STATE OF CALIFORNIA
STATE WATER RESOURCES CONTROL BOARD

DIVISION OF WATER RIGHTS

ORDER WR 2010–0018-DWR

IN THE MATTER OF PERMITS 12947A, 12949, 12950, AND 16596 (APPLICATIONS 12919A, 15736, 15737, 19351)

SONOMA COUNTY WATER AGENCY

SOURCES: Dry Creek and Russian River

COUNTIES: Sonoma and Mendocino Counties

ORDER APPROVING TEMPORARY URGENCY CHANGE

BY THE DEPUTY DIRECTOR FOR WATER RIGHTS:

1.0 SUBSTANCE OF PETITION

On April 6, 2010, the Sonoma County Water Agency (SCWA) filed a petition with the State Water Resources Control Board (State Water Board) requesting approval of a Temporary Urgency Change to the subject permits pursuant to California Water Code section 1435. The petition requests the following temporary modifications to the Russian River in-stream flow requirements as mandated by the Russian River Biological Opinion (Biological Opinion) for the improvement of juvenile salmonid habitat:

(1) From May 1 through October 15, 2010, in-stream flow requirements for the upper Russian River (from its confluence with the East Fork of the Russian River to its confluence with Dry Creek) be reduced from 185 cubic feet per second (cfs) to 125 cfs; and

(2) From May 1 through October 15, 2010 in-stream flow requirements for the lower Russian River (downstream of its confluence with Dry Creek) be reduced from 125 cfs to 70 cfs, with the understanding that SCWA will typically maintain approximately 85 cfs at the Hacienda gage as practicably feasible.

No changes to the in-stream flow requirements for Dry Creek are requested. The petition is made to comply with mandates in the Biological Opinion that was issued by the National Marine Fisheries Service (NMFS) on September 24, 2008.

2.0 BACKGROUND

SCWA's petition involves the following permits:

- Permit 12947A is for year-round direct diversion of 92 cubic feet per second (cfs) from the Russian River and storage of 122,500 acre-feet per annum (afa) in Lake Mendocino.

- Permit 12949 is for year-round direct diversion of 20 cfs from the Russian River at the Wohler and Mirabel Park Intakes near Forestville.

- Permit 12950 is for direct diversion of 60 cfs from the Russian River at the Wohler and Mirabel Park Intakes from April 1 through September 30 of each year.

- Permit 16596 is for year-round direct diversion of 180 cfs from the Russian River and storage of 245,000 afa in Lake Sonoma from October 1 of each year to May 1 of the succeeding year.

With the petition SCWA submitted a document prepared by its staff titled, "Sonoma County Water Agency, In-stream Flow Analysis for 2010 Temporary Urgency Change Petition" (Analysis) dated April 2010. The Analysis provides: (1) a summary of minimum in-stream flows required under Decision 1610; (2) an assessment of current water supply conditions of the Russian River System; (3) a summary of the Biological Opinion issued by National Marine Fisheries Service (NMFS) mandating SCWA to petition the State Board for temporary changes in minimum in-stream flow requirements in the Russian River; and (4) a summary of the criteria for approving a temporary urgency change petition. The Analysis indicates that, unlike the Temporary Urgency Change Petitions filed by SCWA in 2004, 2007 and 2009, which requested reductions in minimum in-stream flow requirements in response to low storage levels in Lake Mendocino, the petition being filed in 2010 is mandated by the Biological Opinion in order to benefit threatened and endangered fish species. Water supply storage in Lake Mendocino as of April 1, 2010 was approximately 83,000 acre-feet, significantly higher than in 2007 (71,406 acre-feet) and 2009 (56,666 acre-feet).

Under the federal Endangered Species Act (ESA), steelhead, coho salmon and Chinook salmon in the Russian River watershed are listed as threatened or endangered species. Coho salmon is also listed as endangered under the California Endangered Species Act (CESA). In September 2008, NMFS issued the Russian River Biological Opinion (Biological Opinion). The Biological Opinion is the culmination of more than a decade of consultation under Section 7 of the ESA among SCWA, U.S. Army Corps of Engineers (Corps), and NMFS regarding the impacts on the survival of these listed fish species of SCWA's and the Corps' water supply and flood control operations in the Russian River watershed.

Studies conducted during the consultation period that ultimately led to this Biological Opinion indicate that summer flows in the Upper Russian River and Dry Creek required by Decision 1610 are too high for optimal juvenile salmonid habitat. NMFS also concluded in the Biological Opinion that the historical practice of breaching the sandbar that builds up and frequently closes the mouth of the Russian River during the summer and fall may adversely affect the listed species. NMFS concluded in the Biological Opinion that it might be better for juvenile steelhead and salmon if the sandbar is kept closed during these times, to allow for the formation of a seasonal freshwater lagoon in the estuary. Minimum in-stream flows required by Decision 1610 result in flows into the estuary that make it difficult to maintain a freshwater lagoon while preventing flooding of adjacent properties.

Without the requested modifications to the in-stream flow requirements, the high summer time flows required by Decision 1610 will continue to jeopardize the recovery of coho salmon and steelhead in the Russian River and its tributaries.

Following is the language contained in SCWA's permits regarding minimum in-stream flow requirements:

Term 20 of SCWA's Permit 12947A states:

For the protection of fish and wildlife, and for the maintenance of recreation in the Russian River, permittee shall pass through or release from storage at Lake Mendocino sufficient water to maintain:

(A) A continuous stream flow in the East Fork Russian River from Coyote Dam to its confluence with the Russian River of 25 cfs at all times.

(B) The following minimum flows in the Russian River between the East Fork Russian River and Dry Creek:

(1) During normal water supply conditions when the combined water in storage, including dead storage, in Lake Pillsbury and Lake Mendocino on May 31 of any year exceeds 150,000 af or 90 percent of the estimated water supply storage capacity of the reservoirs, whichever is less:

From June 1 through August 31	185 cfs
From September 1 through March 31	150 cfs
From April 1 through May 31	185 cfs

(2) During normal water supply conditions and when the combined water in storage, including dead storage, in Lake Pillsbury and Lake Mendocino on May 31 of any year is between 150,000 af or 90 percent of the estimated water supply storage capacity of the reservoirs, whichever is less, and 130,000 af or 80 percent of the estimated water supply storage capacity of the reservoirs, whichever is less:

From June 1 through March 31	150 cfs
From April 1 through May 31	185 cfs
If from October 1 through December 31, storage in Lake Mendocino is less than 30,000 acre-feet	75 cfs

(3) During normal water supply conditions and when the combined water in storage, including dead storage, in Lake Pillsbury and Lake Mendocino on May 31 of any year is less than 130,000 af or 80 percent of the estimated water supply storage capacity of the reservoirs, whichever is less:

From June 1 through December 31	75 cfs
From January 1 through March 31	150 cfs
From April 1 through May 31	185 cfs

(4) During dry water supply conditions 75 cfs

(5) During critical water supply conditions 25 cfs

(C) The following minimum flows in the Russian River between its confluence with Dry Creek and the Pacific Ocean to the extent that such flows cannot be met by releases from storage at Lake Sonoma under Permit 16596 issued on Application 19351:

(1) During normal water supply conditions	125 cfs
(2) During dry water supply conditions	85 cfs
(3) During critical water supply conditions	35 cfs

For the purposes of the requirements in this term, the following definitions shall apply:

(1) Dry water supply conditions exist when cumulative inflow to Lake Pillsbury beginning on October 1 of each year is less than:

8,000 acre-feet as of January 1
39,200 acre-feet as of February 1
65,700 acre-feet as of March 1
114,500 acre-feet as of April 1
145,600 acre-feet as of May 1
160,000 acre-feet as of June 1

(2) Critical water supply conditions exist when cumulative inflow to Lake Pillsbury beginning on October 1 of each year is less than:

4,000 acre-feet as of January 1
20,000 acre-feet as of February 1
45,000 acre-feet as of March 1
50,000 acre-feet as of April 1
70,000 acre-feet as of May 1
75,000 acre-feet as of June 1

(3) Normal water supply conditions exist in the absence of defined dry or critical water supply conditions.

(4) The water supply condition designation for the months of July through December shall be the same as the designation for the previous June. Water supply conditions for January through June shall be predetermined monthly.

(5) Cumulative inflow to Lake Pillsbury is the calculated algebraic sum of releases from Lake Pillsbury, increases in storage in Lake Pillsbury, and evaporation from Lake Pillsbury.

(6) Estimated water supply storage space is the calculated reservoir volume below elevation 1,828.3 feet in Lake Pillsbury and below elevation 749.0 feet in Lake Mendocino. Both elevations refer to the National Geodetic Vertical Datum of 1929. The calculation shall use the most recent two reservoir volume surveys made by the U. S. Geological Survey, U. S. Army Corps of Engineers, or other responsible agency to determine the rate of sedimentation to be assumed from the date of the most recent reservoir volume survey.

Term 17 of both Permit 12949 and Permit 12950 require SCWA to allow sufficient water to bypass the points of diversion at the Wohler and Mirabel Park Intakes on the Russian River to maintain the following minimum flows to the Pacific Ocean:

(1)	During normal water supply conditions	125 cfs
(2)	During dry water supply conditions	85 cfs
(3)	During critical water supply conditions	35 cfs

Term 13 of Permit 16596 sets forth the following minimum flows for Dry Creek and the Russian River:

(A) The following minimum flows in Dry Creek between Warm Springs Dam and its confluence with the Russian River:

(1) During normal water supply conditions:

75 cfs from January 1 through April 30
80 cfs from May 1 through October 31
105 cfs from November 1 through December 30

(2) During dry or critical water supply conditions:

25 cfs from April 1 through October 31
75 cfs from November 1 through March 31

(B) The following minimum flows in the Russian River between its confluence with Dry Creek and the Pacific Ocean, unless the water level in Lake Sonoma is below elevation 292.0 feet with reference to the National Geodetic Vertical Datum of 1929, or unless prohibited by the United States Government:

(1)	During normal water supply conditions	125 cfs
(2)	During dry water supply conditions	85 cfs
(3)	During critical water supply conditions	35 cfs

Note: Permits 12949, 12950, and 16596 use the same water-year classification definitions as those listed in Permit 12947A. The water year classifications (Normal, Dry or Critical) were established in State Water Board Decision 1610 (D1610) and are based on cumulative inflow into Lake Pillsbury beginning October 1.

3.0 COMPLIANCE WITH CALIFORNIA ENVIRONMENTAL QUALITY ACT

SCWA has determined that the change qualifies for an exemption under the California Environmental Quality Act (CEQA). SCWA found that the change meets the Class 1, 6, 7, and 8 exemption criteria. The State Water Board has reviewed the information submitted by the SCWA and has made its own independent finding that the petition qualifies for an exemption under CEQA. A Class 7 exemption "consists of actions taken by regulatory agencies as authorized by state law or local ordinance to assure the maintenance, restoration, or enhancement of a natural resource where the regulatory process involves procedures for protection of the environment." (Cal. Code Regs, tit. 14, § 15307.) The proposed action will assure the maintenance of a natural resource, i.e., the in-stream resources of the Russian River, by increasing available salmonid rearing habitat in the upper Russian River and providing a lower, closer to natural inflow to the estuary between late spring and early fall, thereby enhancing the potential for maintaining a seasonal freshwater lagoon that could support increased production of juvenile steelhead. A Class 8 exemption "consists of actions taken by regulatory agencies, as authorized by state or local ordinance, to assure the maintenance, restoration, enhancement, or protection of the environment where the regulatory process involves procedures for protection of the environment." (*Id.*, § 15308.) The proposed action will assure the maintenance of the environment in the same way as stated for the Class 7 exemption. According to NMFS, the proposed action is necessary to avoid jeopardizing the continued existence of coho salmon, listed as an endangered species under the ESA and CESA, and steelhead, listed as a threatened species under the ESA. The proposed action also will conserve water in Lake Mendocino to benefit adult Chinook salmon migrating upstream in the fall.

The proposed action consists of the operation of existing facilities involving negligible or no expansion of use beyond that existing and accordingly is categorically exempt from CEQA under a Class 1 exemption, which specifically includes maintenance of streamflows to protect fish and wildlife resources. (*Id.*, § 15301, subd. (i).) The proposed action still will be within the existing operational parameters established by Decision 1610. The proposed action does not request and will not expand SCWA use or increase the water supply available to SCWA for consumptive purposes.

In addition, a Class 6 exemption "consists of basic data collection, research, experimental management, and resource evaluation activities which do not result in a serious or major disturbance to an environmental resource. These [activities] may be . . . part of a study leading to an action which a public agency has not yet approved, adopted or funded." (*Id.*, § 15306.) The water quality and fishery information and data collected during the period that the proposed action is in effect will assist with the study and development of future permanent changes in the Decision 1610 in-stream flow requirements required by the NMFS, for which a separate petition is pending.

4.0 PUBLIC NOTICE OF THE PETITION

The State Water Board will issue and deliver to SCWA as soon as practicable, a notice of the temporary urgency change order pursuant to Water Code section 1438, subdivision (a). Pursuant to Water Code section 1438, subdivision (b)(1), SCWA is required to publish the notice in a newspaper having a general circulation, and that is published within the counties where the points of diversion lie. The State Water Board will also send a mailing list of known interested parties who have requested notice of proposed temporary urgency changes to SCWA, and SCWA will send copies of the notice to those interested parties via first class mail. The State Water Board will post on its website the notice of the temporary urgency change and a copy of the petition for temporary urgency change (and accompanying materials).

5.0 CRITERIA FOR APPROVING THE PROPOSED TEMPORARY URGENCY CHANGE

Water Code section 1435 provides that a permittee or licensee who has an urgent need to change the point of diversion, place of use, or purpose of use from that specified in the permit or license may petition for a conditional temporary change. The State Water Board's regulations set forth the filing and other procedural requirements applicable to petitions for temporary urgency changes. (Cal. Code Regs., tit. 23, §§ 805, 806.) The Board's regulations also clarify that a petition for a temporary urgency change in a permit or license other than a change in point of diversion, place of use, or purpose of use may be filed, subject to the same filing and procedural requirements that apply to changes in point of diversion, place of use, or purpose of use. (*Id.*, § 791, subd. (e).)

Before approving a temporary urgency change, the State Water Board must make the following findings:

1. the permittee or licensee has an urgent need to make the proposed change;
2. the proposed change may be made without injury to any other lawful user of water;
3. the proposed change may be made without unreasonable effect upon fish, wildlife, or other in-stream beneficial uses; and
4. the proposed change is in the public interest.

(Wat. Code, § 1435, subd. (b)(1-4).)

5.1 Urgency of the Proposed Change

Under Water Code section 1435, subdivision (c), an "urgent need" means "the existence of circumstances from which the board may in its judgment conclude that the proposed temporary change is necessary to further the constitutional policy that the water resources of the state be put to beneficial use to the fullest extent of which they are capable and that waste of water be prevented . . . ." However, the State Water Board shall not find the need urgent if it concludes that the petitioner has failed to exercise due diligence in petitioning for a change pursuant to other appropriate provisions of the Water Code.

Decision 1610 set in-stream flows that the State Water Board concluded, in 1986, would benefit both fishery and recreation uses and which would "preserve the fishery and recreation in the river and in Lake Mendocino to the greatest extent possible while serving the needs of the agricultural, municipal, domestic, and industrial uses which are dependent upon the water." (Decision 1610 at p. 21.) The State

Water Board also concluded in Decision 1610 that additional fishery studies should be done. (Decision 1610 at pp. 26-27.)

It no longer appears that the flows set by Decision 1610 continue to benefit both fishery and recreation uses. On September 24, 2008, NMFS issued its Biological Opinion, which evaluated the effects of the activities of SCWA and the Corps on three salmonid species listed as threatened or endangered under the federal Endangered Species Act. The Biological Opinion concluded that summertime flows in the Russian River, at the levels required by Decision 1610, were higher than optimal for the listed species. The Biological Opinion contained an extensive analysis of the impacts of existing in-stream flows on listed species. The Biological Opinion required SCWA to file a petition with the State Water Board to improve conditions for listed species by seeking permanent reductions in the minimum Russian River in-stream flow requirements contained in SCWA's existing water rights permits. The Biological Opinion also contains the following requirement:

> To help restore freshwater habitats for listed salmon and steelhead in the Russian River estuary, SCWA will pursue interim relief from D1610 minimum flow requirements by petitioning the SWRCB for changes to D1610 beginning in 2010 and for each year prior to the permanent change to D1610. These petitions will request that minimum bypass flows of 70 cfs be implemented at the USGS gage at the Hacienda Bridge between May 1 and October 15, with the understanding that for compliance purposes SCWA will typically maintain about 85 cfs at the Hacienda gage. For purposes of enhancing steelhead rearing habitats between the East Branch and Hopland, these petitions will request a minimum bypass flow of 125 cfs at the Healdsburg gage between May 1 and October 15. NMFS will support SCWA's petitions for these changes to D1610 in presentations before the SWRCB.

One of the species listed under the federal ESA (coho salmon) is also listed under CESA. The California Department of Fish and Game (DFG) has issued a consistency determination in which it determined that the incidental take statement issued to SCWA by NMFS in connection with the Biological Opinion was consistent with the provisions and requirements of CESA.

In this case, an "urgent need" for the proposed changes exist within the meaning of section 1435, subdivision (c). The proposed temporary changes are "necessary to further the constitutional policy that the water resources of the state be put to beneficial use to the fullest extent of which they are capable and that waste of water be prevented" within the meaning of section 1435, subdivision (c). As described in the Biological Opinion, the changes will improve habitat for the listed species by reducing in-stream flow and increasing storage for later fishery use, without unreasonably impairing other beneficial uses, thus maximizing the use of Russian River water resources. Moreover, given the listings of Chinook salmon, coho salmon, and steelhead under the federal ESA, there is a need for prompt action. In this case, there has been an extensive analysis of the needs of the fishery, fishery experts agree that in-stream flows appear to be too high, and the change will not affect the ability of SCWA to deliver water for approved beneficial uses in its service area.

5.2 No Injury to Any Other Lawful User of Water

Under this Order, SCWA still will be required to maintain specific flows in the Russian River from its most upstream point of diversion to the river's confluence with the ocean. Therefore, it is anticipated that all SCWA water contractors and other legal users of water will receive the water to which they are entitled during the reduced flows specified in this Order.

5.3 No Unreasonable Effect upon Fish, Wildlife, or Other Instream Beneficial Uses

This Order is based upon the analysis contained in the 2008 Biological Opinion, which has as its primary purpose improving conditions for the fishery resources. Improved conditions that result from this Order will be twofold. First, the evidence in the Biological Opinion indicates that the streamflows required by Decision 1610 would be too high for optimum fishery habitat in both the river and in the estuary. Under this Order, these requirements will be reduced. Second, lowering in-stream flows will result in increased storage in Lake Mendocino. Although flows downstream from Coyote Valley Dam will be decreased upon approval of SCWA's petition, conservation of water in Lake Mendocino will allow enhanced management of the flows in early fall for the benefit of fish migration.

It is possible that reduced flows in the Russian River may impair some in-stream beneficial uses, principally recreation use. However, since 2004, Russian River flows have frequently been managed at decreased levels, both under Decision 1610 and under temporary urgency change orders. Notwithstanding lower flows, Russian River recreation has continued. Accordingly, although recreation uses may be affected, given the analysis in the Biological Opinion and the potential impacts to fisheries that could occur if the petition were not approved, any impact on recreation for this summer is reasonable under the circumstances.

5.4 The Proposed Change is in the Public Interest

As discussed above, the sole purpose of this Order is to improve conditions for listed Russian River salmonid species, as determined necessary by the NMFS and DFG. Approval of SCWA's petition to reduce in-stream flows to benefit the fishery will also maintain storage levels in Lake Mendocino for a longer period of time so that the water is available in the fall for fishery purposes. Given these circumstances, it is in the public interest to temporarily change in-stream flows for this beneficial use.

6.0 CONCLUSIONS

The State Water Board has adequate information in its files to make the evaluation required by Water Code section 1435.

I conclude that, based on the available evidence:

1. The permittee has an urgent need to make the proposed change;
2. The petitioned change will not operate to the injury of any other lawful user of water;
3. The petitioned change will not have an unreasonable effect upon fish, wildlife, or other in-stream beneficial uses; and
4. The petitioned change is in the public interest.

ORDER

NOW, THEREFORE, IT IS ORDERED THAT: the petition filed by Sonoma County Water Agency for temporary change in Permits 12947A, 12949, 12950, and 16596 is approved, in part.

All existing terms and conditions of the subject permits remain in effect, except as temporarily amended by the following provisions:

1. From May 25 until October 15, 2010, minimum flows in the Russian River, as specified in Term 20 of Permit 12947A, Term 17 of Permits 12949 and 12950, and Term 13 of Permit 16596, shall be modified as follows:

    - Minimum in-stream flow in the Russian River from its confluence with the East Fork of the Russian River to its confluence with Dry Creek shall be 125 cfs; and

    - Minimum in-stream flow in the Russian River from its confluence with Dry Creek to the Pacific Ocean shall be 70 cfs as measured at the U.S. Geological Survey (USGS) gage located at Hacienda Bridge, with the understanding that SCWA will typically maintain approximately 85 cfs at the gage as practicably feasible.

    For purposes of compliance with this term, minimum in-stream flow requirements shall be met on an instantaneous flow basis.

2. SCWA shall monitor and record daily numbers of adult Chinook salmon moving upstream past the Mirabel inflatable dam beginning no later than September 1, 2010, and continuing through at least November 15, 2010.

3. If adult Chinook salmon can enter the Russian River estuary, SCWA shall monitor numbers of adult Chinook salmon in representative deep pools in the lower Russian River downstream of the Mirabel inflatable dam on a weekly basis beginning September 15, 2010, and ending when 200 fish have passed Mirabel Dam, or sustained flows in the Russian River at Hacienda Bridge are greater than 125 cfs, or November 15, 2010, whichever is earlier.

4. SCWA shall monitor numbers of adult Chinook salmon at known spawning sites and in representative deep pools in the upper Russian River (Lake Mendocino to Healdsburg) on a weekly basis after the number of adult Chinook salmon counted at Mirabel Dam exceeds 200 fish. Weekly surveys will continue until November 15, 2010.

5. SCWA shall monitor juvenile salmonids and other native fishes by snorkel survey at six sites in the upper main stem Russian River (upstream of Mirabel) during August 2010. Snorkel survey sites will correspond to those locations monitored by SCWA in 2009.

6. SCWA shall monitor downstream movement of juvenile salmonids in Dry Creek, the main stem Russian River at Wohler, and at the upstream end of the Russian River estuary (when river conditions permit safe monitoring) through at least June 15, 2010 as more fully described in the Biological Opinion.

7. SCWA shall consult with NMFS and DFG on a weekly basis regarding the fisheries monitoring activities specified in Terms 2 through 6 of this Order. Any necessary revisions to Terms 2 through 6 shall be made upon approval by the State Water Board's Deputy Director for Water Rights (Deputy Director). Reporting of fisheries monitoring tasks described in Terms 2 through 6 shall be submitted to the Deputy Director by April 1, 2011 in accordance with NMFS and DFG annual reporting requirements as more fully described in the Biological Opinion.

8. SCWA shall prepare a Water Quality Monitoring Plan (Monitoring Plan) for the Russian River in consultation with: (1) the North Coast Regional Water Quality Control Board; (2) the United States Geological Survey; (3) NMFS; and (4) the Division of Water Rights. The objectives of the Monitoring Plan should be to provide information to evaluate potential changes to water quality and availability of aquatic habitat for salmonids resulting from the proposed permanent changes

to Decision 1610 minimum in-stream flows that are mandated by the Biological Opinion. Furthermore, the Monitoring Plan should build upon previous water quality studies that have been conducted in the Russian River and the estuary water quality monitoring required by the Biological Opinion, and provide information to support the development of a CEQA document required for permanent changes to Decision 1610. The Monitoring Plan shall be submitted to the Deputy Director for approval within 28 days of the date of this Order. SCWA shall implement the Monitoring Plan immediately upon approval by the Deputy Director.

9. This Order does not authorize any act that results in the taking of a threatened or endangered species, or any act that is now prohibited, or becomes prohibited in the future, under either the California Endangered Species Act (Fish and Game Code sections 2050 to 2097) or the federal Endangered Species Act (16 U.S.C.A. sections 1531 to 1544). If a "take" will result from any act authorized under this Order, the permittee shall obtain authorization for an incidental take permit prior to construction or operation. Permittee shall be responsible for meeting all requirements of the applicable Endangered Species Act for the temporary urgency change authorized under this Order.

10. The State Water Board reserves jurisdiction to supervise the temporary urgency change under this Order, and to coordinate or modify terms and conditions, for the protection of vested rights, fish, wildlife, in-stream beneficial uses and the public interest as future conditions may warrant.

11. SCWA shall prepare a Water Conservation Status Report for SCWA's service area and other areas served by Lake Mendocino. The report shall specify the water conservation measures being implemented during May through November, 2010. The report shall be submitted to the Deputy Director by December 31, 2010.

12. SCWA shall provide any relevant updates to the estimated future water savings from conservation measures presented in the report submitted under Term 17 of Order WR 2009-0034-EXEC, including components of the Governor's 20x2020 Water Conservation Plan (February 2010), consisting of, but not limited to, each water contractor's gallons per capita per day calculation, water use targets and implementation plan to achieve those targets. The report shall be submitted to the Deputy Director by March 1, 2011.

13. SCWA shall be responsible for ensuring that all of its water contractors require their dedicated irrigation customers be assigned a water budget designed to achieve a maximum applied water allowance (MAWA) of 60 percent ETo, exceeding the State's requirements. SCWA shall report back the Deputy Director by December 31, 2010 regarding the actual MAWA achieved by each of its contractors during May through November, 2010.

14. SCWA shall work with agricultural Russian River water users to pursue opportunities that will result in improved management of the Russian River by better anticipating periods of high water demand. SCWA shall provide an update to the Deputy Director regarding the progress of these efforts by December 31, 2010.

15. SCWA shall evaluate (1) physical conditions and integrity of its transmission system pipelines, and (2) opportunities for increased automated operational data sharing between the SCWA and its water contractors' respective systems, with the goal of reducing water loss and promoting increases in water use efficiency. SCWA shall require that each of its water contractors provide an assessment of unaccounted water associated with their distribution systems. This assessment shall include, as appropriate, any programs or projects identified by each water contractor to reduce unaccounted water and system losses. SCWA shall update the Deputy Director on the progress of these efforts by June 30, 2011.

16. During the term of the Order, SCWA shall work with its contractors to conjunctively manage surface and groundwater resources within SCWA's service area. Such management should emphasize the conservation and replenishment of groundwater resources and utilization of available surface water supplies to the extent feasible. SCWA shall provide an update to the Deputy Director regarding the progress of these efforts by December 31, 2010.

17. SCWA shall provide an update to the Deputy Director regarding the progress of the Santa Rosa Plain Groundwater Management Planning Program by December 31, 2010. The update shall include any progress being made towards implementation of groundwater recharge in the Santa Rosa basin.

STATE WATER RESOURCES CONTROL BOARD

James W. Kassel

for *Victoria A. Whitney*
Deputy Director for Water Rights

Dated: MAY 24 2010