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STATE WATER RESOURCES CONTROL BOARD RESOLUTION NO. 2011 -

TO ADOPT A PROPOSED RUSSIAN RIVER FROST PROTECTION REGULATION AND ASSOCIATED ENVIRONMENTAL IMPACT REPORT

WHEREAS:

1. Frost protection of crops is a beneficial use of water under California Code of Regulations, title 23, section 671. During a frost event, however, the high instantaneous demand for water for frost protection by numerous vineyardists and other water users may reduce the flows in the Russian River stream system in ways that are harmful to salmonids. Studies indicate that small instream diversions during frost events can deplete streamflow over short durations in the Maacama Creek and Franz Creek subwatersheds of the Russian River watershed. Studies also indicate that small instream diversions for frost protection on other tributaries in the Russian River watershed may have similar effects, and that the cumulative changes that small, short duration water diversions cause to the natural flow regime may play a principal role in limiting anadromous salmonid resources. The National Oceanic and Atmospheric Administration's National Marine Fisheries Service documented two episodes of fish stranding mortality that occurred in April 2008 in two locations in the Russian River watershed during a severe frost event that occurred when stream flows were already naturally low (one near Hopland along the mainstem of the Russian River, and one in Felta Creek, tributary to Mill Creek, thence Dry Creek);
2. Coho salmon (*Oncorhynchus kisutch*), Chinook salmon (*Oncorhynchus tshawytscha*), and steelhead (*Oncorhynchus mykiss*) all spawn and rear in the Russian River watershed, including tributaries in both Sonoma and Mendocino counties. Chinook salmon and steelhead are listed as threatened pursuant to the federal Endangered Species Act (ESA). (16 U.S.C. § 1531 et seq.) Coho salmon are listed as endangered pursuant to the federal ESA and California Endangered Species Act, Fish and Game Code, §§ 2050 et seq., and are in danger of extinction in the Russian River watershed. Stranding mortality has occurred when salmonids were unable to escape from rapidly receding waters. In the Russian River watershed, juvenile salmonids were stranded and died when the shallow banks of the stream channel were exposed due to sudden drops in stream stage. Strandings increase dramatically in dry years when flow drops below a certain water level, defined as the critical flow or stage, or in extreme dewatering events when pools go dry. Because of the fragile nature of the fishery in the Russian River watershed, regulatory action to protect this public trust resource is warranted;
3. The State Water Resources Control Board (State Water Board) has a duty to protect, where feasible, the state's public trust resources, including fisheries. The State Water Board also has the authority under article X, section 2 of the California Constitution and Water Code section 100 to prevent the waste or unreasonable use, unreasonable method of use, or the unreasonable method of diversion of all waters of the State. Water Code section 275 directs the State Water Board to "take all appropriate proceedings or actions before executive, legislative, or judicial agencies . . ." to enforce the constitutional and statutory prohibition against waste, unreasonable use, unreasonable method of use, or unreasonable method of diversion, commonly referred to as the reasonable use doctrine. The reasonable use doctrine applies to the diversion

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and use of both surface water and groundwater, and it applies irrespective of the type of water right held by the diverter or user (*Peabody v. Vallejo* (1935) 2 Cal.2d 351, 366-367.);

4. In this case, application of the reasonable use doctrine requires consideration of the benefits of diverting water for purposes of frost protection, the potential for stranding mortality to occur, and the diverters' ability to frost protect without causing stranding mortality by coordinating or otherwise managing their diversions to reduce instantaneous demand. If properly managed, flows during wet winters may provide enough water to meet human needs and prevent stranding mortality. A number of other management tools also exist that can be used to reduce the instantaneous demand for water during frost events. Because a reasonable alternative to current practices exist, these diversions are unreasonable unless conducted in accordance with a board-approved water demand management program to reduce their instantaneous impact;
5. The regulation would provide that, with the exception of diversions upstream of Warm Springs Dam in Sonoma County or Coyote Dam in Mendocino County, any diversion of water from the Russian River stream system, including the pumping of hydraulically connected groundwater, for purposes of frost protection from March 15 through May 15, shall be diverted in accordance with a board-approved water demand management program. The diversion of water in violation of this regulation would be an unreasonable method of diversion and use and a violation of Water Code section 100. The regulation would require any water demand management program to manage the instantaneous demand on the Russian River stream system during frost events to prevent stranding mortality. The regulation would require the water demand management program to be administered by an individual or governing body capable of ensuring that the goals of the program will be met. In addition, the program would be required to include the following: (1) an inventory of the frost diversion systems within the area subject to the program, (2) a stream stage monitoring program, (3) an assessment of the potential risk of stranding mortality due to frost diversions, (4) development and implementation of a corrective action plan if necessary to prevent stranding mortality, and (5) annual reporting of program data, activities, and results. The State Water Board recognizes that local groups have made progress towards the development of programs that address aspects of the water demand management program;
6. The State Water Board held several workshops in 2009 and 2010 to receive information regarding (1) the need for and the effect of water diversions for purposes of frost protection of crops, (2) local voluntary efforts at managing water diversions for frost protection, and (3) the need for short- or long-term regulatory action by the State Water Board. Based on the information presented at the workshops and other available information, the State Water Board decided to promulgate a regulation to prevent stranding mortality due to frost diversions. On November 17, 2010, the State Water Board held a California Environmental Quality Act (CEQA) scoping meeting to obtain comments concerning potential regulation alternatives, significant environmental impacts, and mitigation measures. In April 2011, the State Water Board held a public workshop to obtain comments on a draft of the proposed regulation, a draft of the Initial Statement of Reasons, and a draft Economic Analysis Report;

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7. On May 20, 2011, the State Water Board issued public notice that the State Water Board would consider the adoption of the regulation on September 20, 2011, in accordance with applicable State laws and regulations. The State Water Board also distributed for public review and comment a Notice of Proposed Rulemaking, an Initial Statement of Reasons, a revised draft of the proposed Regulation, and a Draft Environmental Impact Report with an appendix containing a Standard Form 399 and an attachment titled, "Economic and Fiscal Impacts of the Proposed Russian River Frost Regulation", in accordance with applicable state laws and regulations;
8. The State Water Board proposes to adopt the regulation in accordance with title 2, division 3, chapter 3.5 of the Government Code (commencing with section 11340). The State Water Board has prepared an Environmental Impact Report (EIR) in accordance with the requirements of CEQA. (Pub. Resources Code, § 21000 et seq.) The Final EIR consists of a revised draft EIR, dated September 2011, which includes an appendix titled "STD Form 399 and Attachment: Economic and Fiscal Impacts of the Proposed Russian River Frost Regulation," and responses to comments on the draft EIR submitted during the rulemaking period. Together, these documents constitute the required environmental documentation under CEQA. (See Cal. Code Regs., tit. 14, § 15132.);
9. The project is the adoption of a regulation that would require the implementation of programs designed to prevent salmonid stranding mortality due to water diversion for purposes of frost protection of crops in the majority of the Russian River watershed in Mendocino and Sonoma Counties. The proposed regulation itself will not approve any particular water diversion project(s) or alternatives thereto. In general, the proposed regulation will operate to protect the environment by ensuring that cumulative water diversions for frost protection will not cause a rapid decrease in stream stage resulting in the mortality of salmonids;
10. As required by Public Resources Code section 21159 and California Code of Regulations, title 14, section 15187, the State Water Board has evaluated the potential environmental impacts of reasonably foreseeable methods of compliance with the regulation. As described in the EIR, the adoption of the regulation is anticipated to result in direct impacts from the installation of stream gages; however, those impacts, unless United States Geological Survey (USGS) gages are selected, are anticipated to be less than significant. The EIR also describes that the adoption of the regulation could lead some affected parties to take actions that could result in indirect environmental impacts. An indirect physical change in the environment is a physical change which is not immediately related to adoption of the regulation, but which may occur as a result of the regulation being adopted. The regulation could have potentially significant indirect environmental impacts as a result of the following activities that third parties might take in response to the regulation: (1) installation of groundwater extraction wells and increased groundwater pumping, (2) construction of new or expansion of existing offstream storage facilities and increased diversion of water to storage, (3) modification or removal of surface water diversion structures, (4) installation and operation of wind machines, and (5) installation and operation of orchard heaters. It is impossible to predict which affected parties will take any of these actions, or exactly how many affected parties will take any of those actions. Accordingly, the EIR evaluates environmental impacts at a programmatic level;

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11. Many of the activities that might be undertaken by third parties as a result of the regulation would be subject to a project-level CEQA review conducted by the State Water Board or by another lead agency, which would entail identification and mitigation of any significant environmental effects. In addition, other regulatory mechanisms can be expected to provide opportunities for minimizing and avoiding significant environmental effects. Regulatory requirements and examples of potential mitigation measures are described in the EIR. These regulatory requirements and mitigation measures are likely to reduce many, but not all, of the potential indirect impacts of the regulation to less than significant levels. Some indirect impacts may not be identified or mitigated because it is impossible to predict who will take action in response to the regulation, or what action they will take. In some cases, it may not be feasible to fully mitigate for the indirect impacts of the regulation. The State Water Board recognizes that some actions affected parties may take in response to the regulation may be exempt from CEQA in some local agency jurisdictions. For instance, Sonoma County does not have an ordinance regulating the installation and operation of agricultural wind machines;
12. As required by Government Code sections 11346.3 and 11346.5, subdivision (a)(6), and State Administrative Manual Chapter 6600, the State Water Board has prepared an economic and fiscal analysis, which is contained in Draft EIR Appendix D, titled "STD Form 399 and Attachment: Economic and Fiscal Impacts of the Proposed Russian River Frost Regulation". The analysis anticipates that implementation of the regulation will not require additional position authority for the State Water Board, as work will be incorporated with ongoing efforts related to the Russian River watershed. The Department of Fish and Game anticipates the need for 1 to 2 Personnel Years;
13. When an agency decides to approve a project that will cause one or more significant environmental effects identified in the EIR, the agency shall prepare a statement of overriding considerations which reflects the ultimate balancing of competing public objectives (including environmental, legal, technical, social, and economic factors) that the agency is required by law to carry out or approve. (Pub. Resources Code, §§ 21002.1 and 21081; Cal. Code Regs., tit. 14, § 15093). The EIR for the proposed regulation finds that the regulation could result in potentially significant direct and indirect environmental impacts. The State Water Board and other public agencies that approve individual actions taken in response to the regulation that are subject to CEQA can and should incorporate feasible mitigation measures into any projects or project approvals that they undertake. Potentially significant impacts that may result from individual actions taken in response to the regulation that are not subject to further CEQA review may not be fully mitigated upon final project-specific approval. These actions may include installation of groundwater extraction wells and increased groundwater pumping, installation and operation of wind machines, and installation and operation of orchard heaters. To the extent that implementation of regulatory requirements and mitigation measures do not fully mitigate direct and indirect impacts, or are not deemed feasible by the agencies implementing or approving individual projects, the economic, social, and environmental benefits of the regulation outweigh any unavoidable adverse environmental effects. Benefits to aquatic resources that would result from the prevention of salmonid stranding mortality include protection of stream flows needed for fish passage, spawning, and rearing and protection of natural stream flow variability and the various biological functions that are dependent on that variability. Benefits to recreation that would result from the prevention of salmonid stranding mortality include enhanced recreational, aesthetic, and cultural experiences that are associated with

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healthy fisheries and overall enhancement of stream and riparian habitats and their functions. Benefits to recreation and the economy that would result from the prevention of salmonid stranding mortality include conservation of salmonid populations within the watershed for the benefit of current and future generations, which would benefit recreational and commercial fishermen;

14. The State Water Board anticipates the regulation will be implemented using a phased approach, as it recognizes that time is needed to select stream stage monitoring locations, install stream gages, and determine the stream stage that should be maintained at each gage to prevent stranding mortality. The State Water Board also recognizes that stream stage monitoring in the absence of protective stream stage thresholds can still provide information regarding the effects of cumulative small, short duration frost diversions on the natural flow regime, which could contribute to rapid decreases in stream stage that result in the mortality of salmonids due to stranding. The number of stream gages that will be installed by the governing bodies can vary depending on the acreage being frost protected, the complexity of the tributary system, and the extent of habitat for salmonids. It is anticipated that stream stage monitoring on the tributaries will primarily utilize lower-cost pressure transducer data loggers or data loggers with telemetry rather than USGS-rated stream gages. The regulation requires that Water Demand Management Programs will be updated annually as new data and information become available regarding tributary stream flow, frost diversions, and habitat flow needs.

Initial Water Demand Management Program, due February 1, 2012: The State Water Board does not expect the Water Demand Management Program to be entirely completed prior to February 1, 2012. The State Water Board anticipates the initial Water Demand Management Programs submitted for State Water Board approval will contain the identity of the governing body, a list of the names of the participating diverters, and, for each participating diverter, the sources of water used and the acreage frost protected. They will also include a schedule for completing the frost inventory, developing and implementing a stream stage-monitoring program, and conducting a risk assessment.

Three-month update, due three months after approval of Initial Water Demand Management Program: Pursuant to subdivision (c)(1) of the proposed regulation, the rest of the inventory, except for diversion data, shall be submitted three months after board approval of the Initial Water Demand Management Program. This includes, for each participating diverter, the locations of the diversions, a description of the diversion system and its capacity, and acreage frost protected by means other than water diverted from the Russian River stream system.

First annual report, due September 1, 2012: The State Water Board recognizes that some Water Demand Management Programs that cover large acreage, complex tributary systems or extensive habitat may not be able to install all stream stage gages the first year. If this is the case, governing bodies should prioritize stream stage gage installations so that high priority stream stage gages are installed in the first year, with a goal to have all initial stream stage gages installed by the end of the 2014 frost season. The State Water Board does not anticipate that the stream stages needed to prevent stranding mortality will be determined prior to the first annual report, but work will have begun towards their development. The development and implementation of criteria regarding maximum allowable rate of stage change is not a requirement of the stream

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stage monitoring program provisions of the regulation. The State Water Board anticipates existing stream stage gages will be utilized to the maximum extent feasible, and it is likely that governing bodies will have started to install stream stage gages early in the year, therefore the State Water Board expects the first annual report will contain updates to the inventory, including information required pursuant to subdivision (c)(1)(E) of the proposed regulation, stream stage monitoring data, and the governing body's progress towards development of protective stream stages; but it is not anticipated that there will be enough stream stage monitoring data during the 2012 frost season to conduct a risk assessment or to evaluate whether corrective actions are needed.

Second annual report, due September 1, 2013: For the second annual report, the State Water Board anticipates updates to the inventory and stream stage monitoring data, and the installation of medium priority stream gages. The determination of stream stages needed to prevent stranding mortality will have been completed for a portion, but not all of the installed gages, with the understanding that stream stage criteria or the streams being monitored may be revised in the future if additional data or information indicates a revision is needed. It is also anticipated that enough stream stage monitoring data will have been accumulated so that a risk assessment can be performed, and preliminary corrective actions, including notifying diverters of the potential risk, can be made.

Third annual report, due September 1, 2014: For the third annual report, the State Water Board anticipates updates to the inventory and stream stage monitoring data. It also anticipates that initial stream stage gage installations and determinations of stream stages needed to prevent stranding mortality will have been completed, with the understanding that stream stage criteria or the streams being monitored may be revised in the future if additional data or information indicates a revision is needed. The State Water Board anticipates that the risk assessment will be revised due to the completion of the determination of the stream stages needed to prevent stranding mortality. This annual report will include a corrective action plan and implementation schedule if the risk assessment indicates corrective action is needed.

Subsequent annual reports, due September 1 of subsequent years: The State Water Board anticipates these reports will continue to update the inventory and stream stage monitoring data, and will provide updates regarding the risk assessment, any new or revised stream stage monitoring locations or criteria, any new or revised corrective actions, and any revisions to the corrective action implementation schedule;

15. Pursuant to Water Code section 7, the State Water Board is authorized to delegate authority to the Board Members individually and to the Division of Water Rights (Division) Deputy Director. The State Water Board has delegated authority to the Board Members individually and to the Division Deputy Director as specified in the delegation document approved by Resolution No. 2007-0057; and
16. The State Water Board has carefully considered all comments and testimony received on the proposed regulation, responses to comments, and all of the other evidence in the record.

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THEREFORE BE IT RESOLVED THAT:

1. The State Water Board certifies that the [Final EIR, which consists of the revised Draft EIR and responses to comments received on the draft EIR](#), has been completed in compliance with CEQA. The State Water Board has reviewed and considered the information contained in these documents, which reflect the State Water Board's independent judgment and analysis;
2. The State Water Board adopts the Russian River Frost Protection Regulation, as set forth in [Exhibit A](#) attached hereto;
3. The State Water Board directs the Executive Director to finalize the responses to comments on the proposed rulemaking. Once the Executive Director has finalized the responses to comments, staff shall submit the regulation to the Office of Administrative Law (OAL) for final approval;
4. If, during the approval process, State Water Board staff, the State Water Board, or OAL determines that minor, non-substantive corrections to the language of the regulation or supporting documentation are needed for clarity or consistency, the State Water Board Executive Director may make such changes;
5. The State Water Board delegates to the Division Deputy Director the authority to act on requests for approvals pursuant to the regulation, including water demand management programs and any plans, reports, or evaluations submitted pursuant to any approved water demand management program. This resolution augments [Resolution No. 2007-0057](#), Delegation of Authority to State Water Board Members individually and to the Division Deputy Director; and
6. The State Water Board directs the Division Deputy Director to take action prior to March 14, 2012, on Water Demand Management Programs submitted for State Water Board approval and received on or before February 1, 2012. The Division Deputy Director may approve a timely submitted Water Demand Management Program for the 2012 frost season if it includes at least the following information: the identity of the governing body; a list of the names of the participating diverters; a schedule for completing the frost inventory, developing and implementing the stream stage monitoring program, and conducting a risk assessment; and, for each participating diverter, the sources of water used and the acreage frost protected.

CERTIFICATION

The undersigned Clerk to the Board does hereby certify that the foregoing is a full, true, and correct copy of a resolution duly and regularly adopted at a meeting of the State Water Board held on September 20, 2011.

Jeanine Townsend
Clerk to the Board