chinook salmon, coho salmon, and steelhead are listed as threatened under both the ESA and CESA. When faced with discretionary enforcement decisions, CDFW considers all facts and factors involved. Given the current drought, CDFW will rank participation in the Drought Initiative as an important element when evaluating all the facts regarding the possible take of CESA-listed fish species while withdrawing water or carrying out other action that causes take. However, as the State trustee of natural resources, CDFW is required by law to actively pursue enforcement actions against those who act negligently, recklessly, or intentionally in violation of the CESA. Finally, at the discretion of the landowner, Memoranda of Understanding entered into pursuant to this initiative and CESA for fish management activities will include location-specific best management practices and will provide increased regulatory certainty for cooperating landowners and entities.

Financial and Technical Assistance

Technical and financial assistance may be available for water users who participate in this initiative to implement the actions described in any agreement. If requested, NMFS and CDFW will provide recommendations and letters of support, for targeting financial and technical assistance, with initiative participants.

Elements of the Voluntary Drought Initiative

The specific elements of the initiative will be tailored by stream or river system and described in individual Voluntary Drought Initiative Agreements. The general elements of this initiative include eligibility, designated fish passage flows, changes in the timing of diversions to help with flow and water temperature management, other possible habitat protection measures, fish rescue or relocation, scope and limitations of regulatory commitments, monitoring, and evaluations.

Eligibility

The Drought Initiative will be available specifically to water users who do not have an existing ESA section 7 nexus, section 10 permits, CESA Incidental Take Permit, or other CESA authorization, or other fish passage or flow agreements with NMFS or CDFW. A Drought Initiative participant must establish that it has implemented the specified measures described in a Voluntary Drought Initiative Agreement and fully complied with the requirements of that agreement. Eligible applicants may include water companies, water districts functioning as water masters for multiple water rights holders, or individual water rights holders or water users that do not have existing Federal or State regulatory coverage under the ESA or CESA.

Implementation of the Initiative and Voluntary Initiative Agreement

The initiative will be implemented during the 2014 drought, and will remain in effect as long as any Federal or State drought emergency declarations or designations are in place. Implementation will occur as water users sign onto the individual Voluntary Drought Initiative Agreements. Signed Agreements will remain in effect through December 31, 2014, or until the drought is over, but may be extended if drought conditions continue. Given the importance of this Initiative to priority salmon and steelhead populations in California, any willing individual or entity seeking to develop an agreement with NMFS and CDFW will be given high priority attention. The agencies are targeting the development and execution of agreements over the course of May and June 2014.

Targeted Flow Conservation

Water users are encouraged to consider and apply targeted water conservation strategies that may minimize the potential for water use to impact the critical survival needs of priority salmon and steelhead populations. Such strategies can also facilitate a shift in time of diversion or method of diversion (*i.e.*, from on stream to off stream). The goal will be to allow the fish survival or passage conditions described in Voluntary Drought Initiative Agreements to be met. Stream and river flows described in these Voluntary Drought Initiative Agreements will be the lowest flows currently thought by NMFS and CDFW to maintain the survival of fish in the specific stream or river reaches they address, based on the best available scientific information.

Water users who contribute minimum instream base flows and periodic fish passage pulse flows can help improve the likelihood that salmon and steelhead redds will yield successful production; that over-summering juveniles will survive; and, that migrating fish will successfully migrate up- and downstream past critical water diversion points and other passage impediments during this drought.

Securing Instream Flows

It is the intent of this initiative to help ensure that contributions of water users will be honored by downstream water users. This initiative will seek the support of all water users necessary to ensure that the minimum biological needs of the species are met. The securing of instream flows through an agreement will be solely voluntary, and may include options such as leases or transfers.

Monitoring

Monitoring and evaluation of these measures is necessary to determine their success. Water users will be working closely with NMFS, CDFW and other fish and water agencies so that the actions agreed upon in any specific Voluntary Drought Initiative Agreement are closely coordinated, monitored and evaluated to determine success. The agreement will seek to allow

some measure of collaborative, real-time adjustment ability between the landowners or water users to fine tune implementation in coordination with NMFS and CFDW in the field to ensure life-stage-specific criteria are met.

Fish Rescue

The rescue of stranded fish is not the preferred option for fish management activities. Yet, in specific locations within some but not all of the priority watersheds, fish rescue and relocation may be a necessary step that NMFS and CDFW take to protect species. The two agencies have sufficient existing authorities to so act. However, where appropriate, a Voluntary Drought Initiative Agreement with NMFS or CDFW or a parallel complementary written agreement with CDFW regarding CESA may facilitate the support of willing landowners to grant temporary access to: (a) those streams where stranded salmonids and steelhead are located; and (b) those streams where fish may be relocated subsequent to rescue. Any such efforts will comply with any Memorandum of Understanding between NMFS and CDFW regarding fish rescues.

5/13/2014

William W. Stelle, Jr. Date
Regional Administrator
NOAA's National Marine Fisheries Service
West Coast Region

5/13/14

Charlton H. Bonham Date
Director
California Department of Fish and Wildlife