

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

ACL ORDER NO. R5-2007-0525
ADMINISTRATIVE CIVIL LIABILITY
IN THE MATTER OF

THE CITY OF WINTERS
WINTERS WASTEWATER TREATMENT FACILITY
YOLO COUNTY

This Administrative Civil Liability Order is issued to the City of Winters (hereafter known as "Discharger") based on failure to comply with Waste Discharge Requirements (WDRs) Order No. R5-2002-0136. This Order is issued pursuant to California Water Code (CWC) Section 13385, which authorizes the imposition of administrative civil liability.

The Executive Officer of the Central Valley Regional Water Quality Control Board (Regional Water Board) finds the following:

1. The Discharger owns a wastewater treatment facility (WWTF) in Winters, Yolo County. The WWTF is regulated by WDRs Order No. R5-2002-0136, which was adopted by the Regional Water Board on 19 July 2002.
2. The WWTF serves the City of Winters, and comprises a headworks facility, four aerated ponds, one effluent polishing pond, four wastewater storage ponds, and two land application areas totaling approximately 170 acres. All wastewater receives secondary treatment and disinfection prior to land application. The WDRs allow an average daily dry weather influent flow of 0.92 million gallons per day (mgd).
3. The WWTF's control center, headworks, and main lift station are south of downtown Winters on the north bank of Putah Creek. Sewage flows by gravity to the headworks facility, and is pumped from there to the wastewater treatment pond system, which is approximately 1.5 miles northwest of the main lift station. The sewer system includes three other lift stations that serve low-lying areas.
4. The Discharger owns the WWTF and the City's sewer system, and has contracted with Eco Resources, Inc. for operation, maintenance, and monitoring of the WWTF and the City's sewer system. The Discharger is solely responsible for compliance with the WDRs.
5. On 25 January 2007, the Regional Water Board adopted Cease and Desist Order (CDO) No. R5-2007-0002 to address several WDRs violations. This Order assesses civil liabilities for the four sanitary sewer overflows cited in the CDO that caused discharges of wastewater to surface waters.

VIOLATIONS OF THE WASTE DISCHARGE REQUIREMENTS

6. Discharge Prohibitions A.1, A.2, and A.6 of WDRs Order No. R5-2002-0136 prohibit the discharge of waste to surface waters, bypass of the treatment system, and sanitary sewer spills. Specifically:
 - a. Discharge Prohibition A.1 states: "The direct or indirect discharge of wastes and/or recycled water to surface waters or surface water drainage courses is prohibited."
 - b. Discharge Prohibition A.2 states: "The bypass or overflow of untreated or partially treated waste is prohibited."
 - c. Discharge Prohibition A.6 states, in part: "The discharge of sewage from a sanitary sewer system at any point upstream of a wastewater treatment facility is prohibited."

August 2005 Spill of 4,850 Gallons:

7. On 29 August 2005, a contractor working for a private utility company ruptured the main sewer force main in downtown Winters. The contractor and the Discharger responded properly and in a timely fashion to:
 - a. Contain the spill within the paved street area by sandbagging storm drain inlets;
 - b. Stop the flow by shutting down the main lift station, and
 - c. Divert influent from the headworks to an old clarifier at the WWTF control center.
8. Vacuum trucks at the spill site collected approximately 10,000 gallons of sewage from the paved area. The City's Public Works Director directed the vacuum truck operators to discharge the sewage into nearby sewer manholes. However, the City's Public Works Director mistakenly identified a storm drain manhole as a sewer manhole. Consequently, five truckloads of sewage (approximately 4,000 gallons total) were discharged from the vacuum trucks into a storm drain. By the time the error was identified, the sewage had already flowed directly into Putah Creek via a storm drain outfall. Additionally, the Discharger estimated that approximately 850 gallons leaked through sand bags at the spill site into the storm drain, and from there into Putah Creek.
9. The Discharger acted properly in notifying the Yolo County Environmental Health Department (County) and Regional Water Board staff, and cooperated by posting warning signs along the creek and sampling for total and fecal coliform organisms in the creek as requested. However, despite Regional Water Board staff's explicit direction, the Discharger did not notify the State Office of Emergency Services (OES) until 6 September 2005, nine days after the spill.
10. In total, approximately 4,850 gallons of raw sewage flowed into Putah Creek in violation of Discharge Prohibitions A.1, A.2, and A.6 of WDRs Order No. R5-2002-0136. Regional Water Board staff did not receive any reports of fish kills or other actual impacts to the beneficial uses of Putah Creek. However, elevated levels of total and fecal coliform organisms were detected as far downstream as the University of California at Davis through 2 September 2005.

January 2006 Spill of 50 Gallons

11. On 18 January 2006, one of the Discharger's sewage lift stations (the Carter Ranch lift station) failed, causing a sanitary sewer overflow in a residential neighborhood. Both pump impellers were jammed with rags. Although neither pump was operable, the pump indicators showed that they were running. The lift station is equipped only with a flashing light alarm system; there is no audible alarm or autodialer to ensure that City staff is alerted to potential spills before they occur. The Discharger's response to the spill was prompt and appropriate.
12. OES was notified in a timely manner. Although the Discharger did not notify Regional Water Board staff, staff was made aware of the spill by the County on 20 January 2006, two days after it occurred. On 26 January 2006, staff verbally reminded the Discharger of the proper spill reporting procedure.
13. According to the Discharger's written spill report, a total of 350 gallons of raw sewage spilled from the manhole. Approximately 300 gallons were recovered, and approximately 50 gallons flowed into the storm drain system, which discharges to Putah Creek. This spill was a violation of Discharge Prohibitions A.1, A.2, and A.6 of WDRs Order No. R5-2002-0136.

May 2006 "Minimal" Spill into Putah Creek:

14. On 22 May 2006, another sewage lift station (the El Rio Villa lift station) failed, causing a sanitary sewer overflow in a residential neighborhood. The Discharger's written spill report states that neither of the two lift station pumps was operable. On the day after the spill, one of the pumps' impellers was found to be jammed with trash and debris. The failure of the second pump was not explained in the Discharger's report.
15. The Discharger's response to the spill was prompt and appropriate and Regional Water Board staff was notified in a timely manner. Approximately 150 gallons of raw sewage spilled from a manhole and "a small portion" of that volume was discharged to a storm drain that discharges to Putah Creek. This spill was a violation of Discharge Prohibitions A.1, A.2, and A.6 of WDRs Order No. R5-2002-0136.

December 2006 Spill of 43,000 Gallons to Putah Creek

16. On 3 December 2006, the Discharger's contract operator was notified of an ongoing overflow from the El Rio Villa lift station. Based on a preliminary spill report prepared by Eco Resources, Inc., the lift station was overflowing for approximately 28 hours before operations staff became aware of it. Eco Resources, Inc. acknowledged that the spill was caused by its staff's failure to restore electrical power to the lift station following maintenance two days before. The spill was stopped when a booster pump was manually turned on.
17. Regional Water Board staff was notified in a timely manner. However, OES and the County were not notified until the following day because the Discharger's Sanitary

Sewer Overflow Response Plan contained incorrect phone numbers for these agencies, and the spill occurred on a Sunday.

18. According to the Discharger's final spill report, approximately 43,000 gallons of raw sewage spilled into Putah Creek via the City's storm drain system. Analytical results for water samples in Putah Creek upstream and downstream of the spill site indicate that elevated total and fecal coliform levels persisted through 11 December 2006. The spill was a violation of Discharge Prohibitions A.1, A.2, and A.6 of WDRs Order No. R5-2002-0136.
19. A summary of the four spill events follows:

<u>Spill Dates</u>	<u>Spill Duration (days)</u>	<u>Volume Discharged to Surface Waters (gal)</u>
29 August 2005	1	4,850
18 January 2006	1	50
22 May 2006	1	"minimal"
3 December 2006	2	43,000
Total	5 days	47,900 gallons

REGULATORY CONSIDERATIONS

20. As described in the above Findings, the Discharger has violated WDRs Order No. R5-2002-0136 by discharging waste to surface waters or surface water drainage courses, and by bypassing the treatment system.
21. Section 301 of the Clean Water Act and Section 13376 of the CWC prohibit discharge of pollutants to surface waters except in compliance with a National Pollutant Discharge Elimination System (NPDES) permit.
22. CWC Section 13376 states, in part: *"Any person discharging pollutants or proposing to discharge pollutants to the navigable waters of the United States ... shall file a report of the discharge in compliance with the procedures set forth in Section 13260..."* and *"The discharge of pollutants...except as authorized by waste discharge requirements [NPDES permit]...is prohibited."*
23. WDRs Order No. R5-2002-0136 is not an NPDES permit. Therefore, by failing to file a report of waste discharge as set forth in CWC Section 13260 and failing to obtain an NPDES permit prior to the discharges described in the above Findings, the Discharger has violated CWC Section 13376.
24. In violating CWC Section 13376, the Discharger is also civilly liable under CWC Section 13385. CWC Section 13385(a) states, in part:

“Any person who violates any of the following shall be liable civilly in accordance with this section: (1) Section 13375 or 13376...”

25. CWC Section 13385(c) states:

“Civil liability may be imposed administratively by the state board or a regional board pursuant to Article 2.5 (commencing with Section 13323) of Chapter 5 in an amount not to exceed the sum of both the following:

(1) Ten thousand dollars (\$10,000) for each day in which the violation occurs.

(2) Where there is a discharge, any portion of which is not susceptible to cleanup or is not cleaned up, and the volume discharged but not cleaned up exceeds 1,000 gallons, an additional liability not to exceed ten dollars (\$10) times the number of gallons by which the volume discharged but not cleaned up exceeds 1,000 gallons.”

CALCULATION OF LIABILITIES

26. For discharging waste to surface waters in violation of the WDRs, the Regional Water Board may assess administrative civil liability based on CWC Section 13385. As stated in the Findings, 47,900 gallons of raw sewage were discharged to surface waters on four separate occasions for a total of five days. Of this total, 45,850 gallons were discharged in excess of 1,000 gallons per spill event. Pursuant to CWC Section 13385(c), the maximum administrative civil liability for these five spill events is \$508,500 (\$50,000 (five days times \$10,000 per day) plus \$458,500 (45,850 gallons times \$10 per gallon).

27. CWC Section 13385(e) lists a number of factors to be considered in determining administrative civil liability amounts imposed under Section 13385:

“In determining the amount of any liability imposed under this section, the regional board, the state board, or the superior court, as the case may be, shall take into account the nature, circumstances, extent, and gravity of the violation or violations, whether the discharge is susceptible to cleanup or abatement, the degree of toxicity of the discharge, and, with respect to the violator, the ability to pay, the effect on its ability to continue its business, any voluntary cleanup efforts undertaken, any prior history of violations, the degree of culpability, economic benefit or savings, if any, resulting from the violation, and other matters that justice may require. At a minimum, liability shall be assessed at a level that recovers the economic benefits, if any, derived from the acts that constitute the violation.”

28. Pursuant to CWC Section 13385(e), the minimum administrative civil liability is equivalent to the economic benefit accrued by the Discharger for not implementing management and physical improvements necessary to prevent the discharges. Approximately 4,000 gallons of the 4,850-gallon discharge to Putah Creek resulted from improper identification of a sewer manhole, which is a form of negligence. The two smallest spills resulted from inadequate failsafe and/or backup systems at the lift stations involved. The 43,000-gallon spill resulted from negligence on the part of the contract operator that performed maintenance on the lift station. Because the two largest spills resulted from negligence, the Discharger did not benefit economically. However, the two smaller spills resulted from the Discharger's failure to install modern failsafe and backup power systems for three of its lift stations. It is estimated that the

Discharger has saved at least \$7,000 by not retrofitting the lift stations prior to the first spill. This savings is based on a capital cost estimate of approximately \$20,000 per lift station for autodialers, backup generators, automated controls, and the Discharger paying seven percent interest on a five-year loan (assuming that the improvements were financed in early 2005).

29. Issuance of this Order is exempt from the provisions of the California Environmental Quality Act (Public Resources Code Section 21000, et. seq.), in accordance with Section 15321 (a)(2), Title 14, of the California Code of Regulations.

CONSIDERATION OF FACTORS

30. On 22 February 2007, the Executive Officer issued Administrative Civil Liability (ACL) Complaint No. R5-2007-0502 to the Discharger, proposing a \$70,000 administrative civil liability pursuant to CWC Section 13385. The amount of the liability was established based on a review of the factors cited in CWC Section 13385(e), as well as the State Water Resources Control Board *Water Quality Enforcement Policy*. The factors used to establish the amount of liability are discussed below.
31. *Enforcement Considerations:* Pursuant to CWC Section 13385(e), the maximum administrative civil liability that may be imposed for the WDR violations discussed above is \$508,500.
32. *Nature:* The Discharger has violated Discharge Prohibitions A.1, A.2, and A.6 of WDRs Order No. R5-2002-0136 by discharging raw sewage to Putah Creek during four separate sanitary sewer overflows between August 2005 and December 2006.
33. *Circumstances:* In the case of the first spill (August 2005), the circumstances are such that the spill could have been avoided if the Discharger had exercised due care in spill response/cleanup. In the case of the two smaller spills (January and May 2006), the circumstances are such that the spills could have been avoided if the Discharger had heeded the contract operator's recommendations to retrofit the lift stations with modern failsafe and backup power systems. In the case of the 43,000-gallon spill (December 2006), the circumstances are such that the spill could have avoided if the Discharger's contract operator had exercised due care in lift station maintenance.
34. *Extent and Gravity:* The Discharger failed to prevent the discharge of 47,900 gallons of raw sewage to Putah Creek between August 2005 and December 2006. Putah Creek has a high level of beneficial uses including domestic water supply and recreation. Potential health risks from bacteria and viruses resulting from raw sewage are a concern for humans and wildlife habitat.
35. *Susceptibility of the Discharge to Cleanup and Abatement:* Due to the circumstances of the spills, once the sewage entered Putah Creek there was no practical way to clean up to avoid water quality impacts or impacts to beneficial uses.

36. *Degree of Toxicity of the Discharge:* There were no reported fish kills subsequent to the spills, and Putah Creek would be expected to provide some dilution. For two of the spills, the County required that health warnings be posted for several days at Putah Creek due to elevated total and fecal coliform levels. Therefore, the degree of toxicity from the discharge appears to be moderate.
37. *Ability to Pay:* There has been no demonstration by the Discharger of any inability to pay the liability or any negative effect on the Discharger's ability to continue in operation. The Discharger was notified of the opportunity to provide such information when the ACL Complaint was issued and did not submit this information.
38. *Voluntary Cleanup Efforts Undertaken:* With the exception of the August 2005 spill, the Discharger's response and cleanup efforts have been adequate, and reasonable efforts were made to minimize the volume spilled to surface waters. The Discharger has cooperated with Regional Water Board staff and the County to monitor impacts to surface water quality and to post public health warnings when requested.
39. *Prior History of Violations:* Since adoption of the WDRs in 2002, the Discharger has received two Notices of Violation (NOVs) and a Cease and Desist Order (adopted in January 2007). The first NOV, issued on 27 September 2005, cited the Discharger for the August 2005 spill and failure to prepare and implement an adequate *Sanitary Sewer System Operation, Maintenance, Overflow Prevention, and Response Plan*, as well as numerous other violations (which are not cited in the ACLC). The second NOV, also issued on 27 September 2005, cited violations of the WDRs discovered during a facility inspection. Cease and Desist Order No. R5-2007-0002 was adopted 25 January 2007 for violations of the current WDRs, including the spills that are the subject of this Order.
40. *Degree of Culpability:* The Discharger was aware of the prohibition against discharges to surface waters. Despite recommendations from its operator and Regional Water Board staff, the Discharger did not act in a timely and proactive fashion to install modern fail-safe systems in its lift stations. Such protections (which include back-up power supplies, autodialers, and audible alarms) are not particularly costly and are in wide use in communities the size of Winters.
41. *Economic Benefit or Savings Resulting from the Violation:* The two larger spills, which account for over 90 percent of the volume discharged to Putah Creek, were the result of human error (in the first case) and negligence (in the second case). The Discharger did not reap any economic advantage in either case. However, the two smaller spills (as well as another spill that did not reach surface waters) could have been avoided if the Discharger had retrofitted its three sewer lift stations to provide autodialers, backup generators, and electrical systems to automatically start the backup generators.

It is estimated that the Discharger saved at least \$7,000 by not retrofitting the lift stations prior to the first spill. This savings is based on a capital cost estimate of approximately \$20,000 per lift station for autodialers, backup generators, automated controls, and the

Discharger paying seven percent interest on a five-year loan (assuming that the improvements were financed in early 2005).

42. *Other Matters as Justice May Require:*

- a. Notification of Violation: The Discharger's record of spill notification has been inconsistent. The Discharger failed to timely notify either OES, Regional Water Board staff, or the Yolo County Environmental Health Department on all but one occasion, despite staff's explicit directions following the first spill.
- b. Degree of Cooperation: The Discharger has cooperated with Regional Water Board staff and the Yolo County Environmental Health Department, and has generally responded to the spills promptly. With the exception of the August 2005 spill, the Discharger's response and cleanup efforts have been adequate, and reasonable efforts were made to minimize the volume spilled to surface waters. The Discharger has cooperated with staff and the county to monitor impacts to surface water quality and to post public health warnings when requested.

43. In addition to the considerations listed above, the Executive Officer considered the costs of preparing for and prosecuting a public hearing on the allegations in ACL Complaint No. R5-2007-0502, the possible cost of responding to any request by the Discharger for administrative judicial review of an order assessing the recommended liability, the current compliance status of the Discharger, the deterrent effect of the proposed liability and the ability to recover staff costs from the amount tendered.

44. Following issuance of ACL Complaint No. R5-2007-0502, the Discharger and Regional Water Board staff conferred for the purpose of settling this matter and the allegations herein without a formal hearing. After arms-length negotiations, the Discharger and the Executive Officer arrived at a mutually acceptable resolution of the Complaint based on information contained in the record of the Regional Water Board. The Discharger and the Executive Officer have agreed to settle the administrative civil liability for the full amount proposed in the Complaint (\$70,000). This includes \$8,000 in staff costs and \$7,000 to recover the economic benefit derived from the acts that constitute the violations.

45. The Discharger and the Executive Officer have agreed to resolve the ACL Complaint as follows: Payment of twenty seven thousand five hundred dollars (\$27,500) to the *State Water Pollution Control Cleanup and Abatement Account* and the timely completion of a Supplemental Environmental Project (SEP) as outlined in Attachment A. Expenditures for the SEP shall equal or exceed forty-two thousand five hundred dollars (\$42,500). The proposed settlement takes into account the factors cited in CWC Section 13385(e) and the State Water Resources Control Board's *Water Quality Enforcement Policy*.

46. The Discharger has waived its right to a hearing before the Regional Water Board. This Order is issued to effectuate the parties' settlement.

47. On 15 March 2007, the Regional Water Board explicitly delegated to the Executive Officer the authority to issue orders to assess administrative civil liability where the matter is not contested by the discharger (Resolution R5-2007-0009).
48. Regional Water Board staff spent a total of 100 hours investigating the violations and preparing this Order. The total cost for staff time is \$8,000 based on a rate of \$80 per hour.
49. Issuance of this Administrative Civil Liability Order to enforce California Water Code Division 7, Chapter 5.5 is exempt from the provisions of the California Environmental Quality Act (Public Resources Code Section 21000 et seq.), in accordance with Title 14 California Code of Regulations, Enforcement Actions by Regulatory Agencies, Section 15321(a)(2).
50. Public Notice of the proposed Order was posted on 9 August 2007 at the beginning of a thirty (30) day period for public review and comment. The Executive Officer considered all public comments before issuing this Order.
51. Any person affected by this action of the Regional Water Board may petition the State Water Resources Control Board to review this action. The State Water Board must receive the petition within thirty (30) days of issuance of this Order. Copies of the law and regulations applicable to filing petitions will be provided upon request.

IT IS HEREBY ORDERED THAT

1. Civil liability is imposed upon the Discharger in the amount of seventy thousand dollars (\$70,000) pursuant to the settlement offer of the Discharger.
2. By **18 October 2007**, the Discharger shall pay seventy thousand (\$70,000) by check made payable to the "*State Water Pollution Cleanup and Abatement Account*." Alternatively, the Discharger may satisfy this order by paying twenty-seven thousand five hundred dollars (\$27,500) by **18 October 2007** by check made payable to the "*State Water Pollution Cleanup and Abatement Account*" and satisfy the remaining amount (\$42,500) by timely completing the Supplemental Environmental Project ("the SEP") set forth in Attachment A, attached hereto. Expenditure by the Discharger on the SEP shall equal or exceed forty-two thousand five hundred dollars (\$42,500). All checks shall have written upon them the number of this ACL Order.
3. By **18 October 2007**, the Discharger shall provide proof of a written agreement between the Discharger and Wildlife Survey and Photo Service, signed by the authorized persons, stating that the payments are to be expended entirely on the approved SEP project.

4. By **18 October 2008**, the Discharger shall provide proof that the SEP has been completed as described in Attachment A, a full accounting of all SEP expenditures ("post-project accounting"), and a copy of the final SEP work product.
5. If any task is not completed to the satisfaction of the Executive Officer by its respective due date (including any extensions approved by the Executive Officer), the amount of any suspended liability associated with that task in the SEP schedule shall be immediately due and payable to the *State Water Pollution Cleanup and Abatement Account*, with reference to this ACL Order on the check.
6. If the final cost of the successfully completed SEP is less than the amount suspended, the Discharger must remit the difference to the *State Water Pollution Cleanup and Abatement Account* within thirty (30) days after submitting the post-project accounting.
7. Whenever the Discharger or its agents or subcontractors, or any fiscal agent holding SEP funds, publicize any element of a SEP project, they shall state in a prominent manner that the project is being undertaken as part of the settlement of an enforcement action against the Discharger.

This Order is effective upon the date of signature.

Original signed by

PAMELA C. CREEDON, Executive Officer

18 September 2007

(Date)

Attachment A: SEP Information

ALO:9/20/07



SEP Proposal - City of Winters

Overview:

The term “water quality” is frequently difficult for the public to understand. It is typically related to particular uses of water such as drinking, swimming, and environmental health for wildlife. Another common generalization is that “water quality” is determined by a single property, rather than a multitude of physical, chemical, and biological parameters. A third concept that confuses people is that water quality frequently changes as it meanders through a mosaic of riverine habitats potentially picking up sediment and other pollutants.

Objectives:

To educate the public about the importance of maintaining water quality, with an emphasis on sanitary sewer overflows. To develop a video matrix of aquatic communities that live in Putah Creek from areas that are considered healthy to those of marginal quality. Benthic invertebrates will be the main aquatic community of interest in the video.

Project:

To produce a multimedia video that uses subsurface and microvideo to show the general phases of water quality and various aquatic organisms that tend to be indicator species for those phases. An emphasis will be placed on sewage spills and the havoc that can cause in freshwater systems. The script will be written with input from experts in various fields. Some experts, such as Peter Moyle, will be interviewed on film to explain important aspects of the video. The video quality will be at least equal to standard broadcast television resolution. (High definition 720p resolution is possible but it is more expensive to film, edit, and produce.) The video will be directed, shot and edited by Ken Davis and Laurie Banks.

Cost:

A budget is being developed that will encompass the necessary invertebrate monitoring in Putah Creek, field and laboratory filming, microvideo capture, editing, music edition, voice over, and production of a video no longer than five minutes. The budget will not exceed \$35,000.00.

Implementation:

The project will be initiated with the contract services of Wildlife Survey & Photo Service (WS&PS).

Deliverables:

Management milestones for review of the project will be:

- (1) Milestone One: The completion of the script and storyboard (Three months after contract approval between the City of Winters and the WS&PS)
- (2) Milestone Two: Completion of the “planned” filming.” (Six months after contract approval between the City of Winters and the WS&PS)
- (3) Milestone Three: Completion of the first draft video is narration and music added. (Nine months after contract approval between the City of Winters and the WS&PS.)
- (4) Milestone Four: Completion of the final video (Twelve months after contract approval between the City of Winters and the WS&PS)



WINTERS SEP - SCOPE OF WORK		
Task No	Description	Budget
1.0	PRE-PRODUCTION	
1.1	Planning \ Prescript Outline	630.00
	<i>Gathering ideas and initial discussions with primaries to form the initial outline for video.</i>	
1.2	Script writing	2925.00
	<i>Process of writing the script with relative time frames and ideas of video storyboard</i>	
1.3	Script Meeting (Expert consultants)	810.00
	<i>After basic script is designed, meet with Peter Moyle, Eric Larson, Rich Marovich and "others" to consult on concepts. This task will be interwoven with Task 1.2</i>	
1.4	Storyboard Development	3060.00
	<i>Task takes the script and defines the video "shots" or footage needed to match the script.</i>	
1.5	Other Meeting Consults (Stakeholders)	675.00
	Meet with WQCB, City of Winters, and others to describe the final recommended script. **** MILESTONE #1 : Ninety days after signed contract with City of Winters.	
2.0	PRODUCTION - DIGITAL VIDEO	
2.1	Field Collection - Protozoa	2206.10
	Using collection techniques developed for the purpose of filming live sewage protozoans. Collect protozoa from Putah Creek above the City of Winters and below the City. Collection within provisions of DFG Scientific Collection permit.	
2.2	Field Collection - Aquatic invertebrate	1890.00
	Collect aquatic invertebrates to be used in video process.	



2.3	Microvideo - Protozoa	1440.00
	<i>Use high resolution digital video to film bacteria and sewage protozoa through phase contrast compound microscope.</i>	
2.4	Macrovideo - Aquatic invertebrates	2025.00
	<i>Macrovideo equipment to film benthic invertebrates captured in Putah Creek.</i>	
2.5	Field Video	4275.00
	<i>Digital video showing various features of water quality and water usage. Includes recreation, wildlife, and municipal uses.</i>	
2.6	Aquatic Video - Putah Creek	2790.00
	Subsurface video	
	***** MILESTONE # 2: Completed 180 days after signed contract with the City of Winters.	
3.0	COMPUTER EDITING	
3.1	Digitize Video	2925.00
	<i>Initial process of digitizing video footage into computer editing files.</i>	
3.2	Timeline Layout	1800.00
	<i>Process of placing digital files into computer timeline</i>	
3.3	Voice Over / Music Generation	1800.00
	<i>Process of recording voice over (narration) and music. Placing into computer timeline.</i>	
3.4	Layout Draft One	450.00
	<i>Expected (planned) video layout complete. Determine other footage, images, or voiceover as needed.</i>	
3.5	Additional Field Video Capture	1350.00
	<i>Capture additional footage as needed.</i>	
3.6	Layout Draft Two	1035.00
	<i>Layout complete with additional footage installed.</i>	
	***** MILESTONE #3: Complete nine months after contract signed with the City of Winters.	



Wildlife Survey & Photo Service

2443 Fair Oaks Blvd. # 209 • Sacramento, CA 95825 • (916) 747-8537

WINTERS SEP Scope of Work

4.0	POST PRODUCTION	
4.1	Project Consult / Meetings	1575.00
	<i>Review of comments by expert panel and stakeholders. Make general changes.</i>	
4.2	Post Production (Draft)	1080.00
	<i>Production draft</i>	
4.3	Music Layout	2700.00
	<i>Addition of final "royalty-free" music (background) and adjustments</i>	
4.4	Post Production / Voice Over	2700.00
	<i>Completion of voice over / changes.</i>	
4.5	Review Team Meetings	875.00
	<i>Final review and approval by stakeholders</i>	
4.6	Final Production and Edits	1575.00
	<i>Make any necessary changes. Finalize</i>	
4.7	Production Rendering	1008.90
	<i>Render product in requested forms (CD-Rom / video / etc.)</i>	
	**** MILESTONE # 4 - Project Complete twelve months after a contract signed with the City of Winters.	
	PROJECT TOTALS	42,500.00

Submitted 5/11/2007 via email by:

Ken W. Davis
 Aquatic biologist
 Wildlife Survey & Photo Service
 2443 Fair Oaks Blvd. # 209
 Sacramento, CA 95825
 (916) 747-8537
 ken@creekman.com

Ken W. Davis
 Aquatic Biologist
 Wildlife Survey Photo
 2443 Fair Oaks Blvd. # 209
 Sacramento, CA 95825
 (916) 747-8537

Proposed Budget
 New Zealand Mudsnaill Delineation Monitoring
 Winters SEP 2007/08 - Video Budget

MAY 9, 2007

Task No	Task Description	Total Hours	Labor Bio/Vid @ \$90/hr.	DC Item	DC Cost	Miles	Miles @0.45	Total DC	Total Labor & DC	SubTask Descriptions
1.0	PRE-PRODUCTION									
1.1	Planning - Pre-script Outline	5	450			400	180	180	630	Gathering ideas and initial discussions with primaries to form the initial outline for video.
	Total Prior Charges		0				0	0	0	
	CURRENT Charges	0	0			0	0	0	0	
	Total Charges to Date	0	0			0	0	0	0	
	Contract Balance	5	450			400	180	180	630	
1.2	Script Writing	30	2700			500	225	225	2925	Process of writing the script with relative time frames and ideas for video storyboard.
	Total Prior Charges		0				0	0	0	
	CURRENT Charges	0	0			0	0	0	0	
	Total Charges to Date	0	0			0	0	0	0	
	Contract Balance	30	2700			500	225	225	2925	
1.3	Script Meeting (Expert Consults)	5	450			800	360	360	810	After basic script is designed, meet with Peter Moyle, Eric Larson, Rich Marovich and "others" to consult on concepts. This task will probably occur interwoven with Task 1.2.
	Total Prior Charges		0				0	0	0	
	CURRENT Charges	0	0			0	0	0	0	
	Total Charges to Date	0	0			0	0	0	0	
	Contract Balance	5	450			800	360	360	810	
1.4	Story Board Development	30	2700			800	360	360	3060	Task takes the script and will define the digital video shots needed to match the script.
	Total Prior Charges		0				0	0	0	
	CURRENT Charges	0	0				0	0	0	
	Total Charges to Date	0	0			0	0	0	0	
	Contract Balance	30	2700			800	360	360	3060	
1.5	Other Meeting Consults	5	450			500	225	225	675	Meet with WQCB, City of Winters, and others to describe the final recommended script.
	Total Prior Charges		0				0	0	0	
	CURRENT Charges		0				0	0	0	
	Total Charges to Date	0	0			0	0	0	0	
	Contract Balance	5	450			500	225	225	675	
	Total for Pre-Production	75	6750		0	3000	1350	1350	8100	MILESTONE # 1: Completed 90 days after signed contract between the City of Winters and Ken W. Davis.
	Total Prior Charges	0	0		0	0	0	0	0	
	CURRENT Charges	0	0		0	0	0	0	0	
	Total Charges to Date	0	0		0	0	0	0	0	
	Contract Balance	75	6750		0	3000	1350	1350	8100	
2.0	PRODUCTION - DIGITAL VIDEO									
2.1	Field Collection / Protozoa	16	1440	DV Tapes	136.10	1400	630	766.1	2,206.10	Using collection techniques developed to collect live protozoa for video production. Collect protozoa from Putah Creek above the City of Winters and below the City of Winters. Collection within provisions of DFG Scientific Collection Permit.
	Total Prior Charges		0				0	0	0	
	CURRENT Charges	0	0				0	0	0	
	Total Charges to Date	0	0			0	0	0	0	
	Contract Balance	16	1440		136.10	1400	630	766.1	2,206.10	
2.2	Field Collection / Invertebrate	14	1260			1400	630	630	1890	Collect aquatic invertebrates to be used in video process.
	Total Prior Charges		0				0	0	0	
	CURRENT Charges	0	0				0	0	0	
	Total Charges to Date	0	0			0	0	0	0	
	Contract Balance	14	1260		0	1400	630	630	1890	

Ken W. Davis
 Aquatic Biologist
 Wildlife Survey Photo
 2443 Fair Oaks Blvd. # 209
 Sacramento, CA 95825
 (916) 747-8537

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2.3 Microvideo - Protozoa	10	900		0	1200	540	540	1440		
Total Prior Charges		0				0	0	0		
CURRENT Charges	0	0			0	0	0	0		
Total Charges to Date	0	0		0	0	0	0	0		
Contract Balance	10	900		0	1200	540	540	1440		
2.4 Macrovideo - Invertebrate	20	1800			500	225	225	2025		
Total Prior Charges		0				0	0	0		
CURRENT Charges	0	0			0	0	0	0		
Total Charges to Date	0	0			0	0	0	0		
Contract Balance	20	1800			500	225	225	2025		
2.5 Field Video	40	3600			1500	675	675	4275		
Total Prior Charges		0				0	0	0		
CURRENT Charges	0	0			0	0	0	0		
Total Charges to Date	0	0			0	0	0	0		
Contract Balance	40	3600			1500	675	675	4275		
2.6 Aquatic video - Putah Creek	25	2250			1200	540	540	2790		
Total Prior Charges		0				0	0	0		
CURRENT Charges	0	0			0	0	0	0		
Total Charges to Date	0	0			0	0	0	0		
Contract Balance	25	2250			1200	540	540	2790		
Total for Video Production	125	11250		136.1	7200	3240	3376.1	14,626.10		
Total Prior Charges	0	0		0	0	0	0	0		
CURRENT Charges	0	0		0	0	0	0	0		
Total Charges to Date	0	0		0	0	0	0	0		
Contract Balance	125	11250		136.1	7200	3240	3376.1	14,626.10		
3.0 COMPUTER EDITING										
3.1 Video Digitizing	30	2700			500	225	225	2925		
Total Prior Charges		0				0	0	0		
CURRENT Charges	0	0			0	0	0	0		
Total Charges to Date	0	0		0	0	0	0	0		
Contract Balance	30	2700		0	500	225	225	2925		
3.2 Timeline Layout	20	1800			0	0	0	1800		
Total Prior Charges		0				0	0	0		
CURRENT Charges	0	0			0	0	0	0		
Total Charges to Date	0	0			0	0	0	0		
Contract Balance	20	1800			0	0	0	1800		
3.3 Voice Over / music	20	1800			0	0	0	1800		
Total Prior Charges		0				0	0	0		
CURRENT Charges	0	0			0	0	0	0		
Total Charges to Date	0	0			0	0	0	0		
Contract Balance	20	1800			0	0	0	1800		

Use high resolution digital video to film bacteria and sewage protozoa through a triocular

Macrovideo of invertebrates captured in Putah Creek. Species composition is important to showing the relationship of benthic macroinvertebrates and water quality.

Digital video showing various features of water quality and water usage, including recreation, wildlife, and municipal uses.

Subsurface video

MILESTONE # 2: Completion of "planned" video capture. Show stakeholders highlights of raw footage. Completed 180 days after signed contract between the City of Winters and Ken W. Davis.

Initial process of digitizing video footage into computer editing files

Process of placing digital files in computer timeline.

Process of recording voice over (narration) and music. Placing into computer timeline.

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3.4 Layout Draft One	5	450			0	0	0	450		
Total Prior Charges		0				0	0	0		
CURRENT Charges		0				0	0	0		
Total Charges to Date	0	0			0	0	0	0		
Contract Balance	5	450			0	0	0	450		
Expected (planned) video layout complete. Determine other footage, images, or voiceovers needed.										
3.5 Additional Field Capture (Field)	10	900			1000	450	450	1350		
Total Prior Charges		0				0	0	0		
CURRENT Charges		0				0	0	0		
Total Charges to Date	0	0			0	0	0	0		
Contract Balance	10	900			1000	450	450	1350		
Capture additional footage as needed.										
3.6 Layout Draft Two	10	900			300	135	135	1035		
Total Prior Charges		0				0	0	0		
CURRENT Charges		0				0	0	0		
Total Charges to Date	0	0			0	0	0	0		
Contract Balance	10	900			300	135	135	1035		
Layout complete with additional footage installed.										
Total for Computer Editing										
	95	8550			0	1800	810	810	9360	
Total Prior Charges	0	0			0	0	0	0		
CURRENT Charges	0	0			0	0	0	0		
Total Charges to Date	0	0			0	0	0	0		
Contract Balance	95	8550			0	1800	810	810	9360	
MILESTONE # 3: Draft video for review by stakeholders. Nine months after contract signed by City of Winters and Ken Davis.										
4.0 POST PRODUCTION										
4.1 Project Consults /meetings	15	1350			500	225	225	1575		
Total Prior Charges		0				0	0	0		
CURRENT Charges	0	0			0	0	0	0		
Total Charges to Date	0	0			0	0	0	0		
Contract Balance	15	1350			500	225	225	1575		
Review of comments by expert panel and stakeholders. Make general changes.										
4.2 Post Production Draft	10	900			400	180	180	1080		
Total Prior Charges		0				0	0	0		
CURRENT Charges	0	0			0	0	0	0		
Total Charges to Date	0	0			0	0	0	0		
Contract Balance	10	900			400	180	180	1080		
Production draft										
4.3 Music Layout	30	2700			0	0	0	2700		
Total Prior Charges		0				0	0	0		
CURRENT Charges	0	0				0	0	0		
Total Charges to Date	0	0			0	0	0	0		
Contract Balance	30	2700			0	0	0	2700		
Addition of final "royalty free" music (background) and adjustment.										
4.4 Post Production Voice Over	20	1800			0	0	0	1800		
Total Prior Charges		0				0	0	0		
CURRENT Charges	0	0			0	0	0	0		
Total Charges to Date	0	0			0	0	0	0		
Contract Balance	20	1800			0	0	0	1800		
Completion of voice over / changes.										

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4.5 Review Team Meetings	5	450		500	225	225	675		
<i>Total Prior Charges</i>		0			0	0	0		
<i>CURRENT Charges</i>	0	0			0	0	0		Final review and approval by stakeholders.
<i>Total Charges to Date</i>	0	0		0	0	0	0		
<i>Contract Balance</i>	5	450		500	225	225	675		
4.6 Final Production and Edits	15	1350		500	225	225	1575		
<i>Total Prior Charges</i>		0			0	0	0		
<i>CURRENT Charges</i>	0	0			0	0	0		Make any necessary changes. Finalize.
<i>Total Charges to Date</i>	0	0		0	0	0	0		
<i>Contract Balance</i>	15	1350		500	225	225	1575		
4.7 Product Rendering	10	900		242	108.9	108.9	1008.9		
<i>Total Prior Charges</i>		0			0	0	0		
<i>CURRENT Charges</i>		0			0	0	0		Render product in requested form (CD-Rom, Video, etc)
<i>Total Charges to Date</i>	0	0		0	0	0	0		
<i>Contract Balance</i>	10	900		242	108.9	108.9	1008.9		
Totals for Post -Production	95	9450	0	2142	963.9	963.9	10413.9		
<i>Total Prior Charges</i>	0	0	0	0	0	0	0		
<i>CURRENT Charges</i>	0	0	0	0	0	0	0		MILESTONE: Video complete and rendered. Twelve months after contract signed by City of Winters and Ken Davis.
<i>Total Charges to Date</i>	0	0	0	0	0	0	0		
<i>Contract Balance</i>	105	9450	0	2142	963.9	963.9	10413.9		
Project Totals	390	36000	136.1	14142	6363.9	6500	42500		
<i>Total Prior Charges</i>	0	0	0	0	0	0	0		
<i>CURRENT Charges</i>	0	0	0	0	0	0	0		
<i>Total Charges to Date</i>	0	0	0	0	0	0	0		
<i>Contract Balance</i>	400	36000	136.1	14142	6363.9	6500	42500		