



February 17, 2016

United Water Conservation District
Attn: Mauricio E. Guardado, Jr.
General Manager
106 N. 8th Street
Santa Paula, CA 93060
E-mail: mauricioG@unitedwater.org

VIA ELECTRONIC MAIL AND U.S. CERTIFIED MAIL RETURN RECEIPT REQUESTED

Re: Notice of Violation and Intent to File Suit under the Endangered Species Act

Dear Mr. Guardado and United Water Conservation District:

I am writing on behalf of the Wishtoyo Foundation, its Ventura Coastkeeper Program (collectively "VCK"), and the Center for Biological Diversity (the "Noticing Parties") to give notice that the Noticing Parties intend to file a civil action against the United Water Conservation District ("United") for violations of the Endangered Species Act ("ESA"). This notice concerns violations of the ESA by United. United is unlawfully taking Southern California Steelhead as well as Least Bell's Vireo, Western Yellow-Billed Cuckoo, and Southwestern Willow Flycatcher by operating and maintaining the Vern Freeman Diversion Dam ("Vern Freeman Dam" or "Dam") and diverting water from the Santa Clara River ("Santa Clara" or "River") at the Dam. All these species are listed as protected under the ESA.

ESA section 11(g)(2)(A)(i) requires that notice of the violation be given to the Secretary and to any alleged violator of the intent to file suit sixty (60) days prior to the initiation of a civil action under 16 U.S.C. § 1540(g). This letter constitutes the required notice of the violations described below, and has been sent to United, the Secretary of the Interior of the United States Department of Interior, and the Secretary of Commerce of the United States Department of Commerce. As such, you are hereby placed on formal notice by the Noticing Parties, after the expiration of sixty (60) days from the date of this Notice of Violation and Intent To File Suit, the Noticing Parties intend to file suit in federal court under ESA section 11(g), 16 U.S.C. § 1540(g) against United for violations of the ESA.

I. IDENTITY OF PERSONS GIVING NOTICE AND THEIR COUNSEL

This letter hereby gives notice of the names, addresses, and telephone numbers of the persons giving notice of intent to file suit, which are:

A. Wishtoyo Foundation (“Wishtoyo”) and its Ventura Coastkeeper Program

Founded in 1997, Wishtoyo is a 501(c)(3) nonprofit grassroots organization with over 700 members, including Ventura County’s diverse residents and Chumash Native Americans. Wishtoyo’s mission is to preserve and protect Chumash culture, the culture of all indigenous peoples, and the environment that our current and future generations depend upon. In 2000, Wishtoyo founded its Ventura Coastkeeper Program. Ventura Coastkeeper’s mission is to protect, preserve, and restore the ecological integrity and water quality of Ventura County’s inland and coastal waterbodies for all beings in the County's diverse community through outreach and education, restoration projects, advocacy, community organizing, and when necessary, legal action.

Wishtoyo and Ventura Coastkeeper may be contacted at the following address:

Wishtoyo Foundation/Ventura Coastkeeper
Mati Waiya, Executive Director
9452 Telephone Road, #432
Ventura, CA 93004
Tel: (805) 794-1248
E-mail: matiwaiya@wishtoyo.org

B. Center for Biological Diversity

The Center for Biological Diversity is a 501(c)(3) nonprofit organization with 991,000 members and online activists, including members in Ventura County, and offices in Oakland, Los Angeles, and Joshua Tree, California; Tucson, Arizona; Pinos Altos, New Mexico; Portland, Oregon; and Washington, D.C. The Center and its members are dedicated to protecting imperiled species and their habitats through science, policy, education, and environmental law.

The Center may be contacted at the following address:

Center for Biological Diversity
1212 Broadway, Suite 800
Oakland, CA 94612
Tel: 510-844-7100

All communications regarding this notice should be addressed to the following legal counsel representing the Noticing Parties in this matter:

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II. BACKGROUND

A. The Vern Freeman Diversion Dam

Located on the mainstem of the Santa Clara River at approximately 10.5 river miles from the Pacific Ocean and Estuary, the concrete Dam is 1,200 foot wide, spans the width of the Santa Clara, and creates roughly a 25 foot drop in elevation of the River. It does not store Santa Clara River flows, rather, working by gravity, it directs the Santa Clara's flows through a fish screen to help prevent steelhead entry, and then into diversion infrastructure at a fixed diversion point. Once diverted from the Santa Clara River, the flows are directed to nearby percolation ponds to recharge the over-drafted Oxnard Plain groundwater basins or directly to United's water delivery infrastructure to provide water to end users in the Oxnard Plain.



The Vern Freeman Dam and its Passage Infrastructure Extending Away from the Dam's Face

B. United's Ownership and Control over Operations at the Vern Freeman Dam

The Bureau of Reclamation ("Bureau") funded the construction of Vern Freeman Dam pursuant to a loan contract entered into with United in 1987 under the authority of the Small Reclamation Project Act of 1956. Construction of the Dam and its fish ladder and fish passage

infrastructure commenced in 1988 and was completed in 1991. The Bureau's loan contract that provided the financial assistance needed to construct the Dam gave the Bureau discretion to assist United in determining the adequacy of operation and maintenance, and to examine and approve substantial changes in Dam's operation. In 2011, the Bureau's ongoing control and discretion over operation of the Dam lapsed upon the expiration of its loan contract with United. Since repaying its loan to the Bureau in 2011, United has exercised sole ownership, control, and operation of the Dam.

C. Steelhead and United's Operations at the Vern Freeman Diversion Dam

1. Steelhead and the Santa Clara River

Steelhead is an anadromous fish species native to Pacific coast streams extending from Alaska to northwestern Mexico. The Southern California distinct population segment ("DPS") of steelhead ("Southern Steelhead" or "Steelhead") extends from the Santa Maria River, near Santa Maria, to the California-Mexico border. The National Marine Fisheries Service ("NMFS") listed the Southern Steelhead as an endangered species under the Endangered Species Act ("ESA") on August 18, 1997, and their endangered status was reaffirmed on January 5, 2006. *NMFS, Final Biological Opinion to Reclamation re: Approve United Water Conservation District's Proposal to Operate the Vern Freeman Diversion and Fish Passage Facility*, July 23, 2008, Administrative Record File # 151422SWR01PR6149 ("*Final Biological Opinion*") at 8. Genetic studies, which are largely based on the collection of juvenile Steelhead from freshwater habitats in southern California, including the Sespe Creek and Piru Creek tributaries to the Santa Clara River, indicate that native Southern Steelhead exist and dominate reproducing populations of Steelhead in the Santa Clara River watershed. *Final Biological Opinion* at 9.



Endangered Steelhead Spawning

Both the number of individual Southern Steelhead and the species' total range within the Southern California DPS range are dramatically reduced from historical levels. 71 Fed. Reg. 834, 851 (2006). This reduction is due in large part to dewatering of river drainages and the construction and operation of dams and other watercourse development, which have blocked the migration of Southern Steelhead to its traditional spawning grounds. 62 Fed. Reg. 43937, 43949 (1997). Because the existence of Southern Steelhead is endangered, it has been federally protected under the ESA since 1997. 62 Fed. Reg. 43937-39 (1997).

Prior to 1950, the annual returning adult Southern Steelhead run up the Santa Clara River from the ocean was estimated to be over 8,000 per year. This was one of the largest Southern

Steelhead runs in southern California. Moore, Mark R., July 1980, *An Assessment of the Impacts of the Proposed Improvements to the Vern Freeman Diversion on Anadromous Fishes of the Santa Clara River System*, Ventura County, CA, Prepared for Ventura County Environmental Resources Agency Under Contract Number 670. Today, very few adult Southern Steelhead are currently observed returning to the Santa Clara River and its tributaries. Adult Southern Steelhead experience extreme difficulty reaching these tributaries to spawn with each other or rainbow trout (and thus maintain their genetic diversity and experience denser populations) due to the Dam, its inadequate fish passage infrastructure and system, and United's diversion of flows at the Dam ("Diversion"). Kelley, E. 2004. *Information synthesis and priorities regarding steelhead trout (Oncorhynchus mykiss) on the Santa Clara River*, prepared for the Nature Conservancy ("Kelly 2004") at 7-8, 31; *Final Biological Opinion* at 26-27, 29-30. The Dam, its inadequate fish passage infrastructure and system, and United's Diversion of flows and operations at the Dam, also pose substantial impacts and threats to the hundreds of juvenile Southern Steelhead smolt and parr ("juvenile Steelhead") that attempt to migrate annually from Sespe Creek, Santa Paula Creek, and other Santa Clara River tributaries to the Santa Clara River Estuary ("SCRE or Estuary") and then to the Pacific Ocean. *Final Biological Opinion* at 26-27, 29-30, 54-55; Kelley, E. 2008, *Steelhead Smolt Survival in the Santa Clara and Santa Ynez River Estuaries*. Prepared for The California Department of Fish and Game. University of California, Santa Barbara ("Kelley 2008") at 9; Anderson, S.S. and Ambrose, R.F., *Independent Evaluation of the: Estuary Subwatershed Study Assessment of the Physical and Biological Condition of the Santa Clara River Estuary, Ventura County, California Final Synthesis Report 1 and the Environmental Effects of the City of Ventura Wastewater Reclamation Facility Discharge to the Santa Clara River Estuary*, June 14, 2011 ("Anderson and Ambrose Estuary Evaluation") at 4-6.

Steelhead trapping, observations, and recording devices at the Vern Freeman Dam have reported that only nine adult Southern Steelhead were able to pass through the Dam's fish ladder from 1994 to 2004. NMFS, *Final Biological Opinion to U. S. Federal Energy Regulatory Commission, re: Issue New License to United Water Conservation District for Operation of the Santa Felicia Hydroelectric Project (P-2153-012)*, May 5, 2008, Tracking # SWR/2002/02704: APS ("Santa Felicia Final Biological Opinion") at 36; Stoecker and Kelley 2005. *Santa Clara River Steelhead Trout: Assessment and Recovery Opportunities*, Prepared for The Nature Conservancy and The Santa Clara River Trustee Council ("Stoecker and Kelley 2005") at 8; Comstock, Richard. July 1992. *Santa Clara River Steelhead Restoration Assessment*. U.S. Fish and Wildlife Service ("Comstock") at 3. In 2012, two adult Steelhead were recorded in the fish ladder at the Vern Freeman Dam. Additional adult Southern Steelhead may make their way from the Estuary and upstream to the Dam, but are either uncounted or unable to locate the entrance to the Dam's fish ladder upon arrival at the Dam. *Final Biological Opinion* at 26-27, 29-30. Other adult Steelhead returning to the Santa Clara River never make it to the Dam, as United's diversions of River flow deprive adults of a sufficiently deep and continuous freshwater migration corridor needed to migrate from the ocean to the Dam. *Id.*

The Santa Clara River watershed is significant to survival and recovery of the species. It is one of the last remaining watersheds that supports populations of the Southern California distinct population segment of Steelhead, and has been designated by NMFS as providing one of the top Southern Steelhead restoration opportunities in the entire Southern California Evolutionarily Significant Unit (ESU). National Marine Fisheries Service, Southwest Region, Protected Resources Division, Long Beach, California. 2011. *Southern California Steelhead Recovery Plan. January 2012*. ("Steelhead Recovery Plan") at 1-4, 2-14, 7-5. The Sespe Creek and Santa Paula Creek tributaries to the Santa Clara River, both with confluences to the Santa Clara River mainstem

upstream of the Dam, provide unmatched high quality habitat for Steelhead spawning and rearing. Steelhead Recovery Plan at 4-2 to 4-3, 9-4, 9-10 to 9-11, 9-14. Sespe Creek, federally designated as a Wild and Scenic River with little to no anthropogenic impacts, supports some of the best and most extensive spawning and rearing habitat for Southern Steelhead, with over 46 river miles of total Steelhead habitat, 134,004 square miles of available spawning habitat, and 242,270 square miles of rearing habitat. *Id.*; Kelley 2004 at 33-35.

Protection and restoration of Southern Steelhead populations on the Santa Clara River has implications for the recovery of all the Southern California Steelhead population segments because recovery of an independent Southern Steelhead population on the Santa Clara River is expected to support formation of Southern Steelhead numbers in several adjacent population units/watersheds. *Final Biological Opinion* at 21. The Santa Clara River population unit represents a large distributional component of the overall range of the DPS, and the Santa Clara River watershed is the largest Southern Steelhead-bearing watershed in the DPS. *Id.* Without the Santa Clara River population unit, the number of large and inland population units would be reduced to two: the Santa Ynez River and the Ventura River. *Id.* The remaining units are small coastal populations, which, by themselves, do not appear to favor viability and recovery of the DPS. *Id.* The value of inland populations such as those in the Santa Clara River watershed lies in their innate habitat characteristics and conditions; inland population units extend into areas that are drier and warmer than those experienced by coastal population units, and inland population units also have longer migration routes. *Id.* Such environmental features promote diversity (genetic, phenotypic, and ecological) and specific life-history traits (*e.g.*, the ability to migrate long distances, and tolerate elevated temperatures and low flows during the dry season) that favor survival of the species. *Id.*

2. Operation of the Vern Freeman Diversion Dam and its Impacts on Steelhead

Volitional fish passage from the Pacific Ocean upstream through the Vern Freeman Dam is of vital importance to the survival and recovery of the Southern Steelhead in the Santa Clara River watershed because such passage is needed for adult Steelhead to access their intact spawning and rearing habitats in the Santa Paula Creek, Sespe Creek, and other tributary sub-watersheds, and for juvenile Steelhead to access the Estuary and ocean. The physical impediments to volitional fish passage caused by the Dam and its fish ladder, and United's Diversion of River flows at the Dam, are the only activities on the mainstem of the Santa Clara River that obstruct adult Steelhead access to the Santa Clara River's tributaries for spawning and rearing, and that obstruct juvenile Steelhead access to the Estuary for rearing and acclimation. In addition, United's year round Diversion of flows at the Dam deprive the Santa Clara River Estuary of needed flows of sufficient water quality, thereby adversely impacting juvenile Steelhead that require suitable Estuary habitat for rearing and acclimation to survive in the ocean and to return to the Santa Clara to reproduce as adults.

3. The NMFS Steelhead Final Biological Opinion for the Vern Freeman Dam

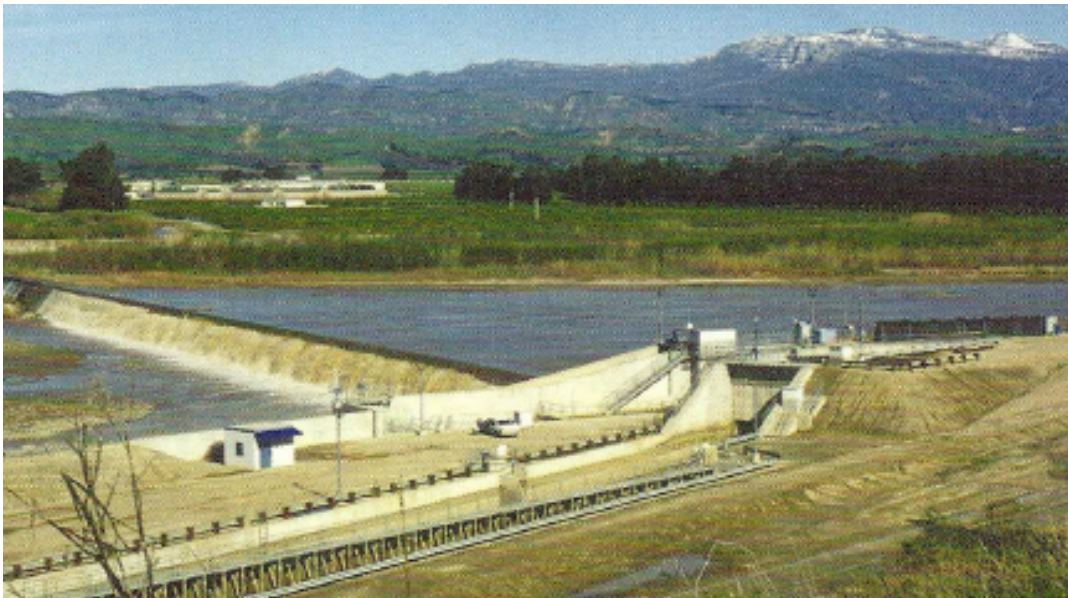
To address the harms to endangered Steelhead resulting from operations at the Vern Freeman Dam during the Bureau's discretionary control, NMFS, the Federal agency charged with administering the ESA for anadromous fish species, engaged United and the Bureau in extensive informal and formal consultation. After United prepared and the Bureau submitted a biological assessment in 2004, the Bureau and NMFS initiated formal consultation in May 2005. In September 2005, NMFS issued a Draft Biological Opinion, which found that the action proposed by the Bureau and United would result in jeopardy to Southern Steelhead and adverse modification to its critical habitat. The Bureau and United then revised the proposed action and submitted a revised biological

assessment in January 2007. NMFS issued a second Draft Biological Opinion in April 2008, and a Draft Incidental Take Statement in June 2008, again finding that the action proposed by the Bureau and United would result in jeopardy to Southern Steelhead and adverse modification to its critical habitat.

NMFS issued the Final Biological Opinion to the Bureau for the Dam on July 23, 2008. *Id.* at 1. The Final Biological Opinion found United's operation of the Dam is likely to jeopardize the continued existence of Southern Steelhead, and is likely to destroy or adversely modify critical habitat for this species. *Id.* at 66. The Final Biological Opinion found United's operation of the Dam increases the extinction risk to endangered Southern Steelhead by reducing and at times eliminating migration opportunities and success, and by precluding migration of the species to its historical spawning and rearing habitat, all of which lead to mortality, spawning failures, and rearing failures. *Id.* at 64. Specifically, the Final Biological Opinion found that the Dam, with its inadequate fish passage solution, creates a physical barrier that impedes adult Steelhead from migrating in an upstream direction and impedes juvenile Steelhead from migrating in a downstream direction, and that United's diversion of flows at the Dam deprives adult Steelhead and juvenile Steelhead of the flows needed for migration and survival downstream of the Dam all the way to the Estuary and Pacific Ocean. *Id.* at 66; 26-27, 35-40, 47-51, 56-58; 30, 33, 53, 54.

4. Harms to Steelhead Caused By the Vern Freeman Dam and its Inadequate Fish Passage Infrastructure and System

The preclusion or delay of upstream adult Southern Steelhead migration caused by the Dam results in adult Southern Steelhead returning to the ocean without reaching high-quality spawning habitat upstream of the Dam, or perishing somewhere in the River downstream or upstream of the Dam without reaching high-quality spawning habitat. This delaying or preclusion of migration occurs when high flows in the River, sufficient for steelhead migration, spill over the Dam's crest, creating turbulence and elevated water velocities at the base of the Dam. The turbulence, high flows, and high water velocity attract Steelhead to the Dam's base, instead of to the fish-ladder entrance at the extreme southern bank of the River 100 feet downstream, because high flows and water velocities guide upstream Steelhead migration. *See* Final Biological Opinion at 26-27, 35-40, 47-51, 56-58. As a result, Steelhead are attracted to the face of the Dam, and have a difficult time locating, or do not locate, the entrance to the fish ladder. *Id.* In addition, the Dam and its inadequate fish ladder can preclude or delay Steelhead migration by creating a fish passage bottleneck, as the fish ladder is the only freshwater migration corridor through the Dam. *Id.* at 47. Furthermore, spills of water over the Dam can cause the thalweg (the deepest part of the flowing river) to form on the side of the river channel that is opposite the fish-ladder entrance, and the bypass channel (i.e., the channel leading from the river to the fish-ladder entrance) can be far removed from the thalweg, occasionally slowing or precluding Steelhead from migrating upstream past the Dam. *Id.* at 57. In addition, sediment deposition immediately downstream of the Dam has been observed to result in sand covering both orifices to the fish ladder and to plug the fish ladder, rendering the ladder impassable. *Id.* at 57.



Turbulence From River Flows Over the Dam's Crest Attracts Migrating Adult Steelhead to the Base of the Vern Freeman Dam Instead of to its Fish Ladder

While the overall performance of the fish passage system at the Dam is the principal issue precluding unimpeded passage of Steelhead past the Dam in an upstream direction, the fish ladder/fishway and associated or connected infrastructure at the Dam itself are not adequate for Steelhead passage for the following additional reasons:

- The Fish ladder/fishway is not operable or accessible to Steelhead when flow is turned out of or routed into the Dam's diversion canal, or when the Dam's flushing gate is open and or flushing operations are being conducted;
- The attraction water capacity is not adequate to attract Steelhead to the fish ladder/fishway;
- The auxiliary water system is not screened and does not exclude Steelhead, and the likelihood of injury to juvenile Steelhead passing through the fishway is high;
- Turbulence in the fish ladder/fishway entrance pool and turning pools is excessive;
- The fishway, though passable for some adult Steelhead in a limited fashion, significantly impedes adult Steelhead migration compared to natural conditions. Some Steelhead may reject it because of the shallow, turbulent flow. The turbulence can be a barrier to migration for smaller Steelhead;
- Fish ladder/fishway entrance hydraulic conditions are inadequate for Steelhead at high flows when water is discharged through the Dam's flushing channel, and there is excessive turbulence at the two existing entrances;
- Upstream exit conditions in the fish ladder/fishway for adult Steelhead impede Steelhead migration. Adult Steelhead have to exit into the Dam's diversion canal perpendicular to the diversion canal flow, and then have to find an exit through the

diversion trashrack;

- For downstream juvenile Steelhead passage, the fish screens are deficient, pose barriers to volitional juvenile Steelhead migration, and pose take threats to migrating juvenile Steelhead;
- The fish ladder/fishway as designed, maintained, and operated is not suited for the flashiness of the Santa Clara River, and the migratory requirements and behavior of Steelhead, and thus at times poses a complete barrier to upstream Steelhead migration.

Vern Freeman Dam Fish Passage Conceptual Design Report, Prepared by: Vern Freeman Dam Fish Passage Panel for United Water Conservation District (September 15, 2010) at xii - xiv, 5-5, 8-1 to 8-2, 9-2; *Final Biological Opinion* at 51, 57.

Even when the Dam and its inadequate fish ladder/fishway do not prevent adult Steelhead migration altogether, they delay or slow adult Steelhead migration upstream. *Id.* at 57. This delay also leads to Steelhead mortality and spawning failures in the watershed by effectively precluding adult Steelhead from reaching tributary areas in the upper Santa Clara River watershed that provide suitable, high-quality spawning habitat. *Id.* Adult Steelhead generally only locate and ascend the Dam's fish ladder after spills over the Dam's crest nearly or entirely subside, when flow levels in the Santa Clara River upstream of the Dam drop. *Id.* In such lower flow conditions, flows can be of inadequate depth for Steelhead migration upstream of the Dam. *Id.* In the alternative, adult Steelhead that have been delayed may not have sufficient energy once passing the Dam to survive and successfully migrate to upstream tributary spawning habitat. Thus, Steelhead that have successfully located and ascended the Dam's ladder, are still precluded from migrating to spawning habitat upstream and from spawning successfully.



Flows over the Dam's Face Attract Steelhead to its Base Instead of to the Fish Ladder 100 Feet Downstream

The Final Biological Opinion conclusively finds that to avoid take of Steelhead, United must alleviate the obstruction the Dam currently poses to volitional Steelhead migration by physically modifying the Dam and its current fish passage system in a way that will provide a continuous freshwater migration corridor on the Santa Clara River past the Dam. *Final Biological Opinion* at

50-51. Concurring, the Vern Freeman Dam Fish Passage Panel convened by United to evaluate the upstream passage of Steelhead at the Dam found that “the existing fishway was not an adequate fish passage system” and “improvements to the existing fish ladder would not improve passage sufficiently to be a viable alternative compared to alternatives of a new passage.” *Vern Freeman Dam Fish Passage Conceptual Design Report*, Prepared by: Vern Freeman Dam Fish Passage Panel for United Water Conservation District (September 15, 2010) at xii-xiv, 5-5.

5. Harms to Migrating Steelhead Caused by Diversion of Water From the River

In regards to United’s impacts on the sufficiency of flows in the Santa Clara River to provide for Steelhead migration from the ocean past the Dam, the Final Biological Opinion conclusively finds that United's diversion of water at the Dam for off-river use (“United’s Diversion” or “the Diversion”) significantly alters the pattern and magnitude of flows in the River downstream of the Dam so as to indirectly and directly adversely affect juvenile and adult Steelhead and the species' critical habitat in the River downstream. Specifically, United’s Diversion at the Dam: (1) reduces the magnitude of flow in the Santa Clara River and sometimes eliminates the River's flow entirely within a year or during critical periods, (2) causes fluctuating flow levels in the River in a fashion problematic for Steelhead function, (3) increases the rate of River recession downstream of the diversion dam, (4) abbreviates flow duration within individual rain-induced discharge pulses, (5) reduces migration opportunity (*i.e.*, favorable conditions that allow an individual to move between or among habitats) for adult and juvenile Steelhead, and (6) increases the potential for stranding juvenile and adult migrating Steelhead and delaying or precluding juvenile and adult Steelhead migration. *Final Biological Opinion* at 30, 33, 53, 54, 59. All of these alterations to the pattern and magnitude of flows in the River downstream of the Dam caused by United’s Diversion can lead to mortality and failed spawning from stranding or an inability to reach suitable spawning habitat in upstream tributaries, thereby reducing numbers and production of Steelhead in the Santa Clara River watershed. *Id.*

In addition, the Final Biological Opinion documents that United’s Diversion of in-stream flows takes Steelhead because it reduces the quality and extent of Steelhead habitat in the Santa Clara Estuary, the lower, tidally influenced part of the River near the River’s confluence with the ocean. United’s Diversion decreases the duration and frequency that the Estuary is open to the ocean by significantly reducing the amount of freshwater that flows to the Estuary during and after storms. *Id.* at 32, 52, 58; *City of Ventura Special Studies, Estuary Subwatershed Study Assessment of the Physical and Biological Condition of the Santa Clara River Estuary, Ventura County, California, Amended Final Report*, Stillwater Sciences, September 2011 (“*Stillwater Estuary Study*”) at 43. By reducing the amount of water flowing into the Estuary, United's Diversion influences whether the Estuary can breach the sandbar allowing the river to flow to the ocean, a crucial event for Southern Steelhead. *Id.* In addition, United’s Diversion decreases the length of time the Estuary sandbar remains open to the ocean for adult and juvenile Southern Steelhead migration to and from the ocean. *Id.* The loss of water volume in the Estuary and reduced connection to the ocean resulting from United’s Diversion are adverse effects to Steelhead because estuarine areas are a primary constituent element of critical habitat for Steelhead and are essential for the conservation of the species. *Final Biological Opinion* at 32, 52, 58.

United attempts to mitigate impacts of the Dam on outmigrating juvenile Steelhead by trapping juvenile Steelhead and hauling them via truck to the Estuary. The Final Biological Opinion finds that this method of attempted mitigation for the impacts to migrating juvenile Steelhead constitutes take which could adversely impact 900 Southern Steelhead per year. *Id.* at 54, 55, 56.

The adverse effects of United's trap and haul program include mortality to Steelhead during capture and transport; unintended fish stranding from unsuccessful capture efforts; depriving Steelhead parr and smolt of biological benefits related to emigrating through the remaining 10.5 miles of Santa Clara River; and relocation to inappropriate habitats for given life stages, such as the transport of Steelhead parr to the ocean before they undergo physiological changes need for ocean survival. *Id.* at 54, 55, 56. Trucking juvenile Southern Steelhead from the Dam to the Estuary, instead of maintaining sufficient water in the River to allow juvenile Steelhead to successfully migrate downstream, is not an alternative that is scientifically protective of juvenile Steelhead. *Id.* at 72.

6. The Diversion's Harms to Juvenile Steelhead Rearing and Acclimating in the Santa Clara River Estuary

Juvenile Steelhead in the Santa Clara River watershed exhibit three life history pathways before ocean entry. *Steelhead Growth in a Small Central California Watershed: Upstream and Estuarine Rearing Patterns*, Sean A. Hayes, et. al, NOAA, National Marine Fisheries Service (2008) ("*Hayes 2008*") at 122-126; *Anderson and Ambrose Estuary Evaluation* at 4-6; *Kelley 2008* at 8-9; *Final Biological Opinion* at 26-27, 29-30, 54-55. The first pathway is direct recruitment to the Estuary after spending only a few months in the upper watershed. *Id.* The second pathway is to spend 1–2 years rearing in the upper watershed, migrate downstream to the Estuary, and remain there for an additional 1–10 months before ocean entry. *Id.* The third is to spend one or more years rearing in the upper watershed, migrate downstream, and directly enter the ocean. *Id.*

Marine survival measured across the Steelhead range has been demonstrated to be influenced by size at ocean entry, and generally Steelhead smaller than 150 mm are unlikely to survive. Bond, M. H. 2006. *Importance of estuarine rearing to central California steelhead (Oncorhynchus mykiss) growth and marine survival*. Master Thesis, University of California, Santa Cruz ("*Bond 2006*") at 1-4, 29-33, 37-38; *Hayes 2008* at 122-126. It is well known that estuaries are very important rearing areas for juvenile Steelhead. *Id.*; *The Effects of Sandbar Formation and Inflows on Aquatic Habitat and Fish Utilization in Pescadero, San Gregorio, Waddell and Pornponio Creek Estuary/Lagoon Systems, 1985-1989*, Jerry J. Smith, December 12, 1990 ("*Smith 1990*") at 28-32; *Final Biological Opinion* at 32, 52, 58. Diversity and richness of habitat and food sources in southern coastal estuaries that form lagoons allow juvenile Steelhead to attain the necessary size for marine survival, which heavily influences adult escapement from predators, increases their chances for survival in the marine environment, and possibly defines adult production from the watershed. *Hayes 2008* at 122-126; *Steelhead Restoration and Management Plan for California*, Department of Fish and Game, 1996 at 77; Stillwater Sciences. 2008. *Santa Clara River Parkway Floodplain Restoration Feasibility Study*. Prepared for the California State Coastal Conservancy, Oakland, California. July 2008. ("*Floodplain Restoration Study*") at 2-38.

Southern Steelhead observations in the Santa Clara River Estuary's lagoon, the annual collection of juvenile Steelhead parr and smolt at the Dam's fish trap that are not ready for ocean entry and or that could benefit from additional rearing in the Estuary, as well as detailed information on rearing in other similar coastal lagoons, suggests that the Estuary provides "valuable" rearing habitat for juvenile Steelhead. *Final Biological Opinion* at 32, 54-55, 58; *Stillwater Estuary Study* at 137, 132, 14 - 1.4.1; *Anderson and Ambrose Estuary Evaluation* at 4-6; *Kelley 2008* at 8-9; *Final Biological Opinion* at 26-27, 29-30, 32, 54-55, 58. Not only does the Estuary provide feeding and growing areas for "lagoon anadromous" type of juvenile Steelhead that choose a life history strategy of rearing in the Estuary, but the Estuary provides needed areas for facilitation of physiological transitions between fresh and saltwater for adult and juvenile Steelhead. *Id.*; *Hayes*

2008 at 122-126; *Smith* at 28-32; *Bond 2006* at 1-4, 29-33, 37-38; *Final Biological Opinion* at 32, 58.

The loss of estuarine habitat within the Santa Clara River watershed is of concern because estuaries are a primary constituent element of Southern Steelhead critical habitat that contain features essential to the conservation of the species. Therefore, protection of the Santa Clara River Estuary is not only needed to provide for adequate acclimation and holding habitat for immigrating adults moving between the marine and freshwater environments, but for adequate rearing and acclimation habitat for emigrating juvenile Steelhead.

Two of the most important influences on Steelhead survival and rearing in the Estuary include water quality conditions and habitat availability. *Stillwater Estuary Study* at 132. Juvenile Steelhead generally require cool water temperatures, dissolved oxygen (“DO”) concentrations near saturation, and water quality that does not impart sub-lethal, acute, or chronic toxicity impacts. *Stillwater Estuary Study* at 132; Hecht, et. al., *An overview of sensory effects on juvenile salmonids exposed to dissolved copper: Applying a benchmark concentration approach to evaluate sublethal neurobehavioral toxicity*, U.S. Dept. Commerce, NOAA Technical Memo. NMFS-NWFSC-83, October 2007 at 1-2, 15, 17-18. Healthy estuarine environments with abundant food sources are also important for migrating adult Steelhead because they provide a final source of abundant forage that will provide the energy stores needed to make the physiological transition to fresh water, migrate upstream, avoid predators, and develop to maturity upon reaching spawning areas. *Final Biological Opinion* at 41.

Inflow from the Santa Clara River is the primary source of freshwater flowing into the Estuary. *Stillwater Estuary Study* at 40. The loss of natural Santa Clara River flows caused by United’s Diversion has a severe impact on the Estuary during the late spring and summer when the Estuary transforms into a coastal lagoon after a berm forms at its mouth closing it to the ocean. In the absence of natural surface flow contributions from the Santa Clara River during the late spring, summer, and fall months due to United’s Diversion, the Estuary loses habitat area, fills less rapidly, and experiences degradation in water quality because less natural flows are available to dilute agricultural, municipal waste water, and industrial discharges. *Steelhead Recovery Plan* at 9-13-14. NMFS has found that:

The seasonal elimination or reduction of [Santa Clara River] [E]stuary habitat is expected to harm steelhead because estuarine areas provide living space to sustain over summering individuals (Smith 1990, Thorpe 1994, Bond 2006) and features essential to the conservation of adult and juvenile steelhead (NMFS 2005). Recent findings reaffirmed that juvenile steelhead over summer in the estuary of their natal creek, and indicate the estuary allowed juvenile steelhead to grow fast enough to migrate to the ocean their first year (Bond 2006). Most individuals entered the ocean at a larger size than fish rearing in the freshwater portion of the stream system. Large size enhances survival in the ocean, and thus the lagoon reared fish tend to be disproportionately represented in the adult spawning population. These findings suggest the loss or reduction in estuary habitat in the Santa Clara River watershed may lead to a reduction in the number of adults returning to the watershed. *Final Biological Opinion* at 32, 58-59.

The City of Ventura’s discharge of millions of gallons per day of tertiary treated nutrient rich sewage effluent into the Estuary, used as a “substitute” for flows that historically flowed un-

diverted by United at the Vern Freeman Dam to the Estuary (“substitute surface water”), causes eutrophic conditions (oxygen depletion) in the Estuary, changes in the Estuary’s natural salinity, and acute, chronic, and sub-lethal toxicity threats to the Estuary’s steelhead and their food sources. *Final Biological Opinion* at 321; *Kelly 2004* at 8; *Stillwater Estuary Study* at 110-111, 118, 166-67; *Anderson and Ambrose Estuary Evaluation* at 7-8, 10-19.

Nutrient enrichment leading to increased algal productivity and eutrophic conditions in the Estuary (with DO and pH impairments) and to periodic exceedances of ammonia toxicity criteria — result from a combination of sewage effluent discharges from the Ventura Waste Water Treatment Plant (“VRFW”) and lack of inflow of fresh water from the Santa Clara River due to United’s Diversion. *Stillwater Estuary Study* at 2, 81. Further, the changes in salinity due to the combined effect of the Ventura sewage effluent discharge coupled with decreased natural freshwater river flow due to United’s Diversion have also created an Estuary environment hospitable to non-native aquatic species that prey on and compete with juvenile Steelhead for habitat space and food. *Stoecker and Kelley 2005* at 4; *Steelhead Recovery Plan* at 9-13.



Oxygen Starved Conditions for Juvenile Steelhead in the Santa Clara River Estuary Caused by Algal Blooms from Nutrient Rich “Substitute” River Flows from a Wastewater Treatment Plant

NMFS’s *Steelhead Recovery Plan* states that: “Because estuaries are the gateway used by both immigrating adults and emigrating juveniles moving between marine and freshwater environments, estuarine loss affects anadromous *O. mykiss* throughout the entire (Santa Clara River) watershed.” *Steelhead Recovery Plan* at 9-13. Accordingly, the *Steelhead Recovery Plan* calls for Recovery Action # SCR-SCS 12.1 - “Develop and implement an estuary restoration and management plan”, and assigns this recovery action an action rank of 1B. *Id.* at 9-67. Adequate natural flows of sufficient water quality that pass by the Dam are needed to replace the “substitute surface water” of inadequate water quality discharged as treated sewage effluent from the Ventura Waste Water Treatment Plant that have impaired Estuary Steelhead habitat since the Plant’s construction in 1958. *Steelhead Recovery Plan* at pg. 9-15, Table 9-2, 9-64-66, Table 9-7. Pursuant to a federal court consent decree entered in March 2012 between Wishtoyo/Ventura Coastkeeper,

Heal the Bay and the City of Ventura (“Ventura Consent Decree”),¹ the City will only be able to continue discharging any of its nutrient and contaminant rich effluent into the Estuary after 2025 if its effluent is found not to harm Steelhead and is determined to be a source of necessary “substitute surface water” to provide for Steelhead and other endangered species survival. Thus, implementation of a Vern Freeman Dam Diversion management plan to provide the Estuary with suitable year round flows of adequate water quality from the Santa Clara River is an action that will be well integrated with other remedial environmental actions mandated by law to occur in the near future.

7. United’s Failure to Prevent Harms to Steelhead

The Final Biological Opinion provided Reasonable and Prudent Alternatives (“RPAs”) “necessary and appropriate” for the Bureau and United to implement to “avoid the likelihood of jeopardizing the continued existence of the endangered Southern California DPS of steelhead or destroying or adversely modifying critical habitat for this species.” *Final Biological Opinion* at 67-71. The “economically and technically feasible” RPA called for actions to “restore unobstructed southern steelhead access through the lower Santa Clara River to spawning habitats in tributaries to the mainstem, and re-establish those bypass flows necessary to ensure a properly functioning migration corridor.” *Final Biological Opinion* at 71-73, 75-78. Specifically, the RPA required the Bureau and United to take a series of time-sensitive actions that would result in physical modifications to the Dam and the maintenance of specific in-stream flows downstream of the Dam, with the goal of restoring and maintaining “a continuous unobstructed freshwater migration corridor in the Santa Clara River during winter and spring *for the purpose of providing or approximating unimpeded migration of steelhead past the diversion dam over a broad range of hydrologic events.*” *Final Biological Opinion* at 67 (emphasis in original). The Final Biological Opinion also contained an Incidental Take Statement, which authorized the Bureau and United to engage in a certain level of “take” of Southern Steelhead if the project was operated pursuant to the terms of the RPAs, and proposed Reasonable and Prudent Measures (“RPMs”) and Terms and Conditions (“T&Cs”) to allow for incidental take if RPMs were adhered to after the RPAs were implemented. *Final Biological Opinion* at 80-84.

The Bureau’s loan contract that provided the financial assistance needed to construct the Dam, gave the Bureau discretion to assist United in determining the adequacy of operation and maintenance, and to examine and approve substantive changes in Dam’s operation. While the Bureau still exercised control and ownership over the Dam prior to expiration of its loan contract with United in 2011, the Bureau and United failed to implement the fish passage requirements of the Final Biological Opinion. Neither the Bureau, nor United, adhered to or implemented RPAs 1(d) and (e), which provided that long term physical modifications to the Dam enabling volitional Southern Steelhead passage be completely designed and “fully implemented and operational before the Bureau’s ongoing discretion over operation of the diversion dam lapses in 2011.” In addition, the Bureau failed to adhere to RPA 2, which provided the amount of flows that must be left in-stream, as opposed to being diverted at the Dam, to maintain a properly functioning migration corridor for adult and juvenile Steelhead in the Santa Clara River from the Dam to the Pacific Ocean.

¹ On March 30, 2012, the Ventura Consent Decree was entered in the Clean Water Act suit action Wishtoyo Foundation/Ventura Coastkeeper v. City of San Buenaventura, Case No. 2:10-cv-02072-GHK-PJW.

Since taking over sole ownership and operation of the Dam in 2011, United has perpetuated the Bureau's inaction and unlawful take of Southern Steelhead. While making simple modifications to its operations and fish ladder, United has failed to adopt NMFS's required RPAs and RPMs needed to avoid take of Steelhead. Notably, United has not implemented, or even fully designed, physical fish passage infrastructure at the Dam to allow for volitional steelhead migration as called for by RPAs 1(d) and 1(e), despite NMFS concluding that the preferred alternative for volitional fish passage could and should be implemented before the Bureau's discretion ceased at the end of 2011. *Final Biological Opinion* at 75-77.

In addition, United continues to fail to release flows as mandated by the Final Biological Opinion, as the quantity, timing, and duration of United's flow releases from the Dam are contrary to the provisions in RPA 2. First, United's flow release operations have not been modified to adhere to the operational criteria specified in the Final Biological Opinion's RPA 2(a). This is evidenced by NMFS's September 12, 2013 letter to United indicating that United's "recent and proposed operations are not consistent with operational criteria specified in reasonable and prudent alternative 2(a) of the 2008 Biological Opinion." Second, the location United chooses for the "critical riffle"², defined as the point downstream of the Dam at which United is required to maintain minimum flows to provide a continuous migration corridor from the Dam to the Estuary through flow releases at the Dam in lieu of its Diversion, is also contrary to the provisions in RPA 2. Because United places the critical riffle too far upstream, insufficient flows are released by United at the Dam to maintain the in-stream flows from the Dam to the Estuary that RPA 2 requires.

When the Final Biological Opinion and its associated incidental take statement ("ITS") expired in 2011, United lost the incidental take protection otherwise potentially afforded by compliance with the Final Biological Opinion. United has not obtained an incidental take permit, or any other legal permission under the ESA for take of Southern Steelhead, thus leaving United strictly liable for take of Steelhead caused by United's operation and maintenance of the Dam and Diversion of flows from the River. Since the Biological Opinion and the ITS expired, United has continued to take Southern Steelhead and has yet to adhere to the requirements of RPA 1(d)(e) or (2) in order to avoid take. This is because, despite the passage of over seven years since NMFS issued the Final Biological Opinion, United continues to fail to make the physical modifications to the Dam and to maintain the specific in-stream flows downstream of the Dam that the Biological Opinion finds are necessary to provide for volitional Southern Steelhead passage.

A United-convened fish passage panel ("Expert Panel") released findings in 2010 that a hardened rock ramp going over the face of the Dam was one of the two best feasible options,

² United defines "critical riffle" as follows: "The critical riffle is a term we use that would describe the most difficult riffle for an upstream migrant. Due to our ever changing river, the critical riffle can also move. In the past it has been up towards the 118 bridge, but normally is about 1.5 to 1.9 miles upstream of the 101 bridge. Normally when that stretch of the river is a losing reach the critical riffle will be further downstream due to less water in the river. When it is a gaining reach, it can be closer to the 118 bridge. Big riffle is located at about 1.7 miles upstream of the 101 bridge. The critical riffle will have to be located after every major storm. In general the channel morphology will change with peaks that exceed several thousand cfs." *Final Biological Opinion* at 70, n.25; pers. comm., M. McEachron, hydrologist, United Water Conservation District, November 21, 2007.

outside of Dam removal, to enable volitional Steelhead passage past the Dam. *Vern Freeman Dam Fish Passage Conceptual Design Report*, Prepared by: Vern Freeman Dam Fish Passage Panel for United Water Conservation District (September 15, 2010) at 9-1 to 9-2. Specifically, the Expert Panel found that Dam removal and the Diversion without a Dam “should be considered as an ultimate goal to maximize fish passage opportunities” and that “[c]onsidering the highly variable hydrologic characteristics of the basin, edge of steelhead ecosystem, fragility of the [steelhead] stock, inherent delays caused by dams, dam removal would have the greatest chance of allowing and promoting restoration of Santa Clara River [steelhead] stocks.” *Id.* While the Expert Panel concluded that “the alternative of dam removal should be investigated as a long-term goal of the interested parties,” United has yet to conduct or organize such an investigation. *Id.*

While United did decide to select a hardened rock ramp as its fish passage solution to avoid take of Steelhead, United’s efforts to design the ramp have been exceedingly slow and constitute unjustified delay of urgently needed measures to protect and restore the Steelhead population of the Santa Clara River watershed. For instance, between 2010 and late 2012, United failed to take any action to design and implement the hardened rock ramp, and it was not until late 2012 – early 2013 that United commenced preliminary design. From late 2012 – early 2013 to the present, United has been working with NMFS engineers in a slow drawn out, back and forth process. The ramp component (the fishway) has yet to be designed to 30% completion, and the upstream access way (the headworks) has yet to be designed. Moreover, United has made no guarantee that the hardened rock ramp or an adequate Steelhead passage solution at the Dam will be implemented at all, let alone within an expeditious timeframe. Furthermore, United continues to refuse to complete, and otherwise conduct, a feasibility and design study for a damless diversion alternative that could provide Steelhead with the best assurance of volitional passage. While United has submitted portions of a draft Habitat Conservation Plan (“HCP”) ostensibly in pursuit of an ESA section 10 incidental take permit, the draft HCP is far from complete, and United keeps pushing back its date for completing the draft HCP, the HCP’s underlying studies, and the design of the hardened rock ramp.

Operation of the Vern Freeman Dam as it is currently configured without an adequate physical fish passage system, and United’s improper Diversion of flow at the Dam, creates substantial barriers to volitional Southern Steelhead migration, precluding many Southern Steelhead from reaching suitable spawning habitat and harassing, killing, and harming Southern Steelhead. Indeed, United’s own biologist has documented incidents in which Southern Steelhead have attempted to utilize the Dam’s fish ladder to travel upstream, have been unable to pass, and therefore have built their redds (nests) below the Dam, resulting in harm to Southern Steelhead. Moreover, NMFS’ records indicate that operations at the Dam without the modifications set out in the Final Biological Opinion have killed, and will continue to kill, Southern Steelhead. NMFS’ records further indicate that United’s operations at the Dam have harmed or harassed, and will continue to harm and harass, adult Steelhead and juvenile Steelhead.³ In addition, the timing and

³ Live and dead adult and juvenile Steelhead have been found when tending to the Dam (*e.g.*, lowering flows to inspect or clean features of the diversion) or in the fish trap (Carpenter and Wise 1999, Kentosh 1999, United Water Conservation District 1999, United Water Conservation District 2006, email correspondence S. Howard, fishery biologist, United Water Conservation District, May 8, 2007). *Final Biological Opinion* at 58. In the past, live steelhead collected at the Dam have been captured (a total of ten smolts and two “resident rainbow trout” were captured in 2007, see also Table 4-2) and then trucked and released in the Santa Clara River or Ventura River estuaries or upstream of the diversion in the Santa Clara River or Santa Paula Creek near 12th Street. *Final*

magnitude of United's Diversion continues to harm adult Steelhead and juvenile Steelhead by depriving Steelhead of opportunities to migrate to and from the ocean, and by diminishing the ability of Steelhead to acclimate and rear in the Estuary.

8. Steelhead Survival and Recovery

The Santa Clara River watershed provides one of the top Southern Steelhead restoration opportunities in the species' entire Southern California range. *Stoecker and Kelley 2005* at 8; *Steelhead Recovery Plan* at 2-12, 2-13, 7-3 to 7-9. Unlike many of the large rivers to the south, the Santa Clara River system remains in a relatively natural state and the mainstem has not been dramatically altered by concrete flood control channels or large impassable dams. *Stoecker and Kelley 2005* at 8. Sespe, Piru, and Santa Paula creeks, all located in the Santa Clara River watershed upstream of the Dam, provide unmatched high quality habitat for Steelhead spawning and rearing. For example, Sespe Creek, which is relatively undisturbed, supports some of the best and largest spawning habitat in Southern California. *Id.*; *Steelhead Recovery Plan* at 9-10 to 9-14, 9-3.

The NFMS Steelhead Recovery Plan ranks surface water diversions as very high threats to Steelhead viability and recovery in the Santa Clara River watershed. Accordingly, the Recovery Plan's Critical Recovery Actions for Steelhead Population Recovery in Santa Clara River includes implementing operating criteria to ensure the pattern and magnitude of groundwater extractions and water releases, including bypass flows around the Vern Freeman Dam to "provide the essential habitat functions to support the life history and habitat requirements of adult and juvenile steelhead." *Steelhead Recovery Plan* at 7-9, 9-17. Accordingly, the Recovery Plan assigns the highest prioritized Action Rank for Steelhead recovery in the watershed, an Action Rank of 1A, to "Provid[ing] fish passage around dams and diversions (e.g., Vern Freeman Diversion)" and "Develop[ing] and implement[ing] water management plan for diversion operations (e.g., Vern Freeman Diversion)." *Steelhead Recovery Plan* at 9-15, 9-65. Furthermore, the Recovery Plan ranks developing and implementing an Estuary restoration and management plan to protect the Estuary from upstream threats with the second highest priority, Action Rank 1B. *Steelhead Recovery Plan* at 9-67. For Southern Steelhead revitalization to succeed in the Santa Clara River watershed, measures to secure effective Steelhead migration through the Vern Freeman Dam on the mainstem of the Santa Clara and to alter United's Diversions in a manner that will help restore an ecologically suitable Estuary for steelhead rearing and acclimation must be implemented. *See Final Biological Opinion* at 53, 67-71. Only then can Southern Steelhead repopulate the watershed with a genetically diverse population. United's operation of the Vern Freeman Dam and associated water Diversion is taking Steelhead in a manner precluding Santa Clara River Southern Steelhead recovery and jeopardizing Southern Steelhead existence.

D. The Impact of United's Diversion on Native and Endangered Birds Downstream

United's diversion of flows at the Vern Freeman Dam significantly diminish Santa Clara River flows downstream to the point that the River becomes deprived of flows it would naturally have at various times of year. United's Diversion further lowers groundwater elevations underlying the River and its floodplain downstream of the Dam beyond the reach of native riparian vegetation and trees. As a result, United's Diversion has been a primary factor in the decline of flow and high elevation groundwater dependent native riparian plant species in the Santa Clara River downstream

of the Dam. This harm to native riparian vegetation in turn has harmed endangered avian life downstream of the Dam, specifically the Least Bell's Vireo ("Vireo"), Southwestern Willow Flycatcher ("Flycatcher"), and Western Yellow Billed Cuckoo ("Cuckoo") (collectively "the Listed Bird Species"). Vireo, Flycatcher, and Cuckoo habitat needs to include densely foliated stands of deciduous trees and shrubs, particularly willows, with a dense understory adjacent to slow moving watercourses, backwaters, or seeps. United's Diversion has substantially degraded the presence of such riparian vegetation characteristics in the lower Santa Clara, this causing increased mortality and other harm to these three avian species.

The Santa Clara River's riparian habitat serves as critical habitat for the endangered Vireo and Flycatcher, and is important habitat for the Cuckoo. *Re-imagining Access ARCS of Experience for the Santa Clara River*, California State Polytechnic Univ. 2009 ("*ARCS of Experience for the Santa Clara River*") at 224. These birds are especially discriminate about the vegetation types they nest in and forage from. Thus, alterations to their native riparian habitat can result in "profound effects" on their survival and populations. *Id.* The replacement of the Santa Clara River's native riparian vegetation with the invasive nuisance plant giant reed (*arundo donax*) ("*arundo*"), with deep roots to access groundwater at lower elevations, is of "major concern", since *arundo* provides little suitable habitat or food for these birds that require the "structural diversity" associated with native vegetation and mature riparian forests in order to breed. *Id.*; *Environmental Factors Correlated with Changes in Riparian Plant Composition along the Santa Clara River Floodplain, California, Holly 2011* ("*Riparian Plant Composition*") at 6. For the reach of the Santa Clara River from the Dam to the Estuary, and for the entire interconnected Santa Clara River ecosystem to provide suitable habitat for Vireo, Flycatcher, and Cuckoo, the Santa Clara River's natural flow regime and underlying groundwater depth must be sufficiently restored to provide these avian species, and the native riparian plant communities they depend upon, with adequate access to water during the spring, summer, winter, and fall months.

1. Least Bell's Vireo

The Least Bell's Vireo, a migratory songbird endemic to California and Baja California, Mexico, is listed as an endangered species under the ESA, and is also listed as endangered under the California Endangered Species Act. 59 Fed. Reg. 16474 (1986). The reach of the Santa Clara River from the Vern Freeman Diversion Dam to the Estuary ("Reach 1 & 2") is listed as critical habitat for the Vireo under the Endangered Species Act. 59 Fed. Reg. 4845 (1994).



An Endangered Least Bell's Vireo and its Hatchlings

Now rarely sighted in various stretches of the Santa Clara River downstream of the Dam to the Estuary⁴, the Vireo was once abundant from the Dam to the Estuary and elsewhere in the Santa Clara River watershed. *Floodplain Restoration Study* at 2-47, 2-48; *The Status of the Least Bell's Vireo on Properties owned by the Nature Conservancy at the Santa Clara River*, Griffith Wildlife Biology (2010) ("*Least Bell's Vireo on the Santa Clara River*") at 1-2, 6. The species experienced "sharp declines in abundance" during the first half of the twentieth century primarily due to habitat fragmentation and the spread of non-native plant species. *Floodplain Restoration Study* at 2-47, 2-48; *Least Bell's Vireo on the Santa Clara River* at 1-2, 6. More than 95% of the Vireo's obligate riparian habitat in its historic range, including the Santa Clara River, has been destroyed by agriculture, urban development, flood control, water project, mining activities, grazing, and exotic plants. *Id.*

Experts agree that it is accurate to describe the Santa Clara River as currently the most important site and habitat type for Vireo recovery, as Vireo require the structural diversity and cover provided by the Santa Clara River's native mixed riparian forest communities and riparian scrub in flatter sections of the Santa Clara River for breeding, nesting, and foraging. *Least Bell's Vireo on the Santa Clara River* at 2-3; *Riparian Plant Composition* at 6; *Floodplain Restoration Study* at 2-33; U.S. Fish and Wildlife Service, September 2, 2009, *Re-initiation of the River Street Townhomes Biological Opinion*, City of Fillmore, Ventura County, California (8-8-09-F-40R) at 1-

⁴ Studies documenting the recent presence of Least Bell's Vireo and other native and endangered birds in Reach 1 & 2 of the Santa Clara include: PBS&J, September 2008, *The Results of Least Bell's Vireo Surveys Santa Clara River Weir Field Downstream of Highway 101*, Ventura County Watershed Protection District April - July 2008; PBS&J, March 3, 2009, *Santa Clara River Weir Field Downstream of Highway 101, Biological Resources Technical Report*; Ventura County Watershed Protection District, December 2008, *Draft Mitigation Plan for the Santa Clara River Weir Field Downstream of Highway 101*; National Park Service, Sooge, Mark, et. al, *A Southwestern Willow Flycatcher Natural History Summary and Survey Protocol Technical Report* NPS/NAUCPRS/NRTR-97/12, May 1977.

2. The vegetation in Vireo home ranges is dominated in the tree and shrub layers by several willow species: arroyo willow, black willow, sandbar willow, yellow willow, and red willow.⁵ *Least Bell's Vireo on the Santa Clara River* at 2-3. Important nesting and foraging shrubs for Vireo include mulefat, California wild blackberry, wild rose, Mexican elderberry, and poison oak.⁶ *Id.* Diversity in plant species composition and structure are important components of vireo home ranges and nest sites; monotypic and, senescent willow woodland is generally avoided. *Id.* Vireo prefer nesting in willow thickets or mulefat that provide dense vegetative cover, require a dense stratified forest canopy for foraging, and specifically utilizes the native vegetation types above for foraging and nest substrate.⁷ *Least Bell's Vireo on the Santa Clara River* at 2-3; *Floodplain Restoration Study* at 2-47.

The dense native mixed riparian forest and riparian scrub needed by Vireo is generally found on the banks of flatter mainstem and tributary channels of the Santa Clara River, where there is shallow groundwater. *Floodplain Restoration Study* at 2-33 (see Figure 2-17).⁸ Activity which changes the structure of the riparian vegetation such as water diversions and lowered groundwater tables, leading to a loss of vegetation and the replacement of native vegetation with invasive vegetation, such as *arundo*, has a profound effect on Vireo. *ARCS of Experience for the Santa Clara River* at 224; *Santa Clara River Parkway Strategic Plan for Arundo Treatment and Post-treatment Revegetation*, Stillwater Sciences, 2011 (“*Santa Clara River Arundo Treatment*”) at 4; *Least Bell's Vireo on the Santa Clara River* at 2-3; U.S. Fish and Wildlife Service, July 6, 2010, *Biological Opinion for the Landfill Drain Outlet Maintenance Along the Santa Clara River, Ventura County, California (File Number SPL-2009-00498-CLH) (8-8-10-F-7)* (“*Landfill Drain Final Biological Opinion*”) at 5. *Arundo* provides little suitable nesting habitat and little food for the species. *Id.*; *Least Bell's Vireo on the Santa Clara River* at 2-3. Thus, Vireo are absent from monocultures of these invasive plants. *Id.* at 2-3.

While Vireo habitat in Reach 1 & 2 of the Santa Clara does contain patches of intact habitat consisting of mulefat scrub, southern willow scrub, southern willow riparian forest, and patches of sandy Santa Clara River sediment, large portions of Reach 1 & 2 of the Santa Clara River native Vireo riparian habitat have been degraded due to the absence of native vegetation, which has been replaced by stands of *arundo*. *Landfill Drain Final Biological Opinion* at 6; *Santa Clara River Arundo Treatment* at 1-4. United's Diversion of almost all of the Santa Clara River's flows during the spring, summer, winter, and fall at the Dam continue to threaten, degrade, and reduce the extent of native riparian forest and riparian scrub communities, compromising Vireo survival and recovery in the Santa Clara River watershed and throughout their historic range. These water diversions give a competitive advantage to exotic nuisance plants such as *arundo* over the native plants necessary for Vireo habitat.

⁵ Other trees include Fremont cottonwood, white alder, California sycamore, and coast live oak.

⁶ In addition, common herbaceous species found in Least Bells Vireo habitat include western ragweed, mugwort, and stinging nettle.

⁷ Vireos require diversity in vegetative species and structure. They require large canopy trees (willow, cottonwood, alder, elderberry) for foraging, shelter, refuge, and song perches; shrubs (mulefat, willow, blackberry, rose) for foraging and nesting; and understory/herbs (blackberry, mugwort) for foraging. *Least Bell's Vireo on the Santa Clara River* at 11.

⁸ In these areas, the community is characterized by an open to dense tree canopy and variable shrub and understory layers. *Floodplain Restoration Study* at 2-33 (see Figure 2-17). In more geomorphically dynamic areas of the floodway, where mature forests cannot typically establish and earlier successional stages of vegetation generally dominate, mixed riparian forest transitions to mixed riparian scrub. *Id.*

2. Western Yellow-Billed Cuckoo (*Coccyzus americanus*)

Effective November 3, 2014, the U.S. Fish and Wildlife Service (“USFWS”) listed the western distinct population segment (“DPS”) of the yellow-billed cuckoo (*Coccyzus americanus*) (“Western Yellow-Billed Cuckoo” or “Cuckoo”) as a threatened species under the ESA. 79 Fed. Reg. 59992 (2014).



The Threatened Western Yellow-Billed Cuckoo

In designating the Cuckoo as threatened, the USFWS rulemaking found that the species:

is likely to become endangered throughout its range within the foreseeable future, based on the immediacy, severity, and scope of the threats to its continued existence... These include habitat loss associated with manmade features that alter watercourse hydrology so that the natural processes that sustained riparian habitat in western North America are greatly diminished... Principal causes of riparian habitat destruction, modification, and degradation in the range of the western yellow-billed cuckoo have occurred from alteration of hydrology due to dams, water diversions, management of riverflow that differs from natural hydrological patterns, channelization, and levees and other forms of bank stabilization that encroach into the floodplain. 79 Fed. Reg. 59992, 60010, 60015 (2014).

The Cuckoo, has been documented nesting in the native riparian vegetation of Reach 1 & 2 of the Santa Clara River corridor during the spring to late summer months. *Floodplain Restoration Study* at 2-47; *ARCS of Experience for the Santa Clara River* at 224. The bird has narrow habitat requirements, with field studies and habitat suitability modeling concluding that vegetation type (*i.e.*, cottonwood, willow forest), patch size, distance to water, and ratio of high to medium and low tree canopy height are critical factors determining the suitability of habitat for yellow-billed cuckoo breeding pairs. *Floodplain Restoration Study* at 2-47. Cuckoos typically inhabit densely foliated stands of deciduous trees and shrubs, particularly willows, with a dense understory, adjacent to slow moving watercourses, backwaters, or seeps. *Floodplain Restoration Study* at 2-47. In addition, the Cuckoo is discriminate about its nesting choice of dense riparian woodland. *Floodplain Restoration Study* at 2-33; *ARCS of Experience for the Santa Clara River* at 224.

Loss of overall riparian habitat and adequate native riparian patch size are the primary threats to Cuckoo populations. *Floodplain Restoration Study* at 2-47. In regards to loss of native riparian habitat, the USFWS, in its rulemaking listing the Cuckoo as threatened found:

The hydrologic regime (stream flow pattern) and supply of (and interaction between) surface and subsurface water is a driving factor in the long-term maintenance, growth, recycling, and regeneration of western yellow-billed cuckoo habitat... The interconnected interaction between ground water and surface water contributes to the quality of the riparian vegetation community (structure and plant species) and will influence the ability of vegetation to germinate, regenerate, and maintain its foliage density, vigor, and species composition... Water extractions, both from surface water diversions and ground water pumping, can negatively affect riparian vegetation... Water diversions and [groundwater] withdrawals can lower ground water levels in the vicinity of riparian vegetation. Because ground water and surface water are generally connected in floodplains, lowering ground water levels by only about 3 ft (1 m) beneath riparian areas is sometimes sufficient to induce water stress in riparian trees, especially in the western United States... Physiological stress in native vegetation from prolonged lower flows or ground water results in reduced plant growth rate, morphological change, or mortality, and altered species composition dominated by more drought-tolerant vegetation, and conversion to habitat dominated by nonnative species... These effects reduce and degrade habitat for the western yellow-billed cuckoo for foraging, nesting, and cover. 79 Fed. Reg. 59992, 60018 (2014).

In the Santa Clara River and Reach 1 & 2 of the Santa Clara River, Cuckoo have been especially affected by native riparian plant habitat loss and the absence of slow moving surface flows in many stretches. *Floodplain Restoration Study* at 2-47. United's Diversion has caused loss of this aquatic and native vegetation riparian habitat in Reach 1 & 2 of the Santa Clara River, as United's Diversion of almost all of the Santa Clara River's flows during the spring, summer, and fall, and periods during winters, lowers groundwater below the roots of native riparian vegetation and precludes the presence of slow moving surface flows during these seasons. *Id.* United's flow related operations at the Dam thus has perpetuated take, and continues to perpetuate take of the Cuckoo by degrading the species' habitat in a fashion that causes mortality or other actual injury to the species. *Floodplain Restoration Study* at 2-47.

The lack of flows and sufficient ground water levels in Reach 1 & 2 of the Santa Clara River needed to renew and establish mixed native riparian trees and shrubs suitable for Cuckoo threatens the existence and recovery of the Cuckoo in the Santa Clara River and its native range. The lack of sufficient flows is compounded by the replacement of this native vegetation with *arundo* that provides little suitable nesting habitat and little food. *ARCS of Experience for the Santa Clara River* at 224; *Floodplain Restoration Study* at 2-47; 79 Fed. Reg. 59992, 60021 (2014). Conversion of vegetation type in the Santa Clara watershed from native riparian woodlands to riparian vegetation dominated by *arundo*, tamarisk and other invasive non-native nuisance vegetation replaces vegetation that supplies the Cuckoos with essential food and adequate thermal cover with vegetation that does not provide these necessary components of habitat for the species. *Id.* United's Diversion promotes the establishment and persistence of *arundo*, tamarisk and other non-native vegetation in the Santa Clara River watershed by robbing the lower Santa Clara River of almost all flows in the spring, summer, winter, and fall and lowering groundwater tables downstream of the Dam. *Id.*

3. Southwestern Willow Flycatcher

a. Introduction & Decline in Historic Populations

The USFWS listed the Southwestern Willow Flycatcher (*Empidonax traillii extimus*) as an endangered species under the ESA on March 29, 1995. 60 Fed. Reg. 10694 (1995). The USFWS also designated the mainstem of the Santa Clara River in Ventura County and portions of Los Angeles County as part of the species' critical habitat (including Reach 1 and 2). 78 Fed. Reg. 344, 504 (2013). In August 2002, the USFWS issued the *Flycatcher Recovery Plan*. U.S. Fish and Wildlife Service. 2002, *Southwestern Willow Flycatcher Recovery Plan*, Albuquerque, New Mexico, i-ix+ 210 pp., Appendices A-O ("*Flycatcher Recovery Plan*") at 5. Reach 1 & 2 of the Santa Clara River is critical habitat for the Flycatcher, and the *Flycatcher Recovery Plan* contains flow protections needed for Flycatcher survival and recovery in the River downstream of the Dam. *Id.*; 78 Fed. Reg. 344, 504 (2013).

The Flycatcher is a small migratory song bird, whose nesting habitat is restricted to relatively dense growths of trees and shrubs in riparian ecosystems in the arid southwestern United States and possibly extreme northwestern Mexico. *Flycatcher Recovery Plan* at 4; U.S. Fish and Wildlife Service, May 3, 2001, *Final Biological Opinion for the Replacement of the Highway 101 Bridge over the Santa Clara River, Ventura County, California* (HDA-CA, File #:07-VEN-101-22.0/24.0, Document #.33561) (1-8-01-F-4) ("*Highway 101 Bridge Biological Opinion*") at 5-6.



The Endangered Southwestern Willow Flycatcher

Historically, the Flycatcher was common in all lower elevation riparian areas of the southern third of California, including the Santa Clara River. *Flycatcher Recovery Plan* at 8; 78 Fed. Reg. 344, 350-363 (2013). Today, populations have been drastically reduced in its historic range, and Flycatcher sightings occur, but are infrequent in Reach 1 & 2 of the Santa Clara River watershed from the Dam to the Estuary. *Id.*; *Floodplain Restoration Study* at 2-47 to 2-48; *Flycatcher Recovery Plan* at 77- 80, 86; *Highway 101 Bridge Biological Opinion* at 5-11.

The Flycatcher depends upon one of the most critically endangered habitats in North America: southwestern riparian ecosystems associated with rivers, swamps, and other wetlands. *Flycatcher Recovery Plan* at 2, 4; 78 Fed. Reg. 344, 350-363 (2013). Southwestern riparian ecosystems have always comprised a very small portion of the landscape in the Santa Clara River watershed, yet even in their current decimated state they are disproportionately important to wildlife and plants, typically supporting far greater species diversity than the surrounding upland ecosystems. *Flycatcher Recovery Plan* at 2.

b. Habitat Requirements, Threats, and Other Limiting factors

The Flycatcher breeds and nests in diverse patchy to relatively dense riparian tree and shrub communities⁹ along rivers, swamps, and other wetlands, including lakes (e.g., reservoirs) underlain by saturated soil during the spring to late summer months. *Flycatcher Recovery Plan* at 4, 11-12, iv; *Floodplain Restoration Study* at 2-47; *ARCS of Experience for the Santa Clara River* at 224; *Least Bell's Vireo on the Santa Clara River* at 11; 78 Fed. Reg. 344, 350-363 (2013). Most of these habitats are classified as forested wetlands or scrub-shrub wetlands, and common tree and shrub species comprising nesting habitat include willows, seep willow (aka mulefat), boxelder, stinging nettle, blackberry, cottonwood, arrow weed, tamarisk (aka saltcedar), and Russian olive. *Flycatcher Recovery Plan* at 4, 11-12, iv; 78 Fed. Reg. 344, 350-363 (2013). Habitat requirements for Flycatcher wintering include brushy savanna edges, second growth, shrubby clearings and pastures, and woodlands near water. *Flycatcher Recovery Plan* at iv.

In addition to dense riparian thickets, another characteristic common to most occupied Flycatcher sites is that they are near lentic (quiet, slow-moving, swampy, or still) water. *Flycatcher Recovery Plan* at 18; 78 Fed. Reg. 344, 350-363 (2013). In many cases, Flycatcher nest plants are rooted in, or overhang, standing water. *Id.* Typical sites occupied by Flycatcher include slow-moving stream reaches and river backwater areas. *Id.* Where Flycatchers occur along moving streams, those streams tend to be of relatively low gradient, i.e., slow-moving with few (or widely spaced) riffles or other cataracts. *Id.* Within or adjacent to nesting habitat, surface water or saturated soil are typically, but not always, present year-round or seasonally, and ground water is generally at a depth of less than 2 or 3 meters (6.5 to 9 ft). *Flycatcher Recovery Plan* at 4; 78 Fed. Reg. 344, 350-363 (2013). The Flycatcher's riparian habitats are dependent on hydrological events such as scouring floods, sediment deposition, periodic inundation, and groundwater recharge. *Flycatcher Recovery Plan* at 18; 78 Fed. Reg. 344, 350-363 (2013).

In the Santa Clara River watershed and throughout its historic range, the Flycatcher has experienced extensive loss and modification of riparian breeding habitat, with consequent reductions in population levels. *Flycatcher Recovery Plan* at iv; 78 Fed. Reg. 344, 350-363 (2013). United's Diversion has caused destruction and modification of Flycatcher habitat in Santa Clara Reach 1 & 2 by eliminating surface flows and decreasing groundwater levels adjoining the Santa

⁹ Occupied nesting sites usually consist of dense vegetation in the patch interior, or an aggregate of dense patches interspersed with openings. In most cases this dense vegetation occurs within the first 3 - 4 m (10-13 ft) above ground. These dense patches are often interspersed with small openings, open water, or shorter/sparser vegetation, creating a mosaic that is not uniformly dense. In almost all cases, slow-moving or still surface water and/or saturated soil is present at or near breeding sites during wet or non-drought years. *Flycatcher Recovery Plan* at 11-12.

Clara River channel, altering flood regimes, causing changes in water and soil chemistry due to disruption of natural hydrologic cycles, and promoting the establishment of invasive non-native plants that lack habitat value for Flycatcher. *Flycatcher Recovery Plan* at iv.,34; 78 Fed. Reg. 344, 350-363 (2013). By degrading Flycatcher habitat in this fashion, United's Diversion has caused mortality and other harms to Flycatcher and thus perpetuated unlawful take of Flycatcher.

c. Recovery

The Flycatcher is discriminate about its nesting conditions, with plant structure and composition, sufficiently high groundwater levels, and the presence of slow moving surface flows being amongst the most important conditions. *ARCS of Experience for the Santa Clara River* at 224; 78 Fed. Reg. 344, 350-363 (2013). Activity which changes the structure of the riparian vegetation such as vegetation removal or groundwater reduction leading to a loss of vegetation can have a profound effect on these birds. *Id.* Invasive vegetation such as *arundo* is also a major concern as it provides little suitable nesting habitat and little food.¹⁰ *Id.* The spread of *arundo* within the Santa Clara riverbed represents a significant threat to Flycatcher along the river corridor given its prolific spreading and ability to promote fires. *Id.* In addition, once established, *arundo* tends to use more water, and out-compete native riparian species required by the Flycatcher for nesting and breeding. *Riparian Plant Composition* at 3.

The USFWS Recovery Plan for the Flycatcher seeks in part to protect, reestablish, mimic, and/or mitigate for the loss of the natural processes that establish, maintain, and recycle riparian ecosystems relevant to the species, due in part to the high potential for restoration that riparian habitats exhibit due to their dynamic nature, fair level of resiliency, and ability to adapt to the dynamism of natural stream systems. *Flycatcher Recovery Plan* at 2, 3. If United's Diversion is modified to restore natural or near-natural conditions of water flow, water chemistry, and sedimentation in Reach 1 & 2 of the Santa Clara River, the River's near-natural riparian ecosystem needed to support Flycatcher populations has a high likelihood of re-establishment. *Flycatcher Recovery Plan* at 3; 78 Fed. Reg. 344, 350-363 (2013). Importantly, the restoration of unoccupied, suitable and potential, native riparian habitat is vital to the recovery and long term survival of the Flycatcher. Such restoration will provide suitable areas for breeding Flycatchers to: (a) colonize as the population expands (numerically and geographically), and (b) move to following loss or degradation of existing breeding sites. *Flycatcher Recovery Plan* at 17.

United's Diversion of flows at the Vern Freeman Dam impacts Flycatcher habitat in Reach 1 & 2 of the Santa Clara River by lowering groundwater below the roots of native riparian plants and precluding the presence of slow moving surface flows in spring, summer, and fall, and periods of the winter, adjacent to Flycatcher breeding and nesting habitat. Loss of slow moving aquatic habitat and suitable native riparian habitat in Reach 1 & 2 of the Santa Clara River attributed to United's Diversion, has had, and continues to have, a profound effect on the Flycatcher. The lack of flows and sufficient ground water levels in Reach 1 & 2 of the River needed to renew and establish mixed native riparian trees and shrubs suitable for Flycatcher, compounded with the replacement of this

¹⁰ The Southwestern Willow Flycatcher catches insects while flying, hovers to glean them from foliage, and occasionally captures insects on the ground. Flycatchers forage within and above the canopy, along the patch edge, in openings within the territory, above water, and glean from tall trees as well as herbaceous ground cover. *Flycatcher Recovery Plan* at 25.

native vegetation with *arundo* that provides little suitable nesting habitat and little food, threatens the existence and revival of the Flycatcher in the Santa Clara River and its native range. *ARCS of Experience for the Santa Clara River* at 224; *Floodplain Restoration Study* at 2-47; 78 Fed. Reg. 344, 350-363 (2013).

III. VIOLATIONS OF THE FEDERAL ENDANGERED SPECIES ACT

This letter provides notice to United of the Noticing Parties' intent to sue United for the ESA violations identified below.

United is taking species listed under the ESA in the Santa Clara River watershed in violation of ESA section 9 and 50 C.F.R. § 224.102, 50 C.F.R. § 17.21, and 50 C.F.R. § 17.31. United's operation and maintenance of the Vern Freeman Dam, and its Diversion of water from the Santa Clara River, are causing the various harms to, and taking of, endangered Southern Steelhead discussed below. Further, United's operation and maintenance of the Dam, and its Diversion of water from the Santa Clara River, are causing the various harms to, and taking of, endangered Least Bell's Vireo, threatened Western Yellow-Billed Cuckoo, and endangered Southwestern Willow Flycatcher discussed below. These harms constitute taking of ESA-listed endangered and threatened species in violation of ESA section 9 and 50 C.F.R. § 224.102, 50 C.F.R. § 17.21 and 50 C.F.R. § 17.31.

Take of a listed species means, *inter alia*, to harass, harm, kill, trap or capture the species. 16 U.S.C. § 1532(19). An actor can take a listed species within the meaning of the ESA by killing or injuring an individual member of the species, or by engaging in an act that causes significant habitat modification or degradation which kills, injures, or deleteriously impacts the species by significantly impairing essential behavioral patterns, including breeding, spawning, rearing, migrating, feeding or sheltering. 50 C.F.R. § 222.102; 50 C.F.R. § 17.3. As described above in this notice letter, United's operation and maintenance of the Dam, and its water Diversion at the Dam are harassing, wounding, killing, trapping, capturing, and most certainly harming Southern Steelhead both by killing and/or injuring individuals of this species and by causing significant habitat modification or degradation to its habitat that significantly impairs the fish's behavioral patterns, including spawning, rearing, migrating, feeding, and sheltering—and thus has caused substantial decline in the Southern Steelhead population in the Santa Clara River and its Estuary. United is further harming and taking Least Bell's Vireo, Western Yellow-Billed Cuckoo, and Southwestern Willow Flycatcher as described below.

First, United's operation and maintenance of the Dam, and associated water Diversion from the Santa Clara River at the Dam, are taking endangered Southern Steelhead in the following ways:

- (A) The Dam hinders and at times completely blocks access to Southern Steelhead's historic habitat in the tributaries to the Santa Clara River located above the Dam. Eliminating and or preventing upstream migration of adult Southern Steelhead to historical spawning habitat causes spawning failures and mortality. Adult Southern Steelhead are harassed, harmed, and killed when they are unable to pass the Dam due to flaws in the fish passage design that make it exceptionally difficult for adult steelhead to locate the Dam's fish ladder during conditions suitable for steelhead migration. Southern steelhead not able to pass over the Dam, have been harassed, harmed, or killed when they return to the ocean without successfully spawning, perish in the river downstream without spawning, or build their redds in habitat

unsuitable for successful spawning below the Dam. Like migration preclusion, delayed or slowed adult Southern Steelhead migration caused by fish passage problems at the Dam causes spawning failures and mortality. Adult Southern Steelhead are only expected to potentially be able to locate and ascend the ladder to pass the Dam after spills over the Dam's crest nearly or entirely subside due to lower flows in the River. Accordingly, if adult Steelhead pass the fish ladder, they may encounter low River flows that are not of adequate depth for migration to tributary spawning habitat upstream of the Dam. This taking activity is perpetual and ongoing, *i.e.*, has happened on every day that Southern Steelhead have been an ESA-listed species (The Dam has been operated and maintained every day during this time period) and will continue every day in the future until effective steelhead passage past the present location of Dam is achieved.

- (B) United's Diversion of in-stream flows from the Santa Clara at the Dam harasses, harms, and kills Southern Steelhead by stranding migrating adult and juvenile Steelhead, by delaying or precluding adult steelhead migrating upstream, and delaying or precluding juvenile Steelhead migrating downstream. Such take occurs when United's Diversion (1) reduces the magnitude of flow and sometimes eliminates flow entirely within a year or during critical periods, (2) causes fluctuating flow, (3) increases the flow recession rate (*i.e.*, causes low levels in the River to recede to lower levels than would occur naturally), (4) abbreviates flow duration within individual rain-induced discharge pulses in the River-- flow alterations which reduce juvenile and adult Steelhead migration opportunity (*i.e.*, by eliminating or reducing the frequency of favorable River flow conditions that allow individual fish to move between or among habitats). In addition, United's Diversion takes steelhead because by reducing River Flow as described above, this Diversion reduces the quality and extent of Estuary habitat, and decreases the duration and frequency that the Estuary is open to the ocean by significantly reducing the amount of freshwater that flows to the Estuary during and after storms. By reducing the amount of water flowing into the Estuary, United's Diversion at the Dam influences whether the Estuary can breach the sandbar allowing the river to flow to the ocean, a crucial event for Southern Steelhead. This taking activity is perpetual and ongoing, *i.e.*, has happened on every day that Southern Steelhead have been an ESA-listed species and United has diverted the Santa Clara River's natural flows at the Dam.
- (C) United's Diversion harasses, harms, and kills Southern Steelhead by failing to provide needed River flows of adequate water quality to the Estuary during the spring, summer, fall, and parts of the winter. Due to United's Diversion and resultant diminishment of River flows into the Estuary, to date, effluent has been permitted to be discharged from the Ventura Waste Water Treatment Plant as a "substitute", causing oxygen starved conditions, contamination from pollutants found in waste water treatment plant discharges (*ie*: copper, nutrients, and emerging contaminants such as caffeine and antibiotics), and changes in the Estuary's natural salinity. The salinity changes harm Southern Steelhead by creating an Estuary environment hospitable to non-native aquatic species that prey on and compete with juvenile Steelhead for habitat space and food.
- (D) United's trapping and hauling of emigrating juvenile Southern Steelhead in the Santa Clara River via truck to the Estuary harasses, harms, and kills Southern Steelhead.

The effects of United's trap and haul program include Steelhead mortality incurred during capture and transport; harm, harassment, and mortality caused by unintended stranding from unsuccessful capture efforts; harm and harassment caused by depriving Steelhead parr and smolt of biological benefits related to emigrating through the remaining 10.5 miles of Santa Clara River; and harm, harassment, and mortality to Steelhead caused by relocation to inappropriate habitats for given life stages, such as the transport of Steelhead parr and smolt to the ocean before they undergo physiological changes needed for ocean survival.

Second, United's operation and maintenance of the Dam and the Diversion of River flows are taking endangered Least Bell's Vireo, endangered Southwestern Willow Flycatcher, and threatened Western Yellow-Billed Cuckoo by causing significant modification or degradation to the Listed Bird Species' habitat that significantly impairs the birds' behavioral patterns, including, nesting, rearing, migrating, feeding, and sheltering—and thus has caused substantial decline in the Listed Bird Species population in the Santa Clara River watershed and through their ranges. The Listed Bird species are harmed by United's Diversion because it entirely dewateres sections of the Santa Clara River downstream of the Dam needed by the Listed Bird Species for nesting, breeding, rearing, and foraging, and lowers the groundwater elevations downstream of the Dam beyond the reach of the native riparian vegetation and trees that the Listed Bird Species need for breeding, nesting, rearing, and foraging. The lower groundwater elevations underlying the Santa Clara River and its floodplain have resulted in replacement of the structurally diverse native riparian habitat that the Listed Bird Species need to survive with invasive vegetation, including *arundo*, which provides little suitable habitat, thermal cover, or food for the Listed Bird Species.

In operating and maintaining the Dam as it currently does, and diverting water from the Santa Clara River as it currently does, United is perpetuating adverse modification of NMFS-designated critical habitat for Southern Steelhead, FWS-designated critical habitat for Vireo and Flycatcher, and important habitat for Cuckoo. For the variety of reasons set out above, on a daily basis, United's Dam and Diversion, as currently operated and maintained, take these threatened and endangered species and render their Santa Clara River and Estuary habitat far less suitable.

For United's operation and maintenance of the Vern Freeman Dam and Diversion of River flows at the Dam to be legal under the ESA, United must obtain an Incidental Take Permit ("ITP") under ESA section 10. 16 U.S.C. § 1539. United has not obtained such a permit. As such, United is in violation of ESA section 9 for taking ESA-listed species via its maintenance and operation of the Dam and its Diversion of Santa Clara River flows in all of the manners explained above. The Noticing Parties therefore put United on notice of their intent to sue sixty days after the mailing of this letter.

IV. NOTICE OF INTENT TO SUE UNITED FOR VIOLATIONS OF THE ENDANGERED SPECIES ACT

The Noticing Parties contend that United has failed in the respects set forth above to comply with the requirements imposed by the ESA. ESA section 11(g), 16 U.S.C. § 1540(g), requires that sixty (60) days prior to the initiation of a civil action under ESA section 11(g), a citizen must give notice of intent to sue.

By this letter, pursuant to ESA section 11(g), 16 U.S.C. § 1540(g), the Noticing Parties hereby put you on notice that after the expiration of sixty (60) days from the date of this Notice of

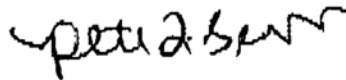
Intent To File Suit, they intend to file an enforcement action in federal court against United for violations of the ESA.

The Noticing Parties intend to seek injunctive relief preventing further ESA violations pursuant to ESA sections 11(g)(1), 16 U.S.C. § 1540(g)(1), and such other relief as is permitted by law. In addition to the violations set forth above, this notice covers all ongoing violations of the ESA and violations evidenced by information that becomes available to the Noticing Parties after the date of this Notice of Intent to File Suit.

The Noticing Parties are interested in discussing effective remedies for the violations noted in this letter. If you wish to pursue such discussions in the absence of further litigation, it is suggested that you initiate those discussions within the next twenty (20) days so that they may be completed before the end of the 60-day notice period. Although the Noticing Parties are always interested in avoiding unnecessary litigation, they do not intend to delay the filing of a complaint in federal court if discussions are continuing when the notice period ends.



Mati Waiya
Executive Director
Wishtoyo Foundation & Ventura Coastkeeper



Peter Galvin
Director of Programs
Center for Biological Diversity

Service List

VIA ELECTRONIC MAIL AND U.S. CERTIFIED MAIL RETURN RECEIPT REQUESTED

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