CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LAHONTAN REGION

ADMINISTRATIVE CIVIL LIABILITY ORDER NO. R6T-2009-0012

ADMINISTRATIVE CIVIL LIABILITY

NORTHSTAR MOUNTAIN PROPERTIES, LLC, FOR ALLEGED VIOLATION OF NPDES GENERAL PERMIT FOR STORM WATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITIES, STATE WATER RESOURCES CONTROL BOARD ORDER NO. 99-08-DWQ, ALLEGED VIOLATION OF WATER QUALITY CERTIFICATION ORDER DATED JUNE 9, 2006, ALLEGED VIOLATION OF PROHIBITIONS PRESCRIBED IN THE *WATER QUALITY CONTROL PLAN FOR THE LAHONTAN REGION,* AND ALLEGED VIOLATION OF CLEANUP AND ABATEMENT ORDER NO. R6T-2006-0049

FOR THE FOLLOWING PROJECTS:

NORTHSTAR VILLAGE, WDID NO. 6A31C325917
NORTHSTAR INTERCEPT LOTS, WDID NO. 6A31C335494
NORTHSTAR EMPLOYEE HOUSING, WDID NO. 6A31C335581
NORTHSTAR DRIVE & BASQUE ROAD INTERSECTION, WDID NO. 6A31C329713
NORTHSTAR HIGHLANDS DRIVE AND HWY 267 INTERCHANGE, WDID NO. 6A31C333755
NORTHSTAR HIGHLANDS DRIVE, WDID NO. 6A31C333756
NORTHSTAR DRIVE ROUNDABOUT, WDID NO. 6A31C333754
NORTHSTAR HIGHLANDS RESORT HOTEL, WDID NO. 6A31C339910
NORTHSTAR TRAILSIDE TOWNHOMES, WDID NO. 6A31C339949
NORTHSTAR SCHAFFER'S CAMP RESTAURANT, WDID NO. 6A31C324687
NORTHSTAR VILLAGE RUN FILL SITE, WDID NO. 6A31C342716

The California Regional Water Quality Control Board, Lahontan Region (Lahontan Water Board) has been presented with a proposed settlement of claims for administrative liability against Northstar Mountain Properties, LLC (hereinafter referred to as NMP). The settlement was developed during negotiations between the Lahontan Water Board's Prosecution Team and NMP. This Administrative Civil Liability Order (ACL Order) and the attached Settlement Agreement (Attachment D) resolve the claims listed in this ACL Order through the payment of an administrative civil liability in the amount of $2,750,000 ($2,250,000 of which will be directed to the Supplemental Environmental Project (SEP) described herein).

NMP has represented and warranted that the contributions to the project that would serve as a SEP under this ACL Order are not and were not previously being contemplated, in whole or in part, by NMP, for any purpose other than to partially satisfy NMP's obligations in this ACL Order, and that NMP's contributions to the project that serves as a SEP would not be made in the absence of the enforcement action.

In accepting the proposed settlement, the Lahontan Water Board has considered each of the factors prescribed in California Water Code sections 13327 and 13385, as set out more fully below. The Lahontan Water Board's consideration of these factors is based upon information obtained by the Lahontan Water Board in investigating the claims or otherwise provided to the Lahontan Water Board, including the information and comments received from the public. In addition to these factors, the administrative civil liability recovers the costs incurred by the staff of the Lahontan Water Board in investigating the claims and pursuing enforcement action.

A Notice of Proposed Settlement has been published in the *Sierra Sun* and/or the *Reno Gazette-Journal*, papers of general circulation in the Truckee, Lake Tahoe and Reno areas, notifying the public of the review period and soliciting public comments on the terms of the settlement. The proposed settlement supports the assessment of administrative civil liability in the amount of $2,750,000 for the full and final resolution of each of the claims and alleged violations set forth herein, and is in the public interest. The settlement and assessment of administrative civil liability provides for the release and discharge of NMP for all known and unknown storm water program claims and violations for the project areas listed in Finding No. 2, below, prior to December 31, 2007, including all alleged violations set forth in the Alleged Violations and Penalty Summary Table (Attachment A), the settlement, and this ACL Order.

Having provided public notice of the proposed settlement for public comment the Lahontan Water Board finds:

1. <u>Permit Holder</u>

   NMP is the project permit holder for all the projects listed in Finding No. 2, below. NMP is owned, in part, by NMP Holdings, LLC, East West Resort Development V, L.P., L.L.L.P., and HF Holding Corp.

   NMP obtained coverage under the NPDES General Permit for Storm Water Discharges Associated with Construction Activities, State Water Resources Control Board Order No. 99-08-DWQ (General Permit) from the State Water Resources Control Board (State Water Board) on various dates for the

projects listed in Finding No. 2, below. NMP, as permit holder, is responsible for constructing all projects in compliance with the General Permit.

2. Projects

NMP is constructing numerous projects at Northstar, Placer County, California. The projects are intended to renovate existing mountain facilities and to develop additional residential areas within Northstar and to provide the necessary infrastructure to serve the same. Eleven specific projects are the subject of this ACL Order, and collectively the eleven facilities are hereinafter referred to as the Projects.

The Projects are all part of a planned development of approximately 325 acres within the existing Northstar resort community. The Projects are located within the central portion of the Martis Valley region, approximately six miles southeast of the Town of Truckee, and approximately five miles northwest of the northern shore of Lake Tahoe.

A. Northstar Village, WDID No. 6A31C325917. The project consists of: (1) demolishing the previously-existing activity center, gondola building, photo shop, and clock tower buildings; (2) constructing seven mixed-use buildings, two ancillary buildings, ice skating rink, roadway and circulation improvements, off-site intersection improvements, parking facilities, trail systems, and infrastructure improvements; and (3) transporting and depositing fill material in two separate areas. The project site is located on approximately 28 acres at the base of the Northstar-at-Tahoe mountain facilities (Northstar), and south of Northstar Drive and Big Springs Drive. When permitted, the project was located on Placer County Assessor Parcel Nos. 110-080-24, -38, and -42, and 110-250-01 through -07.

B. Northstar Intercept Lots, WDID No. 6A31C335494. The project consists of constructing a day skier parking lot with 1,200 parking spaces. The project site is on approximately 31 acres of land located west of State Route 267, north of Northstar Drive, near the entrance to Northstar, and approximately six miles from the Town of Truckee. When permitted, the project was located on Placer County Assessor Parcel Nos. 110-030-061 and 110-080-015.

C. Northstar Employee Housing, WDID No. 6A31C335581. The project consists of constructing three employee housing apartment buildings and associated access roads and infrastructure. The project size is six acres.

D. Northstar Drive & Basque Road Intersection, WDID No. 6A31C329713. The project consists of utility and storm water improvements located at the intersection of Northstar Drive and Basque Road. The project site is two acres.

E. Northstar Highlands Drive and Hwy 267 Interchange, WDID No. 6A31C333755. The project consists of pavement widening on State Route 267, realignment, and pavement of an existing dirt road (Northstar Drive), and installation of a traffic signal. The project is located between mile posts 3.7 and 4.0 on State Route 267. The project site is 1.6 acres.

F. Northstar Highlands Drive, WDID No. 6A31C333756. The project consists of constructing a new road from State Route 267 to the newly-developed Highlands Resort area. The project includes in-stream disturbances, which are subject to a Clean Water Act section 404 permit and Clean Water Act section 401 Water Quality Certification. The project site is 38.6 acres.

G. Northstar Drive Roundabout, WDID No. 6A31C333754. The project consists of constructing a new roundabout on Northstar Drive located at the intersection with Sawmill Flat Road and the entrance to the Northstar Intercept Lots project. The project site is 1.2 acres.

H. Northstar Highlands Resort Hotel (Ritz-Carlton Hotel), WDID No. 6A31C339910. The project consists of constructing a hotel structure, associated condominiums, and associated amenities. The project also includes relocation of ski and multipurpose trails. The project site is 24 acres.

I. Northstar Trailside Townhomes, WDID No. 6A31C339949. The project consists of constructing eight new townhome duplexes and associated access roads and infrastructure. The project site is 4.7 acres.

J. Northstar Schaffer's Camp Restaurant, WDID No. 6A31C324687. The project consists of constructing a restaurant facility and appurtenant utility installation at the top of a ski lift. The project size is five acres.

K. Northstar Village Run Fill Site, WDID No. 6A31C342716. The project consists of depositing 150,000 cubic yards of material excavated from surrounding projects to regrade the Village Run ski trail. The ski trail extends from Highlands View Road down to the Northstar Village. The project size is 9.8 acres. When permitted, the project was located on Placer County Assessor Parcel Nos. 110-050-42 and -43.

3. Facts and Alleged Violations

NMP enters into the Settlement Agreement and the ACL Order without the admission or denial of any fact or the adjudication of any issue in this matter. The following represents the facts and alleged violations as they appear in the files of the Lahontan Water Board. NMP submitted Notices of Intent to comply with the terms of the General Permit for each of the listed Projects. The General Permit was adopted by the State Water Board on August 19, 1999, pursuant to Clean Water Act sections 208(b), 301, 302, 303(d), 304, 306, 307, 402, and 403. NMP was granted coverage under the General Permit on varying dates for each of the Projects, and prior to commencing construction on each of the Projects.

The General Permit requires NMP to prepare and implement a Storm Water Pollution Prevention Plan (SWPPP) for the Projects. NMP prepared separate SWPPPs for the Village, Northstar Drive and Basque Road Intersection, Northstar Highlands Drive and Hwy 267 Interchange, and Schaffer's Camp projects. NMP prepared a single SWPPP for the Northstar Intercept Lots, Northstar Employee Housing, Northstar Highlands Drive, and Northstar Drive Roundabout projects. NMP also prepared a single SWPPP for the Northstar Highlands Resort Hotel, Northstar Trailside Townhomes, and Northstar Village Run Fill Site projects.

The Lahontan Water Board issued a Clean Water Act section 401 Water Quality Certification (Water Quality Certification) to NMP for the Northstar Highlands Drive project on June 9, 2006. The Northstar Highlands Drive project is also regulated under State Water Board Order No. 2003-0017-DWQ, "General Waste Discharge Requirements for Dredge and Fill Discharges that have Received State Water Quality Certification," which requires compliance with all conditions of the Water Quality Certification.

Lahontan Water Board staff inspected the Projects on June 15, 2006, July 5, 2006, August 7, 2006, October 5, 2006, and November 14, 2006. Alleged violations of the General Permit, the Water Quality Certification, and the Lahontan Water Board's *Water Quality Control Plan for the Lahontan Region* (Basin Plan) that were documented during those inspections are summarized in the Alleged Violations and Penalty Summary Table (Violation Summary) provided and incorporated herein as Attachment A to this ACL Order.

Lahontan Water Board staff (Eric Taxer and Harold Singer) also met with NMP's staff at the Projects on July 13, 2006, to discuss NMP's noncompliance. NMP was directed to immediately stabilize unauthorized drainage impacts and was directed to maintain adequate supplies and personnel to ensure compliance with the SWPPP and General Permit.

The Lahontan Water Board issued Notices of Violation (NOVs) to NMP on July 13, 2006, August 16, 2006, and August 24, 2006. The NOVs were issued for the General Permit and Basin Plan alleged violations observed during the June 15, 2006, July 5, 2006, and the August 7, 2006, inspections. The NOVs also documented alleged violations that were discovered during the records and file searches associated with each of the inspections. Each NOV required immediate correction of all observed alleged violations in addition to measures deemed appropriate to help ensure long-term compliance. The duration of alleged noncompliance for violations observed during the inspections and communicated to NMP through each NOV is noted in the Violation Summary provided as Attachment A to this ACL Order.

The Lahontan Water Board issued Cleanup and Abatement Order (CAO) No. R6T-2006-0049 on November 8, 2006, to NMP for seven of the Projects. The CAO was issued to address NMP's alleged continued failure to implement appropriate storm water controls, particularly prior to a November 2-3, 2006, storm water runoff event. The CAO required NMP to clean up the effects of the discharge resulting from the precipitation event, to comply with additional provisions intended to prevent further discharges, and to monitor the potential impacts during future storm water runoff events. CAO alleged violations are also identified in the Violation Summary provided as Attachment A to this ACL Order.

Precipitation events occurred on January 3-4, 2007 (0.65 inches of precipitation and subsequent snow), and again on February 8-10, 2007 (2.52 inches of precipitation). Alleged violations associated with these storm events are summarized in the Violation Summary provided as Attachment A to this ACL Order.

Storm water runoff and surface water monitoring conducted during storm events documented increases in sediment and nutrient concentrations in area surface waters from the disturbed and inadequately-protected construction areas. A summary of available monitoring data of storm water runoff impacts to area surface waters from the Projects is provided and incorporated herein as Attachment B to this ACL Order.

4. Administrative Civil Liability Authority

The Lahontan Water Board may impose civil liability pursuant to Water Code section 13385, subdivision (a)(2) and subdivision (a)(4). Water Code section 13385, subdivision (a) states:

Any person who violates any of the following shall be liable civilly in accordance with this section:

** * **

(2) Any waste discharge requirements or dredged or fill material permit issued pursuant to this chapter or any water quality certification issued pursuant to Section 13160.

** * **

(4) Any order or prohibition issued pursuant to Section 13243 or Article 1 (commencing with Section 13300) of Chapter 5, if the activity subject to the order or prohibition is subject to regulation under this chapter.

The Lahontan Water Board may also impose civil liability pursuant to Water Code section 13268, subdivision (a)(1). Water Code section 13268, subdivision (a)(1) states:

Any person failing or refusing to furnish technical or monitoring program reports as required by subdivision (b) of Section 13267, or failing or refusing to furnish a statement of compliance as required by subdivision (b) of Section 13399.2, or falsifying any information provided therein, is guilty of a misdemeanor and may be liable civilly in accordance with subdivision (b).

The Lahontan Water Board alleges that NMP violated waste discharge requirements prescribed by the General Permit, violated conditions specified by CAO No. R6T-2006-0049, violated waste discharge prohibitions contained in the Lahontan Water Board's Basin Plan adopted pursuant to Water Code section 13243, violated conditions specified in a Clean Water Act section 401 Water Quality Certification, and failed to submit complete technical reports required under Water Code section 13267 as described in Attachment A to this ACL Order. The Lahontan Water Board is, therefore, authorized to impose civil liability pursuant to Water Code section 13385, subdivision (a)(2) and subdivision (a)(4), and Water Code section 13268(a)(1).

5. Civil Liability – California Water Code

For the violation of requirements specified in the General Permit, CAO No. R6T-2006-0049, Basin Plan, and Clean Water Act section 401 Water Quality Certification, the Lahontan Water Board may impose civil liability in a

maximum amount up to that specified by Water Code section 13385, subdivision (c). Water Code section 13385, subdivision (c) (emphasis added), states:

> *Civil liability may be imposed administratively by the state board or a regional board pursuant to Article 2.5 . . . of Chapter 5 in an amount **not to exceed** the sum of both of 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 clean up 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) multiplied by the number of gallons by which the volume discharged but not cleaned up exceeds 1,000 gallons.*

For the failure to submit technical or monitoring reports required under the authority established by Water Code section 13267, the Lahontan Water Board may impose civil liability in a maximum amount up to that specified by Water Code section 13268, subdivision (b). Water Code section 13268, subdivision (b)(1) (emphasis added), states:

> *Civil liability may be administratively imposed by a regional board in accordance with Article 2.5 . . . of Chapter 5 for a violation of subdivision (a) in an amount which **shall not exceed** one thousand dollars ($1,000) for each day in which the violation occurs.*

In this matter, the **potential maximum** civil liability is $12,614,000 under Water Code section 13385, subdivision(c) and Water Code section 13268, subdivision (b)(1) for all the Projects listed in Finding No. 2 above for (i) the discharges and threatened discharges of wastes to a tributary of the Truckee River, (ii) failure to comply with orders of the Lahontan Water Board, and (iii) failure to submit complete technical reports as required by the Lahontan Water Board. The maximum liability amount for each project and for each type of violation incurred by that project is documented in the Violation Summary provided as Attachment A to this ACL Order.

6. Factors Affecting the Amount of Civil Liability

Water Code sections 13327 and 13385, subdivision (e) require the Lahontan Water Board to consider enumerated factors when it determines

the amount of civil liability pursuant to Water Code sections 13268 and 13385. The Lahontan Water Board considered those factors in determining the amount of administrative civil liability under this ACL Order.

A. **The nature, circumstances, extent, and gravity of the alleged violations.**

The liability imposed by this ACL Order addresses the alleged violations documented in the Violation Summary provided as Attachment A to this ACL Order. These alleged violations are associated with construction activities on approximately 325 acres of property under development by NMP over a period of four years. Generally, NMP's alleged violations relate to the control of storm water discharges and resulted from a failure to comply fully with applicable permits, water quality certifications, orders issued by the Lahontan Water Board, Basin Plan prohibitions, and orders for technical reports. The number and frequency of alleged storm water violations that occurred on the Projects were extensive and had the potential to cause significant adverse impacts to the Martis Creek watershed. However, significant adverse impacts as a result of the alleged violations, such as fish mortality, were not realized due to minimal precipitation events during the periods of alleged violation.

The Lahontan Water Board considers the identified beneficial uses of the waters in question when evaluating the gravity of discharges or threatened discharges. Beneficial uses of the waters that received discharges or were threatened by discharges include water contact and non-water contact recreation, commercial and sport fishing, municipal and domestic supply, cold freshwater habitat, wildlife habitat, spawning/reproduction/development, and rare/threatened/endangered species. Increased sediment discharges to surface waters in the Martis Creek watershed have the ability to adversely affect all of these beneficial uses.

Beginning in the 2004 construction season, Lahontan Water Board staff observed and documented numerous alleged SWPPP-related violations associated with the Northstar Village project as set forth in Finding 6.G. below. Lahontan Water Board staff worked closely with NMP prior to and throughout the 2005 construction season to provide education and support on means to comply with the General Permit and the SWPPP. The result was improved compliance during the 2005 construction season.

NMP significantly increased the magnitude of construction area and activity in 2006, but did not effectively implement the necessary SWPPP and General Permit compliance measures as compared to the

previous two construction seasons. Non-compliance during the 2006 construction season resulted in the alleged violations documented in the Violation Summary provided as Attachment A to this ACL Order.

The Lahontan Water Board's Executive Officer met onsite with NMP on July 13, 2006, and reiterated the findings of his staff, required immediate correction of all noted deficiencies, and required NMP to comply with all program requirements for the remainder of the construction season in order to be prepared for the onset of any possible storm water runoff events.

NMP's alleged continued ineffective performance and failure to comply with the General Permit and the CAO, including lack of proper winterization, resulted in sediment discharges into area surface waters during storm water runoff events on October 5, 2006, November 8, 2006, January 3-4, 2007, and February 8-10, 2007. These alleged unauthorized discharges also resulted in adverse in-stream impacts at several locations throughout the Projects, though no significant impacts (such as fish mortality) were realized. (See summary of monitoring data, provided as Attachment B to this ACL Order.)

The unstable site conditions also resulted in creating a condition of threatened discharges during periods of snowmelt runoff, though these alleged violations were less serious than they could have been given a light snow and precipitation year during the 2006-2007 winter. In response to Lahontan Water Board's direction to come into compliance, NMP to its credit dedicated significant financial and personnel resources to implement the necessary activities to bring the construction sites into compliance as directed. According to NMP, it realized after the fact that the personnel that it originally directed to bring the construction sites into compliance lacked the experience necessary to achieve compliance.

The violation of reporting and implementation requirements of a Water Board CAO is serious because CAOs are intended to prevent future or ongoing impacts from unauthorized discharges. However, in this case, the violation of CAO reporting and implementation requirements resulted in no measurable or documented impacts to beneficial uses due to relatively few precipitation events during the 2006-2007 winter and this mitigates against the potential maximum liability under the Water Code.

Following receipt of the CAO in November 2006, NMP reports that its management initiated an internal cultural change within the organization and engaged an expert SWPPP consulting team to assist with the design and implementation of this change. Through extensive

training, implementation and monitoring efforts, NMP was able to achieve a zero-violation goal for 2007 and 2008. This turnaround demonstrates NMP's commitment to compliance with its water quality obligations and mitigates the extent, gravity and seriousness of the alleged 2006 violations.

B. **Whether discharge is susceptible to cleanup or abatement.**

For the most part, the alleged violations represented threatened, not actual, discharges of sediments and waste materials to surface waters. The alleged violations were not completely corrected until the beginning of the 2007 construction season.

There were instances of sediment discharge to area surface waters during the October 2006, November 2006, January 2007, and February 2007 storm water runoff events. These discharges are not susceptible to cleanup, though some clean up efforts were implemented by NMP prior to some of these events in response to the November 2006 CAO.

There are four instances of unauthorized flood plain disturbance (fill material, regrading, etc.): the Intercept Lot flood plain crossing, Highlands View Road Station 50+00 crossing of an unnamed drainage, Highlands View Road Station 104+00 (West Martis Creek crossing), and Highlands View Drive Station 144+00 (West Fork West Martis Creek crossing). These areas are susceptible to cleanup and to abatement through efforts designed to remove excess waste earthen materials from the drainages and/or stabilize the disturbed drainage areas. Except for the Highlands View Road Station 50+00 and the Intercept Lot, such activities have not been implemented. Abatement efforts are planned to be implemented at the West Martis Creek Crossing and at the West Fork Martis Creek crossing during summer 2009.

C. **The degree of toxicity of the discharge.**

Many of the alleged violations were permit violations that, for the most part, resulted in threatened, not actual, discharges of waste and waste earthen materials to surface waters. In situations where the threatened discharges did not occur, the toxicity analysis is not applicable.

The times when an unauthorized discharge did occur, the water samples collected during the storm water runoff events were not analyzed for toxicity. Accordingly, the toxicity of the discharge is unknown.

D. **Ability to pay.**

The liability imposed by this ACL Order represents a settlement with NMP. NMP asserts that it has the ability to pay the proposed liability.

E. **The effect on NMP's ability to continue its business.**

The liability imposed by this ACL Order represents a settlement with NMP, and the proposed liability will not prevent NMP from continuing in business.

F. **Any voluntary cleanup efforts undertaken by the violator.**

In response to extensive communications with Water Board staff, NMP dedicated substantial resources to water quality compliance in 2006. However, NMP reports that inexperienced NMP staff and poor internal NMP communication reduced the effectiveness of its cleanup efforts.

G. **Prior history of violations.**

For the Northstar Village project, 11 violations were documented in 2004 (failure to obtain a permit and permit conditions), and 13 violations were documented in 2005 (permit conditions, SWPPP/BMP violations, and Basin Plan prohibitions violations). For the Northstar Schaffer's Camp project, several additional violations were observed in 2004. Enforcement actions were issued to NMP in response to documented violations relating to soil tracking, inadequate stockpile management, breach of ESA fencing and pine needle berming, inadequate personnel training regarding water quality protection and SWPPP implementation, and failure to properly implement the SWPPP and BMPs. Initial enforcement actions consisted of verbal warnings, and subsequent enforcement actions were elevated to written notices of violation, orders for information pursuant to Water Code section 13267, and a Cleanup and Abatement Order pursuant to Water Code section 13304.

H. **Degree of culpability.**

NMP oversees all contracts for project construction and is the permit holder for the project. NMP, as permit holder, is directly responsible for project activities, including those of its contractors, and the impacts associated with such activities. NMP is responsible for its initial failures to ensure its contractors' activities protected water quality as required by the General Permit, the Water Quality Certification, and the Basin Plan. NMP is also responsible for the history of continued noncompliance in the face of escalating enforcement actions.

I. **Economic benefit or savings resulting from the alleged violations.**

There were economic savings associated with failing to implement and manage numerous measures. Savings included, but are not limited to: costs associated with purchasing the additional storm water management and erosion control materials necessary to provide adequate storm water runoff protection, costs of training contractors to properly implement the additional storm water runoff protection measures, and labor costs for implementing and maintaining those materials and structures. NMP expended extensive financial and personnel resources on BMPs and compliance during the 2006 season. However, these efforts were often after direction from the Water Board or were ineffective. As described above, far more effective measures were implemented in 2007. NMP's estimated economic savings were approximately $250,000, which is far less than the total amount of the liability imposed by this ACL Order. The Lahontan Water Board staff evaluated NMP's economic benefit analysis and resulting estimate, and found the information to be based on credible evidence and, therefore, to be reliable.

J. **Other matters as justice may require.**

Estimated staff costs for investigation, enforcement, enforcement follow up, and preparation of this ACL Order are $151,000.

NMP began to implement organizational changes in July 2006 to elevate the priority of its stormwater permit compliance program. The organizational changes occurred too late in the season to result in effective stormwater permit compliance prior to the onset of the 2006/2007 winter season. Additional organizational changes were implemented during the 2006/2007 winter season, and as a result NMP completed its 2007 and 2008 construction seasons without violating permit conditions and Basin Plan prohibitions. This

represents a significant turnaround from previous experience and resulting water quality impacts and is a significant factor warranting a reduction in the overall potential liability imposed in this ACL Order.

Furthermore, NMP has worked cooperatively with the Lahontan Water Board's Prosecution Team to develop a comprehensive and significant and valuable supplemental environmental project primarily for the benefit of the affected watershed in the Martis Valley.

7. Supplemental Environmental Project

NMP, as a part of the Settlement Agreement, has proposed that a portion of the liability ($2,250,000) be directed to the development and construction of the components outlined in the "Waddle Ranch/Northstar Watershed Improvement Program" (the SEP), provided in Attachment C, which is made a part of this ACL Order. The SEP consists of implementing restoration efforts and watershed improvements within the Waddle Ranch property, and implementing riparian and forest enhancement activities within the Northstar community. The Waddle Ranch is located in the Martis Valley, Eastern Placer County, and was recently acquired by the Truckee Donner Land Trust to establish a conservation easement, with the intention of transferring ownership to the Truckee Tahoe Airport District with the Land Trust continuing to hold the conservation easement. The riparian and forest enhancement portion of the SEP that is within the Northstar community is intended to enhance riparian habitat and associated riparian species, and reduce the potential for catastrophic wildfire and associated erosion on portions of the West Fork of Martis Creek and West Martis Creek. This element of the SEP will enhance and help protect riparian and aquatic life in those creeks. The SEP also includes two products that will address two specific critical gaps in watershed and forestry management: (1) the "Watershed Evaluation, Treatment and Monitoring Handbook," and (2) the "Forest Fuels Treatment/Water Quality Protection Handbook."

The aforementioned products and every report, map, study, photograph, computer model, computer disk and other documents prepared by NMP as a component or product of the SEP and provided to the Lahontan Water Board (Deliverables or Deliverable) shall be the property of the Lahontan Water Board. NMP shall be deemed to transfer to the Lahontan Water Board all right, title and interest in the Deliverables. To the extent any Deliverable constitutes a copyrightable work; NMP agrees that the Lahontan Water Board is the owner of all right, title and interest in the Deliverable. The Lahontan Water Board shall have the nonexclusive, royalty free, worldwide, perpetual right to use, reproduce, publish, display, broadcast, transmit, exhibit, distribute and exploit any Deliverable and to prepare derivative and additional documents or works based on any Deliverable.

As a part of this settlement, NMP will provide $2,250,000 to fund the SEP. To implement this requirement, NMP will make payments into a fund according to the schedule included herein in Order No. 3. The Parties intend that the fund will be located in and administered by the State Water Board Cleanup and Abatement Account and will be known as the Northstar Mountain Properties SEP Fund (SEP Fund). The Cleanup and Abatement Account will be asked to administer the account and to maintain the SEP Fund separate from other assets in the Cleanup and Abatement Account. Proceeds paid into the Cleanup and Abatement Account by NMP in compliance with this requirement will fulfill its obligation to fund the SEP. Disbursements from the SEP Fund must only be used for (1) the SEP as provided in Attachment C, (2) an alternative supplemental environmental project(s) (Alternative SEP) as provided for in Order No. 3.c., below, or (3) transfer to the State Water Board Cleanup and Abatement Account and Waste Discharge Permit Fund (or other fund(s) that the applicable California Water Code section(s) directs payment to at the time) in response to conditions described in Order Nos. 3.c. and 3.l., below. Disbursements from the SEP Fund cannot be used to pay for the independent third party oversight discussed in Finding No. 9.

8. SEP Criteria

The SEP meets the criteria established by the State Water Board in its *Water Quality Enforcement Policy*, dated February 19, 2002, in that it (1) consists of measures that go above and beyond the current and future obligation of NMP; (2) will directly benefit surface water quality and associated beneficial uses by (a) identifying pollutant sources through a watershed assessment of impacts associated with past development practices and implementing measures to address those pollutant sources, (b) enhancing riparian habitat and reducing the potential for catastrophic wildfire and its associated erosion, sediment discharges, and direct impacts to aquatic life, and (c) implementing corresponding public awareness projects; (3) will not directly benefit the Water Board functions or staff; and (4) is not otherwise required of NMP. The SEP has the support of local watershed improvement advocates and the local fire agency.

The SEP also has a nexus with the alleged violations in that it (1) provides a watershed assessment and watershed improvements and restoration in an area immediately adjacent to and down gradient from NMP's Projects, and (2) provides a community educational element through the development of guidance documents that will assist other land managers to understand the technical nature of erosion potential.

Whenever NMP, its subsidiaries, corporate parents, affiliates, successors, heirs, assigns, officers, directors, partners, employees, representative agents, subcontractors, attorneys, or any fiscal agent holding SEP funds, publicizes the SEP or an Alternative SEP, it shall state in a prominent manner that the SEP is being undertaken as part of the settlement of an enforcement action.

9. Independent Third Party Review and Financial Audit of SEP

NMP agrees to contract with an independent third party (e.g., Sierra Business Council or other entity acceptable to the Executive Officer) to audit implementation of the SEP or Alternative SEP and report to the Lahontan Water Board. The independent third party will track SEP progress, verify completion and audit expenditures from the SEP Fund, and will submit the following reports to the Lahontan Water Board:

a. copies of approved SEP invoices as they are submitted to the Cleanup and Abatement Account for payment;
b. quarterly SEP progress reports;
c. annual expenditure reports;
d. a final report certifying completion of the SEP; and
e. a post-project accounting of all expenditures.

The costs of this third party oversight are in addition to the $2,250,000 that NMP is required to contribute to fund the SEP and shall not be paid out of the SEP Fund or be credited toward NMP's obligation to fund the SEP.

10. NMP's Waiver of Right to Petition

As provided in paragraph 2 of the Settlement Agreement (Attachment D), NMP covenants and agrees that it will not contest or otherwise challenge this ACL Order before the State Water Board or any court if the Lahontan Water Board approves this ACL Order as specified herein, as part of the settlement (including attachments).

11. Notification of Interested Parties

The Lahontan Water Board notified NMP and interested parties of its intent to consider the proposed settlement during its meeting of **March 11-12, 2009**. The Lahontan Water Board, in a public meeting, heard and considered all comments related to the proposed settlement.

12. Other Parties' Right to Petition

Any person aggrieved by this action of the Lahontan Water Board may petition the State Water Board to review the action in accordance with Water Code section 13320 and California Code of Regulations, title 23, sections 2050 and following. The State Water Board must *receive* the petition by 5:00 p.m., 30 days after the date of this ACL Order, except that if the thirtieth day following the date of this ACL Order falls on a Saturday, Sunday, of state holiday, the petition must be received by the State Water Board by 5:00 p.m. on the next business day. Copies of the law and regulations applicable to filing petitions may be found on the Internet at: http://www.waterboards.ca.gov/public_notices/petitions/water_quality or will be provided upon request.

13. California Environmental Quality Act

This enforcement action is being taken by the Lahontan Water Board to enforce provisions of the Water Code and, as such, is exempt from the provisions of the California Environmental Quality Act (Public Resources Code section 21000 et seq.) in accordance with California Code of Regulations, Title 14, section 15321.

IT IS HEREBY ORDERED THAT:

1. The Lahontan Water Board imposes administrative civil liability against NMP in the amount of $2,750,000.

2. NMP must provide payment in the amount of $500,000 to the State Water Board to be distributed between the State Water Board's Cleanup and Abatement Account ($400,000) and the Waste Discharge Permit Fund ($100,000). An initial installment of $200,000 paid to the Cleanup and Abatement Account and $50,000 paid to the Waste Discharge Permit Fund must be made **within thirty (30) calendar days** of receiving written notice from the Lahontan Water Board that the State Water Board has not received any petitions for this ACL Order within the time provided in Water Code section 13320 (30 days) and that no judicial challenge has been made within the time provided in Water Code section 13330, or that such challenges were received, but all claims contained therein have been resolved in favor of the Lahontan Water Board such that the ACL Order remains unchanged. NMP must make additional payments of $200,000 to the Cleanup and Abatement Account and $50,000 to the Waste Discharge Permit Fund. These additional payments are due to the Lahontan Water Board **by close of business (5:00 p.m.) on the one year anniversary of**

the first payment set forth above. The payments to the Cleanup and Abatement Account described in this section are separate and distinct from the SEP Fund (as described below), and may be used by the State Water Board for any purpose it deems fit and are not constrained as part of the SEP Fund described below.

The payments described in this section shall be made using either cashier's checks, money orders, or corporate checks made payable as follows: Payments to the Cleanup and Abatement Account – Made payable to **California State Water Resources Control Board, Cleanup and Abatement Account**

Payments to the Waste Discharge Permit Fund – Made payable to **California State Water Resources Control Board, Waste Discharge Permit Fund**

Send payments to the address below.

Lahontan Regional Water Quality Control Board
Attn: Assistant Executive Officer
2501 Lake Tahoe Blvd.
South Lake Tahoe, CA 96150

3. The remaining $2,250,000 will be directed to the SEP as specified below in this ACL Order.

   a. NMP will make quarterly payments over five years in the amounts specified below by the dates set forth therein, into the SEP Fund established in the State Water Board's Cleanup and Abatement Account as described in Finding No. 7. Payments will be made by check made out to the State Water Board Cleanup and Abatement Account – Northstar Mountain Properties SEP Fund, which shall be known as and referred to herein as the SEP Fund. Except as otherwise provided herein, the SEP Fund shall be separately maintained in the Cleanup and Abatement Account and shall be restricted for use only on the SEP detailed in this ACL Order and for no other purposes whatsoever. The payments are due and payable according to the following schedule:

i. $250,000 total for the year 2009.
   1. $62,500 **within thirty (30) calendar days** of receiving written notice from the Lahontan Water Board that the State Water Board has not received any petitions for this ACL Order within the time provided in Water Code section 13320 (30 days) and that no judicial challenge has been made within the time provided in Water Code section 13330, or that such challenges were received, but all claims contained therein have been resolved in favor of the Lahontan Water Board such that the ACL Order remains unchanged; and
   2. $62,500 by June 30, 2009;
   3. $62,500 by September 30, 2009; and
   4. $62,500 by November 30, 2009.

ii. $250,000 total for the year 2010.
   1. $62,500 by January 31, 2010;
   2. $62,500 by March 31, 2010;
   3. $62,500 by June 30, 2010; and
   4. $62,500 by September 30, 2010.

iii. $500,000 total for the year 2011.
   1. $125,000 by January 31, 2011;
   2. $125,000 by March 31, 2011;
   3. $125,000 by June 30, 2011; and
   4. $125,000 by September 30, 2011.

iv. $600,000 total for the year 2012.
   1. $150,000 by January 31, 2012;
   2. $150,000 by March 31, 2012;
   3. $150,000 by June 30, 2012; and
   4. $150,000 by September 30, 2012.

v. $650,000 total for the year 2013.
   1. $162,500 by January 31, 2013;
   2. $162,500 by March 31, 2013;
   3. $162,500 by June 30, 2013; and
   4. $162,500 by September 30, 2013.

In the event that the due date for payments set forth in Order No. 3.a.i.1 extends past June 30, 2009, all SEP Fund payments that accrue and come due under the schedule set forth in Order No. 3 will be temporarily suspended until the payment set forth in Order No. 3.a.i.1 becomes due and payable. All such suspended SEP Fund payments shall then become due and payable in a single lump sum payment concurrently with the payment due date set forth in Order No. 3.a.i.1.

NMP agrees to make quarterly payments into the SEP Fund under the schedule set forth above. NMP may, in its sole discretion, make pre-payments into the SEP Fund provided that the total payments into the SEP Fund meet or exceed the total payment required by the dates noted above. NMP must submit to the Lahontan Water Board's South Lake Tahoe office, written documentation that the above-referenced payments have been made by **October 15th** for the payments for the current calendar year (provided that documentation of the payments noted in Order No. 3.a.i. shall be submitted by December 15, 2009, unless the payments are suspended as provided above). The Lahontan Water Board acknowledges that NMP has spent money allocated towards the SEP in the Spring of 2008 to capture peak stream flows at the top and the bottom of the proposed Waddle Ranch SEP site in the Martis Valley, which was necessary to set a baseline water quality measurement for 2008. The Lahontan Water Board recognizes that this early 2008 peak flow monitoring was essential to the SEP because it establishes a means to measure the effectiveness of the SEP. These monitoring activities were not required by the Lahontan Water Board or any other agency. The Lahontan Water Board agrees that NMP shall be reimbursed from the SEP Fund for this work, pursuant to the reimbursement procedures described below, in an amount not to exceed $15,000, upon submission of invoices for said work, once NMP makes its initial 2009 payment to the SEP Fund. NMP shall also have the right, exercisable within its sole discretion, to contract for services due under the SEP on a time and materials basis or a fixed fee.

b. NMP shall provide the Assistant Executive Officer with assurance that it will meet its financial responsibility for paying the liability proposed herein by providing a suitable assurance instrument satisfactory to the Assistant Executive Officer within **thirty (30) days** of receiving written notice from the Lahontan Water Board that the State Water Board has not received any petitions for the ACL Order within the time provided in Water Code section 13320 and that no judicial challenge has been made within the time provided in Water Code section 13330, or that such challenges were received, but all claims contained therein have been resolved in favor of the Lahontan Water Board such that the ACL Order remains unchanged and effective. The assurance instrument may be in the form of a bond, guarantee, assignment of funds, letter of credit, or similar assurance instrument that is acceptable to the Assistant Executive Officer, which acceptance shall not be unreasonably or untimely withheld. The assurance instrument (i) shall be greater than or equal to the outstanding amount owing by NMP to the SEP Fund under Order No. 3.a, (ii) may be reduced at NMP's discretion as payments are made by NMP to the SEP Fund to cover only the remaining payment NMP owes to the SEP Fund under Order No. 3.a, and (iii) shall not

expire until a suitable replacement assurance instrument is established for the outstanding amount that NMP owes toward the SEP Fund.

c. If the Lahontan Water Board's Executive Officer, or his delegee, and NMP agree that the SEP will not proceed for reasons beyond NMP's control, they shall meet and confer to agree upon an alternative supplemental environmental project(s) for recommendation to the Lahontan Water Board for acceptance. Funds deposited into the SEP Fund per the schedule above will be devoted to the Alternative SEP. In the event that no Alternative SEP can be agreed upon by the parties and/or accepted by the Lahontan Water Board within one (1) year of the parties agreeing that the SEP is not viable, then funds in the SEP Fund and any remaining amount required to bring the total ACL payment to $2,750,000 will be deposited into the State Water Board Cleanup and Abatement Account (80%) and the State Water Board Waste Discharge Permit Fund (20%) according to the schedule set forth in Order No. 3.a., above. In the event of impasse regarding the SEP, all payments pursuant to the payment schedule will remain due according to the schedule in Order No. 3.a., above. In the event that this provision becomes effective due to impasse, the restrictions on use of monies in the SEP Fund are terminated effective thirty (30) days from written notice by the Executive Officer to the Cleanup and Abatement Account. For monies remaining in the SEP Fund and future payments to the SEP Fund pursuant to Order No. 3.a. above, the Cleanup and Abatement Account shall transfer twenty (20) percent to the State Water Board Waste Discharge Permit Fund. The Cleanup and Abatement Account is free to use the remaining eighty (80) percent of monies for any purposes that it deems fit.

d. All payments made under the ACL Order[1], including payments to the SEP Fund and cash payments to the Cleanup and Abatement Account and the Waste Discharge Permit Fund, shall be considered a credit towards the total $2,750,000 obligation. In no event shall NMP's total payments exceed $2,750,000 with no more than $2,250,000 allocated towards the SEP Fund, and no more than $500,000 to the Cleanup and Abatement Account and the Waste Discharge Permit Fund, except as provided in Order No. 3.c. above.

e. If NMP fails to perform the SEP in accordance with the specific terms and conditions, including the time schedule, detailed in Attachment C for any reason, except for those matters beyond the reasonable control of NMP or its agents, then the remaining balance due under the Administrative Civil Liability amount of $2,750,000 will become immediately due and payable by NMP to the State Water Board Cleanup and Abatement Account (80%) and the State Water Board Waste

[1] Payment requirements are identified in Order Nos. 2, 3, and 5.

Discharge Permit Fund (20%) (or other accounts to which the applicable California Water Code section(s) directs payment at the time) within 30 days of the relevant compliance date, unless the Lahontan Water Board Executive Officer finds that NMP's failure to comply within SEP compliance dates was for good cause. The Lahontan Water Board shall provide notice to NMP and a reasonable opportunity to cure (no less than sixty (60) days) any perceived violation of this ACL Order or the Settlement, other than for failure to make payments required by Order Nos. 2 and 3.a., above. Upon written request from NMP, the Executive Officer may approve a reasonable extension of time to comply with the specific terms and conditions of the SEP, which approval shall not be unreasonably withheld.

f. After consultation with the Executive Officer, NMP will select an independent third party (e.g., Sierra Business Council or other entity acceptable to the Executive Officer), consistent with the *Water Quality Enforcement Policy*, to review, verify and approve all invoices for authorized SEP work. NMP shall provide the Executive Officer an opportunity to review and accept NMP's contract with the independent third party, which acceptance shall not be unreasonably withheld. NMP shall pay for the independent third party's work, but the independent third party will report to the Lahontan Water Board regarding the third party's tracking of SEP progress, verification of SEP task and project completion, and auditing of expenditures from the SEP Fund, consistent with the *Water Quality Enforcement Policy*, section IX.B. As soon as practicable, but in no event later than the date the first payment from NMP to the SEP Fund under Order No. 3.a. is due, the Executive Officer will issue a letter to the Cleanup and Abatement Account or alternative private escrow account manager authorizing the third party to review, verify and approve invoices. The authorization letter will include a copy of this ACL Order.

g. Within five (5) days of approval of this ACL Order by the Lahontan Water Board, the Executive Officer will send a letter to the manager of the Cleanup and Abatement Account requesting that it initiate steps to implement the SEP Fund as provided in this ACL Order. Specifically, the Executive Officer will send the manager of the Cleanup and Abatement Account a request that (1) a fund be established within the Cleanup and Abatement Account to hold and administer the SEP Fund as provided herein; (2) that assurance be provided that the proceeds placed into the SEP Fund of the Cleanup and Abatement Account in conformance with this ACL Order will not be subject to any uses other than the SEP implementation; (3) that the Cleanup and Abatement Account manager agrees to make timely payments from the SEP Fund for SEP implementation in accordance with the provisions of this ACL Order as approved by the independent third party; and (4) that the

Cleanup and Abatement Account manager obtain and provide a written statement agreeing to satisfy Request Nos. 1 – 3 above. The written statement shall be subject to the approval of NMP, which approval shall not be unreasonably or untimely withheld. Provided, however, that if the Cleanup and Abatement Account manager obtains and provides a written and signed statement or a State Water Board Order that, in light of the totality of the written statement or State Water Board Order, constitutes the agreement of the Cleanup and Abatement Account to satisfy Request Nos. 1-3 above, then NMP shall be deemed to have approved the written statement. If such a written statement is received by the forty-fifth (45th) calendar day following Lahontan Water Board approval of this ACL Order and the written statement is approved by NMP, the SEP will be implemented through the Cleanup and Abatement Account SEP Fund as set forth herein. If the written statement is not timely received or is not approved by NMP, Order No. 3.h. below will become effective. Further, until the written statement is received and approved by NMP, NMP may in its discretion place its payments due under Order No. 3.a. into an escrow account to be held pending resolution of an alternative escrow account as set forth in Order 3.h. below or until the Cleanup and Abatement Account manager provides an acceptable written statement, as applicable. Those funds held in escrow shall then be distributed to the account when and as agreed upon by the parties hereunder. If, for whatever reason, the Cleanup and Abatement Account distributes SEP Funds for purposes other than SEP implementation and said distributions are not otherwise approved by the independent third party and the Executive Officer, then NMP shall have the right to establish a private escrow account to hold future payments to the SEP Fund in lieu of further payments to the Cleanup and Abatement Account under the procedures set forth in Order No. 3.h. below.

h. In the event that the Cleanup and Abatement Account manager does not provide the requested written statement described above in Order No. 3.g. by the forty-fifth (45th) calendar day following Lahontan Water Board approval of this ACL Order or for the other reasons enumerated in Order 3.g. above, the Executive Officer and NMP will meet and confer for the purpose of establishing a private escrow account to fund the SEP. The private escrow account will be established within sixty (60) days of the lapse of the deadline for the Cleanup and Abatement Account manager to provide the written statement in Order No. 3.g., above, unless the Executive Officer finds good cause to allow up to thirty (30) more days to receive the requested information from the Cleanup and Abatement Account manager. In the event that the Executive Officer and NMP decide to establish a private escrow account, all provisions in this ACL Order for payment to and disbursement from the SEP Fund for SEP

implementation will apply to the private escrow account rather than the SEP Fund within the Cleanup and Abatement Account.

i. Payments for authorized SEP activities shall be made in accordance with the following provision. First, the authorized contractor or vendor shall submit monthly invoices to the independent third party named (as provided in Order No. 3.f., above) by the tenth (10th) of each month for the work in the preceding month. The independent third party will either return the invoice for further action or submit the approved invoice to the Cleanup and Abatement Account contact named in the authorization letter from the Executive Officer within ten (10) calendar days of receipt. Upon submission of invoices documenting authorized work performed for the SEP, the Cleanup and Abatement Account will disburse SEP Fund monies to pay those invoices directly to the authorized contractor or vendor, with a courtesy copy of the payment to the independent third party, within twenty (20) calendar days of receipt. Cleanup and Abatement Account monies other than those existing in the SEP Fund will not be used for this purpose.

j. The independent third party shall submit quarterly reports to the Executive Officer, or his delegee, that must include, without limitation, a complete description of actions/activities completed for each budget item in the SEP during the relevant quarter, a complete accounting of costs associated with such actions/activities, invoices supporting such costs, and a signed certification that the descriptions and accounting provided in the report are true and accurate to the best of the independent third party's knowledge. The quarterly reports are due from the independent third party to the Lahontan Water Board according to the following schedule:

Quarterly Report Period	Report Due Date
January – March	April 30th
April – June	July 31st
July – September	October 31st
October – December	January 31st

There shall be no quarterly report due for the January to March, 2009, quarterly report period. The purpose of these reports is to provide the Lahontan Water Board with information necessary to appropriately oversee implementation of the SEP by NMP, as the Lahontan Water Board does not control SEP implementation or funds used for the SEP. The Executive Officer, or his delegee, shall have fifteen (15) business days following receipt of each quarterly report to review and object to the quarterly report by submitting a signed writing to the independent third party identifying deficiencies in the quarterly report and/or requesting

further documentation or clarification. Failure of the Executive Officer or his delegee to object to the quarterly report in a signed writing within fifteen (15) business days shall be deemed an approval of the quarterly report. In the event of any disagreement over the Executive Officer's disapproval of the quarterly report, the Executive Officer or his delegee shall meet and confer with the independent third party within fifteen (15) business days of the independent third party receiving the Executive Officer's disapproval, to resolve such issues. Other entities, including NMP and SEP contractors or vendors, may be included in such conference(s) if appropriate to the issue at hand. If it is determined by the Executive Officer after consultation with and concurrence of the independent third party that prior invoice payments were inappropriate, those payments will be credited against the next invoice submitted by the independent third party to the Cleanup and Abatement Account for payment.

k. If, in the judgment of the Executive Officer after consultation with NMP, the independent third party has failed to adequately perform the required functions of the independent third party, the Executive Officer may notify the third party and NMP that the third party's services are unacceptable, and NMP shall, after consultation with the Executive Officer, select another independent third party pursuant to Order No. 3.f., above. Provided, however, that NMP shall have the right to request that the independent third party be provided with written notice describing the deficient performance and a reasonable opportunity (not less than one quarterly review period) to cure any noted deficiencies prior to termination of the independent third party or selection of an alternative independent third party.

l. All SEP Fund monies shall be distributed before June 30, 2014 and the SEP Fund terminated, unless the schedule for the SEP is extended as provided below. Any funds remaining in the SEP Fund as of June 30, 2014, or the time for completion of the SEP as extended below, will be paid to the State Water Board's Cleanup and Abatement Account (80%) and the State Water Board's Waste Discharge Permit Fund (20%) (or other fund(s) that the applicable California Water Code section(s) directs payment to at the time) within sixty (60) days. NMP may make a written request to the Executive Officer to extend any SEP deadline by up to one (1) year for good cause. The Executive Officer may approve extensions of the SEP of up to one (1) year, which approval shall not be unreasonably withheld. The Lahontan Water Board may in its discretion approve an extension of more than one year for implementation of the SEP, if requested in writing by NMP.

4. This ACL Order settles all claims and liability for the alleged violations documented in the Violation Summary provided as Attachment A to this ACL Order and all unsuspected or unknown storm water program claims or violations for the project sites listed in Finding No. 2 of this ACL Order that exist or may exist as of December 31, 2007. This ACL Order does not settle any claims that the Lahontan Water Board may have for unknown non-storm water program violations prior to December 31, 2007, and the Lahontan Water Board retains authority to enforce any and all prospective violations.

5. If NMP fails to provide timely liability or SEP payments within ten (10) business days after the dates specified in Order Nos. 2 and/or 3.a., or if NMP fails to timely provide the assurance required in Order No. 3.b. within thirty (30) business days after the date specified, or if NMP fails to provide timely payment of undisputed amounts owed to the independent third party selected in accordance with Order No. 3.f. within thirty (30) days of the invoice due date unless said due date is otherwise extended for good cause by the Executive Officer (e.g., for disputed invoices or other appropriate reason), then any remaining amount required to bring the total Administrative Civil Liability amount to $2,750,000 will become immediately due and payable by NMP to the State Water Board Cleanup and Abatement Account (80%) and the State Water Board Waste Discharge Permit Fund (20%) (or other fund(s) that the applicable California Water Code section(s) directs payment to at the time) within thirty (30) days of the relevant compliance date specified above and in Order Nos. 2, 3.a., and/or 3.b. plus any applicable grace period referenced above, unless NMP is relieved from the relevant compliance dates specified above and in Order Nos. 2, 3.a., and/or 3.b. in writing by the Lahontan Water Board Executive Officer based on a finding that NMP's failure to comply within the prescribed timeframe was for good cause. NMP may make a written request to the Executive Officer to extend any SEP deadline by up to one (1) year to accommodate minor changes or good cause for delay, which request shall not be unreasonably withheld. The Lahontan Water Board may in its discretion approve an extension of more than one year for a SEP deadline or major changes to the SEP, if requested in writing by NMP. The Lahontan Water Board shall provide notice to NMP and a reasonable opportunity to cure (no less than sixty (60) days) any perceived violation of this ACL Order or the Settlement including failure to make timely payment to the independent third party, but excluding any failure to make payments as required by Order Nos. 2 and 3.a., above. NMP shall receive credit for any payments made to the SEP Fund or otherwise in payment of the liability hereunder towards the Cleanup and Abatement Account or the Waste Discharge Permit Fund. In no event shall NMP's total payment exceed $2,750,000 with no more than $2,250,000 allocated towards the SEP Fund and no more than $500,000

allocated towards the Cleanup and Abatement Account and the Waste Discharge Permit Fund, except as provided in Order No. 3.c. above.

6. If NMP fails to make the specified payments to the State Water Board Cleanup and Abatement Account, the State Water Board Waste Discharge Permit Fund, or to the approved SEP Fund within the time limits specified in this ACL Order, the Lahontan Water Board may enforce this ACL Order as it sees fit, including application for a judgment pursuant to Water Code section 13328.

I, Harold J. Singer, Executive Officer, do hereby certify that the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, Lahontan Region, on March 11, 2009.

Harold J. Singer

HAROLD J. SINGER
EXECUTIVE OFFICER

Attachment A: Alleged Violations and Penalty Summary Table

Attachment B: Monitoring Data of Projects' Storm Water Runoff Impacts to Area Surface Waters

Attachment C: Supplemental Environmental Project Proposal

Attachment D: Settlement Agreement

Attachment E: Amendment No. 1 to Settlement Agreement

Attachment A

Alleged Violations and Penalty Summary Table

ALLEGED PERMIT VIOLATIONS					
Failure to install and maintain BMPs. Maximum penalty of $10,000 per day, WC Section 13385	Failure to conduct and record daily site inspections and pre-storm inspections. Maximum penalty of $10,000 per day, WC Section 13385	Failure to conduct storm water sampling. Maximum penalty of $10,000 per day, WC Section 13385	Discharge of sediment laden storm water to surface waters (Order No. A3 of the General Permit, pollution or threatened pollution). Maximum penalty of $10,000 per day, WC Section 13385	Creating a condition of Pollution or Threatened Pollution. Maximum penalty of $10,000 per day, WC Section 13385	
VILLAGE AT NORTHSTAR - WDID NO. 6A31C325917					
DAYS:	11	61	1	3	0
June 15-17, 2006 (3 days). Failure to install adequate drop inlet protection pursuant to section XI.F of the SWPPP. Reference: Water Board's June 15, 2006, inspection report. **August 8-10, & 21-23, 2006 (6 days)**. Failure to correct identified BMP deficiencies within 24 hours pursuant to Amendment 8 of the SWPPP. Reference: (1) Discharger's August 7 & 8, 2006, self inspection reports note drop inlet BMP delays in H Plaza and Upper H Plaza. (2) Discharger's August 19, 2006, self inspection report documents delays installing silt fence at teh Phase III entrance, protecting stockpiles below the gondola and above the work site, installing filter fabric in all 6-inch drains, and reinstalling wattles around the grand staircase. **November 1-2, 2006 (2 days)**. Failure to correct BMP deficiencies prior to storm events, pursuant to Amendment 8 of the SWPPP. Reference: Discharger's November 1 and 2, 2006, self inspection reports provide to its contractors 24-hours to implement site cleanup, change fabric in drains, and install plastic and berm around a mixing station. Howeve the Discharger's November 10, 2006, electronic mail to Water Board staff documents total rainfall of 1.28 inches during this period, with rainfall predicted to occur on November 1 and 2, 2006.	**May 4 through July 16, 2006, excluding days noted below (61 days)**. Failure to conduct and record daily site inspections purusuant to Section IX.D of the SWPPP (inspections prior, after, and 24-hour intervals during storm events), pursuant to Amendment No. 19 of the SWPPP (requires daily site inspections), and pursuant to Amendment No. 26 to the SWPPP (requires daily BMP inspections in the form of daily notes). Reference: (1) Discharger's July 16, 2006 letter documents inspections conducted only on May 3, 8, 25, and June 15, 2006 (**40 days**). (2) Discharger's August 2, 2006 letter documents failure to document (and possibly failure to conduct) self inspections from June 16 through (and including) July 18, 2006 (**33 days**). Includes failure to conduct pre-storm inspections for storms predicted the week of June 5, and on June 14, 2006. (3) Discharger's November 6. 2007 submittal documents inspections completed on May 3,8,25,26, June 15,16,26,27,28, and July 12, 17, 18, 2007. Submittal documents inspections not needed on June 18, July 2, and July 4 due to no work conducted.	**November 1-3, 2006, storm event (1 day)**. Failure to conduct storm water runoff water quality monitoring for a single runoff event that produced 1.28 inches of rainfall, pursuant to Section IX.B of the SWPPP. Reference: Discharger's November 10, 2006 electronic mail to Water Board staff documenting the precipitation event.	**January 4, February 9 &10, 2007 (3 days).** Discharge of sediment and nutrient-laden storm water runoff into the West Fork West Martis Creek from the project site. Reference: (1) Discharger's water quality data collected January 4, 2007, between 11:40 a.m. and 12:05 p.m. (data collected approximately 18 hours after storm commenced on January 3, 2007); (2) Discharger's water quality data collected February 9, 2007, between 3:15 p.m. and 3:45 p.m.; (3) Discharger's water quality data collected February 10, 2007, between 11:15 a.m. and 11:45 a.m.; and (4) Discharger's water quality data collected February 10, 2007, between 3:45 p.m. and 4:15 p.m.	This violation is already noted in the discharge of sediment-laden storm water discharge section.

ALLEGED 401 WQC VIOLATIONS	ALLEGED BASIN PLAN VIOLATIONS	
Failure to comply with 401 Conditions. Maximum penalty of $10,000 per day, WC Section 13385	Discharge of wastes to surface waters of the Truckee River HU. Maximum penalty of $10,000 per day, WC Section 13385	Discharge (or threatened) of waste to lands within the 100-year floodplain of the Truckee River and tributaries. Maximum penalty of $10,000 per day, WC Section 13385
VILLAGE AT NORTHSTAR - WDID NO. 6A31C325917		
0	0	0
	Sediment and nutrient-laden discharges already considered in permit violations section.	Failure to adequately install an maintain BMPs creates a threatened discharge, but are already considered in permit violation section.

ALLEGED CLEANUP AND ABATEMENT ORDER VIOLATIONS				PENALTY	
Violation of terms of Order No. 1: Failure to designate a single qualified individual. Maximum penalty of $10,000 per day, WC Section 13385	Violation of terms of Order No. 2: Failure to winterize by November 9, 2006. Maximum penalty of $10,000 per day, WC Section 13385	Violation of terms of Order No. 3: Failure to document winterization activities. Maximum penalty of $1000 per day, WC Section 13268	Violation of terms of Order No. 4: Failure to submit an adequate site monitoring plan. Maximum penalty of $1000 per day, WC Section 13268	TOTAL DAYS	PENALTY PER SITE
VILLAGE AT NORTHSTAR - WDID NO. 6A31C325917					
13	0	42	35	166	$967,000.00
November 8, 2006 CAO required immediate response. Discharger submitted inadequate response on November 22, 2006 identifying 9 individuals instead of one individual. Water Board staff deemed the response inadequate in a letter dated February 26, 2007. Adequate response was not submitted until March 13, 2007 - 124 days after the CAO was issued. **Days of violation are 13 days, assuming a corrected response should have been submitted immediately by February 28th.**	The Discharger submitted information on November 6, 2007, verifying the site was fully winterized by the due date.	The Discharger submitted a deficient report on November 14, 2006. The report was deficient because it did not fully document winterization measures installed in all disturbed areas, it did not provide a chronology of BMPs installed after October 28th, and it identified several disturbed areas to be mulched in the spring of 2007 without specifying the temporary winterization measures to be installed for the interim period. Water Board did not identify the report as deficient until March 7, 2007. The Discharger never re-submitted the report. Assuming a reasonable re-submittal date of March 21, and assuming a May 1st date when such a report no longer is necessary, the violation period would be 42 days.	The Discharger submitted a monitoring plan on time on November 17, 2006, but it was deficient. Water Board staff declared it was deficient in a letter dated February 22, 2007, because no monitoring points for storm water run-on into the Village Core area were identified, nor were any monitoring points identified for storm water run-on into the existing parking area where construction staging existed. The Discharger submitted a revised and adequate plan on April 12, 2007. Assume that the Discharger should have been able to resubmit a revised plan 2 weeks from the date of the Water Board letter, violation period from March 8 until April 12 is 35 days.		

ALLEGED PERMIT VIOLATIONS					
Failure to install and maintain BMPs. Maximum penalty of $10,000 per day, WC Section 13385	Failure to conduct and record daily site inspections and pre-storm inspections. Maximum penalty of $10,000 per day, WC Section 13385	Failure to conduct storm water sampling. Maximum penalty of $10,000 per day, WC Section 13385	Discharge of sediment laden storm water to surface waters (Order No. A3 of the General Permit, pollution or threatened pollution). Maximum penalty of $10,000 per day, WC Section 13385	Creating a condition of Pollution or Threatened Pollution. Maximum penalty of $10,000 per day, WC Section 13385	
INTERCEPT LOTS - WDID NO. 6A31C335494					
DAYS: 148	39	1	1	0	
June 15-July 5, 2006 (21 days). (1) Failure to install BMPs and then installing inappropriate BMPs to protect the Class III drainage pursuant to the SWPPP (2) Failure to install adequate silt fence protection BMPs pursuant to the SWPPP. References: (1) Water Board's report of its June 15, 2006, site inspection; (2) Discharger's June 17 and 20, 2006, electronic mails to Water Board staff documenting completed work; (3) Water Board's report of its July 5, 2006, site inspection; (4) Discharger's August 31, 2006, electronic mail to Water Board staff documenting additional completed work. **May 17 through July 5, 2006 (29 additional days from what is noted above).** Failure to install protective fencing for environmentally-sensitive areas as required by the SWPPP. References are the same as noted above. **June 15, and June 29 through July 5, and August 5 through 7, 2006 (3 additional days from what is noted above).** Failure to install adequate stockpile protection as required by the SWPPP. References: (1) same as those noted above; (2) Water Board's report of its August 7, 2006 inspection; (3) Discharger's August 25, 2006, electronic mail to Water Board staff documenting that stockpiles were unprotected on August 5th; (4) Discharger's August 31, 2006 response to Water Board's NOV; (5) Discharger's September 8, 2006 electronic mail to Water Board staff documenting completed items. **June 15 and 20, and July 15, 2006 (no additional days than noted above).** Failure to adequately install fiber foll BMPs in accordance with the SWPPP. Reference: (1) Water Board's reports for June 15 and July 5, 2006, inspections; (2) Discharger's June 20, 2006 self inspection report submitted on July 6, 2006. **June 20 and July 5, 2006 (no additional days than noted above).** Failure to install adequate drain inlet protection pursuant to the SWPPP. References: (1) Discharger's June 20, 2006 self inspection report submitted on July 6, 2006; (2) Water Board's report of its July 5, 2006, site inspection. **August 7, 2006 (no additional days than noted above).** Failure to install internall controls in accordance with the SWPPP, as amended. Reference: Water Board's report of its August 7, 2006 inspection. **November 1 through 3, 2006 (3 additional days of violation)**. Failure to repair dificient BMPs prior to, and during, a forecasted rain event. Reference: Discharger's November 1, 2, and 3, 2006, self inspection reports that were submitted to the Water Board on November 8, 2006. The reports indicate continued winterization tasks (tackifier, wattle placement, repairing silt fences, stabilization of unprotected slopes, outlet protection, stabilization of unpaved parking areas) being completed. It is noted that the SWPPP requires tackifier to be placed a minimum of 24 hours prior to rainfall, not during. **August 7 through November 11, 2006 (92 additional days of violation)**. Failure to schedule appropriate quantities of earth-moving activities as required by Appendix D.18 of the SWPPP. The Discharger initiated Phase II of the parking lot and was unable to stabilize the area prior to onset of winter. References: During the August 7, 2006 Water Board staff inspection, the Discharger's representative noted that both Phases I and II were under construction, that the Notice of Intent (NOI) that had been filed for coverage under the general permit was just for Phase I, and an amended NOI was submitted the week prior to incorporate Phase II. The representative confirmed that all bare slopes will be revegetated by August 15, 2006, and that the entire area will be paved by October 15, 2006. The Discharger's November 3, 2006 self inspection report noted that the parking lot area had not been paved and remained unstabilized. The Discharger's November 10-11, 2006 self inspection report claims the area was stabilized by November 11, 2006.	**May 19-25, and June 5, 6, 13, and 14, 2006 (10 days).** Failure to conduct and record pre and post storm inspections. References (all were included in Discharger's June 19, 2006 submittal package): (1) May 18, 2006 self inspection report states that thunderstorms were predicted for the entire week, but there are no further daily pre-storm self inspection reports; (2) rainstorms were also predicted and occurred the week of June 5th and again on June 13th, and there are no records of adequate pre and post inspection reports. **June 16, 17,19, 21-26, 28, and 30, and July 1, 3, and 5, 2006 (14 additional days).** Failure to record daily inspections of installed BMPs. Reference: Discharger's July 6, 2006, and November 6, 2007, submittals of all self-inspection reports for the period of June 15 through July 5, 2006. Reports are missing for the days noted, presumably because the daily inspections required by the SWPPP did not occur. **June 20, 27, and 29, 2006 (3 additional days).** Failure to document corrections to identified BMP deficiencies. References (all submitted July 6, 2006): (1) June 20, 2006 self inspection report documents inappropriate strow wattle drain inlet protection on pavement, incorrect wattle installations, silt fence installations perpendicular to the contour, incorrectly installed silt fences in the northwest corner and upper site sections of the project site, and lack of silt fence in a critical area on the north end of the project, but the report does not confirm when, or if, corrective measures were taken; (2) the June 27, 2006 self inspection pre-storm report documents sediment accumulation on the temporary crossing over the ephemeral drainage crossing, and the report recommended sediment removal from the crossing, filter fabric replacement in a drain inlet, silt fence stabilization with wattles, but the report does not confirm when, or if, corrective measures were taken; (3) the June 29, 2006 self inspection post storm report documented a large open area with many unprotected stockpiles, placement of a stockpile in a drainage, and the need for additional wattles, drainage protection, and sediment tracking control, but it does not document when, or if, corrective measures were taken. **November 2-4, 2006 (3 additional days).** Failure to record rainfall quatities during an extended storm event, as required by the SWPPP. References: Discharger's self inspection reports for the noted days submitted to Water Board staff on November 8, 2006. The reports note light rain, but provide no quantities. (Rainfall during this period was measured as 1.28 inches at a nearby project site.) **January 2-5, 2007 (4 additional days).** Failure to conduct and record pre and post storm inspections. Reference: January 18, 2007 electronic mail from Discharger to Water Board documenting the storm occurrence January 3-4, 2007, with no documentation or other proof of pre, post, and 24-hour duration inspections. (Hydromulch BMP implementation requires post inspection for re-application needs). **February 7-11, 2007 (5 additional days)**. Failure to record pre and post storm inspections. Reference: IERS March 9, 2007 storm water sampling report documents storm occurrence February 8-10, 2007, and there is no documentation of required pre, post, and daily inspections.	**January 2, 2007 (1 day of violation).** Failure to conduct storm water sampling for a storm event that occurred January 2-4, 2007, as required by Section IX.B of the SWPPP. Reference: Discharger's January 18, 2007 email to Water Board staff documenting the storm and submitting runoff results for a nearby site.	**February 10, 2007 (1 day of violation).** Discharge of sediment and nutrient laden storm water runoff from the project site. Runoff was discharged to wetland areas (surface waters) and to lands that, eventually, drain into area surface water channels. Reference: IERS March 9, 2007 report containing a summary of runoff monitoring data for samples collected on February 10, 2007.	Already considered under basin plan prohibition and under the discharge of sediment laden storm water.	

ALLEGED 401 WQC VIOLATIONS	ALLEGED BASIN PLAN VIOLATIONS	
Failure to comply with 401 Conditions. Maximum penalty of $10,000 per day, WC Section 13385	Discharge of wastes to surface waters of the Truckee River HU. Maximum penalty of $10,000 per day, WC Section 13385	Discharge (or threatened) of waste to lands within the 100-year floodplain of the Truckee River and tributaries. Maximum penalty of $10,000 per day, WC Section 13385
INTERCEPT LOTS - WDID NO. 6A31C335494		
0	10	0
	June 15 & 16, 2006 (2 days of violation). Discharging waste earthen material into the identified Classs III drainage. References: (1) Water Board's report of its June 15, 2006, inspection; (2) Discharger's June 20, 2006 electronic mail to Water Board staff noting placement of unauthorized rip rap material in the drainage. **July 5, 2006 (1 additional day).** Discharge of additional rock and sediment (from a tree stump removal and sloughing from the drainage crossing), and construction of a silt fence across the flow line within the drainage. Reference: Water Board's report of its July 5, 2006 site inspection. **August 7, 2006 (1 additional day).** Discharge of topsoil material within the drainage. Reference: Water Board's report of its August 7, 2006 site inspection. **September 21-26, 2006 (6 additional days).** Discharge of waste earthen materials while constructing an arched culvert within the flood plain boundaries of the Class III drainage. Reference: Construction period is documented by the Discharger's self inspection reports for the period September 19-25, and September 26-October 2, 2006. Water Board staff report of its November 14, 2006, inspection documents a 3 to 4-foot span over the drainage, not the required 7-foot span.	Flood plain impacts occurred, but days of violation are already considered under the previous column.

ALLEGED CLEANUP AND ABATEMENT ORDER VIOLATIONS				PENALTY	
Violation of terms of Order No. 1: Failure to designate a single qualified individual. Maximum penalty of $10,000 per day, WC Section 13385	Violation of terms of Order No. 2: Failure to winterize by November 9, 2006. Maximum penalty of $10,000 per day, WC Section 13385	Violation of terms of Order No. 3: Failure to document winterization activities. Maximum penalty of $1000 per day, WC Section 13268	Violation of terms of Order No. 4: Failure to submit an adequate site monitoring plan. Maximum penalty of $1000 per day, WC Section 13268	TOTAL DAYS	PENALTY PER SITE
INTERCEPT LOTS - WDID NO. 6A31C335494					
0	17	0	0	216	$2,160,000.00
Only one report needed, considered in the penalty calculation for the Village.	**November 11-27, 2006 (17 days).** The Discharger initially submitted documentation that the site was stabilized one day late on November 10, 2006 (Discharger's self inspection reports for the period November 7-11, 2006). However, the Discharger's November 14, 2006, technical report identified four items that were not completed as part of winterization: (1) identifying and implementing interim measures intended to temporarily stabilize the areas where sufficient revegetation growth has not been established; (2) paving or otherwise stabilizing unpaved roadways and parking lot (3) installing alternative erosion control measures on slopes where tackifier/hydromulch was inappropriately applied during rain events; and (4) installing wattles and fiber mats in accordance with SWPPP requirements. The Water Board's report of its November 14, 2006, inspection identified failure to implement source control BMPs on slopes, stockpiles, drainage channels, and roads. Snowfall on November 27th prevented implementing winterization. The project site remained without adequate winterization measures until May 1, 2007.	Only one report needed, considered in the penalty calculation for the Village.	Only one report needed, considered in the penalty calculation for the Village.		

ALLEGED PERMIT VIOLATIONS					
Failure to install and maintain BMPs. Maximum penalty of $10,000 per day, WC Section 13385		Failure to conduct and record daily site inspections and pre-storm inspections. Maximum penalty of $10,000 per day, WC Section 13385	Failure to conduct storm water sampling. Maximum penalty of $10,000 per day, WC Section 13385	Discharge of sediment laden storm water to surface waters (Order No. A3 of the General Permit, pollution or threatened pollution). Maximum penalty of $10,000 per day, WC Section 13385	Creating a condition of Pollution or Threatened Pollution. Maximum penalty of $10,000 per day, WC Section 13385
EMPLOYEE HOUSING/SAWMILL HEIGHTS - WDID NO. 6A31C335581					
DAYS:	19	17	0	0	0
June 15 & 16, 2006 (2 days of violation). Failure to install and maintain adequate drain inlet BMPs as required by the SWPPP (page 17 and Appendix E.6) - lack of wattle and inlet filter. Failure to install and maintain erosion and sediment control BMPs for an unpaved construction road. References: (1) Water Board report of June 15, 2006 inspection; (2) Discharger's June 20, 2006, electronic mail to Water Board staff documenting installation of BMPs; (3) Discharger's July 31, 2006 correspondence to Water Board staff. **June 20 - 26, 2006 (7 additional days).** Failure to install and maintain adequate stockpile management BMPs in accordance with the SWPPP, Appendix E.24. (A precipitation event occurred June 26th). Reference: Discharger's June 20, 23, and 26, 2006, self inspection reports. **July 27, 2006 (1 additional day).** Failure to install and maintain drain inlet protection at south end, after BMP inspector required its installation. Reference: Discharger's July 27 and 28, 2006, self inspection reports. **July 28, 2006 (1 additional day).** Failure to maintain adequate stockpile of BMP materials as required by VIII.D.1 of the SWPPP (page 17). Reference: Discharger's July 28, 2006, self inspection report. **August 4, 2006 (1 additional day).** Failure to maintain adequate concrete washout facility in accordance with SWPPP requirements - concrete washout occurred outside of designated facility. Reference: Discharger's August 4, 2006, self inspection report. **October 2 - 5, 2006 (4 additional days).** Failure to maintain BMPs (sediment remained in drainages, v-ditches, etc.) prior to predictions of rain on October 2nd - 5th. Failure to install slope protection prior to predictions of rainfall (tackifier placed October 4th, but rain was predicted that day, and tackifier needs 12 to 24-hours to cure, Amendment No. 23 to the SWPPP). References: Discharger's self inspection reports for the period. **November 1-3, 2006 (3 additional days).** Failure to stabilize two slope areas prior to rain event on November 2nd and 3rd, in violation of SWPPP requirements for slope stabilization and scheduling BMPs. The BMP inspector noted need for slope stabilization for 2 weeks prior to rain event. References: Discharger's self inspection reports from October 14 - November 3, 2006.		**May 19-21, June 5, 6, 13, and 14, 2006 (7 days of violation).** Failure to conduct and record pre and post storm inspections prior to predictions of rainfall events. References: (1) Northstar CSD Inspection Reports of its TH-2 Water Facilities project documenting predictions for precipitation at a neighboring project; (2) Discharger's July 16, 2006, submittal of all inspection reports conducted and documented from May 2 through June 15, 2006, which do not include the necessary pre and post storm inspections for the noted events. **August 3, 2006 (1 additional day).** Failure to conduct inspection on August 2nd prior to a precipitation event that evening. References: (1) Discharger's August 2, 2006 self inspection form noting no inspection conducted; (2) Discharger's August 3, 2006 self inspection report noting precipitation overnight. **January 2-5, 2007 (4 additional days).** Failure to conduct and record inspections prior to, during, and after a storm event that occurred January 3-4, 2007. **February 7-11, 2007 (5 additional days).** Failure to conduct and record inspections prior to, during, and after a storm event that occurred February 8-10, 2007.			

ALLEGED 401 WQC VIOLATIONS	ALLEGED BASIN PLAN VIOLATIONS	
Failure to comply with 401 Conditions. Maximum penalty of $10,000 per day, WC Section 13385	Discharge of wastes to surface waters of the Truckee River HU. Maximum penalty of $10,000 per day, WC Section 13385	Discharge (or threatened) of waste to lands within the 100-year floodplain of the Truckee River and tributaries. Maximum penalty of $10,000 per day, WC Section 13385
EMPLOYEE HOUSING/SAWMILL HEIGHTS - WDID NO. 6A31C335581		
0	0	0

ALLEGED CLEANUP AND ABATEMENT ORDER VIOLATIONS				PENALTY	
Violation of terms of Order No. 1: Failure to designate a single qualified individual. Maximum penalty of $10,000 per day, WC Section 13385	Violation of terms of Order No. 2: Failure to winterize by November 9, 2006. Maximum penalty of $10,000 per day, WC Section 13385	Violation of terms of Order No. 3: Failure to document winterization activities. Maximum penalty of $1000 per day, WC Section 13268	Violation of terms of Order No. 4: Failure to submit an adequate site monitoring plan. Maximum penalty of $1000 per day, WC Section 13268	TOTAL DAYS	PENALTY PER SITE
EMPLOYEE HOUSING/SAWMILL HEIGHTS - WDID NO. 6A31C335581					
0	17	0	0	53	$530,000.00
Only one report needed, considered in the penalty calculation for the Village.	A site winterization plan was developed on September 28, 2006 by the Discharger's consultant, IERS (contained in Discharger's November 14, 2006 response to CAO Item No. 3). The Discharger's response notes that slopes were tackified and that drain inlets and sediment basins were cleaned out pursuant to the plan. However, there is no evidence provided to indicate other critical elements of the plan were implemented, including: cleaning out and repairing rock lined drainage ditches, installing wattles at drainage outflows, installing wattles at toe of slopes (in addition to tackifying slopes), establishing and protecting a snow storage area, and installing rock check dams. Further, there is no evidence that winterization BMPs were inspected and maintained during the winter, especially before and after precipitation events. Water Board's report of its November 15, 2006, inspection documents the Discharger's failure to install effective source control BMPs on disturbed slopes and stockpiles. Snowfall on November 27, 2006, prevented further installation of winterization BMPs for the remainder of the season. Violation existed for 17 days from November 11 through 27, 2006.	Only one report needed, considered in the penalty calculation for the Village.	Only one report needed, considered in the penalty calculation for the Village.		

ALLEGED PERMIT VIOLATIONS					
Failure to install and maintain BMPs. Maximum penalty of $10,000 per day, WC Section 13385		Failure to conduct and record daily site inspections and pre-storm inspections. Maximum penalty of $10,000 per day, WC Section 13385	Failure to conduct storm water sampling. Maximum penalty of $10,000 per day, WC Section 13385	Discharge of sediment laden storm water to surface waters (Order No. A3 of the General Permit, pollution or threatened pollution). Maximum penalty of $10,000 per day, WC Section 13385	Creating a condition of Pollution or Threatened Pollution. Maximum penalty of $10,000 per day, WC Section 13385
HIGHLANDS VIEW DRIVE / HIGHWAY 267 INTERCHANGE - WDID NO. 6A31C333755					
DAYS:	135	20	0	5	0
June 5through June 22, 2006 (17 days of violation). Failure to comply with the Scheduling BMP requirement provided in Sections A.5 and A.6 of the permit and Appendix E.18 SWPPP for clearing and grading the project site without first developing and implementing a construction BMP plan for the area. References: (1) Water Board's June 15, 2006, inspection report; (2) Discharger's June 22, 2006 electronic mail to Water Board staff submitting a construction BMP plan for the site. It is noted that construction grading began June 5, 2006, per the Discharger's letter dated August 1, 2006. **June 5 - June 17, 2006 (no additional days).** Failure to install adequate drain inlet protection pursuant to Appendix E.9 of the SWPPP. Reference: (1) Water Board's June 15, 2006, inspection report; (2) Discharger's June 17, 2006 electronic mail to Water Bpard staff confirming the completion of items observed. **June 15-17, 2006 (no additional days).** Failure to install adequate stockpile protection pursuant to Appendix E.24 of the SWPPP. Reference: (1) Water Board's June 15, 2006, inspection report; (2) Discharger's June 17, 2006 electronic mail to Water Bpard staff confirming the completion of items observed. **July 5-13, 2006 (9 additional days)**. Failure to adequately install fiber rolls,and silt fence in accordance with Appendices E.8 and E.19, of the SWPPP. References: (1) Water Board report of its July 5, 2006, site inspection; (2) July 13, 2006, letter from Discharger documenting stating that observed deficiencies had been corrected. **June 17 - July 13, 2006 (17 additional days).** Failure to adequately install stockpile protection in accordance with Appendix E.24 of the SWPPP. These are the same stockpiles that were observed during the June 15th inspection, and they remained unprotected on July 5th, contradicting the Discharger's claim that stockpile BMPs had been appropriately installed on these stockpiles. References: (1) Water Board report of its July 5, 2006, site inspection; (2) July 13, 2006, letter from Discharger documenting stating that observed deficiencies had been corrected. **June 5 through October 14, 2006 (92 additional days)**. Failure to install measures to prevent runoff from off-site areas (run-on) from flowing through the disturbed construction areas, as required by Section A.5.b.(1) of the Statewide General Stormwater Construction Permit. Reference: October 14, 2006 self inspection report noting the construction of a V-Ditch on the south side of the project to re-direct run-on, and failure to document installation of other appropriate BMPs prior to this date.		**June 5, 6, 13, and 14, 2006 (4 days).** Failure to conduct and record pre and post storm inspections. References: See Highlands View Drive and Nothstar Village project inspection reports for rainfall predicition days. **June 16, 17, 19, 21-26, 28, 30, and July 1, 3, and 5, 2006 (14 days of violation).** Failure to conduct and record daily BMP inspections pursuant to Section IX.D of the SWPPP. Reference: July 6, 2006 Discharger facsimile submitting all inspection reports conducted since June 15, 2006. **June 25, 2006 (no additional days).** Failure to conduct a pre-storm inspection for a rain event that occurred on June 26, 2007, as required by page 39 of the SWPPP. Same references are used. **June 20 and 27, 2006 (2 additional days)**. Failure to document completion of corrective measures recommended in self inspection reports, as required by Section IX.D of the SWPPP (same references used).		**October 5, 2006 (1 day of Violation)**. Discharge of sediment-laden storm water runoff into Middle Martis Creek. Although reports do not indicate BMP deficiencies, subsequent and prior reports note that winterization was not in place, including soil stabilization. Discharger did not cut a v-ditch to prevent storm water run-on until October 14th. Reference: (1) Discharger's October 5 & 14, 2006, self inspection reports. (report notes several "melted clods) in mid-south section - possibly the cause of discharge? (2) Discharger's October 26, 2006 Discharge report. **November 2, 2006 (1 additional day)**. Discharge of sediment-laden storm water runoff into Middle Martis Creek. Reference: Discharger's December 1, 2006, electronic mail submission of lab results. **February 8-10, 2007 (3 additional days).** Discharge of sediment-laden storm water runoff into Middle Martis Creek. Reference: IERS March 9, 2007, letter submitting monitoring report and lab results.	

ALLEGED 401 WQC VIOLATIONS	ALLEGED BASIN PLAN VIOLATIONS	
Failure to comply with 401 Conditions. Maximum penalty of $10,000 per day, WC Section 13385	Discharge of wastes to surface waters of the Truckee River HU. Maximum penalty of $10,000 per day, WC Section 13385	Discharge (or threatened) of waste to lands within the 100-year floodplain of the Truckee River and tributaries. Maximum penalty of $10,000 per day, WC Section 13385
HIGHLANDS VIEW DRIVE / HIGHWAY 267 INTERCHANGE - WDID NO. 6A31C333755		
65	0	27
May 6 - June 21, 2006 (47 days). Failure to submit a completed SWPPP (& BMP Plan) 30 days prior to the commencement of construction, and ensuring the SWPPP includes informatin to demonstrate that appropriate measures are incorporated into the final design, as required by Additional Condition No. 2 of the WQC. References: (1) June 9, 2006 WQC; (2) Discharger's June 22, 2006 electronic mail to Water Board staff submitting a construction BMP plan for the site and documenting that site construction commenced June 5, 2006. **October 15 - November 1 (18 additional days)**. Failure to winterize site, and failure to halt site soil-disturbing activities, between October 15 and May 1, as required by Additional Condition No. 2 (referencing Enclosure C) of the 401 WQC. Soil grading, erosion control mat installation, tub grinding placement, and spraying tackifier are described during the noted period. Reference: (1) June 9, 2006, 401 WQC, (2) October 17-November 1, 2006, Discharger Self Inspection Reports. ***It is noted that all permit and basin plan violations are also violations of the conditions of a 401 WQC, but the violations will not be duplicated here.***		**July 5-13, 2006 (9 additional days)**. Failure to adequately install check dams in accordance with Section 3 of the California Stormwater BMP Handbook, resulting in a threatened discharge of waste earthen material to lands within the 100 year flood plain of Middle Martis Creek. References: (1) Water Board report of its July 5, 2006, site inspection; (2) July 13, 2006, letter from Discharger documenting stating that observed deficiencies had been corrected. **July 23-24, 2006 (2 additional days)**. Failure to correct BMP deficiencies (rock on silt fence, additional fiber rolls, additional gravel bag check dams) identified in July 22, 2006 self inspection until July 24th, creating a condition of threatened discharge. Reference: July 22 and 24, 2006, self inspection reports. **July 29-August 1, 2006 (4 additional days).** Failure to protect a stockpile that exceeded its original limits for 3 days, creating a condition of threatened discharge. The deficiency was reported July 28th, and was not corrected until August 1st. Reference: July 28, 29, 31, and August 1, 2006, self inspection reports. **August 4-7, 2006 (4 additional days).** Failure to correct BMP deficiencies (lack of soil stabilization, break in a silt fence) prior to a prediction for possible precipitation on August 4th, creating a threatened discharge. (Failing to stabilize site prior to a possible rain event is also a permit violation, but will be noted here instead). Referecne: August 4 & 7, 2006, self inspection reports. **August 8-15, 2006 (8 additional days).** Failure to stabilize/revegetate a disturnted area. The disturbance was observed August 7th, and it was not stabilized until the 15th, creating a condition that threatens a discharge. Reference: August 7-15, 2006, self inspection reports.

ALLEGED CLEANUP AND ABATEMENT ORDER VIOLATIONS				PENALTY	
Violation of terms of Order No. 1: Failure to designate a single qualified individual. Maximum penalty of $10,000 per day, WC Section 13385	Violation of terms of Order No. 2: Failure to winterize by November 9, 2006. Maximum penalty of $10,000 per day, WC Section 13385	Violation of terms of Order No. 3: Failure to document winterization activities. Maximum penalty of $1000 per day, WC Section 13268	Violation of terms of Order No. 4: Failure to submit an adequate site monitoring plan. Maximum penalty of $1000 per day, WC Section 13268	TOTAL DAYS	PENALTY PER SITE
HIGHLANDS VIEW DRIVE / HIGHWAY 267 INTERCHANGE - WDID NO. 6A31C333755					
0	0	0	0	252	$2,520,000.00
Only one report needed, considered in the penalty calculation for the Village.		Only one report needed, considered in the penalty calculation for the Village.	Only one report needed, considered in the penalty calculation for the Village.		

ALLEGED PERMIT VIOLATIONS					
Failure to install and maintain BMPs. Maximum penalty of $10,000 per day, WC Section 13385	Failure to conduct and record daily site inspections and pre-storm inspections. Maximum penalty of $10,000 per day, WC Section 13385	Failure to conduct storm water sampling. Maximum penalty of $10,000 per day, WC Section 13385	Discharge of sediment laden storm water to surface waters (Order No. A3 of the General Permit, pollution or threatened pollution). Maximum penalty of $10,000 per day, WC Section 13385	Creating a condition of Pollution or Threatened Pollution. Maximum penalty of $10,000 per day, WC Section 13385	
HIGHLANDS VIEW DRIVE - WDID NO. 6A31C333756					
DAYS:	99	10	3	9	2.1
May 16-18, 2006 (3 days of violation). Failure to correct deficient BMPs (stockpiles, drain inlets and outlets, silt fence) on days with forecasted precipitation, pursuant to section IX.D of the SWPPP. Reference: Discharger's May 16 - 18, and 22, 2006, self inspection reports. **June 12-14, 2006 (2 additional days).** Failure to repair deficient BMPs and clogged drainages prior to and during predicted rain event, pursuant to section IX.D of the SWPPP. Reference: Discharger's June 12-13, 2006, self inspection Reports. **May 16 - June 17, 2006 (27 additional days).** Failure to stabilize eroding slopes that were previously revegetated and maintain the BMPs that were installed (eroded slopes due to winter season, first inspection of site was May 16th, but didn't note eroded slopes). Failure to install adequate drop inlet protection. Reference: (1) Water Board's June 15, 2006, inspection report; (2) Discharger's June 17, 2006, electronic mail stating that all items discussed durring inspection have been completed; (3) Discharger's May 16, 2006, self inspection report. **July 5 - 13, 2006 (9 additional days).** Failure to comply with SWPPP requirements for adequate BMPs due to the failure to protect stockpiles and inappropriate placement of stockpiles within a flowline (see SWPPP Appendix E.24), locating a temporary sanitary facility within a flowline (see SWPPP Appendix E.17), failure to install and maintain adequate drain inlet protection (SWPPP Appendix E.9), failure to adequately install and maintain silt fences (SWPPP Appendix E.19), failure to install and maintain adequate drain outlet protection (SWPPP Appendix E.14), failure to stockpile adequate quantities of BMP materials pursuant to page 17 of the SWPPP. References: (1) Water Board's report of its July 5, 2006 site inspection; (2) Discharger's July 13, 2006, letter verifying correction of identified deficiencies. **June 15 - July 13, 2006 (17 additional days from June 18 - July 4).** Failure to revegetate eroded slopes. The slope failures were identified on June 15th, and Water Board staff issued a verbal warning to correct deficiency by June 16th, but no later than the next storm. The next storm was predicted to occur on June 28, 2006. The Discharger submitted an e-mail on June 17 (and additional information dated June 22, 2006) that the slope areas had been corrected. However, the same slope areas were still unstable during the Water Board's July 5, 2006 inspection. Reference: see above-two entries. **May 16 - July 13, 2006 (no additional days).** Failure to limit grading activities to areas that can be completed and stabilized prior to anticipated storm events pursuant to page 16 and to Appendix E.18 of the SWPPP. Reference: Water Board's report of its July 5, 2006 site inspection. **June 23, 26, 27, and 29, 2006 (no additonal days).** Failure to document implementation of corrective action measures identified in Discharger's self inspection reportsto correct noted BMP deficiencies. Reference: July 6, 2006 Discharger facsimile submitting all all inspection reports conducted since June 15, 2006. **August 4-11, 2006 (8 additional days of violation).** Failure to install and maintain BMPs for a utility box installation in violation of Sections A.5 and A.6 of the permit. References: (1) Water Board staff report of its August 7, 2006, inspection; (2) Discharger's August 25 2006 electronic mail verifying the area was stabilized August 11. **August 7-19, 2006 (7 additional days).** Failure to comply with Water Board verbal warning issued on the 7th to install sediment tracking controls at a utility materials staging area, located at Station 33+00. References: (1) Water Board staff report of its August 7, 2006 inspection; (2) Discharger's August 19, 2006 self inspection report. **August 20-24, 2006 (5 additional days).** Failure to maintain adequate drain inlet BMPs at Station 51+68 in accordance with the SWPPP. The Discharger's August 22 self inspection report requires compliance by August 24th. References: (1) Discharger's August 19, 20, 21, and 22 self inspection reports. **August 29 - September 8, 2006 (11 additional days).** Failure to adhere to SWPPP requirements by placing (and failing to remove) a stockpile within a flowline. This issue was raised to the Discharger during the July 5th inspection. References: (1) Discharger's self inspection reports dated August 29, 30, and September 8, 2006. **September 14-15, 2006 (2 additional days).** Failure to adequately maintain drain inlet BMPs in accordance with SWPPP requirements. References: (1) Discharger's September 13, 14, and 15, 2006, self inspection reports. **October 4 - 6, 11-13, 16-17, 2006 (8 additional days).** Failure to install BMPs within time frame noted by inspector, and/or prior to storm event, pursuant to SWPPP requirements. Multiple sites with BMP deficiencies are recorded on any single day. References: (1) Dischargers October 4, 5, 6, 7, 10-13, 16-17, 2006, self inspection reports; (2) Water Board's February 22, 2007, NOV.	**June 17, 19, 21, 22, 24, 25, 28, 30, and July 1, 3, and 5, 2006 (10 days of violation).** Failure to conduct and record daily BMP inspections pursuant to Section IX.D of the SWPPP. Reference: July 6, 2006 Discharger facsimile submitting all inspection reports conducted since June 15, 2006.	**February 8 - 10, 2007 (3 days of violation).** Failure to conduct storm water runoff sampling within West Martis Creek, Station 104+00. Reference: (1) IERS March 29, 2007 letter.	**October 5, 2006 (1 day of Violation)**. Discharge of sediment-laden storm water runoff into West Martis Creek (station 104+00). Reports also indicate BMP deficiencies. Reference: Discharger's October 5, 2006, self inspection report. **November 2-3, 2006 (2 additional days of violation).** Discharge of sediment-laden storm water runoff into West Martis Creek (Station 104+00). Placer County Inspection Report notes significant BMP deficiencies. Reference: (1) Discharger's December 1, 2006, electronic mail submitting laboratory date for November 2nd; (2) Placer County's November 6, 2006, electronic mail submittting it's inspection reports and photodcoumentation of discharges occurring November 3rd; (3) Psomas's November 7, 2006 electronic mail submitting photo logs for photodocumentation of its November 3, 2006, inspection. **November 2-3, 2006 (2 additional days of violation).** Discharge of sediment-laden storm water runoff into West Fork West Martis Creek (Station 144+00). Placer County Inspection Report notes signifiviant BMP deficiencies. Reference: (1) Discharger's December 1, 2006, electronic mail submitting laboratory date for November 2nd; (2) Placer County's November 6, 2006, electronic mail submittting it's inspection reports and photodcocumentation of discharges occurring November 3rd; (3) Psomas's November 7, 2006 electronic mail submitting photo logs for photodocumentation of its November 3, 2006, inspection. **January 4, 2007 (1 additional day).** Discharge of sediment-laden storm water runoff into West Fork West Martis Creek at Station 144+00. References: (1) Discharger's January 18, 2007 electronic mail with laboratory results of collected samples. **February 8-10, 2007 (3 additional days).** Discharge of sediment-laden storm water runoff into West Fork West Martis Creek at Station 144+00. References: (1) IERS March 9, 2007 discharge report.	**October 10, 2006 (1 day of violation, but use 2.1 in above list of total days to acccount for volume of discharge at $10 per gallon).** Discharge of sediment laden water into West Fork West Martis Creek. Contractor hit a water line, and directed the water into a DI that drains directly into the creek instead of onto vegetated overland areas. 2100 gallons discharged. Further, the area was not stabilized with mulch as required by BMP inspector. References: (1) October 10, 2006, Discharger self inspection report; (2) Discharger's October 31, 2006 spill report letter.

ALLEGED 401 WQC VIOLATIONS	ALLEGED BASIN PLAN VIOLATIONS	
Failure to comply with 401 Conditions. Maximum penalty of $10,000 per day, WC Section 13385	Discharge of wastes to surface waters of the Truckee River HU. Maximum penalty of $10,000 per day, WC Section 13385	Discharge (or threatened) of waste to lands within the 100-year floodplain of the Truckee River and tributaries. Maximum penalty of $10,000 per day, WC Section 13385
HIGHLANDS VIEW DRIVE - WDID NO. 6A31C333756		
170.6	4	0
October 27 - November 30, 2005 and May 1 - August 2, 2006 (128 days of violation). Failure to install gravel bag check dams in unimproved temporary or unstabilized drainage ditches and swales, minimum spacing required is every 200 feet, pursuant to Additional Condition No. 2, CEQA Mitigation Measures MM 4.7.3d and RBMM-2 Reference: (1) June 9, 2006 401 WQC, Enclosure C; (2) Discharger's June 20, 2006 email with photodocumentation from October, 2005, showing a lack of required check dams; (3) Water Board staff inspection report of June 15, 2006, inspection; (4) Water Board staff inspection report of July 5, 2006, inspection; (5) Discharger's letter dated August 2, 2006, documenting completion of deficient BMPs; (6) Discharger's November ???, 2007, submittal documenting onset of winter conditions that would have prevented further implementation of winterization BMPs for the season. **July 20 - August 11, 2006 (23 additional days).** Failure to comply with Standard Condition No. 5 by grading/disturbing the stream bed of West Martis Creek inconsistent with the details provided in Page 6 of the Report of Waste Discharge. Also, there was no appropriate stream diversion BMP installed prior to and during the unauthorized construction activities within the West Martis Creek channel. Finally, the Discharger has not provided any mitigation for the additional impacts that have occurred. It is noted that a precipitation event waspredicted for August 4, 2006. References: (1) Discharger's July 20, 2006 self inspection report; (2) Water Board staff report of its August 7, 2006, inspection; (3) Discharger's August 12, 2006, self inspection report indicating stream construction activties were completed on the 11th. (4) EDAW's March 15, 2006, Report of Waste Discharge. **July 31 - October 24, 2006 (85 additional days, at $1000 per day for reporting, use 8.5 days).** Failure to submit Monitoring Site Selection Report, due on July 31st pursuant to Additional Condition No. 1, Page 7 of Enclosure B to the WQC. References: (1) Dale Payne's January 24, 2007, electronic mail outlining reporting violations). **November 1, 2006 (1 day, at $1000 per day for reporting, use 0.1).** Submittial of insufficient quarterly monitoring report, pursuant to Additional Condition No. 1, Page 6 of Enclosure B to the WQC. References: (1) Dale Payne's January 24, 2007, electronic mail outlining reporting violations). **November 1 - November 11, 2006 (11 additional days).** Failure to winterize site, and failure to halt site soil-disturbing activities, between November 1 (extended October 15th date) and May 1, as required by Additional Condition No. 2 (referencing Enclosure C) of the 401 WQC. Soil grading, erosion control mat installation, tub grinding placement, and spraying tackifier are described during the noted period. Reference: (1) June 9, 2006, 401 WQC, (2) November complete as of November 11th, but that more detailed work and maintenance work is still needed. **(Failure to install BMPs prior to a storm is also a permit violation, but will just be listed here.)** ***It is noted that all permit and basin plan violations are also violations of the conditions of a 401 WQC, but the violations will not be duplicated here.***	**July 5, 2006 (1 day of violation)**. Placement of a stockpile within portions of an ephemeral drainage at Stateon 50+00. Reference: Water Board staff report of its July 5, 2006, inspection. **August 7, 2006 (1 additional day).** Additional placement of fill material was observed in the same and in an adjacent drainage, resulting in an overall increase in impacts to the ephemeral drainage (and associated floodplain). But, the stockpile had been removed. Location is at Station 50+00. Reference: Water Board staff report of its August 7, 2006, inspection. **October, 2006 (2 additional days).** Discharge of waste earthen materials. Discharger placed gravel bag check dams within West Martis and within West Fork West Martis Creek without prior authorization/permits. Gravel bags inhibit habitat passage, and collect sediments which could later be discharged in a slug when bags are removed. References: (1) Discharger's and Water Board's January 15, and 22 electronic mail exchanges.	

ALLEGED CLEANUP AND ABATEMENT ORDER VIOLATIONS				PENALTY	
Violation of terms of Order No. 1: Failure to designate a single qualified individual. Maximum penalty of $10,000 per day, WC Section 13385	Violation of terms of Order No. 2: Failure to winterize by November 9, 2006. Maximum penalty of $10,000 per day, WC Section 13385	Violation of terms of Order No. 3: Failure to document winterization activities. Maximum penalty of $1000 per day, WC Section 13268	Violation of terms of Order No. 4: Failure to submit an adequate site monitoring plan. Maximum penalty of $1000 per day, WC Section 13268	TOTAL DAYS	PENALTY PER SITE
HIGHLANDS VIEW DRIVE - WDID NO. 6A31C333756					
0	17	0	0	314.7	$3,147,000.00
Only one report needed, considered in the penalty calculation for the Village.	The Discharger initially submitted documentation that the site was stabilized one day late on November 10, 2006 (Discharger's self inspection reports for the period November 7-11, 2006). However, the November 11, 2006, inspection report by Psomas for Placer County indicates that as of November 11, 2006, there remained areas still in need of winterization. Further, the Discharger's November 14, 2006, technical report contained the following deficiencies as part of winterization: (1) interim measures were not installed on newly-revegetated sites that did not have sufficient plant growth; (2) filter fabrics were removed from drain inlets without alternative equal measures installed; (3) fiber rolls and wattles were installed inappropriately on slopes parallel to runoff direction instead of perpendicular to runoff flows; (4) tackified slopes did not have redundant sediment and erosion control BMPs in place, especially for those slopes greater than 10 feet in length (5) previously tackified areas that had been driven on were not addressed - no alternative and additional BMPs were noted. The Water Board staff report of its November 14-15, 2006, inspections documents the Discharger's failure to install effective source control BMPs and to stabilize disturbed rough-graded roadways, disturbed slopes, disturbed landings/parking areas, and drop-inlet areas throughout the project site. The project site remained without adequate winterization measures until May 1, 2007, but snowfall on November 27, 2006, prevented further installation of winterization BMPs for the remainder of the season. Violation existed for 17 days from November 11 through 27, 2006.	Only one report needed, considered in the penalty calculation for the Village.	Only one report needed, considered in the penalty calculation for the Village.		

ALLEGED PERMIT VIOLATIONS					
Failure to install and maintain BMPs. Maximum penalty of $10,000 per day, WC Section 13385	Failure to conduct and record daily site inspections and pre-storm inspections. Maximum penalty of $10,000 per day, WC Section 13385	Failure to conduct storm water sampling. Maximum penalty of $10,000 per day, WC Section 13385	Discharge of sediment laden storm water to surface waters (Order No. A3 of the General Permit, pollution or threatened pollution). Maximum penalty of $10,000 per day, WC Section 13385	Creating a condition of Pollution or Threatened Pollution. Maximum penalty of $10,000 per day, WC Section 13385	
NORTHSTAR DRIVE ROUNDABOUT -WDID #6A31C333754					
DAYS:	14	18	0	N/A	N/A
August 7, 2006 (1 day of violation). Failure to install adequate stockpile protection pursuant to Appendix E.24 of the SWPPP. Reference: Water Board's report of its August 7, 2006, inspection. **August 7, 2006 (no additional days of violation).** Failure to implement adequate dust suppression pursuant to Appendix E.34 of the SWPPP. Reference: Water Board's report of its August 7, 2006, inspection. **July 25 - August 7, 2006 (13 additional days of violation).** Failure to install and maintain sediment track-off control prior to and throughout construction. References: (1) Water Board's report of its August 7, 2006, inspection; (2) Discharger's statement that construction commenced on or about July 25, 2006.		**December 12-20, 2006 (9 additional days).** Failure to conduct and record pre and post storm inspections, and inspections at 24-hour intervals during a protracted precipitation event, pursuant to Section IX.D of the SWPPP. Reference: Discharger's December 19, 2006, electronic mail documenting a week-long storm event, but there is no documentation of the required inspections. **January 2-5, 2007, and February 7-11, 2007 (9 additional days violation).** Failure to conduct and record pre and post storm inspections, and inspections at 24-hour intervals during a protracted precipitation event, pursuant to Section IX.D of the SWPPP. Reference: (1) January 18, 2007, e-mail documenting storm occurrence January 3 through 4, 2007; and (2) IERS March 9, 2007, storm water sampling report documenting sotrm occurrence February 8-10, 2007.			

ALLEGED 401 WQC VIOLATIONS	ALLEGED BASIN PLAN VIOLATIONS	
Failure to comply with 401 Conditions. Maximum penalty of $10,000 per day, WC Section 13385	Discharge of wastes to surface waters of the Truckee River HU. Maximum penalty of $10,000 per day, WC Section 13385	Discharge (or threatened) of waste to lands within the 100-year floodplain of the Truckee River and tributaries. Maximum penalty of $10,000 per day, WC Section 13385
NORTHSTAR DRIVE ROUNDABOUT -WDID #6A31C333754		
0	**0**	**0**

ALLEGED CLEANUP AND ABATEMENT ORDER VIOLATIONS				PENALTY	
Violation of terms of Order No. 1: Failure to designate a single qualified individual. Maximum penalty of $10,000 per day, WC Section 13385	Violation of terms of Order No. 2: Failure to winterize by November 9, 2006. Maximum penalty of $10,000 per day, WC Section 13385	Violation of terms of Order No. 3: Failure to document winterization activities. Maximum penalty of $1000 per day, WC Section 13268	Violation of terms of Order No. 4: Failure to submit an adequate site monitoring plan. Maximum penalty of $1000 per day, WC Section 13268	TOTAL DAYS	PENALTY PER SITE
NORTHSTAR DRIVE ROUNDABOUT -WDID #6A31C333754					
0	0	0	0	32	$320,000.00
Only one report needed, considered in the penalty calculation for the Village.		Only one report needed, considered in the penalty calculation for the Village.	Only one report needed, considered in the penalty calculation for the Village.		

ALLEGED PERMIT VIOLATIONS					
Failure to install and maintain BMPs. Maximum penalty of $10,000 per day, WC Section 13385		Failure to conduct and record daily site inspections and pre-storm inspections. Maximum penalty of $10,000 per day, WC Section 13385	Failure to conduct storm water sampling. Maximum penalty of $10,000 per day, WC Section 13385	Discharge of sediment laden storm water to surface waters (Order No. A3 of the General Permit, pollution or threatened pollution). Maximum penalty of $10,000 per day, WC Section 13385	Creating a condition of Pollution or Threatened Pollution. Maximum penalty of $10,000 per day, WC Section 13385
HIGHLANDS RESORT HOTEL - WDID 6A29C339910					
DAYS:	103	19	0	0	0
June 15, 2006 (1 day of violation). Failure to install and maintain adequate sediment, erosion, and run-on control BMPs throughout the site, in violation of permit section A.6 and in violaiton of the SWPPP. References: (1) Water Board staff report of its June 15, 2006, inspection; (2) Discharger's June 22, 2006 letter stating that noted violations were corrected on June 16, 2006. **July 5 - 13, 2006 (8 additional days).** Failure to install and maintain adequate sediment, erosion, and run-on control BMPs throughout the site, in violation of permit section A.6 and in violaiton of the SWPPP. References: (1) Water Board staff report of its July 5, 2006, inspection; (2) Discharger's July 13, 2006, letter documenting correction of identified deficiencies. **June 20, 2006 - July 13, 2006 (23 additional days).** Failure to install and maintain stockpile management BMPs for up to 7 waste soil stockpiles, in violation of Attachment O of the SWPPP. References: (1) Water Board staff report of its July 5, 2006, inspection; (2) Discharger's July 13, 2006, letter documenting correction of identified deficienc **August 7, 2006 (1 additional days).** Failure to implement adequate BMPs for wind erosion control pursuant to Section 500.3.7 and Attachment O of the SWPPP, resulting in fugitive dust emissions; failure to implement adequate hazardous waste storage BMPs pursuant to Section 500.3.9 and Attachment O of the SWPPP, resulting in storage of hazardouse waste materials on bare ground. References: (1) Water Board's staff report of its August 7, 2006, inspection. **August 7-26 2006 (19 additional days from that noted above).** Failure to stage and install adequate erosion and sediment control BMPs prior to construction pursuant to Attachment O of the SWPPP, resulting in inadequate storm water retention and containment. References: (1) Water Board's staff report of its August 7, 2006, inspection; (2) Discharger's August 26, 2006 self inspection report. **June 9 - September 9, 2006 (48 additional days from that noted above).** Failure to install and maintain site run-on controls prior to any construction and grading activity, as required by Attachment A, Sheet C3, of the SWPPP project plans. References: (1) Discharger's June 9, 2006, self inspection report of timber clearing activities; (2) Water Board staff inspection reports for its June 15, July5, and August 7, 2006, inspections; (3) Discharger's September 9, 2006 self inspection report documenting completion of site run-on control BMPs. **November 1-3, 2006 (3 additional days).** Failure to install and maintain adequate sediment and erosion controls prior to a forecasted rain event - disturbed were not tackified as required by the BMP inspectors and the SWPPP. References: Discharger's November 1-3, 2006, self inspection reports.		**June 13, and 14, 2006 (2 days of violation)**. Failure to conduct and record pre and post storm inspections prior to predictions of rainfall events. References: (1) Northstar CSD Inspection Reports of its TH-2 Water Facilities project documenting predictions for precipitatin at a neighboring project; (2) Discharger's July 16, 2006, submittal of all inspection reports conducted and documented through June 15, 2006. **June 26 and 27, 2006 (2 additional day).** Failure to inspect and record BMP site inspection prior to forecast of rain and after rain event, as required by section 500 of the SWPPP. Reference: (1) Water Board staff report of its July 5, 2006, inspection; (2) Discharger's submittal of inspection reports for the period. **June 16, 17,19,22-27, 29, 30, and July 1, 3, and 5 (15 additional days).** Failure to conduct and record daily inspections of implemented BMPs (such as stockpile management BMPs), as required by Attachment O of the SWPPP. References: Discharger's submittal of inspection reports for the period.			

ALLEGED CLEANUP AND ABATEMENT ORDER VIOLATIONS				PENALTY	
Violation of terms of Order No. 1: Failure to designate a single qualified individual. Maximum penalty of $10,000 per day, WC Section 13385	Violation of terms of Order No. 2: Failure to winterize by November 9, 2006. Maximum penalty of $10,000 per day, WC Section 13385	Violation of terms of Order No. 3: Failure to document winterization activities. Maximum penalty of $1000 per day, WC Section 13268	Violation of terms of Order No. 4: Failure to submit an adequate site monitoring plan. Maximum penalty of $1000 per day, WC Section 13268	TOTAL DAYS	PENALTY PER SITE
HIGHLANDS RESORT HOTEL - WDID 6A29C339910					
0	8	0	0	148	$1,480,000.00
Only one report needed, considered in the penalty calculation for the Village.	The Discharger submitted information on November 14, 2006, claiming the site was fully winterized by the due date. However, the submittal includes a Placer County inspection report noting failing and eroding areas that had previously been winterized. The submittal included a tentative winterization plan which required shotcrete to be applied to large stockpiles. However, the Discharger did not document completion of this task. The Discharger submitted photographs of final winterization measures, but the photographs instead show large areas of disturbance with inadequate measures in place. Water Board's report of its November 15, 2006, inspection documented that the site was adequately winterized - 6 days after the required compliance darte. The Discharger did not submit information that any winterization measures (especially those that relied on the use of soil binders) were inspected for the need of re-application after precipitation events in January and February, 2007 (one event each month), as required in Attachment O of the SWPPP - 2 additional days of violation.	Only one report needed, considered in the penalty calculation for the Village.	Only one report needed, considered in the penalty calculation for the Village.		

ALLEGED 401 WQC VIOLATIONS	ALLEGED BASIN PLAN VIOLATIONS	
Failure to comply with 401 Conditions. Maximum penalty of $10,000 per day, WC Section 13385	Discharge of wastes to surface waters of the Truckee River HU. Maximum penalty of $10,000 per day, WC Section 13385	Discharge (or threatened) of waste to lands within the 100-year floodplain of the Truckee River and tributaries. Maximum penalty of $10,000 per day, WC Section 13385
HIGHLANDS RESORT HOTEL - WDID 6A29C339910		
0	0	18
		August 2-18, 2006 (16 additional days). Presence of a large stockpile (40 feet high,100 feet long, 20 to 30 feet wide) on site, and it was protected by a single row of silt fence which would be quickly overwhelmed in the event of storm water runoff, creating a threatened discharge in the event of a storm. Reference: (1) Water Board's report of its August 7, 2006, inspection; (2) Discharger's September 8, 2006 electronic mail documenting additional erosion and sediment control protection installed on August 18th.

ALLEGED PERMIT VIOLATIONS					
Failure to install and maintain BMPs. Maximum penalty of $10,000 per day, WC Section 13385		Failure to conduct and record daily site inspections and pre-storm inspections. Maximum penalty of $10,000 per day, WC Section 13385	Failure to conduct storm water sampling. Maximum penalty of $10,000 per day, WC Section 13385	Discharge of sediment laden storm water to surface waters (Order No. A3 of the General Permit, pollution or threatened pollution). Maximum penalty of $10,000 per day, WC Section 13385	Creating a condition of Pollution or Threatened Pollution. Maximum penalty of $10,000 per day, WC Section 13385
TRAILSIDE TOWNHOMES - WDID NO. 6A29C339949					
DAYS:	55	0	0	0	1
August 7 - September 8, 2006 (32 days of violation). Failure to stage and install adequate run-on, erosion, and sediment control BMPs prior to construction pursuant to Attachment O of the SWPPP, resulting in inadequate storm water retention and containment. References: (1) Water Board's staff report of its August 7, 2006, inspection; (2) Discharger's September 8, 2006 electronic mail documenting completion of required BMPs. **November 1 and 2, 2006 (2 additional days).** Failure to install additional BMP controls at edge of pavement to control sediment-laden storm water runoff prior to and during a storm event. BMP Inspector required installation on November 2nd during a storm, and the BMP was not installed until November 3rd (the second day of the storm). SWPPP Section 500.3.5 requires sediment controls to be installed at the perimeter of distrubed soil areas prior to anticipated rain events. Reference: Discharger's self inspection reports dated November 2 and 3, 2006. **August 16, 2007 (1 additional day).** Failure to implement required concrete washout BMPs as required by the SWPPP, resulting in a concrete mixer being washed out onto a road, and runoff entering a drain inlet. Reference: (1) Discharger's August 16, 2007, self inspection report. **October 27 - November 15, 2006 (20 additional days).** Failure to install effective source control BMPs and stabilize disturbed slopes, road shoulders, soft bottom/bank channels in disturbed earthen materials, in violation of SWPPP requirements. Failure to install and maintain adequate silt fence in violation of the SWPPP. It is noted that the Discharger reported completion of activities on October 27th, and Water Board staff discovered the violations on November 15th. It is further noted that a rain event occurred on November 13th. Reference: Water Board staff report of its November 15, 2006 inspection.					**August 13, 2004 (1 day of violation).** Discharge of diesel fuel to ground surface. The Discharger failed to implement BMPs (Att. O of the SWPPP) for vehicle fueling - drip pans/absorbent pads were not used during the fueling, and the fuel tank was topped off. References: (1) Discharger's August 15, 2006, letter.
HIGHLANDS - VILLAGE RUN FILL SITE - WDID NO. 6A29C342716					
DAYS:	3	0	0	0	0
November 1 - 3, 2006 (3 days). Failure to install BMP controls/Winterization BMPs on disturbed soil areas prior to and during a storm event. SWPPP Section 500.3.5 requires sediment controls to be installed at the perimeter of distrubed soil areas prior to anticipated rain events. Reference: Discharger's self inspection reports dated November 1, 2, and 3, 2006.					
NORTHSTAR DRIVE/BASQUE ROAD IMPROVEMENTS - WDID NO. 6A31C329713					
DAYS:	47	0	0	0	0
May 1 - June 16, 2007 (47 days of violation). Failure to stabilize eroding slopes that were previously revegetated; and failure to maintain rock-lined drainages, rolling dips, and other sediment and erosion control BMPs that were installed (eroded slopes due to winter season) pursuant to SWPPP requirements. Reference: (1) Water Board's June 15, 2006, inspection report; (2) Discharger's June 17, 2006, electronic mail stating that all items discussed durring inspection have been completed on June 16, 2006. **June 12-14, 2006 (no additional days).** Failure to repair deficient BMPs and clogged drainages prior to and during predicted rain event, pursuant to section IX.D of the SWPPP. Reference: Discharger's June 12-13, 2006, self inspection Reports for Highlands Drive Project. **June 15, 2006 (no additional days).** Failure adequately protect stockpiles pursuant to SWPPP requirements. References: (1) Water Board's report of its June 15, 2006 site inspection; (2) Discharger's June 17, 2006, electronic mail stating that all items discussed durring inspection have been completed on June 16, 2006.					

ALLEGED 401 WQC VIOLATIONS	ALLEGED BASIN PLAN VIOLATIONS	
Failure to comply with 401 Conditions. Maximum penalty of $10,000 per day, WC Section 13385	Discharge of wastes to surface waters of the Truckee River HU. Maximum penalty of $10,000 per day, WC Section 13385	Discharge (or threatened) of waste to lands within the 100-year floodplain of the Truckee River and tributaries. Maximum penalty of $10,000 per day, WC Section 13385
TRAILSIDE TOWNHOMES - WDID NO. 6A29C339949		
0	0	0
HIGHLANDS - VILLAGE RUN FILL SITE - WDID NO. 6A29C342716		
0	0	0
NORTHSTAR DRIVE/BASQUE ROAD IMPROVEMENTS - WDID NO. 6A31C329713		
0	0	0

ALLEGED CLEANUP AND ABATEMENT ORDER VIOLATIONS				PENALTY	
Violation of terms of Order No. 1: Failure to designate a single qualified individual. Maximum penalty of $10,000 per day, WC Section 13385	Violation of terms of Order No. 2: Failure to winterize by November 9, 2006. Maximum penalty of $10,000 per day, WC Section 13385	Violation of terms of Order No. 3: Failure to document winterization activities. Maximum penalty of $1000 per day, WC Section 13268	Violation of terms of Order No. 4: Failure to submit an adequate site monitoring plan. Maximum penalty of $1000 per day, WC Section 13268	TOTAL DAYS	PENALTY PER SITE
TRAILSIDE TOWNHOMES - WDID NO. 6A29C339949					
0	0	0	0	56	$560,000.00
Not subject to the terms and conditions of the CAO.	Not subject to the terms and conditions of the CAO.	Not subject to the terms and conditions of the CAO.	Not subject to the terms and conditions of the CAO.		
HIGHLANDS - VILLAGE RUN FILL SITE - WDID NO. 6A29C342716					
0	0	0	0	3	$30,000.00
Not subject to the terms and conditions of the CAO.	Not subject to the terms and conditions of the CAO.	Not subject to the terms and conditions of the CAO.	Not subject to the terms and conditions of the CAO.		
NORTHSTAR DRIVE/BASQUE ROAD IMPROVEMENTS - WDID NO. 6A31C329713					
0	0	0	0	47	$470,000.00
Not subject to the terms and conditions of the CAO.	Not subject to the terms and conditions of the CAO.	Not subject to the terms and conditions of the CAO.	Not subject to the terms and conditions of the CAO.		

ALLEGED PERMIT VIOLATIONS					
Failure to install and maintain BMPs. Maximum penalty of $10,000 per day, WC Section 13385		Failure to conduct and record daily site inspections and pre-storm inspections. Maximum penalty of $10,000 per day, WC Section 13385	Failure to conduct storm water sampling. Maximum penalty of $10,000 per day, WC Section 13385	Discharge of sediment laden storm water to surface waters (Order No. A3 of the General Permit, pollution or threatened pollution). Maximum penalty of $10,000 per day, WC Section 13385	Creating a condition of Pollution or Threatened Pollution. Maximum penalty of $10,000 per day, WC Section 13385
SCHAFFER'S CAMP RESTAURANT - WDID NO. 6A29C324687					
DAYS:	22	21	0	0	0
June 22, 2006 - July 13 2006 (22 days of violation). Failure to adequately install appropriate BMPs to prevent the discharge of pollutants associated with concrete wastes from the project site in violation of the SWPPP, as amended on February 11, 2005. References: (1) Water Board staff report of its July 5, 2006, inspection; (2) Discharger's June 22, 26, 28, and July 5, 2006 elf inspection reports documenting the continued BMP inadequacy; (3) Discharger's July 13, 2006 letter stating that adequate BMPs have been installed. **July 5 - 13, 2006 (no additional days).** Failure to install and maintain adequate stockpile management BMPs as required by the SWPPP, as amended on February 11, 2005. References: (1) Water Board staff report of its July 5, 2006, inspection; (3) Discharger's July 13, 2006 letter stating that adequate BMPs have been installed. **July 5 - 13, 2006 (no additional days).** Failure to install and maintain adequate BMPs for equipment storage pursuant to the SWPPP, as amended on Februayr 11, 2005. References: (1) Water Board staff report of its July 5, 2006, inspection; (2) Discharger's July 13, 2006, letter documenting the implementation of all required BMPs		**June 8-14, 16-21, 23-25, 27, 29, 30, and July 1 and 3, 2006 (21 days violation).** Failure to conduct and record 23 daily BMP inspections in violation of the August 24, 2004 NOV and tin violation of the permit. References: (1) Water Board staff report of its July 5, 2006 inspection; (2) Discharger's July 6, 2006 submittal of available inspection reports; (3) Discharger's August 31, 2006, letter verifying that inspections were not conducted for the noted days.			

ALLEGED 401 WQC VIOLATIONS	ALLEGED BASIN PLAN VIOLATIONS	
Failure to comply with 401 Conditions. Maximum penalty of $10,000 per day, WC Section 13385	Discharge of wastes to surface waters of the Truckee River HU. Maximum penalty of $10,000 per day, WC Section 13385	Discharge (or threatened) of waste to lands within the 100-year floodplain of the Truckee River and tributaries. Maximum penalty of $10,000 per day, WC Section 13385
SCHAFFER'S CAMP RESTAURANT - WDID NO. 6A29C324687		
0	0	0

ALLEGED CLEANUP AND ABATEMENT ORDER VIOLATIONS				PENALTY	
Violation of terms of Order No. 1: Failure to designate a single qualified individual. Maximum penalty of $10,000 per day, WC Section 13385	Violation of terms of Order No. 2: Failure to winterize by November 9, 2006. Maximum penalty of $10,000 per day, WC Section 13385	Violation of terms of Order No. 3: Failure to document winterization activities. Maximum penalty of $1000 per day, WC Section 13268	Violation of terms of Order No. 4: Failure to submit an adequate site monitoring plan. Maximum penalty of $1000 per day, WC Section 13268	TOTAL DAYS	PENALTY PER SITE
SCHAFFER'S CAMP RESTAURANT - WDID NO. 6A29C324687					
0	0	0	0	43	$430,000.00
Facility not subject to the Cleanup and Abatement Order.	Facility not subject to the Cleanup and Abatement Order.	Facility not subject to the Cleanup and Abatement Order.	Facility not subject to the Cleanup and Abatement Order.		
		TOTAL MAXIMUM PENALTY:			**$12,614,000.00**

ATTACHMENT B

Monitoring Data of Projects' Storm Water Runoff Impacts to Area Surface Waters

NORTHSTAR VILLAGE

On November 2-3, 2006, an extended rain event created storm water runoff. The Discharger reported an accumulation of 1.28 inches of precipitation during this period. the Discharger's self-inspection reports do not contain monitoring results verifying storm water runoff monitoring was conducted within the West Fork West Martis Creek, as required by the project SWPPP.

A precipitation event occurred on January 3-4, 2007, which produced approximately 0.65 inches of rain in addition to subsequent snow.

Table 1. West Fork West Martis Creek Monitoring Data Summary, January 4, 2007, Discharge from Village at Northstar.

Monitoring Station	Turbidity (NTU)	Suspended Solids (mg/L)	Total Dissolved Solids (mg/L)	Total Phosphorus (mg/L)	Total Kjeldahl Nitrogen (mg/L)*
Point of Storm Water Runoff Discharge into West Fork West Martis Creek (Station V6)	36	54	240	0.21	1.4
West Fork West Martis Creek above the point of storm water runoff discharge (Background Sample – Station V7)	1.5	<5	110	<0.02	0.2
West Fork West Martis Creek, Downstream from Point of Discharge (Station V5)	5.4	6	140	0.02	0.4

*Nitrate Nitrogen was non-detectable in all samples; therefore, Total Nitrogen in samples consists entirely of Kjeldahl Nitrogen.

A precipitation event occurred on February 8 through 10, 2007, which produced up to 3 inches of precipitation at the Mt. Rose monitoring station and a trace at the Truckee monitoring station.

Table 2. West Fork West Martis Creek Monitoring Data Summary, February 9, 2007, 3:15 p.m. through 3:45 p.m., Discharge from Village at Northstar.

Monitoring Station	Turbidity (NTU)	Suspended Solids (mg/L)	Total Dissolved Solids (mg/L)	Total Phosphorus (mg/L)	Total Nitrogen (mg/L)
Point of Storm Water Runoff Discharge into West Fork West Martis Creek (Station V6)	100	85	280	0.18	2.7
West Fork West Martis Creek above the point of storm water runoff discharge (Background Sample – Station V7)	4.1	<5	100	<0.02	0.4
West Fork West Martis Creek, Downstream from Point of Discharge (Station V5)	16	9	140	0.03	0.7

Table 3. West Fork West Martis Creek Monitoring Data Summary, February 10, 2007, 11:15 a.m. through 11:45 a.m., Discharge from Village at Northstar.

Monitoring Station	Turbidity (NTU)	Suspended Solids (mg/L)	Total Dissolved Solids (mg/L)	Total Phosphorus (mg/L)	Total Nitrogen (mg/L)
Point of Storm Water Runoff Discharge into West Fork West Martis Creek (Station V6)	60	88	270	0.18	1.6
West Fork West Martis Creek above the point of storm water runoff discharge (Background Sample – Station V7)	5.4	25	110	0.04	0.7
West Fork West Martis Creek, Downstream from Point of Discharge (Station V5)	25	55	180	0.11	1.2

Table 4. West Fork West Martis Creek Monitoring Data Summary, February 10, 2007, 3:45 p.m. through 4:15 p.m., Discharge from Village at Northstar.

Monitoring Station	Turbidity (NTU)	Suspended Solids (mg/L)	Total Dissolved Solids (mg/L)	Total Phosphorus (mg/L)	Total Nitrogen (mg/L)
Point of Storm Water Runoff Discharge into West Fork West Martis Creek (Station V6)	34	210	250	0.20	1.7
West Fork West Martis Creek above the point of storm water runoff discharge (Background Sample – Station V7)	6.0	17	120	0.03	0.7
West Fork West Martis Creek, Downstream from Point of Discharge (Station V5)	20	23	150	0.05	0.9

INTERCEPT LOT

A precipitation event occurred on January 3-4, 2007, which produced approximately 0.65 inches of rain in addition to subsequent snow **(See Exhibit 14 from Northstar Village draft ACL - January 18, 2007, Electronic Mail from Vanessa Sandoval to Eric Taxer and Dale Payne, "Sample Results from Storm 1-4-07")**. The Discharger did not conduct a pre-storm inspection, inspections during the storm, nor a post-storm inspection, nor did the Discharger sample storm water run-on or run-off into wetland areas at the project site, as required by the SWPPP.

Table 1. Intercept Lot Monitoring Data Summary, February 10, 2007, 12:00 p.m. through 12:45 p.m.

Monitoring Station	Turbidity (NTU)	Suspended Solids (mg/L)	Total Dissolved Solids (mg/L)	Total Phosphorus (mg/L)	Total Nitrogen (mg/L)
I-ED1 (Class III Drainage)	21	14	170	0.80	0.4
I-F3 (Basin F3 Outfall)	110	1700	210	0.60	2.2
I-E3 (Basin E3 Outfall)	110	370	100	0.22	1.7
I-3 (Basin 3 Outfall)	100	79	230	0.23	2.6

Table 2. Intercept Lot Monitoring Data Summary, February 10, 2007, 4:20 p.m. through 4:30 p.m.

Monitoring Station	Turbidity (NTU)	Suspended Solids (mg/L)	Total Dissolved Solids (mg/L)	Total Phosphorus (mg/L)	Total Nitrogen (mg/L)
I-ED1 (Class III Drainage)	70	76	160	0.19	0.6
I-3 (Basin 3 Outfall)	21	66	160	0.08	0.6

HIGHWAY 267/HIGHLANDS VIEW DRIVE INTERCHANGE

A rain event on October 5, 2006, produced 0.3 inches of precipitation in a 24-hour period.

Table 1. Middle Martis Creek Monitoring Data Summary, October 5, 2006, Discharge from Middle Drain Inlet, 12:45 pm – 1:00 pm.

Monitoring Station	Turbidity (NTU)	Suspended Solids (mg/L)	Total Dissolved Solids (mg/L)	Total Phosphorus (mg/L)	Total Nitrogen (mg/L)
Point of Storm Water Runoff Discharge into Middle Martis Creek (Station 267-Mid)	900	960	140	0.31	0.58
Middle Martis Creek above the point of storm water runoff discharge (Background Sample, Station M-4)	8.4	19	130	0.14	0.38
Middle Martis Creek, Downstream from Point of Discharge (Station M-5)	17	30	120	0.17	0.45

A rain event on November 2-3, 2006, produced 1.28 inches of precipitation.

Table 2. Middle Martis Creek Monitoring Data Summary, November 2, 2006, Discharge from Middle Drain Inlet. Sampled 4:45 pm – 5:30 pm

Monitoring Station	Turbidity (NTU)	Settleable Solids (mg/L)	Total Dissolved Solids (mg/L)	Total Phosphorus (mg/L)	Total Nitrogen (mg/L)
Point of Storm Water Runoff Discharge into Middle Martis Creek (Station 267-Mid)	190	<4	200	0.32	1.23
Middle Martis Creek above the point of storm water runoff discharge (Background Sample, Station M-4)	3.8	<4	130	0.06	0.2
Middle Martis Creek, Downstream from Point of Discharge (Station M-5)	5.7	<4	140	0.07	0.2

Oil and Grease was sampled in the discharge (12 mg/L), and in the downstream sample (non detectable), but not analyzed in the upstream sample.

A rain event on January 3-4, 2007, produced 0.65 inches of precipitation. Site was not sampled due to chain control restrictions and safety considerations.

A rain event February 8-10, 2007, produced 2.52 inches of precipitation.

Table 3. Middle Martis Creek Monitoring Data Summary, February 8, 2007, Discharge from Middle Drain Inlet, 10:50 am – 11:30 am.

Monitoring Station	Turbidity (NTU)	Suspended Solids (mg/L)	Total Dissolved Solids (mg/L)	Total Phosphorus (mg/L)	Total Nitrogen (mg/L)
Point of Storm Water Runoff Discharge into Middle Martis Creek (Station 267-North culvert)	180	220	790	0.39	1.2
Middle Martis Creek above the point of storm water runoff discharge (Background Sample, Station M-4)	8.8	7	180	0.03	<0.3
Middle Martis Creek, Downstream from Point of Discharge (Station M-5)	3.7	16	160	0.03	<0.4

Table 4. Middle Martis Creek Monitoring Data Summary, February 9, 2007, Discharge from Middle Drain Inlet, 10:15 am – 12:00 pm.

Monitoring Station	Turbidity (NTU)	Suspended Solids (mg/L)	Total Dissolved Solids (mg/L)	Total Phosphorus (mg/L)	Total Nitrogen (mg/L)
Storm Water Runoff Discharge into Middle Martis Creek (Station 267-Middle Culvert)	130	260	340	0.30	0.6
Storm Water Runoff Discharge into Middle Martis Creek (Station 267-North Culvert)	290	92	220	0.80	1.3
Middle Martis Creek above the point of storm water runoff discharge (Background Sample, Station M-4)	120	92	180	0.22	0.7
Middle Martis Creek, Downstream from Point of Discharge (Station M-5)	96	95	220	0.17	0.7

Table 5. Middle Martis Creek Monitoring Data Summary, February 10, 2007, Discharge from Middle Drain Inlet, 1:15 pm – 1:55 pm.

Monitoring Station	Turbidity (NTU)	Suspended Solids (mg/L)	Total Dissolved Solids (mg/L)	Total Phosphorus (mg/L)	Total Nitrogen (mg/L)
Storm Water Runoff Discharge into Middle Martis Creek (Station 267-Middle Culvert)	28	64	350	0.10	<0.35
Storm Water Runoff Discharge into Middle Martis Creek (Station 267-North Culvert)	23	46	240	0.08	0.6
Middle Martis Creek above the point of storm water runoff discharge (Background Sample, Station M-4)	26	64	170	0.10	0.6
Middle Martis Creek, Downstream from Point of Discharge (Station M-5)	35	77	170	0.14	0.6

Table 6. Middle Martis Creek Monitoring Data Summary, February 10, 2007, Discharge from Middle Drain Inlet, 4:40 pm – 5:15 pm.

Monitoring Station	Turbidity (NTU)	Suspended Solids (mg/L)	Total Dissolved Solids (mg/L)	Total Phosphorus (mg/L)	Total Nitrogen (mg/L)
Storm Water Runoff Discharge into Middle Martis Creek (Station 267-Middle Culvert)	32	42	310	<0.02	0.4
Storm Water Runoff Discharge into Middle Martis Creek (Station 267-North Culvert)	12	26	290	0.02	0.7
Middle Martis Creek above the point of storm water runoff discharge (Background Sample, Station M-4)	33	72	190	0.14	0.7
Middle Martis Creek, Downstream from Point of Discharge (Station M-5)	24	54	180	0.11	0.6

HIGHLANDS VIEW DRIVE

A rain event on October 5, 2006, produced 0.3 inches of precipitation in a 24-hour period.

Table 1. West Martis Creek Monitoring Data Summary, Discharge from Station 104+00, October 5, 2006, Approximately 3:00 p.m.

Monitoring Station	Turbidity (NTU)	Suspended Solids (mg/L)	Total Dissolved Solids (mg/L)	Total Phosphorus (mg/L)	Total Nitrogen (mg/L)
Off site, Upstream	22.1	Not Sampled	Not Sampled	Not Sampled	Not Sampled
Onsite, Upstream from Discharge	66.9	Not Sampled	Not Sampled	Not Sampled	Not Sampled
Onsite, Downstream from Discharge	386	Not Sampled	Not Sampled	Not Sampled	Not Sampled

Table 2. West Fork West Martis Creek Monitoring Data Summary, October 5, 2006, Discharge from Station 144+00, Approximately 4:00 p.m.

Monitoring Station	Turbidity (NTU)	Suspended Solids (mg/L)	Total Dissolved Solids (mg/L)	Total Phosphorus (mg/L)	Total Nitrogen (mg/L)
Upstream from Discharge	3.64	Not Sampled	Not Sampled	Not Sampled	Not Sampled
Downstream from Discharge	3.38	Not Sampled	Not Sampled	Not Sampled	Not Sampled

A contractor hit a water line on October 10, 2006, and directed all runoff into a Drain Inlet with a direct link to West Fork West Martis Creek. 2,100 gallons was discharged.

Table 3. West Fork West Martis Creek Monitoring Data Summary, October 10, 2006, Discharge from Station 144+00, 10:05 a.m. to 10:15 a.m. Samples collected 15 minutes after the discharge was stopped.

Monitoring Station	Turbidity (NTU)	Suspended Solids (mg/L)	Total Dissolved Solids (mg/L)	Total Phosphorus (mg/L)	Total Nitrogen (mg/L)
Upstream from Discharge and Road Crossing (Station HVD4)	13	44	100	0.09	0.24
Downstream from Discharge and Road Crossing (Station HVD5)	38	67	120	0.11	0.29

A rain event on November 2-3, 2006, produced 1.28 inches of precipitation.

Table 4. West Martis Creek Monitoring Data Summary, November 2, 2006, Discharge from Station 104+00, 10:50 a.m. to 11:50 a.m.

Monitoring Station	Turbidity (NTU)	Settleable Solids (mg/L)	Total Dissolved Solids (mg/L)	Total Phosphorus (mg/L)	Total Nitrogen (mg/L)
Upstream from Discharge and Road Crossing (Station HVR2)	0.3	<4	86	0.02	0.39
Downstream from Discharge and Road Crossing (Station HVR3)	23	<4	100	<0.02	0.33

Table 5. West Fork West Martis Creek Monitoring Data Summary, November 2, 2006, Discharge from Station 144+00, 11:45 a.m. to 11:50 a.m. Samples collected 15 minutes after the discharge was stopped.

Monitoring Station	Turbidity (NTU)	Settleable Solids (mg/L)	Total Dissolved Solids (mg/L)	Total Phosphorus (mg/L)	Total Nitrogen (mg/L)
Upstream from Discharge and Road Crossing (Station HVR4)	0.5	<4	100	0.02	0.39
Downstream from Discharge and Road Crossing (Station HVR5)	38	67	120	0.11	0.29

A small rain and sampling event occurred on December 15, 2006. The monitoring results do not indicate conditions of pollution, and the results are not tabulated for the proposed ACL Complaint.

A precipitation event occurred on January 3-4, 2007, which produced approximately 0.65 inches of rain in addition to subsequent snow. West Martis Creek at Station 104+00 was not sampled, presumably because there was no flow present.

Table 6. West Fork West Martis Creek Monitoring Data Summary, January 4, 2007, Discharge from Station 144+00, 2:00 p.m. to 2:25 p.m.

Monitoring Station	Turbidity (NTU)	Suspended Solids (mg/L)	Total Dissolved Solids (mg/L)	Total Phosphorus (mg/L)	Total Nitrogen (mg/L)
Upstream from Discharge and Road Crossing (Station HVR4)	1.4	<5	100	<0.02	<0.6
Downstream from Discharge and Road Crossing (Station HVR5)	2.6	<5	110	<0.02	<0.6
Further Downstream from Discharge and Road Crossing (Station HVR6)	1.1	<5	110	<0.2	<0.6

A rain event February 8-10, 2007, produced 2.52 inches of precipitation. The Discharger reported flows only at Station 144+00 (West Fork West Martis Creek). However, a subsequent report by IERS indicates that there were flows within West Martis Creek.

Table 7. West Fork West Martis Creek Monitoring Data Summary, February 8, 2007, Discharge from Station 144+00, 8:45 a.m. to 9:15 a.m.

Monitoring Station	Turbidity (NTU)	Suspended Solids (mg/L)	Total Dissolved Solids (mg/L)	Total Phosphorus (mg/L)	Total Nitrogen (mg/L)
Upstream from Discharge and Road Crossing (Station HVR4)	0.5	<5	90	<0.02	0.3
Downstream from Discharge and Road Crossing (Station HVR5)	0.4	<5	120	0.02	0.4
Further Downstream from Discharge and Road Crossing (Station HVR6)	0.6	<5	100	<0.02	0.5

Table 8. West Fork West Martis Creek Monitoring Data Summary, February 9, 2007, Discharge from Station 144+00, 12:30 p.m. to 1:30 p.m.

Monitoring Station	Turbidity (NTU)	Suspended Solids (mg/L)	Total Dissolved Solids (mg/L)	Total Phosphorus (mg/L)	Total Nitrogen (mg/L)
Upstream from Discharge and Road Crossing (Station HVR4)	12	12	100	0.02	0.7
Downstream from Discharge and Road Crossing (Station HVR5)	24	28	120	0.05	0.8
Further Downstream from Discharge and Road Crossing (Station HVR6)	6.2	8	120	0.02	0.4

Table 9. West Fork West Martis Creek Monitoring Data Summary, February 10, 2007, Discharge from Station 144+00, 10:15 a.m. to 10:45 a.m.

Monitoring Station	Turbidity (NTU)	Suspended Solids (mg/L)	Total Dissolved Solids (mg/L)	Total Phosphorus (mg/L)	Total Nitrogen (mg/L)
Upstream from Discharge and Road Crossing (Station HVR4)	6.2	23	120	0.04	1.0
Downstream from Discharge and Road Crossing (Station HVR5)	4.7	33	100	0.04	0.6
Further Downstream from Discharge and Road Crossing (Station HVR6)	7.5	28	120	0.03	0.6

Table 10. West Fork West Martis Creek Monitoring Data Summary, February 10, 2007, Discharge from Station 144+00, 3:45 p.m. to 4:05 p.m.

Monitoring Station	Turbidity (NTU)	Suspended Solids (mg/L)	Total Dissolved Solids (mg/L)	Total Phosphorus (mg/L)	Total Nitrogen (mg/L)
Upstream from Discharge and Road Crossing (Station HVR4)	7.7	20	130	0.06	1.8
Downstream from Discharge and Road Crossing (Station HVR5)	1.1	150	120	0.17	1.6
Further Downstream from Discharge and Road Crossing (Station HVR6)	7.1	71	120	0.03	0.7

EMPLOYEE HOUSING

A rain event on October 5, 2006, produced 0.3 inches of precipitation in a 24-hour period. No sampling was conducted, presumably because there was no discharge from the storm water basins.

A rain event on November 2-3, 2006, produced 1.28 inches of precipitation. No sampling was conducted, presumably because there was no discharge from the storm water basins.

A precipitation event occurred on January 3-4, 2007, which produced approximately 0.65 inches of rain in addition to subsequent snow. No sampling was conducted, presumably because there was no discharge from the storm water basins.

A rain event February 8-10, 2007, produced 2.52 inches of precipitation. No sampling was conducted, presumably because there was no discharge from the storm water basins.

HIGHLANDS RESORT HOTEL
(RITZ CARLTON HOTEL)

A rain event on October 5, 2006, produced 0.3 inches of precipitation in a 24-hour period. No sampling was conducted, presumably because there was no discharge from the storm water basins.

A rain event on November 2-3, 2006, produced 1.28 inches of precipitation. No sampling was conducted, presumably because there was no discharge from the storm water basins.

A precipitation event occurred on January 3-4, 2007, which produced approximately 0.65 inches of rain in addition to subsequent snow. No sampling was conducted, presumably because there was no discharge from the storm water basins.

A rain event February 8-10, 2007, produced 2.52 inches of precipitation. No sampling was conducted, presumably because there was no discharge from the storm water basins.

TRAILSIDE TOWNHOMES

A rain event on October 5, 2006, produced 0.3 inches of precipitation in a 24-hour period. No sampling was conducted, presumably because there was no discharge from the storm water basins.

A rain event on November 2-3, 2006, produced 1.28 inches of precipitation. No sampling was conducted, presumably because there was no discharge from the storm water basins.

A precipitation event occurred on January 3-4, 2007, which produced approximately 0.65 inches of rain in addition to subsequent snow. No sampling was conducted, presumably because there was no discharge from the storm water basins.

A rain event February 8-10, 2007, produced 2.52 inches of precipitation. No sampling was conducted, presumably because there was no discharge from the storm water basins.

Attachment C

Supplemental Environmental Project Proposal

WADDLE RANCH/NORTHSTAR WATERSHED IMPROVEMENT PROGRAM

Proposed Supplemental Environmental Project for the Lahontan Regional Water Quality Control Board

Prepared by Michael Hogan, IERS, Inc. on behalf of
Northstar Mountain Properties, LLC
February 26, 2009 (as revised at the March 11, 2009 Hearing)

Waddle Ranch/Northstar Watershed Improvement Program

Proposed Supplemental Environmental Project

for the Lahontan Regional Water Quality Control Board

February 26, 2009 (as revised at the March 11, 2009 Hearing)

Waddle Ranch/Northstar Watershed Improvement Program

Proposed Supplemental Environmental Project
for the Lahontan Regional Water Quality Control Board

Prepared by Michael Hogan, IERS, Inc. on behalf of Northstar Mountain Properties, LLC
February 26, 2009 (as Revised at the March 11, 2009 Hearing)

Executive Summary

As part of a proposed settlement for water quality violations, Northstar Mountain Properties, LLC is submitting this Supplemental Environmental Project to improve water quality and biological resources in the Martis Valley region. The improvements will be phased over five years and will include work within the Waddle Ranch property and within the general Northstar area (hereinafter referred to as Northstar, and the project area is identified in Figure 8). These two project areas are in the same overall watershed where the violations occurred (Martis Creek Watershed; see Figure 1). The exact improvements and specific locations will be defined collaboratively by SEP Steering Committee that will include representatives from the Truckee River Watershed Council (TRWC), Truckee Donner Land Trust (TDLT), Northstar Mountain Properties, LLC (NMP), Northstar Fire Department (NFD), Integrated Environmental Restoration Services (IERS), and the Lahontan Regional Water Quality Control Board (LRWQCB). The improvements will include projects within the following three categories: road and upland restoration, stream restoration and forest fuels removal.

Targeted, real-time monitoring will be conducted at each project before and after treatments. In-stream water quality monitoring will also be conducted to measure reductions in sediment loading for the entire property. Monitoring results will help fill critical gaps in understanding the impacts of various treatments and management activities on erosion and water quality and validate a set of treatment tools. Technology transfer is also a key component of the project. Two handbooks will be produced to assist land managers and landowners within the Sierra Nevada in planning, implementing and monitoring watershed improvement and forest vegetation reduction projects.

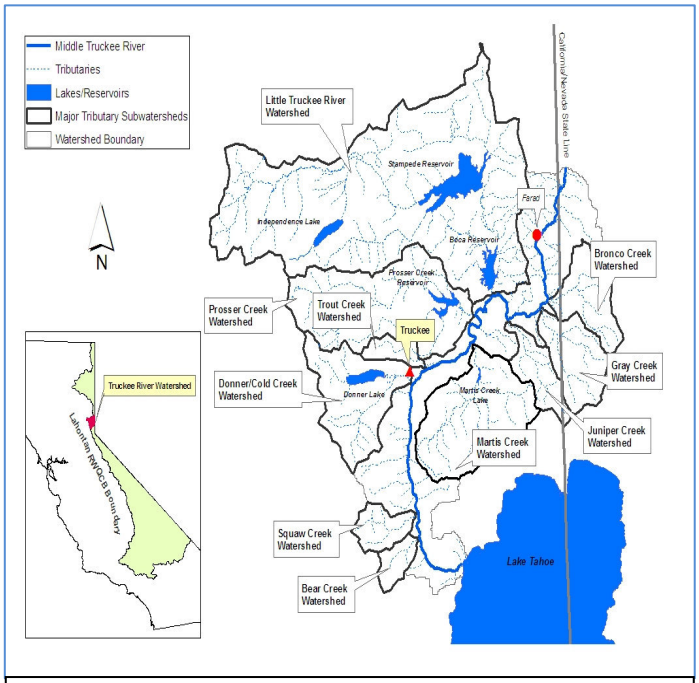


Figure 1: Middle Truckee Watershed Map (from draft Truckee River TMDL)

Part 1: Introduction and Location Maps

The Waddle Ranch/Northstar Watershed Improvement Program Supplemental Environmental Project (hereinafter referred to as the SEP project) is designed to enhance and improve watershed conditions within the Waddle Ranch property and to improve forest conditions in the Middle Fork Martis Creek area, located in and near the Martis Valley, eastern Placer County, California. Further, this project is intended to serve as a model for other watershed activities in the region. This project has been conceived as part of the settlement associated with the water quality violations incurred by contractors working for NMP at Northstar during the 2006 construction season. This SEP project will be funded by NMP as a result of those violations and is being implemented in an attempt to offset environmental impacts related to some of those violations. The SEP project is designed and managed such that overall water and environmental quality will be improved in the same watershed as Northstar, which is the Martis Creek Watershed. The locations of these improvements are the Waddle Ranch, which is owned by the Truckee Tahoe Airport District (TTAD), and on Northstar property in the Middle Fork Martis Creek Drainage (see Figure 2). The planned improvements will be demonstrated through qualitative and quantitative measurement in three key areas: 1) road and upland restoration, 2) stream restoration, and 3) forest fuels removal.

Beyond the obvious water quality and biological benefits produced by this SEP project, the project is designed to fill two significant knowledge gaps in watershed restoration and management. In an effort to close these gaps, the two following work products will be produced: 1) Watershed Evaluation, Treatment and Monitoring Handbook (Work Item #6) and 2) Forest Vegetation Treatment/Water Quality Protection Handbook (Work Item #7). The first handbook will provide land managers, land trust staff, watershed councils, agency staff and others with a direct, accessible and cost effective method of evaluating, repairing and monitoring watersheds and sub-watersheds for water quality related improvements. The second handbook will consist of a set of science-based guiding principles for different forest vegetation treatments that incorporate water quality protection and an adaptive management process for ensuring water quality is integrated with fuels treatment program development. This product will be based on the Sediment Source Control Handbook (SSCH) process (http://www.swrcb.ca.gov/lahontan/water_issues/available_documents/carec.shtml). The guiding principles and toolkit contained in the SSCH are designed to anchor a larger,

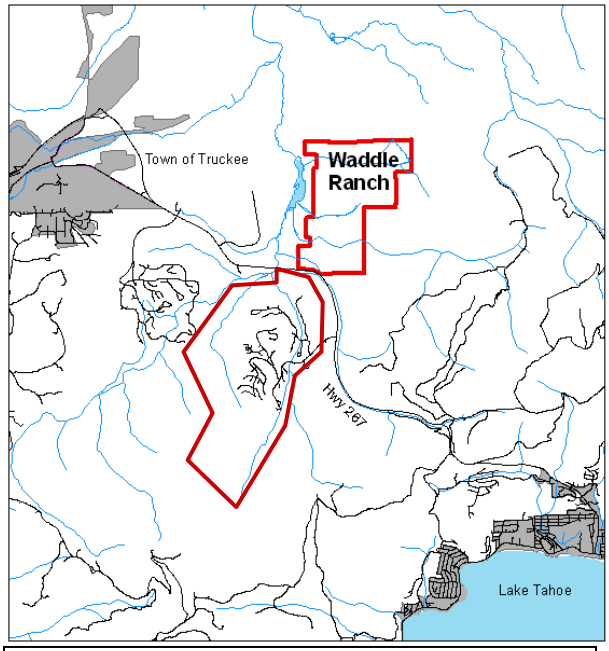
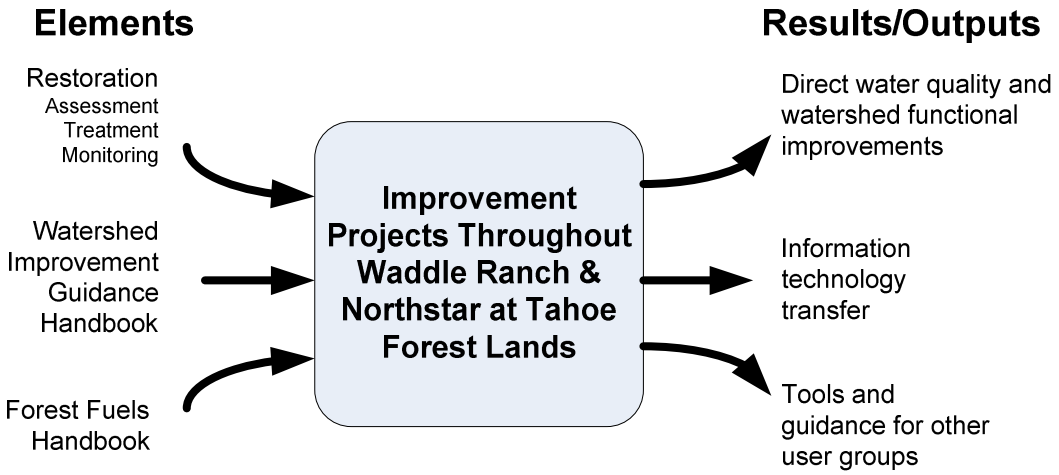


Figure 2. Locations of Waddle Ranch and Northstar

regional cooperative effort aimed at creating a balanced approach to fuels reduction work that considers erosion impacts and mitigation of those impacts. This larger effort is supported by the LRWQCB staff and a broad range of stakeholders including NFD, TRWC, the Lake Tahoe Regional Fire Chiefs Association, Tahoe Regional Planning Agency (TRPA) staff, and others.

Both of the handbooks produced by the SEP project will build on work done by IERS over the last decade. This work has incorporated true adaptive management into field projects and provides a process for quantitative assessment and continual improvement for erosion and water quality issues throughout the Sierra Nevada. IERS, the author of this document and the contractor to NMP for SEP project implementation, has created and continues to evolve collaborative, science-based products that fill critical knowledge and/or process gaps, as exhibited in the SSCH (see link, above). The SSCH has been a collaborative effort between the Lahontan LRWQCB, six California Ski Resorts, the US Forest Service, and other stakeholders.

The SEP project allocates the majority of funding to on-the-ground, direct water quality improvements (almost 80% of the budget is dedicated to this work). Without the funding provided by the SEP project, the work needed to provide these direct water quality improvements in the Martis Creek watershed would take a decade or more to complete. The SEP project funding will result in immediate improvements to the water quality and biological resources in the Martis Valley. SEP-funded improvements will take place over five years and are designed to provide the foundation for continued watershed management efforts at Waddle Ranch and Northstar.



Part 2: General Project Description

The Waddle Ranch/Northstar Watershed Improvement Program is structured as a Supplemental Environmental Project. This SEP project is designed to be implemented as a truly adaptive management project[1] in that it will integrate goal setting, engagement of appropriate partners and stakeholders, planning, implementation, monitoring, management response where necessary, and targeted information sharing. It is designed to apply a broad range of techniques, processes, and practices for road and upland restoration, stream restoration, and forest vegetation management while at the same time filling information gaps within those practices.

The task of effective watershed assessment, treatment and monitoring is often overwhelming for many land managers. This project is intended to serve as a functional, understandable, and working model for the many Land Trusts, Watershed Councils, and landowners across the Sierra Nevada.

SEP Project Elements

Waddle Ranch Watershed and Restoration Improvements

The primary focus of the proposed SEP project is restoration of impacted areas of Waddle Ranch in the Martis Valley. Waddle Ranch has been selected due to its location in the same watershed as Northstar, the similarity of types of improvements needed, and the overall value of restoration on this site to the region. Work on the Waddle Ranch is supported by significant public interest. Waddle Ranch was recently purchased by the TDLT and subsequently conveyed to TTAD with an in perpetuity conservation easement on the land. This effectively has created a great deal of permanent open space and public access land in the Martis Valley. The projects at Waddle Ranch are expected to improve water quality in the East Fork of Martis Creek, which enters Martis Reservoir just below the project area. Projects under the proposed SEP project will complement other projects such as the Martis Creek Restoration Project. The SEP project will use an adaptively managed process to set goals, plan, implement, and monitor watershed improvements and will disseminate the information gained through site tours and two distinct handbooks (described below).

The watershed improvement process will focus on water quality related to erosion and forest management. Specifically, watershed improvement will entail the Erosion-focused Rapid Assessment (EfRA) process, field verification of problem (sediment producing) areas, treatment/restoration of problem areas identified in the EfRA (such as removing or modifying eroding roads and rerouting or restoring channelized drainages), and post treatment monitoring of those areas for quantification of improvement. Monitoring will be based on strategies developed elsewhere and will include: 1) real-time and indicator measurement of several functional parameters in the treatment area, including infiltration, runoff, sediment production, and a range of soil and vegetation parameters, and 2) water quality monitoring above and below

[1] This process is described in detail in the Sediment Source Control Handbook: http://www.swrcb.ca.gov/lahontan/water_issues/available_documents/carec.shtml

project areas. The functional monitoring processes are similar to and based on those used to develop portions of the Lake Tahoe Total Maximum Daily Load (TMDL) implementation strategies. These techniques will be described in detail in the Project Assessment and Evaluation Plan (PAEP) and Monitoring Section of the SEP project. Background monitoring began in the spring of 2008 and will be continued upon approval of the SEP project.

Watershed Evaluation, Treatment, and Monitoring Handbook

This element of the SEP project involves the development and application of a systematic, cost-effective, and transferable approach to watershed evaluation, treatment, and monitoring. This document will fill a void that currently exists and will provide land managers and agencies with a user-friendly process to: 1) focus watershed assessment on erosion problem areas, 2) provide an adaptive management-based planning and implementation guidance process, and 3) provide clear direction on how and what to monitor in order to quantitatively assess impacts of watershed improvement efforts. This handbook and process is directly applicable to TMDL implementation[2] within and beyond the Martis Valley and Middle Truckee River.

Forest Vegetation Treatment/Water Quality Protection Handbook

This portion of the project will define an adaptive management approach to fuels treatment and forest management with special emphasis on water quality protection and prevention of erosion. This handbook will be based on the Sediment Source Control Handbook and will use a similar adaptive, collaborative process to define and achieve goals. Deliverables will be a set of guiding principles for forestry practices with a foundation in adaptive environmental management, a 'toolkit' for fuels reduction and forest management that quantifies the impacts and potential impacts on water quality, and a set of related mitigation procedures where applicable. This portion of the project is designed to serve as a foundation for a more robust understanding of the impacts of forest vegetation treatments currently underway or planned for the Truckee-Tahoe region. If used appropriately, this handbook will help maintain or improve water quality while allowing land managers to implement cost-effective fuels reduction treatments.

This handbook may provide a starting point for a more robust, regional Forest Vegetation and Erosion Management Handbook that can be used throughout the region. Potential funding for this larger effort has already been identified from a number of other sources and interest groups including the Nevada Fire Safe Council (John Pickett), the Truckee-Tahoe Fire Chiefs Association (Mark Shadowens, Chief, Northstar FPD, John Pang, President, Meeks Bay FPD) and other private landholders and entities. Funding has also been requested from the Sierra Nevada Conservancy to enhance this handbook (final response pending).

[2] Essentially, TMDL is the estimated amount of pollutant that can enter a water body without causing long term impairment. This regulatory tool is being used to attempt to help a number of water bodies to recover. The Middle Truckee River, into which Martis Creek flows, is now under the requirements of a TMDL.

Northstar Riparian and Forest Enhancement Project

This portion of the project will address overstocked and decadent riparian corridors and adjacent forest areas in an effort to reduce fire danger and enhance riparian habitat values in the Northstar area. This work will help reduce the potential for catastrophic wildfire and associated erosion associated with major loss of vegetation and soil cover. This project will serve as a foundation for monitoring for the Forest Vegetation Treatment/Water Quality Protection Handbook. None of this work will be done on property owned by NMP. This work will be managed by the NFD in coordination with IERS. Work will consist of hand thinning and then fuels chipping or burning. Small-scale mastication test plots over an area of 86 acres might also occur. This work will help fill important information gaps regarding fuels treatment impacts on soil conditions and will reduce life and habitat-threatening wildfire potential.

Nexus Discussion

Nexus to Violations

During the summer and fall of 2006, a number of technical violations were noted and notices of violation issued by LRWQCB staff on NMP projects within the Northstar area. During November of 2006, turbid discharges related to technical violations were noted and a Clean Up and Abatement Order was issued by the LRWQCB. The extent of discharge and impacts to water bodies is difficult to ascertain but it is clear that turbid water entered Martis Creek. The vast majority of violations prior to November were technical in nature. This SEP project is designed to offset impacts to beneficial uses through 1) direct improvement to the Martis Creek watershed and 2) development of two handbooks that will assist other developers and land managers in understanding the technical nature of erosion potential and to implement watershed protection and improvements projects.

IERS and NMP developed and produced a SWPPP Handbook in 2007 that went "above and beyond" water quality BMP requirements. This handbook was developed in direct response to a lack of clear understanding by contractors and contract managers of the requirements and implications of water quality regulations. This lack of understanding has been noted across the construction industry. While the SWPPP Handbook is not part of this SEP project, it served to offset the lack of understanding by construction personnel at Northstar in 2006 and demonstrates NMP's desire to improve the effectiveness of their water quality protection efforts. The SWPPP Handbook is available and has been distributed by LRWQCB staff to other dischargers in the Lahontan region. The SWPPP Handbook serves as an example of the two handbooks that are proposed as part of this SEP project. The impetus of these handbooks is to translate experience gained in achieving watershed protection and improvement into information widely available and useable by others.

Further nexus to violations are shown through reduction of catastrophic wildfire potential in the Northstar at Tahoe property through reduction of potential for sediment deliver to Martis Creek. Catastrophic wildfire is known to create site

conditions that result in a great deal of sediment delivery to nearby waterways. The middle fork of Martis Creek is surrounded by an overstocked forest which is a prime candidate for a wildfire, especially given the density of population and visitation in the region. This portion of the project will result in a probabilistic reduction in sediment yield. It is not a matter of whether a fire will impact this area but when. Further goals of the Northstar portion of this SEP include upland and riparian thinning for habitat values. 2006 violations included impacts to Martis Creek which likely impacted local riparian habitat, particularly near Highlands View Drive Station 144 bridge. In the Northstar portion of this project, habitat will be restored and enhanced in order to offset the impacts on 2006.

Nexus to other Regional Projects

The Waddle Ranch/Martis Creek Watershed Improvement Program is designed to be complementary to other projects in the Martis-Truckee region. For example, the TRWC has received funding ($150,000) under Prop 50 IRWMP Implementation (as part of the Northern Sierra Partnership) for Truckee River TMDL monitoring. These efforts will be coordinated with the Waddle Ranch Watershed and Restoration Improvements through the TRWC.
Forest vegetation management efforts are increasing in intensity throughout the Lahontan Region. Preparation of the Forest Vegetation Treatment/Water Quality Protection Handbook entails the development of a Forestry Technical Group that will serve to coordinate this and other efforts beyond the Martis Valley. This handbook will include a set of guiding principles that can be used across the Truckee-Tahoe region as guidance for fuels reduction efforts that will focus on erosion protection.

The Middle Truckee River TMDL will include implementation of treatments to reduce sediment loading. TMDL implementation has been problematic in cases where clear guidance as to approach, goal setting, implementation and monitoring is not available. The Watershed Evaluation, Treatment, and Monitoring Handbook will provide this guidance.

Placer County and the Town of Truckee are in the process of developing Stormwater Management Plans. While Waddle Ranch is not an urbanized watershed, many of the assessment issues are similar. Further, source control approaches can be very similar between the two types of landscapes. This SEP project program will be coordinated with those efforts through the TRWC. Further, water quality monitoring efforts on the Middle Truckee River will be coordinated to the greatest extent possible with this SEP project, also through the TRWC.

Partners, Committees and Advisory Groups

All efforts within this SEP project will be coordinated with TRWC (who assisted in developing this description document and are primary collaborators), Lahontan Water Board, TDLT, TTAD, and other stakeholders as appropriate. A SEP Steering Committee will be formed to guide the entire SEP project. Additionally there will be

two separate technical advisory groups for the Watershed Evaluation, Treatment, and Monitoring Handbook and the Forest Vegetation Treatment/Water Quality Protection Handbook elements of the SEP project. The proposed membership and status of each committee/group is listed in the table below. Potential member groups will be officially invited to participate once the SEP project has been approved by the Lahontan Water Board. The membership of the SEP Steering Committee and the two technical groups will likely need to change from time to time. Such changes will be made through a nomination and consensus or 2/3rds vote agreement process and then with the approval of the Lahontan Water Board Executive Officer. It is intended that the SEP Steering Committee, Watershed Technical Group, and Forestry Technical Group will include the following members:

Committee/Group Name	Membership	Member Status
SEP Steering Committee	Lisa Wallace, TRWC Hayes Parzybok, NMP LRWQCB Staff (TBD), LRWQCB Perry Norris, TDLT Phred Stoner, TTAD Michael Hogan, IERS Dr. Susan Clark, Dynamic Competence (Facilitator-group development)	Voting, Paid Voting, Unpaid Voting, Unpaid Voting, Paid Voting, Unpaid Non-Voting, Paid Non-Voting, Paid
Watershed Technical Group	TRWC staff LRWQCB Staff (TBD), LRWQCB Dr. John Stanley Dr. Vic Claassen, UC Davis Cadie Olsen Randy Westmoreland, USFS Michael Hogan, IERS Dr. Susan Clark, Dynamic Competence (Facilitator-group development)	Paid member Unpaid member Paid member Paid member Paid member Unpaid member Paid member Paid member
Forestry Technical Group	Mary Huggins, CALFIRE Martin Goldberg, Lake Valley Fire Joe Barron, NFD Jeff Brown, Sagehen Research Station Scientific Representative (to be determined) Michael Hogan, IERS Dr. Susan Clark, Dynamic Competence (Facilitator-group development) LRWQCB Staff (TBD), LRWQCB	Unpaid member Unpaid member Unpaid member Unpaid member Paid status to be determined Paid member Paid member Unpaid member

SEP Steering Committee Process

The SEP Steering Committee will consider and decide on major issues regarding the SEP project. Major issues include setting direction to the overall activities and tasks in the SEP project; specific construction projects; budget or task changes; and public relations items such as trainings, field work, etc. IERS will present suggestions for various project elements to the SEP Steering Committee including construction project extent, location, and specific constructability elements. IERS will present the process of how and why various projects are put forward to the SEP Steering Committee. Construction project suggestions will be based directly on the watershed assessment and prioritization. The SEP Steering Committee will be tasked with assuring that the intent of each task in this SEP is carried out in a transparent, responsible, and cost-effective manner. The SEP Steering Committee will always attempt to reach consensus but if that is not possible, a 2/3rd majority vote will be required for action to be taken. At least 60% of the Steering Committee (quorum) must vote on an issue for it to carry. One major caveat to this process is that the TTAD has full veto power over any decision that may affect their management responsibility or direction. Further, TDLT has full veto power over any action or activity that may affect their responsibility as the Conservation Easement holder or that may impact their activities on the property.

Technical Advisory Group Process

The two Technical Advisory Groups will function as technical advisors and will not be responsible for making management decisions. However, their advice and suggestions will be brought forward to the SEP Steering Committee. The purpose of the Technical Advisory Groups is to offer the highest level of technical input in order to produce technical documents and implement processes with the highest level of technical competence possible. Technical input will be tracked and made available to the SEP Steering Committee so that suggestions put forward can be understood and supported technically.

These core members within each group will collaborate with other team members as needed to keep all programs and processes in alignment and as agreed to by group members during group role identification and development.

Part 3: Work Plan

Description of Key Tasks and Work Items

Work Item 1: Project Initiation

This work item will begin actual coordination of the SEP project with the appropriate parties.

1.1 SEP Steering Committee Development and Facilitation

A SEP Steering Committee will be formed and will offer input into the entire SEP project. In this process, we will clarify and agree on project goals and discuss steps needed to achieve those goals. The SEP Steering Committee will be a small working committee that will also develop a strategy for keeping appropriate groups and individuals (stakeholders) connected to and apprised of the project.

1.2 SEP Steering Committee Meetings

We intend to hold three meetings per year for the life of this SEP project unless the SEP Steering Committee determines that we need either less or more meetings.

1.3 SEP Steering Committee Coordination

This work item encompasses coordination of the SEP Steering Committee between actual meetings and will entail such tasks as phone, email and web updates, coordination of committee activities, concerns and discussions between meetings.

1.4 Review and Integration of Pertinent Martis Valley Projects

There are a number of planned and ongoing projects in the Martis Valley that may impact and/or be impacted by this project. This work item will include tracking and coordinating with those projects. Projects may include the Middle Truckee TMDL efforts, the Martis Valley and Middle Truckee Cumulative Water Quality efforts, other Waddle Ranch efforts (CA Resources Agency grant work, TRWC early TMDL implementation work, the Sierra Business Council (SBC)/IERS SSCH and ongoing TTAD/TDLT Waddle Ranch management work). These related efforts will be accounted for within our planning and implementation efforts to the greatest degree possible in an effort to eliminate redundancy and maximize efficiency. All work at Waddle Ranch and at Northstar will be done in full coordination with the landowners and will, in fact, be directed by those landowners within the context of the SEP project on any land management decisions, projects, or plans.

Work Item 2: Project Administration

2.1 Quarterly Progress Reports

IERS will produce quarterly progress reports and submit them to SBC by April 15, July 15, October 15, and January 15 for the duration of the SEP project. The quarterly report will include all activities undertaken and/or completed, cost tracking, minutes of meetings and other pertinent information for the previous quarter. SBC will, by April 30, July 31, October 31, and January 31 for the duration of the SEP project, review the quarterly report and submit it to the Lahontan Water Board.. Format of this report will be agreed to in advance by IERS, SBC, and the Lahontan Water Board staff so that it will contain necessary information in a format that is understandable, transparent, and acceptable to all parties. The following table lists the items that will be produced, who will complete them, and who will review them.

Task to be Completed	Responsible Party for Completion	Review Responsibility
Quarterly Tasks		
Description of all activities undertaken within the quarter, including draft products and photographs if necessary.	IERS	SBC
Invoice amounts for each task, summary of invoices to date, and percent complete of each task.	IERS	SBC
Minutes of pubic or advisory meeting.	IERS	SBC
Other pertinent information, which could include: --Correspondence --Specific direction provided by Steering Committee. --Permits --Other documents --Budget Modifications	IERS	SBC
Additional Items to be Reviewed		
PAEP	IERS	1. SEP Steering Committee (SSC) 2. SBC
Monitoring Plan	IERS	1. SSC 2. SBC
QAPP	IERS	1. SSC 2. SBC
Annual QAPP Report	IERS	1. SSC 2. SBC
Draft and Final SEP Project Report	IERS	1. SSC 2. SBC
Draft and Final of Watershed Evaluation, Treatment, and Monitoring Handbook	IERS	1. WTG 2. SSC 3. SBC
Monitoring Reports	IERS	1. SSC 2. SBC
Draft and Final Forest Vegetation Treatment/Water Quality Protection Handbook	IERS	1. FTG 2. SSC 3. SBC

2.2 Draft SEP Project Report

IERS will prepare a draft project report that will describe the work completed under this SEP project. The project report will include an introduction section, objectives of the SEP project, and a discussion of the relationship between this project to other related regional efforts and accomplishments both directly and indirectly related to the tasks and lessons learned from this project. The project report will also include the

task list and a brief description of task completion. This task includes submittal of the draft project report to the TDLT, SBC, NMP, TRWC, and LRWQCB staff for review and comment.

2.3 Final SEP Project Report

IERS will prepare and submit a final report within 60 days of receipt of the comments from the reviewers to SBC. The final report will include an appendix containing all comments received from the reviewers, and responses to those comments.

2.4 Project Coordination

This work item entails general coordination of each project element, coordination between project elements, and coordination between this SEP project and other partner groups. IERS and NMP recognize that coordination and high level communication will be critical to the success of the various elements of this project and thus this general task has been included to support that communication and coordination.

Specific tasks and actions that may be covered by this work item include coordination meetings, phone, internet and in-person meetings, and communication between partner groups as well as outside entities interested in assisting with this project. Since this project consists of three integrated but individual elements (as described in Part 1) that will likely play a role in other related projects in the Martis-Truckee-Tahoe region, adequate coordination will be crucial. A specific work item to cover requests for information sharing and presentations outside of Waddle Ranch-specific outreach and tours is not included.

2.5 Direct Overhead

Direct overhead will cover production of copies, travel expenses, and expenses related to direct project tracking.

Work Item 3: Project Assessment and Evaluation Plan (PAEP) and Quality Assurance Project Plan (QAPP)

3.1 PAEP Document

Prepare PAEP document per guidance on the State Water Board's website (http://www.waterboards.ca.gov/funding/paep_training.html) as the foundation for evaluating project performance, goal setting, indicators, and assessment.

3.1.1 Northstar PAEP & QAPP Integration

This item is included in order to integrate the Northstar Riparian and Forest Enhancement Project activities into the overall PAEP and QAPP.

3.2 PAEP Oversight and Documentation

Ensure coordination between activities and PAEP document, perform annual review and report of PAEP document and submit as part of quarterly report each March for previous year.

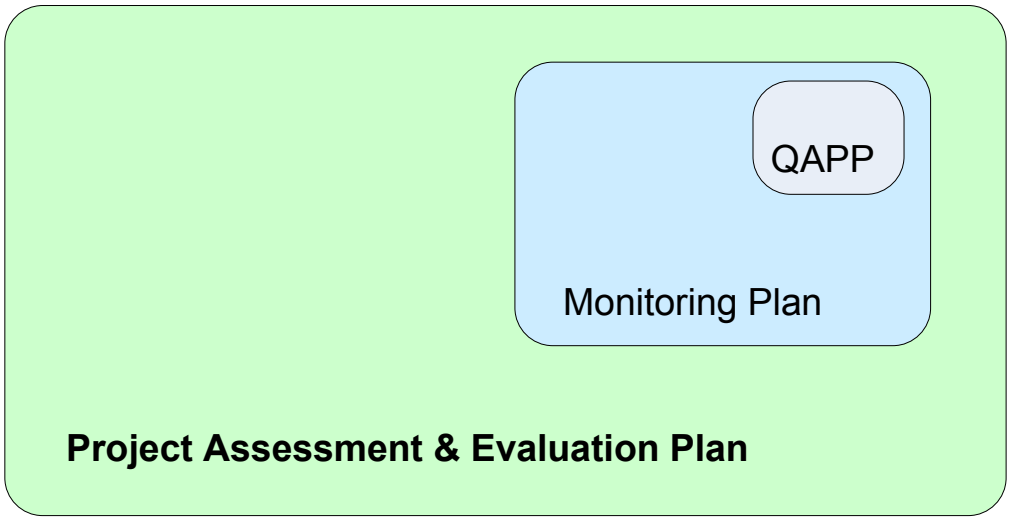


Figure 4: graphic representation of PAEP and its relationship to Monitoring Plan and QAPP per Water Board Guidance presentation.

3.3 Monitoring Plan

A table (PAEP Table) will be prepared that summarizes all project goals, desired outcomes, output indicators, outcome indicators, measurement tools and methods, and targets. A monitoring plan will be prepared that will describe in detail the specific techniques and methods used to assess project outcome against project goals. Baseline and performance monitoring will focus primarily on real-time, direct measurements of sediment source control effectiveness that have been developed by IERS, UC Davis, and others[3]. The methods are descried below:

1. Simulated rainfall and runoff monitoring – simulators are used to induce either rainfall or runoff (overland flow) depending on site conditions. By simulating hydrologic events, we can directly measure runoff and infiltration rates and sediment yields (i.e. erosion) from treatment and reference areas.

2. Soil and vegetation monitoring – this package of monitoring measurements includes upland erosion parameters such as surface cover, vegetation species composition, soil moisture, soil density, soil physical characterization, soil nutrient content, and photo monitoring. These soil and vegetation measurements are a critical complement to the rainfall and runoff simulations described above, as they provide valuable information about the ecological sustainability of plant-soil systems, their ability to resist erosive forces, and their resilience following disturbance.

[3] Grismer, M.E., C. Schnurrenberger, R. Arst and M.P. Hogan. 2008. Integrated Monitoring and Assessment of Soil Restoration Treatments in the Lake Tahoe Basin. Environ. Monitoring & Assessment. In-press.

The above-described monitoring methods were also used to develop the data for the Forested Upland section of the Lake Tahoe Basin TMDL Pollutant Reduction Opportunities Report.

Water quality monitoring stations will also be established along East Martis Creek above and below selected project locations. Grab samples will be collected at these stations at regular intervals. Collected water samples will be sent to a lab and analyzed for some or all of the following constituents, depending on season, stream flow, and previous monitoring results: total suspended sediment (TSS), particle-size distribution (PSD), total Kjeldahl nitrogen (TKN), total nitrate + nitrite, and total phosphorus (TP). Water quality sampling will allow us to assess the effects of various improvement projects on cumulative pollutant loading in the watershed.

The budget for preparing the Monitoring Plan is based on previous experience preparing defensible Monitoring Plans for other large-scale watershed restoration and monitoring projects in the Lahontan Region.

3.4 QAPP Preparation

Prepare QAPP as described on the State Water Board's website (http://www.waterboards.ca.gov/swamp/qapp.html) as adapted to this project.

Work Item 4: Waddle Ranch Restoration

4.1 Site/Watershed Evaluation (Erosion-focused Rapid Assessment or EfRA)

The site/watershed evaluation will be developed in order to rapidly assess actual and potential sediment source areas and other areas of degradation as they relate to water quality. Description of the purpose and general explanation of the site/watershed evaluation can be found in Work Item 5, below.

4.2 Environmental/Permitting Research, Background and Documentation

IERS will research and produce information necessary to determine which permits are needed for specific projects. IERS will also produce documentation and information required to obtain grading and ground disturbance permits as required.

4.3 Treatment Sites Identification

Use evaluation process to develop a prioritized list of projects based on parameters developed by the SEP Steering Committee and as agreed to by the TTAD Board representative.

Identify potential projects to be completed over the lifetime of the SEP project with estimated costs for each project.

Develop a working list of projects during grading prohibition period (October 15 through May 1) for the following construction season. The last year of the project, a list of recommended future projects for ongoing work at Waddle Ranch will be produced (to be undertaken after this SEP project is finalized).

4.4 Permitting Acquisition Assistance

IERS will work with and assist the Waddle Ranch owner (TTAD) to obtain permits as needed. This task item may also provide permit application funding to be used in conjunction with Landowner (TTAD) funding. Permit fees will be shared between this SEP funding source and the landowner at the direction of the SEP Steering Committee.

4.5 Treatment Specifications

Develop treatment specifications for each restoration and treatment element of the SEP project and include those specifications in the year end and final Project Reports. Specifications will include methods, materials, success criteria, and monitoring to link success criteria to project goals.

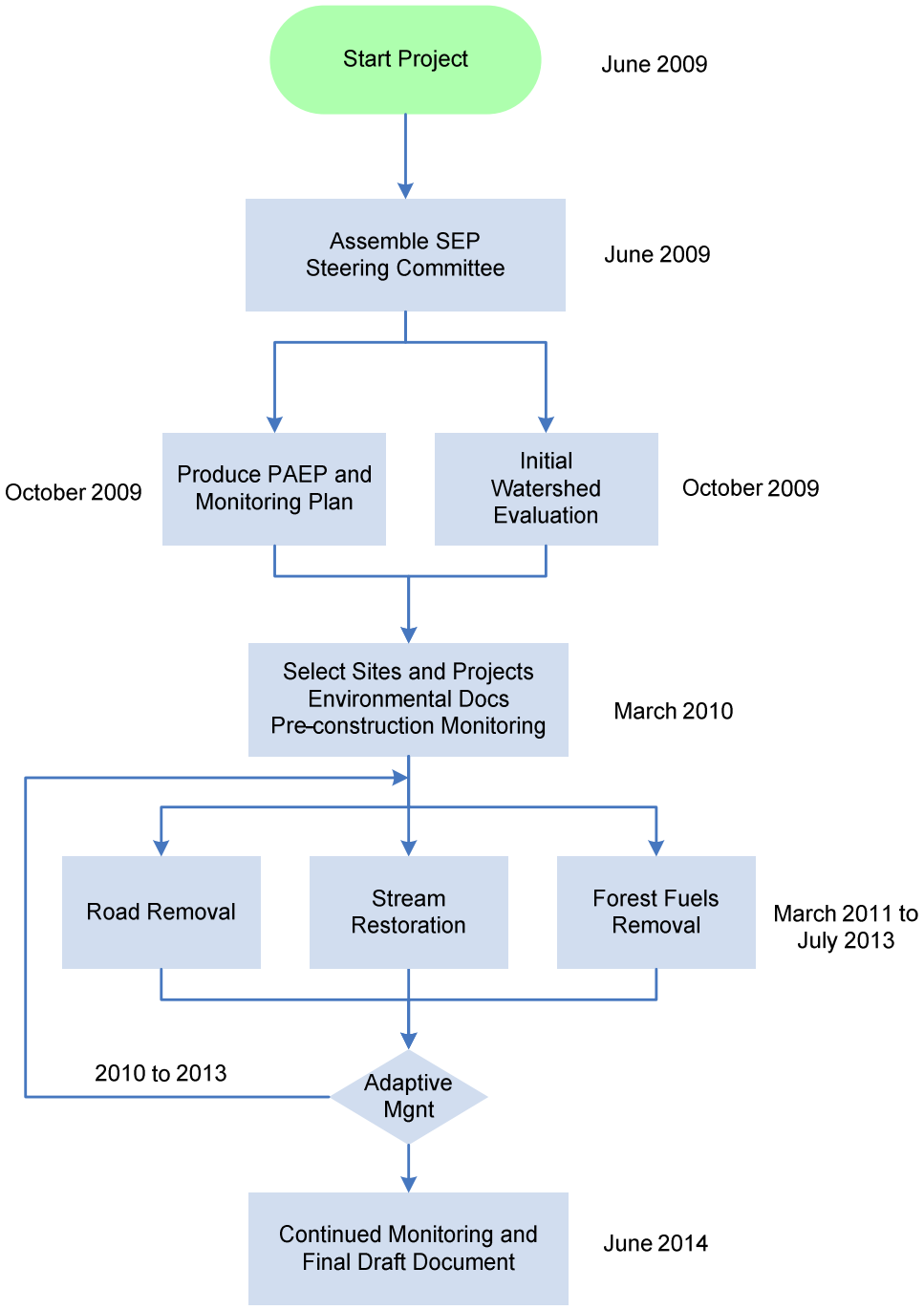
4.6 Pre-Treatment Site Condition Monitoring

Conduct functional, soil-vegetation-based monitoring including simulated rainfall or runoff monitoring, soil nutrient evaluation, cover point monitoring, and others as appropriate in order to assess the pre-treatment condition of treatment sites and to determine level of treatment required to achieve self-sustaining site conditions. This monitoring is focused on site conditions in order to assess potential for sediment delivery and site sustainability.

4.7 Water Quality Monitoring

Establish water quality grab sampling stations at three locations along East Martis Creek to characterize water quality conditions above and below project sites, evaluate the effects of treatments, and measure cumulative watershed sediment yield. Conduct regular and storm event grab sampling at grab sampling stations using trained staff throughout duration of project as defined in the Monitoring Plan. Sampling frequency will increase during spring runoff periods in order to characterize adequately sediment load during peak stream flow. Send collected water samples to lab for analysis as defined in the QAPP. The focus of water quality monitoring activities for this project is on sediment load. The intent is not to perform full parameter water quality monitoring as described in the Basin Plan or other related documents.

Figure 5
Northstar Mountain Properties
Supplemental Environmental Project



Waddle Ranch Restoration

4.8 Road Removal

Remove and/or repair selected roads in the Waddle Ranch that have been identified as sediment source areas. Roads have been shown to be the primary source of sediment in most disturbed watersheds such as Waddle Ranch. IERS has performed extensive road removal throughout the Truckee-Tahoe region and will base efforts on that work. Actual amount of square footage will be determined by the type of treatment required and difficulty of treatment sites. Product will be a slope or area re-contoured to original shape as much as possible or in the case of road repair, a road surface that has been designed per BMPs to result in minimum sediment production. Road removal work will be based upon other road restoration work designed and implemented by IERS, including the Ponderosa Ranch projects (2005-06), various USFS-funded projects (2002-2006) and Homewood Mountain Resort projects (ongoing).

4.9 Stream/Wetland Restoration

Restore stream and/or wetlands on Waddle Ranch property where needed and as identified in the watershed evaluation (EfRA, see Work Item 5). It is not possible to describe areas or acreage needing treatment prior to implementing evaluation and prioritization. However, initial site evaluation, discussion with the TDLT and Don Triplat, who produced the initial Forest Management Plan for the TDLT, indicate that several candidate areas exist that are in need of restoration. Exact amount of area treated will depend on difficulty of site, site conditions, prioritization process, etc. Treatments will be based on riparian/stream restoration and wetland restoration designed and/or implemented by IERS, including projects in the Tahoe Basin and three projects in the Martis Valley watershed (West Martis Stream Restoration and Golf Course TH-2 Wetlands Restoration).

4.10 Forest Vegetation Demonstration Treatments

Waddle Ranch forest vegetation demonstration treatments will be in collaboration with the Northstar Forest Enhancement portion of this SEP project. This work will be aligned with the Forest Vegetation Treatment/Water Quality Protection Handbook program (Work Item 6).

4.11 Post-Treatment Monitoring (per PAEP)

Conduct post-treatment effectiveness (performance) monitoring of restoration actions at Waddle Ranch using the same monitoring methodologies used in pre-treatment monitoring in order to ascertain relative change in soil function (potential for erosion) and vegetation on those sites. This information and data will be used in the PAEP reporting to determine success of treatments. Monitoring data will be compared to success criteria in order to provide a quantitative measure of success. The specific treatment and monitoring areas have not yet been determined.

4.12 Site Tours-Education and Technology Transfer

Provide six technology transfers site tours ($3,000 for each tour). Tours will focus on restoration processes and efforts (2 tours), monitoring methodologies and results (2 tours) and the results of the watershed analysis (2 tours). There will be four workshops ($5,000 for each workshop). The first workshop will be held twice and

will introduce and provide training in the monitoring methods developed. This workshop will allow local citizens and/or students to continue the monitoring program after the SEP project is completed. The third and fourth workshops will be held to introduce and provide training in the two handbooks developed under the SEP project (Watershed Evaluation, Treatment, and Monitoring Handbook program and the Forest Vegetation Treatment/Water Quality Protection Handbook). Tours and workshops will be developed with local non-profit groups to leverage knowledge and expertise.

4.13 Public Outreach Program and Materials

Develop and produce outreach and technology transfer materials (such as pamphlets, handouts, or newsletters) for self-guided tours and other outreach needs as identified by the SEP Steering Committee. Materials will include general information on Waddle Ranch ecology, values, and related site restoration activities. Two public interpretive signs will be developed and installed at Waddle Ranch to explain the resource values at Waddle Ranch and how visitors can protect those values.

Work Item 5: Watershed Evaluation, Treatment, and Monitoring Handbook

Currently, a large number of watershed assessment documents exist, such as EPA's Handbook for Developing Watershed Plans to Restore and Protect Our Waters[4] and The California Watershed Assessment Guide and Manual[5]. These guides are prepared for watershed groups and agencies and are extremely useful. However, for land managers that are tasked with implementing erosion reduction practices on the ground with limited resources, these assessments can be extremely cumbersome or financially impractical. The **Watershed Evaluation, Treatment, and Monitoring Handbook** (Work Item 5), will provide a tactical, erosion-focused approach to watershed assessment and treatment. This assessment approach, referred to as "Erosion-focused Rapid Assessment" or EfRA, is designed to provide watershed and land managers with a direct, accessible, user-friendly, and cost-effective method to identify erosion source areas. That information will feed directly into plans and implementation of repair and restoration efforts.

The watershed evaluation itself starts with gathering applicable spatial data for Waddle Ranch and developing a Geographic Information System (GIS) map of the watershed showing pertinent elements such as roads, water courses, soils, vegetation and disturbed areas. Spatial analysis in GIS is then used to identify potential erosion "hot spots" such as road-stream crossings and areas devoid of vegetation. This map is then used as the basis for focused field investigations. During field verification of potential erosion issues, sediment sources are identified and mapped in greater detail. Site-specific plans for restoring each erosion source area are then developed within the context of that particular drainage. Projects are prioritized by severity and relationship to other sediment issues in

[4] EPA 841-B-05-005, October 2005. United States Environmental Protection Agency, Office of Water, Nonpoint Source Control Branch, Washington, DC 20460

[5] Shilling, Sommarstom, Kattleman, Wahsburn, Florshiem and Helnly, 2005. California Resources Agency and the California Bay Delta Authority

their respective drainages. Actual field projects and priorities are then developed for the watershed as a whole.

The need for this type of rapid and directed watershed assessment has been identified over several seasons through working with land managers, agency personnel, and other responsible parties. It has become clear that land managers often do not have a background in watershed, erosion, or soil processes. This constraint often limits effective planning, implementation, and oversight. As TMDL programs are implemented, clear and cost-effective assessment, implementation, and monitoring procedures will be critical to achieving the desired results of those programs. This **Watershed Evaluation, Treatment, and Monitoring Handbook** is designed to fill the need for such a process and procedure.

5.1 Watershed Technical Group Development and Meetings

A Watershed Technical Group (WTG) will be developed to guide this portion of the project. Invited WTG members (outlined in the Partners, Committees and Advisory Groups section above) have been chosen based on their involvement in watershed management issues and their understanding of the use and need for such a handbook. This group will be tasked with providing input and information into the process, and developing connections with watershed groups and other entities that need guidance in implementing and monitoring watershed improvement efforts.

5.1.1 Watershed Technical Group Review

Review and input to Watershed Evaluation, Treatment, and Monitoring Handbook by the WTG during development of the document.

5.2 Literature Summary

Conduct a focused review of relevant watershed assessment literature and methodologies and prepare a literature summary and bibliography. The purpose of conducting this literature review is to ensure that the watershed assessment methods used at Waddle Ranch build on the most current and effective approaches being employed in similar settings. Additionally, the literature summary will focus on identifying information gaps that may be able to be addressed in the Watershed Evaluation, Treatment, and Monitoring Handbook. Watershed assessment literature to be reviewed will include manuals and reports from the EPA, SWRCB, Resource Conservation Districts, and watershed groups throughout California and the West. The bibliography will be prepared in EndNote format. The draft literature summary and bibliography will be presented to the WTG for review before being finalized. This will be coordinated with other entities engaged in similar efforts (e.g. TERC/USFS-PSW) in order to avoid duplication of efforts.

5.3 Document Outline

Prepare a complete outline for the Watershed Evaluation, Treatment, and Monitoring Handbook that encompasses the elements put forth by the WTG.

5.4 Draft Document

Prepare and produce a draft document for review by the WTG and other technical reviewers as identified by the WTG.

5.5 Interim/Working Document

Prepare interim working document based on input from the WTG and other reviewers. This document will provide the basis of further work and will be used as a working field document for continued work at Waddle Ranch during the life of this SEP project. It may also be made available to other interested parties upon review and agreement by the SEP Steering Committee.

5.6 Document Iteration

Iterate and update document periodically, based on input from users and WTG.

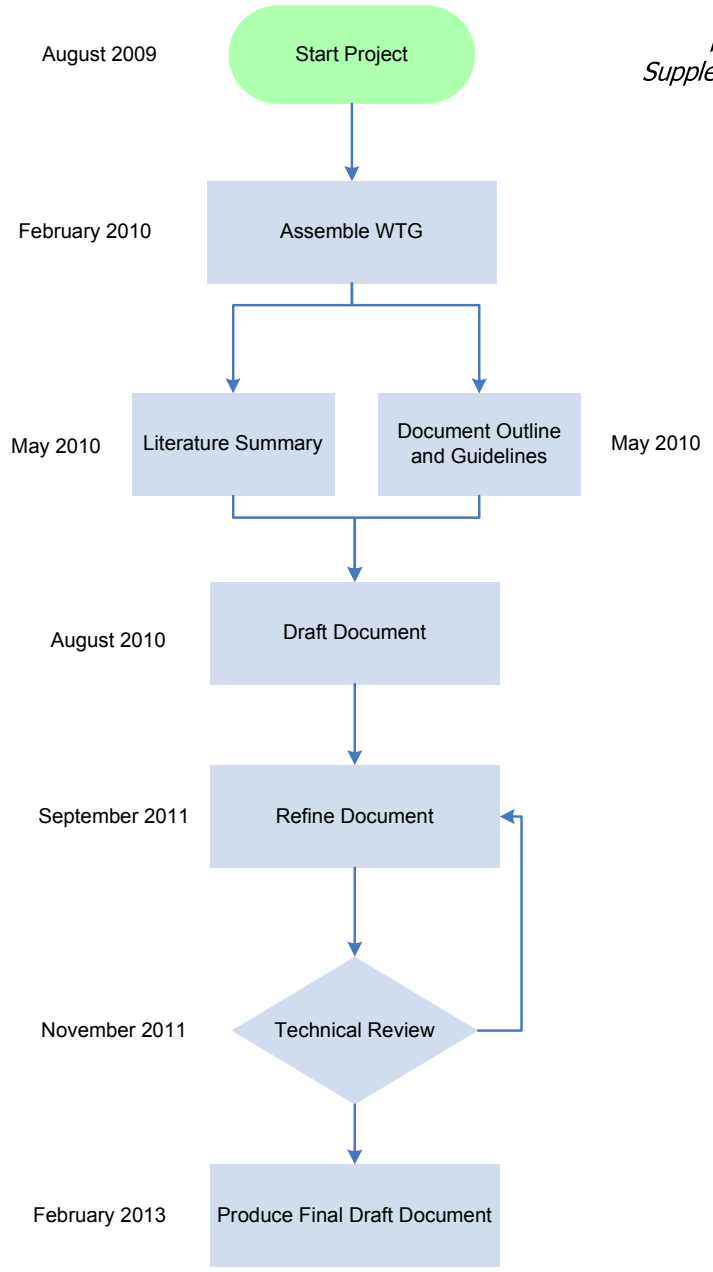
5.7 Final Document

Produce final document based on input from WTG and other users and technical input over the life of the document. Request for final input will be made to reviewers and users. Input will be incorporated when received within 30 days from time of request. Final draft will be produced within 60 days of receipt of input or no later than 90 days from request for input.

5.8 Document Layout and Printing

Professional layout of document, production of electronic copy (PDF file) and printing costs for 10 hard copies of the document will be completed. Other funding will be sought for additional printing as needed.

Figure 6
Northstar Mountain Properties
Supplemental Environmental Project



Watershed Evaluation, Treatment and Monitoring Handbook

Work Item 6: Forest Vegetation Treatment/Water Quality Protection Handbook

This portion of the SEP project is designed to fill a critical gap in knowledge and process related to forest vegetation treatments and their impacts on water quality. This program is designed to build a bridge between forest vegetation treatment and the protection of water quality during and following those treatments. Lahontan Water Board and fire agency staffs have been vocal supporters of developing such a program, based on the SSCH. The handbook produced from this work item will provide land managers/ potential dischargers with much-needed guidance to help them plan, implement and monitor their fuels treatment projects. The overall program, which will eventually extend beyond the Waddle Ranch and Martis Valley, is intended to produce a set of tools that land managers can use for fuels treatment that offers a quantifiable erosion-related outcome and where needed, mitigation treatments that will minimize or eliminate impacts to water quality. The tools, or toolkit, portion of the handbook provide in-depth technical information designed to complement the over-arching guiding principles that will be documented in the handbook.

6.1 Forestry Technical Group Formation

Form a Forestry Technical Group (FTG) comprised of representatives of the following entities: LRWQCB, California Department of Forestry, Tahoe Fire Chiefs Association, NFD, a scientific community representative, and a citizen representative. Specific invitees are outlined in the Partners and Committees section above. (Note: this group is separate from both the overall SEP Steering Committee and the WTG.) This group will be tasked with ensuring that the project is focused on identified needs and that effective communication occurs with appropriate groups and individual stakeholders in order to maximize information sharing and technology transfer. Further, this group will work to make sure that this program is aligned with other existing forestry and fuels management programs and efforts in the region. Formation of this group includes the development of key agreements that identify the goals and outcomes of this effort (charter) through a facilitated process. This group will also advise the treatments by the Northstar Community Services District (NCSD) in Work Item 7.

6.2 Forestry Technical Group Meetings

Convene FTG meetings twice per year through the term of the SEP project.

6.3 Literature Summary

Conduct a focused review of literature that pertains to assessing and mitigating the impacts of fuels treatments on soil and water quality and prepare a literature summary and bibliography. The purpose of conducting this literature review is to identify promising treatment methodologies as well as information gaps. This literature summary will serve as the primary basis for selecting specific fuels treatments and mitigation measures to be tested at Waddle Ranch and/or Northstar. The literature summary will also be used to define the scope and content of the Forest Vegetation Treatment/Water Quality Protection Handbook. The draft literature summary and bibliography will be presented to the FTG for review before being finalized. Other related literature review efforts currently underway will be incorporated or included

wherever possible. IERS has been coordinating with the USFS Pacific Southwest Research Station, the UC Davis Cooperative Extension and the Tahoe Science Consortium on several recent and current literature reviews. Literature will continue to be incorporated until year three of the project or further if budget allows and as directed by the FTG. The bibliography will be prepared in EndNote format. The literature summary will be produced in hard copy and as a CD-ROM. It will also be made available as a web posting on either the TRPA TIIMS website, the LRWQCB site, and/or a number of other fire-related sites as directed by the technical group and as budget allows.

6.4 Develop Draft Handbook Outline and Guiding Principles

Develop a draft Handbook outline and guiding principles for the final document based on input from the FTG.

6.5 Identify Treatment Options

Based on literature review and coordination with management agencies, develop a list of all potential treatment options that may be used on Waddle Ranch and Northstar. Create a priority treatment list in conjunction with the FTG. The types of treatments chosen will be based on those treatments that represent the most promise from a cost-effectiveness standpoint and the largest knowledge gap relative to impacts on water-quality/sediment production.

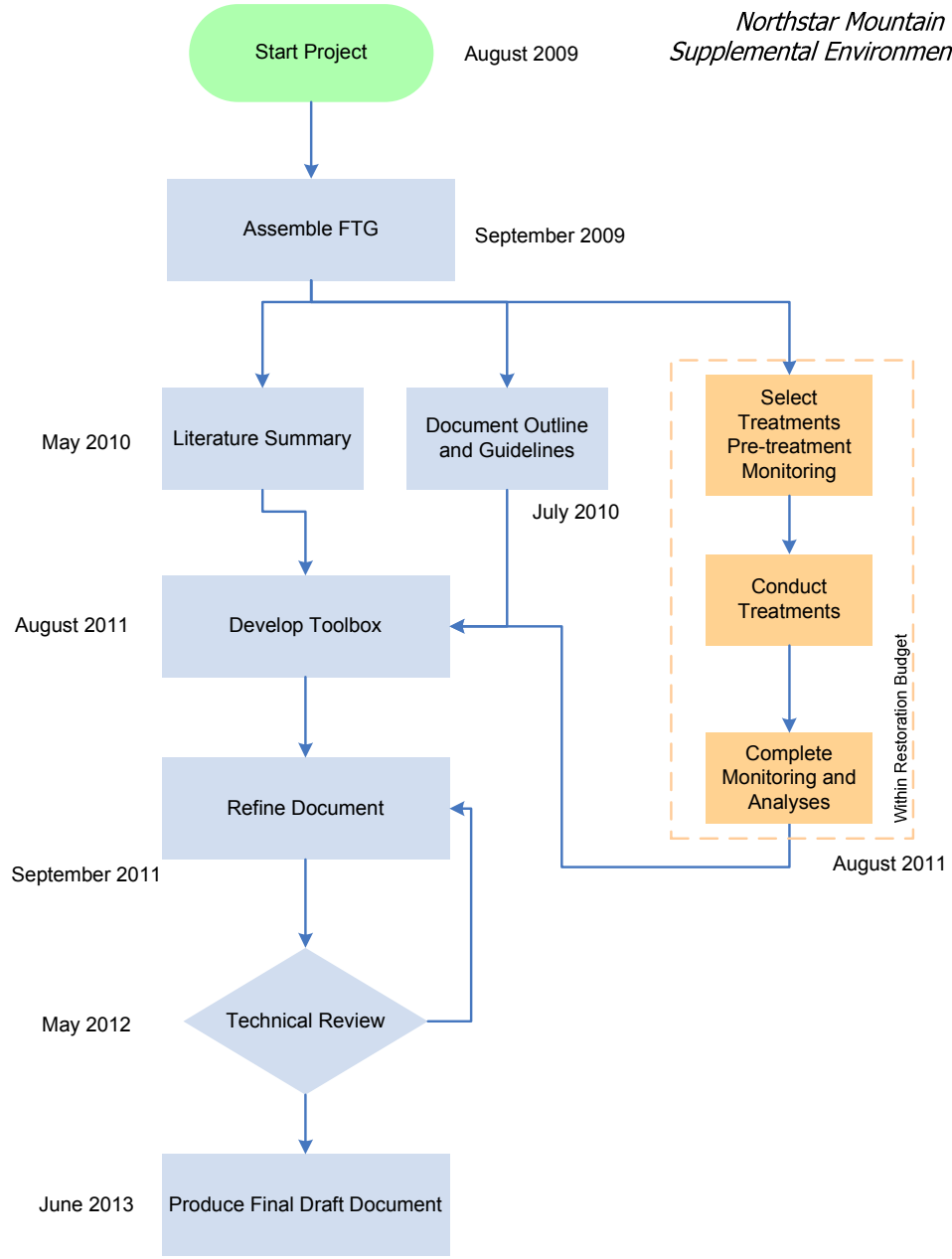
6.6 Forest Vegetation Reduction Treatment Implementation (research plots)

As identified in 6.5, above, select four treatments and apply those treatments to small (<1/2 acre) areas of Waddle Ranch in order to develop treatment types to monitor.

6.7 Develop Working Draft Forest Vegetation Treatment/Water Quality Protection Handbook

Develop working draft of the Forest Vegetation Treatment/Water Quality Protection Handbook. This work item will produce a format/template for the Toolkit section of the Handbook and will include at least four specific fuels reduction tools with related water quality impacts and mitigation measures. Tools may consist of such practices as pile burning, broadcast burning, mastication, forwarding, and mitigation of specific treatment effects. Related water quality impacts may include such elements as soil compaction, change in infiltration rate, runoff volume changes, runoff constituents, effects on vegetation, effects on soil nutrients, etc.

Figure 7
Northstar Mountain Properties
Supplemental Environmental Project



Forest Fuels Treatment/Water Quality Protection Guideline Project

6.8 Monitor Treatments

Treatments shall be monitored both pre and post treatment using methodologies described in the Monitoring Plan (see Task 3.3 for a description). There is a large disparity between the cost of the monitoring compared to the amount of fuels treatment work between Waddle Ranch and Northstar. This is because the monitoring that will be conducted at Waddle Ranch is intensive, research-level monitoring that is intended to support lower resolution monitoring at Northstar. High-intensity monitoring helps to understand better the full range of impacts associated with a given treatment and is more defensible (i.e. high confidence level). This helps to identify the most sensitive parameters, which can then be measured discretely at other sites (such as Northstar) through lower-intensity monitoring methods and used to infer the full range of impacts.

6.9 Distribution Copy - Forest Vegetation Treatment/Water Quality Protection Handbook

Produce a distribution copy of the Forest Vegetation Treatment/Water Quality Protection Handbook and distribute to the FTG for review. The document will also be provided for additional technical review as suggested by the FTG. Note: the actual number of 'tools' included in the Handbook under this SEP project will depend on budget and management constraints at Waddle Ranch and Northstar and the potential to develop partnerships with other fuels managers.

6.10 Final Draft Forest Vegetation Treatment/Water Quality Protection Handbook

Incorporate review comments and produce a final draft version of the Forest Vegetation Treatment/Water Quality Protection Handbook. This final draft will be produced in year four (2012) of this SEP project. The document will be provided electronically on compact disk (CD ROM) to interested parties as suggested by the FTG.

6.11 Printing and Distribution of the Forest Vegetation Treatment/Water Quality Protection Handbook

It is not currently intended that the funding for the layout and printing of this document will be covered under this SEP project. Other entities in the Truckee-Tahoe region have expressed commitment to this program. Some of these other entities will request funding for final layout and printing of this document. This step-wise development of a document was very successful during the development of the SSCH.

Work Item 7: Northstar Riparian and Forest Enhancement Project

This portion of the project is designed to enhance riparian and forest vegetation within the Martis Creek watershed and to reduce forest fuel loading in areas that have had very little or no forest management for many years. This element of the SEP project is designed to improve wildlife and cold freshwater habitat associated with the riparian areas and to reduce large wildfire potential and thus minimize the erosion that would result from such an event. This work will also be used as a portion of the monitored work

that will form the foundation of the Forest Vegetation Treatment/Water Quality Protection Handbook. Increasing encroachment of white fir (*Abies concolor*) and overstocking of other species has altered fuel profiles and has created an overabundance of live and dead fuels. In addition, conifer encroachment has suppressed native riparian species such as Quaking aspen (*Populus tremuloides*) which is a declining tree species in North America. Removal of fire adapted species in non-fire adapted areas will help reduce the potential loss of these areas if a catastrophic wildfire were to occur and help forested and riparian areas flourish where they have been suppressed.

7.1 Permitting and Notification

Complete all required permitting and notifications prior to and following site preparation and fieldwork. This will include the following elements as required by the State of California and the County of Placer:

- California Forest Practice Rules (1038 Exemption).
- California Regional Water Quality Control Board (Category 6 Project if needed).
- Archaeological Records Check Request.
- Notification to local Native American Indian Tribes.
- Placer County Air Quality/Burn Permit (will be written and submitted following hand crew work).

7.2 Pre Treatment Monitoring

Site conditions will be assessed before implementation of fuels reduction treatments. This will include field and office work consisting of the following:

- Average stand density measurement of conifers (timber stand inventory and established photo points).
- Visual measurement of fuel amounts on the forest floor using USFS Photo Series for Quantifying Forest Residues in the Sierra Nevada, and establish photo points.
- Wildfire fuels model (wildfire simulation by computer model).
- Visual measurement of Quaking aspen (*Populus tremuloides*) species prior to treatment and at year five of treatment by established photo points.
- Measurement of white fir (*Abies concolor*) species in riparian areas to study hydrological impacts. This will be done by an inventory and established photo points.

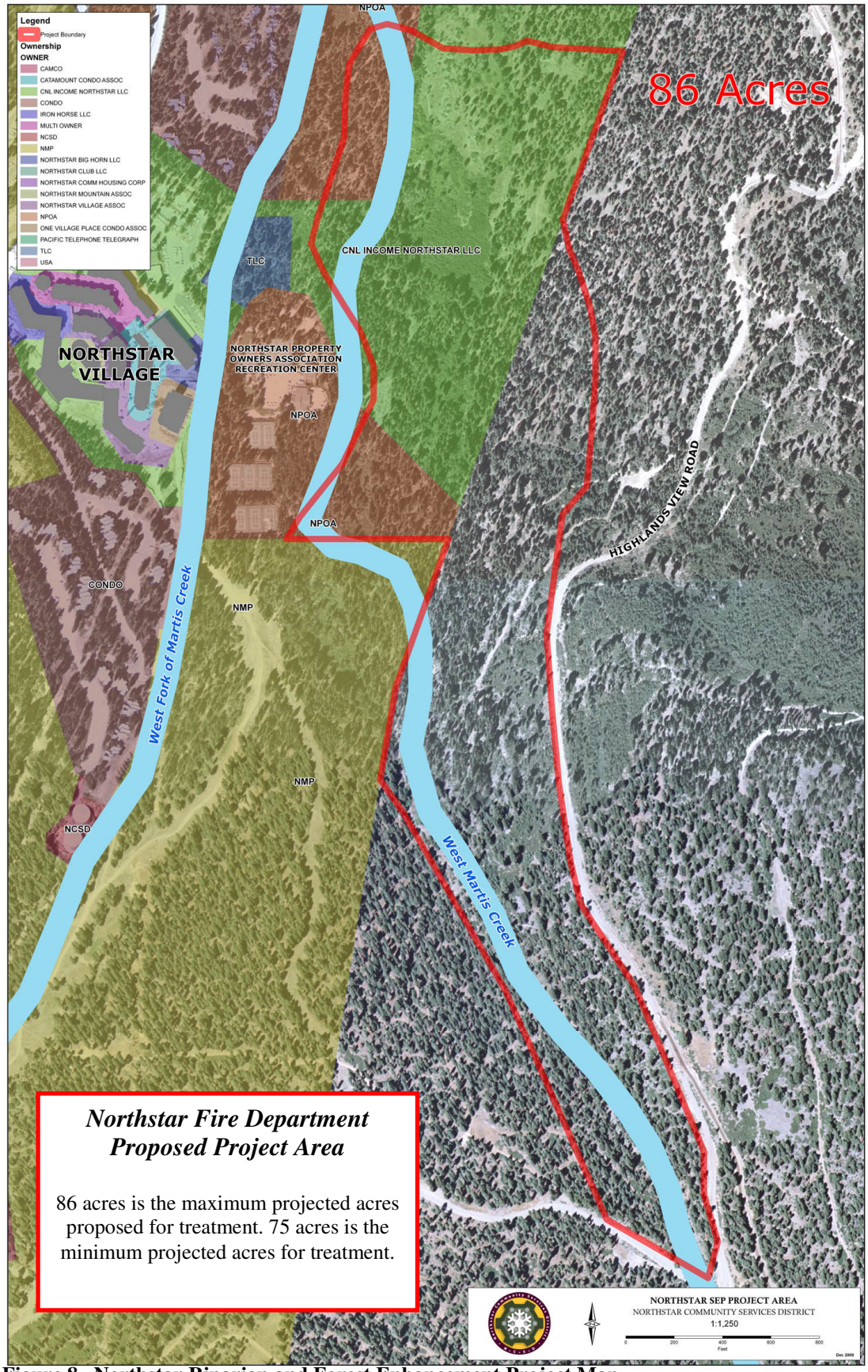


Figure 8. Northstar Riparian and Forest Enhancement Project Map

7.3 Field Work (Site Preparation)

Preparation of fieldwork will involve flagging and timber marking. A detailed description is as follows:

- Project boundary areas indicated in orange flagging.
- Watershed and Lake Protection Zone (WLPZ) areas will be delineated/flagged in white and blue striping. Protection measures from hand crews, tree falling, pile burning, and chipping will be implemented in those areas.
- Sensitive areas (Historical, archaeological, wildlife, or vegetative related) will be flagged in black and yellow striping. These will be exclusion zones from the project.
- Tree removal (live or dead) marking indicated on each tree to be removed with a blue band (completely encircled) at DBH (Diameter breast height) 4.5 feet above ground. Various snag classes to promote healthy habitat for woodland creatures will be marked with a "W" in blue marking paint.

7.4 Hand Crew Work (Treatment)

A designated hand crew consisting of 6 to 15 trained individuals will be utilized to perform the project work tasks as follows:

- Remove live and dead conifer and deciduous trees ranging from 2-24 inches in diameter.
- Limb live conifer trees 2 feet for trees 2-4 inches at DBH, limb trees 4 feet for trees 6-10 inches at DBH and limb trees 6 feet at 12 inches at DBH or greater.
- Compile excessive downed and dead material, tree cuttings (limbs and wood lengths) into burn piles no larger than 8 x 8 feet and placed in moderate to open areas in order to minimize live tree scorch. Feeder piles may be required to facilitate this process.
- Strategically place various wood lengths (live and dead) to enhance downed woody debris classes in order to create corridors for small mammal species, and to provide for varying stages of soil decomposition rates.

7.5 Hand Crew Work (Chipping)

Chipping will be completed where applicable by a remote controlled rubber track chipper. It will be used in areas where a duff layer 3 inches or less on average is present. The machine will be operated by a three man crew consisting of a chipper operator, and two ground crew members who will collect the material and feed the chipper.

7.6 Hand Crew Work (Pile Burning)

- Pile burning will be performed in the late fall/winter/early spring months where an appropriate snow amount (6 inches or more) is on the ground or where vegetation and soil moisture are adequate to ensure that fire will not

spread. Proper notification to regulatory agencies, test pile burning, and tending to piles prior and following pile burning will be observed. Pile burning will be performed by experienced and knowledgeable personnel.

- Pile mitigation measures will be implemented in coordination with the Forest Vegetation Treatment program in order to ascertain recovery rates from pile burning using various mitigation measures.

7.7 Mastication

If funding allows, a tracked excavator with a masticator head mounted on the boom will be used to implement fuels reduction treatments as part of the Northstar Riparian and Forest Enhancement Project in order to evaluate as wide of a range of vegetation treatments as possible. If mastication is not deemed to be an appropriate treatment for the areas being treated as part of the Northstar Riparian and Forest Enhancement Project, an effort will be made to implement mastication as part of fuels reduction treatments at Waddle Ranch instead. Evaluation of less common vegetation treatment methods will support the development of a more complete "toolkit" for the Forest Vegetation Treatment/Water Quality Protection Handbook. While no funding is currently allocated for this work item in the budget, it is expected that a small amount (2-4 acres) of mastication will be able to be funded from cost savings in other work items or from contingency funds.

7.8 Project Inspections and Forestry Management

Project inspection will be performed by the NFD Forestry Supervisor throughout the project's five year timeframe. Inspections will be done a minimum of two times per day to ensure quality control and that state regulations are being followed. Inspections will consist of the following:

- All trees marked have been removed and a stump height no greater than 6 inches (where possible) is achieved.
- All areas that are flagged for boundary and protection measures are being respected.
- A daily recording of acres treated, burn piles created (pile size dimensions and projected emissions of PM^{10}/pile). In addition, visual estimations of material chipped in cubic yards will be collected and entered into the NCSD Fuels Management Database.

7.9 Post Treatment Monitoring and Reporting

Project monitoring from Item 7.2 (Pre Treatment Monitoring) will be conducted annually. Actual implementation of various fuels reduction treatments will be mapped and quantified (in acres) after the work is completed. Monitoring will be conducted to assess relative changes in vegetation. This information and data will be used in PAEP documentation to determine success of treatments. Monitoring data will be compared to success criteria in order to provide qualitative measures of success. Monitoring will consist of soil and vegetation monitoring and water quality monitoring using existing water quality monitoring stations. These data sources will provide a baseline and will be compared with post project water quality data in order to assess differences. Post-

treatment monitoring tends to be more time-consuming and thus, more expensive, due to the variability following treatment.

A complete description of monitoring activities and metrics will be provided in the PAEP, QAPP, and Monitoring Plan documents.

Work Item 8: Project Implementation and Monitoring Contingency

Approximately $42,100 has been set aside as a contingency over the five year lifecycle of this SEP project. Given the long lifecycle of this project and given the many variables and complex elements of this SEP project, both known and unknown, this contingency is believed to be adequate to provide for unknown issues that may arise. Contingency will only be allocated as requested by IERS on behalf of NMP if approved by the SEP Steering Committee, SBC, and the LRWQCB Executive Officer or designee assigned to oversee this SEP project.

All SEP Fund monies shall be distributed before June 30, 2014, unless the schedule for the SEP project is extended as provided below. Any funds remaining in the SEP Fund as of June 30, 2014, or the time for completion of the SEP project as extended below, will be paid to the State Water Board's Cleanup and Abatement Account (80%) and the State Water Board's Waste Discharge Permit Fund (20%) (or other fund(s) that the applicable California Water Codes directs payment to at the time). NMP may make a written request to the Executive Officer to extend any SEP project deadline by up to one year for good cause. The Executive Officer may approve extensions of the SEP project of up to one year, which approval shall not be unreasonably withheld. The LRWQC Board may in its discretion approve an extension of more than one year for implementation of the SEP project, if requested in writing by NMP.

General

Transfer of funds between and among work items

Given the nature of this project and the uncertainty at this point regarding exactly where and how much restoration work will be done, and in an attempt to accurately and reasonably target costs, the following guidelines for funding allocation will be adhered to:

Wherever specific work items do not use all funds allocated to that work item, those funds will be: 1) reallocated within the overall work item, or 2) reallocated to field implementation wherever possible. If a particular work item is underfunded, reallocation may occur if approved by the SEP Steering Committee, SBC, and the LRWQCB Executive Officer or designee assigned to oversee this SEP project. In any event, the cost of the work items and work in total will not exceed the total budget of this SEP project.

Finalization of task and work items

This project, if approved, will be planned during the spring of 2009. Specific elements of work items will be finalized by field assessment and site visits. The current plans have been developed in cooperation with individuals who are familiar with Waddle Ranch, including TDLT, TTAD, Don Triplat, Gerald Rockwell, and others, and the plans can be considered as accurate as possible.

Part 4: Project Team and Administration

The project team, the technical groups and the SEP Steering Committee are well balanced in background and capabilities. Given the nature of Waddle Ranch ownership, as well as the nature of water quality monitoring in the Martis Valley, the project team includes members that can guide implementation of the elements of the proposed SEP project.

- Lisa Wallace: The TRWC is the main watershed coordination group in the Truckee region and is involved in many of the watershed efforts that are underway.
- TTAD Staff Dave Gotschall and Phred Stoner
- NCSD Fire Department Staff, Chief Mark Shadowens or Joe Barron
- Perry Norris: The TDLT holds the Conservation Easement on the Waddle Ranch property and is also involved in many of the watershed efforts occurring in the Truckee region.
- IERS has a track record of successful planning, implementation and monitoring of environmental restoration and improvement projects throughout the Tahoe Truckee region and has a solid history of cooperative work with the LRWQCB, TRWC, Placer County, and TDLT. IERS team members include:
    - Michael Hogan, MS, Soil Scientist, Restoration Specialist, Principal
    - Jerry Dion, MS, Ecologist, GIS Specialist
    - Kevin Drake MS, Planner, Associate Project Coordinator
    - Don Triplat, BS, Forestry, Restoration Coordinator
    - Rachel Arst, MS, Environmental Engineer, Monitoring Coordinator
    - Gerald Rockwell (USGS, Ret.) Water quality monitoring, associate

    The IERS team will be supplemented as needed. IERS consists of over 20 individuals and four work groups (Planning, Implementation, Monitoring/Research, and general Consulting) which provide adequate resources to complete most of the tasks involved in this SEP project.
- Dr. Mark Grismer, Ph.D, UC Davis, Consulting Research Associate, Hydrology and Environmental Engineering. Dr. Grismer has teamed with IERS on a number projects including the Forested Upland element of the Lake Tahoe Basin TMDL

Pollutant Reduction Opportunities Analysis and Report. He will help develop monitoring plans.

- Dr. Susan Clark, Ph.D, Dynamic Competence. Dr. Clark will serve as a process facilitator to ensure high-level communication and coordination occurs between the project partners and outside stakeholders.

Third Party Oversight

Third Party Oversight will be provided by SBC. Specific arrangements will be made during or immediately following the finalization of this agreement. Steve Frisch (530.582.4800) has been contacted and has agreed to provide this oversight. SBC is well-suited to provide these services because the SBC is already providing similar services for a SEP project in the Victorville area and has been working as liaison and contact administrator for the 319 grant-funded Ski Area Erosion Control Guidelines project with IERS and the LRWQCB.

Part 5: Deliverables Table

The deliverable dates are based on a June 1, 2009 project start date. That assumption is based on the possibility that this SEP project will be approved at the March LRWQCB meeting and that contracting and finalization of the project agreements will take an additional two months. If another start date is implemented, due dates will be revised and adjusted accordingly.

Deliverable	Work Item	Due
Meeting agendas, Notes, Minutes of SEP Steering Committee, Membership list, etc.	1.1-1.4	30 days following end of each quarter, through project life
Quarterly reports, draft and final report.	2.1-2.3	30 days following end of each quarter, through project life Draft format and outline, Feb 2013 Final, Feb 2014
PAEP table, supporting PAEP document, monitoring plan, and QAPP documentation. Ongoing: yearly PAEP implementation report	3.1-3.4 3.2	October 15th, 2009 January 30th of each year
Watershed Evaluation summary document	4.1	Sequential, each

Deliverable	Work Item	Due
		season by July 30th. See budget. Bulk of effort in yrs 1, 2
Project designs and environmental documentation	4.2-4.4	Design: February prior to construction season, Environmental Doc: Each year, by 60 days prior to construction
Completed Treatments	4.5-4.11	Oct-Nov 2010, 2011, 2012, 2013. Work is dependant on weather and season
Monitoring reports	N/A	Feb 2012, 2013, 2014
Public Outreach and Tours	4.12-4.13	By November 2010, 2011, 2012
Draft Watershed Evaluation, Treatment, and Monitoring Handbook	5.2-5.4	December 2010
Final Watershed Evaluation, Treatment, and Monitoring Handbook	5.5-5.8	December 2013
Group minutes, agreements, goals, and outcomes documentation	6.1-6.2	30 days following end of each quarter, through project
Literature report in CD-Rom format	6.3	February 2009 and updated where appropriate
Draft copy Forest Vegetation Treatment/Water Quality Protection Handbook	6.7	December 2008 - Feb 2009
Treatment options documented	6.5	August 2008, 2009
As-builts for test treatments		December 2010, 2011

Deliverable	Work Item	Due
Draft toolkit document		Feb 2010, 2011
Monitoring report		Feb 2010,11,12
Review copy, Forest Vegetation Treatment/Water Quality Protection Handbook	6.9	December 2011
Final draft, Forest Vegetation Treatment/Water Quality Protection Handbook	6.10	March 2012
Distribution of Forest Vegetation Treatment/Water Quality Protection Handbook	6.11	June 2012-2013
Forest Enhancement Project Permitting and Notification	7.1	July 2009
Pre-treatment Monitoring	7.2	September 2013
Field Work	7.3-7.7	October 2013
Project Inspections	7.8	October 2013
Post-treatment Monitoring	7.9	October 2013
Project Implementation and Monitoring Contingency	8.0	June 2014

Cost Estimate and Budget

See:

Attachment 1: Gantt Chart

Attachment 2: SEP Project Budget

Attachment 3: Waddle Ranch Water Quality Monitoring Costs

Attachment 4: SEP Steering Committee Costs

Attachment 5: Watershed Technical Group Costs

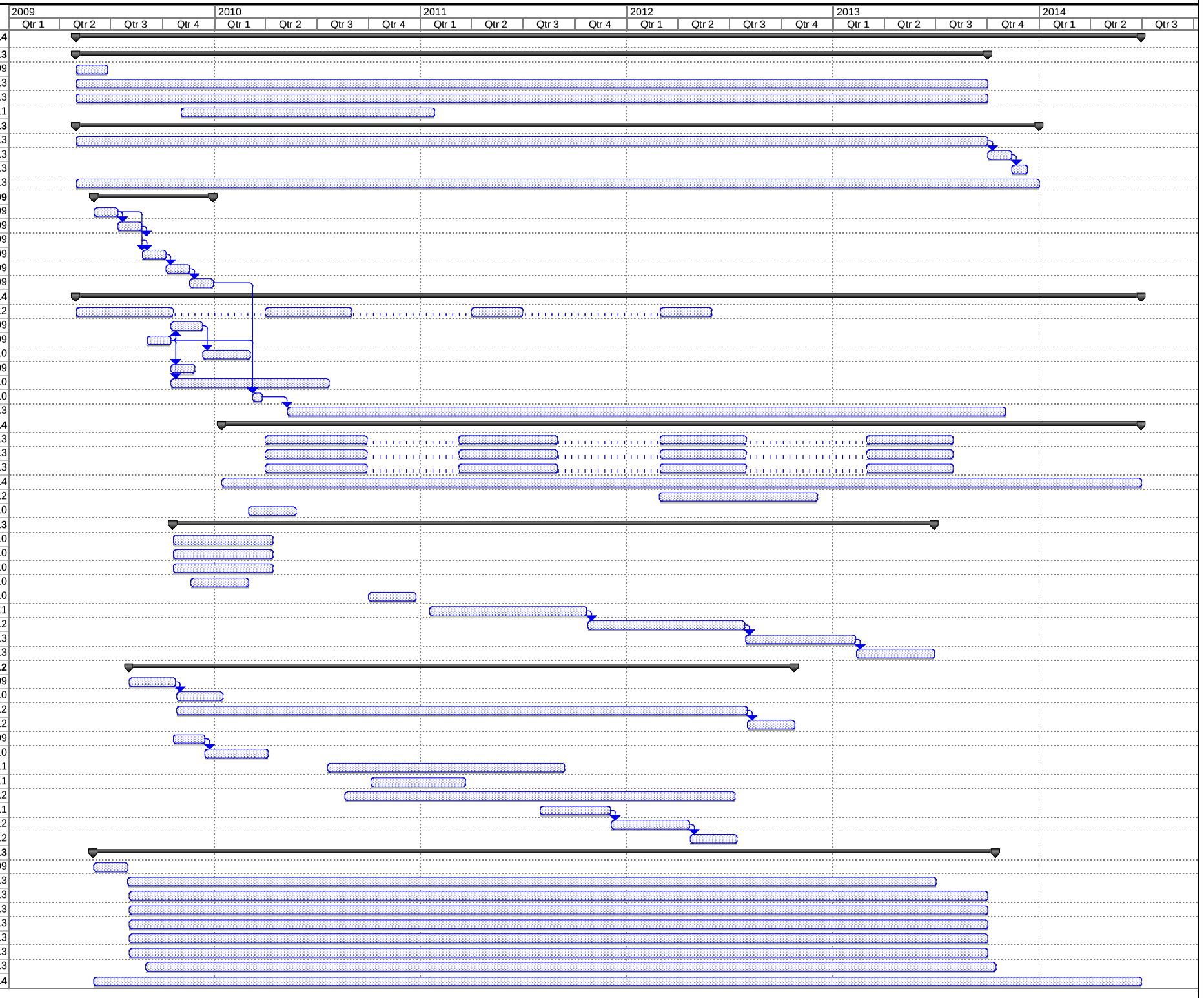
Attachment 6: Forestry Technical Group Costs

Attachment 1

Gantt Chart

Northstar Mountain Properties Supplemental Environmental Project (Scope, Budget, and Schedule)

ID	WBS	Task Name	Cost8	Duration	Start	Finish
1	**0**	**Northstar Mountain Properties Supplemental Enviror**		**1347 days?**	**Fri 5/1/09**	**Mon 6/30/14**
2	**1.0**	**Work Item 1: Project Development and coordination**	**$57,500.00**	**1153 days?**	**Fri 5/1/09**	**Tue 10/1/13**
3	1.1	SEP Advisory group development and facilitation		40 days	Fri 5/1/09	Thu 6/25/09
4	1.2	SEP advisory group meetings		1153 days?	Fri 5/1/09	Tue 10/1/13
5	1.3	SEP advisory group coordination		1153 days?	Fri 5/1/09	Tue 10/1/13
6	1.4	Review and integration of pertinent Martis Valley projects		321 days	Tue 11/3/09	Tue 1/25/11
7	**2.0**	**Work Item 2: Project administration (5 years)**	**$110,500.00**	**1218 days?**	**Fri 5/1/09**	**Tue 12/31/13**
8	2.1	Quarterly progress reports		1153 days?	Fri 5/1/09	Tue 10/1/13
9	2.2	Draft project report		30 days	Wed 10/2/13	Tue 11/12/13
10	2.3	Final project report		20 days	Wed 11/13/13	Tue 12/10/13
11	2.4	Project coordination		1218 days?	Fri 5/1/09	Tue 12/31/13
12	**3.0**	**Work Item 3: PAEP**	**$25,800.00**	**151 days?**	**Tue 6/2/09**	**Tue 12/29/09**
13	3.1	PAEP table preparation		30 days	Tue 6/2/09	Mon 7/13/09
14	3.2	PAEP Document		30 days	Tue 7/14/09	Mon 8/24/09
15	3.3	PAEP oversight and documentation		1 day?	Tue 8/25/09	Tue 8/25/09
16	3.4	Monitoring Plan		30 days	Wed 8/26/09	Tue 10/6/09
17	3.5	QAPP Preparation		30 days	Wed 10/7/09	Tue 11/17/09
18	3.6	Northstar PAEP & QAPP Integration		30 days	Wed 11/18/09	Tue 12/29/09
19	**4.0**	**Work Item 4: Waddle Ranch Restoration**	**$1,395,000.00**	**1347 days**	**Fri 5/1/09**	**Mon 6/30/14**
20	4.1	Site/watershed evaluations		362 days	Fri 5/1/09	Wed 5/30/12
21	4.2	Environmental/permiting documentation		40 days	Fri 10/16/09	Thu 12/10/09
22	4.3	Treatment sites identification		30 days	Fri 9/4/09	Thu 10/15/09
23	4.4	Permitting Assistance		60 days	Fri 12/11/09	Thu 3/4/10
24	4.5	Treatment specifications		30 days	Fri 10/16/09	Thu 11/26/09
25	4.6	Pre-treatment site condition monitoring		200 days	Fri 10/16/09	Thu 7/22/10
26	4.7	Install WQ monitoring equipment		12 days	Wed 3/10/10	Thu 3/25/10
27	4.8	WQ Sampling		910 days	Mon 5/10/10	Fri 11/1/13
28	**0**	**Treatments**		**1163 days**	**Thu 1/14/10**	**Mon 6/30/14**
29	4.9	Road removal		471.38 days	Thu 4/1/10	Thu 8/1/13
30	4.10	Stream/wetland restoration		471.38 days	Thu 4/1/10	Thu 8/1/13
31	4.11	Forest fuels demonstration treatment		471.38 days	Thu 4/1/10	Thu 8/1/13
32	4.12	Post treatment monitoring and Reporting (per PAEP)		1163 days	Thu 1/14/10	Mon 6/30/14
33	4.13	Site tours-education and technology transfer		200 days	Tue 2/28/12	Mon 12/3/12
34	4.14	Public outreach program and materials		60 days	Tue 3/2/10	Mon 5/24/10
35	**5.0**	**Work Item 5: Watershed Evaluation, Treatment and Monitoring**	**$67,000.00**	**964 days**	**Tue 10/20/09**	**Fri 6/28/13**
36	5.1	Watershed technical group development and meetings		127 days	Tue 10/20/09	Wed 4/14/10
37	5.1.1	Watershed technical group review		127 days	Tue 10/20/09	Wed 4/14/10
38	5.2	Literature review and report		127 days	Tue 10/20/09	Wed 4/14/10
39	5.3	Document outline		72 days	Fri 11/20/09	Mon 3/1/10
40	5.4	Draft document		60 days	Fri 10/1/10	Thu 12/23/10
41	5.5	Interim/working document		200 days	Mon 1/17/11	Fri 10/21/11
42	5.6	Document iteration		200 days	Mon 10/24/11	Fri 7/27/12
43	5.7	Final document		140 days	Mon 7/30/12	Fri 2/8/13
44	5.8	Document layout and printing		100 days	Mon 2/11/13	Fri 6/28/13
45	**6.0**	**Work Item 6: Forest Treatment and Forest Practices Water Qual**	**$127,000.00**	**843 days**	**Mon 8/3/09**	**Wed 10/24/12**
46	6.1	Forestry technical group formation		60 days	Mon 8/3/09	Fri 10/23/09
47	6.2	Forestry technical group agreement, goals, outcome		60 days	Mon 10/26/09	Fri 1/15/10
48	6.3	Forestry technical group meetings		723 days	Mon 10/26/09	Wed 8/1/12
49	6.4	Literature review and report		60 days	Thu 8/2/12	Wed 10/24/12
50	6.5	Develop draft Guidelines/Guiding Principles		40 days	Tue 10/20/09	Mon 12/14/09
51	6.6	Identify treatments options		80 days	Tue 12/15/09	Mon 4/5/10
52	6.7	Apply 4 Treatment (Research Plots)		300 days	Tue 7/20/10	Mon 9/12/11
53	6.8	Develop draft forest fuels treatement/water quality protection h		120 days	Tue 10/5/10	Mon 3/21/11
54	6.9	Monitor treatments		493 days	Fri 8/20/10	Tue 7/10/12
55	6.10	Review copy-Forest Fuels/Water Quality Protection Handbook		90 days	Mon 8/1/11	Fri 12/2/11
56	6.11	Draft Forest Fuels/Water Quality Protection Handbook		100 days	Mon 12/5/11	Fri 4/20/12
57	6.12	Printing-distribution of draft forest fuels treatment/water qualit		60 days	Mon 4/23/12	Fri 7/13/12
58	**7**	**Work Item 7: Northstar Riparian and Forest Enhancement Proje**	**$397,500.00**	**1142 days?**	**Mon 6/1/09**	**Tue 10/15/13**
59	7.1	Permitting and Notification		45 days	Mon 6/1/09	Fri 7/31/09
60	7.2	Pre Treatment Monitoring		1022 days?	Fri 7/31/09	Mon 7/1/13
61	7.3	Field Work (Site Preparation)		1087 days	Mon 8/3/09	Tue 10/1/13
62	7.4	Hand Crew Work (Treatment)		1087 days	Mon 8/3/09	Tue 10/1/13
63	7.5	Hand Crew Work (Chipping)		1087 days	Mon 8/3/09	Tue 10/1/13
64	7.6	Hand Crew Work (Pile Burning)		1087 days	Mon 8/3/09	Tue 10/1/13
65	7.7	Project Inspections		1087 days	Mon 8/3/09	Tue 10/1/13
66	7.8	Post Treatment Monitoring (Post Site Conditions per PAEP)		1076 days	Tue 9/1/09	Tue 10/15/13
67	**8**	**Work Item 8: Project Implementation and Monitoring Contingen**	**$69,700.00**	**1326 days?**	**Mon 6/1/09**	**Mon 6/30/14**



Project: SEP_Project_plan
Date: Thu 12/11/08

Task — Progress — Summary — External Tasks — Split
Split — Milestone — Project Summary — External MileTask

Attachment 2

SEP Project Budget

Northstar Mountain Properties
Waddle Ranch Watershed Improvement Project

Work Item #		Description			Total	Year 1	Year 2	Year 3	Year 4	Year 5	Total check
Work Item 1: Project Inititation and Coordination			***% of total***	2.8%	**$64,000.00**	***$16,500.00***	***$12,500.00***	***$12,000.00***	***$12,000.00***	***$11,000.00***	**$64,000.00**
	1.1	SEP Steering Committee development and facilitation			$22,500.00	$6,500.00	$4,000.00	$4,000.00	$4,000.00	$4,000.00	
	1.2	SEP Steering Committee meetings			$22,500.00	$4,500.00	$4,500.00	$4,500.00	$4,500.00	$4,500.00	
	1.3	SEP Steering Committee coordination			$13,500.00	$3,000.00	$3,000.00	$2,500.00	$2,500.00	$2,500.00	
	1.4	Review and integration of pertinant Martis Valley projects			$5,500.00	$2,500.00	$1,000.00	$1,000.00	$1,000.00	$0.00	
Work Item 2: Project Administration (5 years)			***% of total***	4.9%	**$110,500.00**	***$14,500.00***	***$14,000.00***	***$24,000.00***	***$27,000.00***	***$31,000.00***	**$110,500.00**
	2.1	Quarterly progress reports			$30,500.00	$6,000.00	$5,000.00	$6,500.00	$6,500.00	$6,500.00	
	2.2	Draft project report			$3,000.00			$1,000.00	$2,000.00	$0.00	
	2.3	Final project report			$9,000.00					$9,000.00	
	2.4	Project coordination			$46,000.00	$5,000.00	$5,000.00	$12,000.00	$14,000.00	$10,000.00	
	2.5	Direct overhead			$22,000.00	$3,500.00	$4,000.00	$4,500.00	$4,500.00	$5,500.00	
	2.5.1	Office supplies			$0.00						
	2.5.2	Copies			$5,200.00	*$500.00*	*$1,000.00*	*$700.00*	*$1,000.00*	*$2,000.00*	
	2.5.3	Travel			$6,100.00	*$1,200.00*	*$1,000.00*	*$1,400.00*	*$1,500.00*	*$1,000.00*	
	2.5.4	Budget and project tracking			$10,300.00	*$1,800.00*	*$2,000.00*	*$2,000.00*	*$2,000.00*	*$2,500.00*	
Work Item 3: PAEP and QAPP			***% of total***	1.1%	**$25,800.00**	***$19,800.00***	***$1,500.00***	***$1,500.00***	***$1,500.00***	***$1,500.00***	**$25,800.00**
	3.1	PAEP Document			$3,800.00	$3,800.00					
	3.1.1	Northstar-at-Tahoe PAEP & QAPP Integration			$2,500.00	$2,500.00					
	3.2	PAEP Oversight and Documentation			$8,000.00	$2,000.00	$1,500.00	$1,500.00	$1,500.00	$1,500.00	
	3.3	Monitoring Plan			$4,000.00	$4,000.00					
	3.4	QAPP Preparation			$7,500.00	$7,500.00					
Work Item 4: Waddle Ranch Restoration			***% of total***	61.6%	**$1,385,000.00**	***$96,600.00***	***$106,000.00***	***$297,000.00***	***$403,000.00***	***$482,400.00***	**$1,385,000.00**
	4.1	Site/watershed evaluation (EfRA)			$61,000.00	*$18,000.00*	$20,000.00	$15,000.00	$6,000.00	$2,000.00	
	4.2	Environmental/permitting documentation			$21,000.00		$10,000.00		$5,000.00	$6,000.00	
	4.3	Treatment sites identification			$30,000.00	*$8,000.00*	$8,000.00	$4,000.00	$5,000.00	$5,000.00	
	4.4	Permitting assistance			$33,000.00	*$4,000.00*	$8,000.00	$8,000.00	$8,000.00	$5,000.00	
	4.5	Treatment specifications			$20,500.00	*$2,000.00*	$3,500.00	$5,000.00	$5,000.00	$5,000.00	
	4.6	Pre-treatment site monitoring			$120,000.00	*$20,000.00*	$20,000.00	$20,000.00	$25,000.00	$35,000.00	
	4.7	Water Quality Monitoring			$81,000.00	*$20,000.00*	*$10,000.00*	*$17,000.00*	$17,000.00	$17,000.00	
	4.8	Road removal			$430,000.00	*$24,600.00*	$26,500.00	$92,500.00	$125,500.00	$160,900.00	
	4.9	Stream/wetland restoration			$415,000.00			$100,000.00	$150,000.00	$165,000.00	
	4.10	Forest fuels demonstration treatments			$0.00			$0.00	$0.00	$0.00	
	4.11	Post treatment monitoring			$125,000.00				$50,000.00	$75,000.00	
	4.12	Site tours-education and technology transfer			$38,000.00			$30,000.00	$4,000.00	$4,000.00	
	4.13	Public outreach program and materials			$10,500.00			$5,500.00	$2,500.00	$2,500.00	
Work Item 5: Watershed Evaluation, Treatment and Monitoring Handbook			***% of total***	4.5%	**$102,000.00**	***$28,500.00***	***$23,500.00***	***$21,000.00***	***$19,000.00***	***$10,000.00***	**$102,000.00**
	5.1	Watershed Technical Group development, meetings			$48,000.00	$15,000.00	$11,000.00	$11,000.00	$11,000.00		
	5.1.1	Watershed Technical Group review			$6,000.00			$2,000.00	$4,000.00		
	5.2	Literature summary			$7,000.00	$3,500.00	$3,500.00				
	5.3	Document outline			$7,000.00	$6,000.00	$1,000.00				
	5.4	Draft document			$12,000.00	$4,000.00	$8,000.00				
	5.5	Interim/working document			$8,000.00			$6,000.00	$2,000.00		
	5.6	Document iteration			$4,000.00			$2,000.00	$2,000.00		
	5.7	Final document			$6,000.00					$6,000.00	
	5.8	Document layout and printing			$4,000.00					$4,000.00	
Work Item 6: Forest Vegetation Treatment/Water Quality Protection Handbook			***% of total***	5.5%	**$123,100.00**	***$23,600.00***	***$39,500.00***	***$34,500.00***	***$25,500.00***	***$0.00***	**$123,100.00**
	6.1	Forestry Technical Group formation			$1,100.00	$1,100.00					
	6.2	Forestry Technical Group meetings			$24,000.00	$7,500.00	$5,500.00	$5,500.00	$5,500.00		
	6.3	Literature summary			$10,000.00	$5,000.00	$3,000.00	$2,000.00			
	6.4	Develop draft Handbook/Guiding Principles			$12,000.00	$8,000.00	$4,000.00				
	6.5	Identify treatment options			$5,000.00	$2,000.00	$3,000.00				
	6.6	Forest Vegetation Treatment Implementation (research plots)			$13,000.00		$8,000.00	$5,000.00			
	6.7	Develop working draft Handbook			$14,000.00		$8,000.00	$6,000.00			
	6.8	Monitor treatments			$24,000.00		$8,000.00	$8,000.00	$8,000.00		
	6.9	Distribution Copy-Forest Vegetation Treatment/Water Quality Protection Handbook			$8,000.00			$8,000.00			
	6.10	Final Draft Forest Vegetation Treatment/Water Quality Protection Handbook			$12,000.00				$12,000.00		
	6.11	Printing-distribution of Forest Vegetation Treatment/Water Quality Protection Handbook									
Work Item 7: Northstar Riparian and Vegetation Enhancement Project			***% of total***	17.7%	**$397,500.00**	***$47,500.00***	***$50,000.00***	***$100,000.00***	***$100,000.00***	***$100,000.00***	**$397,500.00**

Northstar Mountain Properties
Waddle Ranch Watershed Improvement Project

Work Item #		Description			Total	*Year 1*	*Year 2*	*Year 3*	*Year 4*	*Year 5*	Total check
	7.1	Permitting and Notification			$800.00	$800.00	$0.00	$0.00	$0.00	$0.00	
	7.2	Pre Treatment Monitoring			$7,500.00	$1,500.00	$1,500.00	$1,500.00	$1,500.00	$1,500.00	
	7.3	Field Work (Site Preperation)			$12,500.00	$2,500.00	$2,500.00	$2,500.00	$2,500.00	$2,500.00	
	7.4	Hand Crew Work (Treatment)			$334,200.00	$30,200.00	$33,500.00	$83,500.00	$93,500.00	$93,500.00	
	7.5	Hand Crew Work (Chipping)			$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
	7.6	Hand Crew Work (Pile Burning)			$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
	7.7	Mastication			$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
	7.8	Project Inspections & Forestry Management			$30,000.00	$10,000.00	$10,000.00	$10,000.00	$0.00	$0.00	
	7.9	Post Treatment Monitoring and Reporting			$12,500.00	$2,500.00	$2,500.00	$2,500.00	$2,500.00	$2,500.00	
Work Item 8: Project Implementation and Monitoring Contingency			***% of total***	1.9%	**$42,100.00**	$3,000.00	$3,000.00	$10,000.00	$12,000.00	$14,100.00	**$42,100.00**
			% total (check)	100.0%							
Project Total					**$2,250,000.00**	$250,000.00	$250,000.00	$500,000.00	$600,000.00	$650,000.00	**$2,250,000.00**
				sum check	**$2,250,000.00**						

Attachment 3

Waddle Ranch Water Quality Monitoring Costs

Waddle Ranch WQ Monitoring Costs

Number of sites	3
Number of seasons	5

SAMPLE COLLECTION (IN-STREAM)	# samples	Hours	Sites	Years	People	Rate	Extended	Cost/yr (5 yrs)	Notes/assumptions
regular (monthly) grab samples	120	1.5	3	5	1	$ 75.00	$ 13,500.00	$ 2,700.00	
storm samples	15	4	3	5	1	$ 75.00	$ 4,500.00	$ 900.00	assume not to exceed 3 samples per season
snowmelt samples (April and May)	100	4	3	5	1	$ 75.00	$ 30,000.00	$ 6,000.00	for all 3 years
QA samples	24								*no additional cost to grab an extra QA sample*
Total	**259**						**$ 48,000.00**		

SAMPLE PROCESSING AND LAB COSTS	# samples	cost per	extended	Notes/assumptions
sample processing, COC paperwork, sample shipping	110	$ 75.00	$ 8,250.00	assume 1 shipment to HSL per month for 60 months and ~50 shipments to UCD
sample lab costs (TSS)	259	$ 20.00	$ 5,170.00	
sample lab costs (N)	60	$ 20.00	$ 1,200.00	assume 2-3 low flow in-stream samples per year; 8-10 peak flow in-stream per year
sample lab costs (P)	60	$ 20.00	$ 1,200.00	assume 2-3 low flow in-stream samples per year; 8-10 peak flow in-stream per year
sample lab costs (PSD)	60	$ 25.00	$ 1,500.00	assume 2-3 low flow in-stream samples per year; 8-10 peak flow in-stream per year
Total			**$ 17,320.00**	

DATA MGMT AND ANALYSIS	shipments	hours	rate	extended
data entry (HSL and UCD)	110	1	$ 75.00	$ 8,250.00
Total				**$ 8,250.00**

QUALITY ASSURANCE	Hours per year	Sites	Years	Rate	Extended
Cross-check database for data entry errors	1	3	5	$ 75.00	$ 1,125.00
Annual QA review and documentation	4	3	5	$ 100.00	$ 6,000.00
Total					**$ 7,125.00**

TOTAL COST	**$ 80,695.00**
Avg cost per year (5 years)	**$ 16,139.00**

Attachment 4

SEP Steering Committee Costs

SEP Steering Committee cost breakdown				TOTAL	$ 57,900.00
1.1	SEPSteering Committee development and facilitation	rate	hrs per mtg	# of meetings	total
	Dr. Susan Clark, Dynamic Competence (Facilitator-group development)	$ 250.00	6	15	$ 22,500.00
				1.1 total	$ 22,500.00
1.2	SEP Steering Committee meetings	rate	hrs per mtg	# of meetings	
	Michael Hogan, IERS	$ 145.00	4	15	$ 8,700.00
	Hayes Parzybok, NMP		4	15	$ -
	Lisa Wallace, TRWC	$ 125.00	4	15	$ 7,500.00
	Lahontan Water Board		4	15	$ -
	Perry Norris, TDLT		4	15	$ -
	Phred Stoner, TTAD		4	15	$ -
		cost per	# of meetings		
	meeting facility	$ 500.00	12		$ 6,000.00
				1.2 total	$ 22,200.00
1.3	SEP Steering Committee coordination	rate	hrs per mtg	# of meetings	
		$ 110.00	8	15	$ 13,200.00
				1.3 total	$ 13,200.00

Attachment 5

Watershed Technical Group Costs

Watershed technical group cost breakdown				TOTAL	$ 54,020.00
5.1	**Watershed Technical Group development, meetings**				
		rate	**hrs per mtg**	**# of meetings**	**total**
	meeting planning and coordination	$ 110.00	6	8	$ 5,280.00
	Michael Hogan	$ 145.00	4	8	$ 4,640.00
	IERS #2	$ 125.00	4	8	$ 4,000.00
	Susan Clark (facilitation) + notetaker	$ 250.00	6	4	$ 6,000.00
	Staff, TRWC	$ 125.00	4	8	$ 4,000.00
	Lahontan Water Board staff		4	8	$ -
	John Stanley	$ 125.00	8	8	$ 8,000.00
	Vic Claassen	$ 125.00	8	8	$ 8,000.00
	Randy Westmoreland		4	8	$ -
	Cadie Olson	$ 125.00	4	8	$ 4,000.00
		cost per	**# of meetings**		
	meeting facility	$ 500.00	8		$ 4,000.00
				5.1 total	**$ 47,920.00**
	Watershed Technical Group review	**rate**	**hrs**		**total**
	Michael Hogan	$ 145.00			$ -
	IERS #2 (compile reviewer comments)	$ 110.00	10		$ 1,100.00
	Susan Clark (facilitation) + notetaker	$ 250.00			$ -
	Staff, TRWC	$ 125.00	10		$ 1,250.00
	Lahontan Water Board staff		10		$ -
	John Stanley	$ 125.00	10		$ 1,250.00
	Vic Claassen	$ 125.00	10		$ 1,250.00
	Randy Westmoreland		10		$ -
	Cadie Olson	$ 125.00	10		$ 1,250.00
				5.1.1 total	**$ 6,100.00**

Attachment 6

Forestry Technical Group Costs

Forestry technical group cost breakdown				TOTAL	$ 25,020.00
6.1	**Working advisory group formation**	**rate**	**hours**	**total**	
	call participants/coordinate meeting	$ 110.00	10	$ 1,100.00	
			6.1 total	**$ 1,100.00**	
6.2	**Advisory group meetings**	**rate**	**hrs per mtg**	**# of meetings**	**total**
	Michael Hogan	$ 145.00	4	8	$ 4,640.00
	IERS #2	$ 125.00	4	8	$ 4,000.00
	Susan Clark (facilitation) + notetaker	$ 250.00	6	4	$ 6,000.00
	Martin Goldberg		4	8	$ -
	Mary Huggins		4	8	$ -
	Mark Shadowens		4	8	$ -
	Jeff Brown		4	8	$ -
	Scientific Representative (to be det.)				
	meeting coordination	$ 110.00	6	8	$ 5,280.00
		cost per	**# of meetings**		
	meeting facility	$ 500.00	8		$ 4,000.00
				6.2 total	**$ 23,920.00**