

## **EXHIBIT SCWA-1**

### **TESTIMONY OF PAMELA JEANE**

1. I am a registered civil engineer in the State of California and the Deputy Chief Engineer for operations for the Sonoma County Water Agency ("SCWA"). I have worked on this position continuously since 2000, and I have worked as a civil engineer in various positions for SCWA continuously since 1994. A copy of my resume, which accurately describes my education, professional registration and work experience, is exhibit SCWA-2.

#### **Background**

##### SCWA's Water-Right Permits

2. SCWA is authorized to divert and re-divert Russian River water under four water-right permits. Permit 12947A (Application 12919A) authorizes diversions to storage of up to 122,500 acre-feet per year ("af/yr") in Lake Mendocino and diversions and re-diversions of stored water of up to 92 cubic-feet per second ("cfs") and 37,544 af/yr. Permit 12949 (Application 15736) authorizes direct diversions of up to 20 cfs. Permit 12950 (Application 15737) authorizes direct diversions of up to 60 cfs from April 1 through September 30. Permit 16596 (Application 19351) authorizes diversions to storage of up to 245,000 af/yr from October 1 through May 1 in Lake Sonoma and diversions and re-diversions of stored water of up to 180 cfs.

3. SCWA diverts and re-diverts water under these permits into SCWA's Transmission System, and conveys this water to SCWA's water contractors, which then convey this water through their delivery systems to their customers. Over 600,000 people in Sonoma and Marin Counties receive and use water that is conveyed through SCWA's Transmission System.

4. SCWA also has contracts with the City of Healdsburg, the Town of Windsor, Russian River County Water District, Camp Meeker Parks and Recreation District and Occidental Community Services District, which authorize these entities to divert and re-divert water from the Russian River under SCWA's water-right permits.

##### Other Water-Rights on the Russian River

5. Water that is stored in Lake Mendocino during periods of excess flows is later released into the Russian River to support diversions under SCWA's water rights and other water rights. Diversions under these other water rights include diversions in Mendocino County of up to 8,000 acre-feet per year ("af/yr") under water-right Permit 12947B (Application 12919B), which is administered by the Mendocino County Russian River Flood Control and Water Conservation

Improvement District, and diversions in Sonoma County of up to 10,000 af/yr under the reservation for Russian River diversions in Sonoma County that was created by water-rights Decision 1030. Additionally, Lake Mendocino operations must pass through enough Lake Mendocino inflow (when available) to satisfy pre-1949 appropriative water-rights on the Russian River and inflows of water originating in the Lake Mendocino watershed (when available) that are necessary to satisfy downstream riparian rights.

### Lake Mendocino and Lake Sonoma Operations

6. Lake Mendocino and Lake Sonoma are U.S. Army Corps of Engineers (“USACE”) projects that provide both flood protection and water supply benefits. The Agency is the local sponsor of these projects and shares operations of these facilities with the USACE. When lake levels rise above the water supply pool, water storage encroaches into the flood control pool and the USACE operates the reservoir. The USACE maintains control and determines the amounts of releases while reservoir storage is within the flood control pool. When reservoir storage levels are below the flood control pool, the Agency operates the reservoir and determines the amounts of water to be released. The flood control and water supply pool elevations for these reservoirs are documented in the USACE water control manuals.

### **SCWA’s Obligations to Implement Instream-Flow Requirements**

7. The Russian River is a managed river system with releases of water from reservoir storage often controlling river flows, especially throughout most of the summer and fall. When tributary stream flows are low, SCWA releases water that previously was stored in Lake Mendocino and Lake Sonoma to supplement the natural flows in the Russian River and to provide flows for water supply, recreation and aquatic habitat.

8. SCWA controls and coordinates water supply releases from Lakes Mendocino and Sonoma as necessary to implement the minimum instream-flow requirements that are specified in water-rights Decision 1610 (“D-1610”), which the SWRCB adopted on April 17, 1986. D-1610 added terms to SCWA’s water-right permits that specify the minimum flows that SCWA must maintain in the Russian River and Dry Creek.

9. Exhibit SCWA-3 depicts the Russian River system, Lakes Mendocino and Sonoma and a portion of the Eel River system and the primary components of Pacific Gas & Electric Company’s Potter Valley Project (Lake Pillsbury, Scott Dam, Cape Horn Dam and the tunnel that conveys water from Cape Horn Dam to the East Fork of the Russian River). Exhibit SCWA-3 also describes the D-1610 minimum instream-flow requirements that apply to: (a) the East Branch of the Russian River downstream of Lake Mendocino and Coyote Valley Dam (referred to in exhibit SCWA-3 as the “East Fork Russian River”); (b) the Russian

River from the confluence of the East Branch and West Fork of the Russian River to the river's confluence with Dry Creek (referred to in this testimony as the "upper Russian River"); (c) the Russian River downstream of its confluence with Dry Creek (referred to in this testimony as the "lower Russian River"); and (d) Dry Creek downstream of Lake Sonoma.

10. Compliance with the D-1610 minimum in-stream flow requirements for the East Branch of the Russian River is measured at a U. S. Geological Survey ("USGS") gauging station located at Ukiah (Station No. 11462000), and compliance with the requirements for the upper Russian River is measured at USGS gauging stations located at Talmage (Station No. 11462080, Hopland (Station No. 11462500), Cloverdale (Station No. 11463000), Jimtown (Station No. 11463682, Digger Bend (Station No. 11463980) and Healdsburg (Station No. 11464000). The locations of these gaging stations are depicted on exhibit SCWA-3. (The Ukiah gage is depicted as "East Fork" in exhibit SCWA-3.) As required by D-1610 and SCWA's water-right permits, SCWA sets the rate at which water is released from Lake Mendocino each day to a rate that is sufficient to maintain the Russian River flow at each of these gages at a level that always is greater than or equal to the applicable D-1610 minimum instream-flow requirement. SCWA sets these release rates based on continuous review of real-time monitoring of Russian River flow data for each of these gaging stations. Because river flows at these gages can change rapidly from non-coordinated diversions of Russian River water by others, SCWA operators include operational buffers above the applicable minimum in-stream flow requirements when they are calculating the required release rates.

11. SCWA sets the releases of water from Lake Sonoma as necessary to maintain instream flows in Dry Creek and the lower Russian River at levels that equal or exceed the applicable D-1610 minimum instream-flow requirements.

### **Potential Impacts of Unauthorized Diversions by Millview County Water District**

12. SCWA must maintain instream flows in the upper Russian River at or above the applicable D-1610 instream-flow requirements regardless of the amounts of legal or illegal diversions of water from the upper Russian River or any of its tributaries. Accordingly, if the Millview County Water District ("Millview CWD") makes any unauthorized diversions of water from the West Fork of the Russian River or the upper Russian River during any time when SCWA controls the amounts of water that are being released from Lake Mendocino, then SCWA will have to increase the rates at which water is released from Lake Mendocino by the amount of Millview CWD's unauthorized diversion so that the instream flows in the upper Russian River are maintained at the levels that would have occurred in the absence of the unauthorized diversion.

13. The additional releases of water from Lake Mendocino that are described in the preceding paragraph normally will reduce by the amounts of the additional releases the amounts of water that remain in storage in Lake Mendocino. Such reductions in Lake Mendocino storage often will have significant impacts later in the season. Storage in Lake Mendocino declined to seriously low levels in 2002, 2004, 2007, 2008 and 2009. Exhibit SCWA-4 shows the historical amounts of Lake Mendocino storage during these years. In response to low Lake Mendocino storage levels, SCWA filed, and the SWRCB approved, temporary urgency change petitions to temporarily reduce the D-1610 minimum instream-flow requirements during 2004, 2007 and 2009. Even with the reduced minimum in-stream flow requirements that were authorized by the SWRCB orders approving these petitions, and even with very significant water-conservation efforts by users of Russian River water, storage in Lake Mendocino declined to very low levels by December of each of these years. Such low Lake Mendocino storage levels during the late fall are severe threats to the Russian River fisheries that depend on releases from Lake Mendocino for their upstream migrations. These low storage levels also threaten the water supplies of SCWA and other water users that rely on the upper Russian River.

#### **Impacts of Increases in Diversions under Alleged “Waldteufel” Pre-1914 Appropriative Right**

14. Even if some diversions of water are authorized by the alleged “Waldteufel” pre-1914 appropriative right, increases in diversions under this alleged right will have the impacts described in paragraphs 12-13 above. The following paragraphs describe the types of increases that may occur under this alleged right.

15. Exhibit SCWA-5 depicts Lake Mendocino, the East Branch and West Fork of the Russian River and the upper Russian River in the vicinity of Ukiah. The West Fork of the Russian River is in the top left quarter of this exhibit, running generally from the top left to the middle left of this exhibit. The East Branch of the Russian River is between Lake Mendocino and the upper Russian River. This exhibit also depicts several points of diversion on the West Fork of the Russian River and the upper Russian River. “Pre-1914 claim” depicts the point of diversion and place of use that are described in the 1914 notice of appropriation that was prepared by J. A. Waldteufel. “S272-1967” depicts the point of diversion and place of use that are shown in Statement of Water Diversion and Use 272, which Lester Wood filed in 1967. “S15625-2001” depicts the point of diversion and place of use that are shown in Statement of Water Diversion and Use 15625, which Creekbridge Homes filed in 2001. “S272-2005” depicts the relocated point of diversion that is described in Statement of Diversion and Use 272, which Steven Gomes filed in 2005. “Millview CWD-2006” depicts the point of diversion that is described in the April 24, 2006 letter from Tim Bradley, general manager of Millview CWD, to Charles Rich of the SWRCB’s Division of Water Rights. “Millview CWD – District Boundary” depicts

the place of use that is shown in the November 1975 District Boundary Map that is in the Division of Water Rights file for Millview CWD's water-right Permit 13936 (Application 17587).

16. Exhibit SCWA-6 is a more-detailed map, depicting the area that is depicted in the center part of Exhibit SCWA-5. The West Fork of the Russian River is depicted in exhibit SCWA-6 running from the top center to the bottom center. The East Branch of the Russian River is depicted on this exhibit from the middle of the right side to the bottom center. The upper Russian River is depicted in the bottom center of this exhibit. The points of diversion and places of use that are depicted in exhibit SCWA-6 are the same as the corresponding points of diversion and places of use that are depicted in exhibit SCWA-5.

17. If the authorized point of diversion for the alleged "Waldteufel" pre-1914 appropriative right were to be moved from one of the points on the West Fork Russian River to the upper Russian River at the point labeled "Millview CWD-2006" in exhibits SCWA-5 and SCWA-6, and if no additional restrictions were imposed on the amounts of water that may be diverted under this alleged right after the change in point of diversion is made, then the total amounts of water that could be diverted under this alleged right would be substantially higher than the amounts that could be diverted under this alleged right at one of the previous points of diversion. This is because flows in the West Fork of the Russian River (which come solely from natural sources) normally drop to very low levels (usually substantially less than 2 cfs) between mid-July and mid-September of each year, while flows in the upper Russian River never drop to low levels and instead are maintained by releases of stored water from Lake Mendocino into the East Branch of the Russian River to maintain compliance with the applicable D-1610 minimum instream-flow requirement for the upper Russian River. These flows for February 2006 through September 2008 are shown by Exhibit SCWA-7. These figures are based on the historical average monthly flows measured by the U. S. Geological Survey in the West Fork Russian River at the "Gaging Sta" depicted in exhibit SCWA-6, and in East Branch of the Russian River downstream of Lake Mendocino. For the reasons discussed in paragraphs 12-13 above, if diversions under the alleged "Waldteufel" pre-1914 appropriative right were to increase because of this change in point of diversion, then impacts to Lake Mendocino storage levels and the related impacts would occur under various hydrological conditions.

18. Besides the increases in diversions described in paragraph 17 above, diversions under the alleged "Waldteufel" pre-1914 appropriative right also would increase if the authorized purpose of use for this alleged right were to change from irrigation to domestic or municipal use. According to Statement of Water Diversion and Use 272, which Lester Wood filed in 1967, diversions under this alleged right were between 7.5 and 15 af/yr, to irrigate 15 acres of grapes and 15 acres of walnuts. If the authorized purpose of use were change to domestic or municipal use, so that water could be diverted under this alleged right for the 125

homes in the Creek Bridge subdivision, then the total amount of water diverted each year would increase substantially. If each of these homes used an average of 0.5 af/yr, the total diversions for these homes would be 62.5 af/yr (125 x 0.5 af/yr = 62.5 af/yr.) For the reasons discussed in paragraphs 12-13 above, such increased diversions would cause impacts to Lake Mendocino storage levels and the related impacts under various hydrological conditions.

19. Besides the increases in diversions described in paragraphs 17 and 18 above, diversions under the alleged "Waldteufel" pre-1914 appropriative right also would increase if the authorized place of use for this alleged right were increased from one of the POU's shown in Exhibit SCWA-6 to Millview CWD's entire service area, which is shown in Exhibit SCWA-5. With such a change in service area, demand no longer would limit the amounts of water that could be diverted under this alleged right. With this change and the change in point of diversion described in paragraph 17 above, diversions at the alleged right's claimed maximum rate of 2 cfs could occur year round. Such diversions could total approximately 1,450 af/yr, which would be far greater than the 7.5 to 15 af/yr maximum annual diversion rate reported by Mr. Wood in 1967. For the reasons discussed in paragraphs 12-13 above, such increased diversions would cause impacts to Lake Mendocino storage levels and the related impacts under various hydrological conditions.