CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE
OFFICE OF SPILL PREVENTION AND RESPONSE

SETTLEMENT AGREEMENT AND STIPULATION FOR ENTRY OF CENTRAL VALLEY REGIONAL WATER QUALITY CONTROL BOARD ADMINISTRATIVE CIVIL LIABILITY ORDER R5-2017-0540

IN THE MATTER OF
HEAVENLY VALLEY, LIMITED PARTNERSHIP, D/B/A KIRKWOOD MOUNTAIN RESORT
AMADOR AND ALPINE COUNTIES

This Settlement Agreement and Stipulation for Entry of Administrative Civil Liability Order (Stipulated Order or Order) is entered into by and between the Assistant Executive Officer of the Regional Water Quality Control Board, Central Valley Region (Central Valley Water Board), on behalf of the Central Valley Water Board Prosecution Team (Prosecution Team), the California Department of Fish and Wildlife, Office of Spill Prevention and Response (CDFW-OSPR), and Heavenly Valley, Limited Partnership, d/b/a Kirkwood Mountain Resort (Discharger) (collectively known as the Parties) and is presented by the Prosecution Team and the Discharger to the Central Valley Water Board, or its delegee, for adoption as an order by settlement, pursuant to Government Code section 11415.60.

SECTION I: RECITALS

Background

1. The Discharger owns and operates the Kirkwood Mountain Resort (Resort) ski area including the parking areas associated with this resort located south of Highway 88 in Amador and Alpine Counties.

2. On 27 April 2016, Board staff inspected the Resort in response to a complaint that recycled asphalt pavement grindings, used to re-surface unpaved parking lots at the Resort, had been deposited in and around Kirkwood Creek. During the inspection, Board staff found that snow removal activities and weather conditions had caused asphalt grindings to be deposited beyond the limits of the parking lots and into Kirkwood Creek and several other drainages that flow into Kirkwood Creek.

3. On 6 May 2016, Board staff issued a Notice of Violation (NOV) to Heavenly Valley, Limited Partnership, d/b/a Kirkwood Mountain Resort based on the 27 April 2016 inspection observations. The NOV requested information related to the volume of asphalt grindings brought onsite, how the grindings were to be used, the aerial extent of the deposited grindings, the actions which the Resort had taken to prevent movement off the parking lots, analytical results, and actions and timelines for measures to remediate the impacts to surface waters and wetlands.

4. On 20 May 2016, Board staff conducted a follow-up inspection to further assess the extent of the asphalt grindings observed during the 27 April 2016 inspection. Several areas that were impacted by the asphalt dispersed during snow removal operations were still covered in snow, making it difficult to assess the full extent of the asphalt dispersion. However, Board staff observed that asphalt grindings had been deposited into Kirkwood Creek and additional asphalt was falling into the creek as the snow continued to melt. During the 20 May 2016 inspection, and again on 27 May 2016, a California Department of Fish and Wildlife (CDFW) warden collected samples from Kirkwood Creek and surrounding snow piles that contained asphalt grindings. Analysis of these samples showed that petroleum hydrocarbons with characteristics similar to asphalt were present in all samples collected.

5. On 1 June 2016, Board staff conducted another follow-up inspection and observed the Resort staff manually removing asphalt grindings from snow covered areas in Kirkwood Creek and surrounding tributaries in accordance with the Immediate Response Action Plan approved by the United States Army Corps of Engineers, CDFW, and the Central Valley Water Board. In addition, snow melt was accelerating and the Discharger had installed sediment control best management practices (BMPs) to minimize additional transport of asphalt grindings into the creek.

6. On 17 June 2016, Board staff received the Resort's response to the 6 May 2016 NOV. The response identified four main areas where asphalt grindings were discharged (Sites 1 through 4) and included details on the locations where asphalt grindings were used to re-surface parking lots as well as locations of snow storage stockpiles. The NOV response referenced the Resort cleanup activities being conducted under approved plans. The Resort also outlined a proposed approach to assess, remediate, and restore the areas affected by the asphalt grindings. The first step in was a site assessment survey to form the basis for a remediation work plan.

7. On 8 July 2016, the Water Board issued a Water Code section 13267 Order for Technical Reports (13267 Order) based largely on the technical reports proposed in the NOV response. The 13267 Order required Heavenly Valley, Limited Partnership, d/b/a Kirkwood Mountain Resort to prepare a *Groundwater Assessment Work Plan* (due 5 August 2016), a *Future Compliance Work Plan* (due 5 August 2016), a *Site Assessment Survey Results* technical report (due 15 August 2016), and a *Remediation Plan* technical report (due 15 September 2016).

8. On 5 August 2016, Board staff received the Resort's *Groundwater Assessment Work Plan*. On 24 August 2016, Board staff reviewed and conditionally approved the work plan contingent on re-locating one of the groundwater monitoring locations and adding PAH analysis to downgradient groundwater monitoring. Based on the schedule presented in the Work Plan, the final *Groundwater Assessment Results Report* was due by 31 October 2016.

9. On 5 August 2016, Board staff received the Resort's *Future Compliance Work Plan.* On 24 August, Board staff reviewed and conditionally approved the work plan contingent on either removal of Site 4d as a future snow storage area or submittal of additional details related to sediment control BMPs. This plan proposed several changes to how snow would be managed, including new snow storage areas. This plan did not propose to pave the asphalt-grindings covered parking lots or to remove the grindings to eliminate the potential for future dispersion of asphalt grindings.

11. On 18 August 2016, Board staff conducted another follow-up inspection with United States Army Corps of Engineers, and CDFW staff. During the inspection, Board staff observed that the majority of asphalt grindings had been cleaned-up from Sites 1, 2, and 4 and that these areas were ready for restoration once a restoration plan was approved by CDFW. Sediment control BMPs were installed in all areas disturbed by the clean-up work. Because over one acre of land had been disturbed, Board staff requested the Resort to submit a Notice of Intent to file for coverage under the State Water Board's Construction General Permit for Storm Water Discharges.

    During the inspection, the Resort also voluntarily disclosed that four additional areas had been identified during the site assessment (for a total of eight areas). At the new areas, asphalt grindings had been dislodged during snow removal operations in 2015-2016 and likely in previous years. Board staff viewed the area near the cross-country ski parking lot where significant volumes of both soil and asphalt grindings had been pushed off the edge of the lot and into the wetland areas below. According to the Resort, it does not appear that this area was re-surfaced with asphalt grindings in 2015.

12. On 19 August 2016, Board staff received the Resort's *Site Assessment Survey Results* report. According to the site assessment, Site 3 did not contain significant quantities of asphalt grindings and what was observed in this area were "cinders" (crushed volcanic rock) used for traction on paved roads in the area. The assessment also concluded that between 900 and 1,840 cubic yards of asphalt grindings were discharged from the parking lots during the winter of 2015-2016 from Sites 1, 2, and 4 onto the surrounding hillsides, meadows, tributaries and drainages that flow to Kirkwood Creek and directly into Kirkwood Creek. At the time of the report, cleanup was underway at these three main areas and approximately 900 cubic yards of asphalt grindings had been recovered.

    The assessment report also described the four additional sites that were identified to staff on 18 August 2016. According to the report, three of the four additional sites (Red Cliffs Admin Parking Lot, Chair 9 Parking Lot, and the Kirkwood Meadows Drive Shoulder) were relatively small in comparison to the originally identified areas. A full determination of the quantity discharged had not yet been completed and these three areas were scheduled for assessment and appropriate remediation in 2017. The Resort stated that the fourth additional area (Cross Country Ski Lot) appeared to have multiple years of historical discharges prior to Heavenly Valley, Limited Partnership, d/b/a Kirkwood Mountain Resort ownership of the Kirkwood Meadows Resort (in 2012) and would be cleaned up and restored in 2017 following US Army Corps of Engineers

permitting approval. According to the Resort, the Red Cliffs Admin Parking Lot and the Cross Country Ski Lot were resurfaced with asphalt grindings prior to 2015 and it does not appear that asphalt grindings were placed in 2015.

13. On 15 September 2016, Board staff received the Resort's *Remediation Plan*. The plan updated the volume of asphalt grindings that were cleaned-up to 970 cubic yards. The Resort also reported that cleanup in the originally assessed sites (Site 1, 2, and 4) had been completed with the exception of the portions of Site 2a while the need for 404/401 permits from the US Army Corps of Engineers was being evaluated. The evaluation later determined that 404/401 permits were not required.. The Resort was working with a restoration ecologist to develop a final restoration plan for the disturbed areas and planned to complete the restoration work by 31 October 2016.

    The plan also stated that three additional locations (Red Cliffs Admin Parking Lot, Chair 9 Parking Lot, the Kirkwood Meadows Drive Shoulder would be fully assessed in 2017. The plan also states that remediation of the Cross Country Ski Parking lot area will occur in 2017, after permits are acquired. Interim measures to control additional discharge of asphalt grindings from the Cross Country lot were installed as proposed for the 2016-2017 winter.

14. It is expected that the Resort will continue with a reasonable and timely assessment and proposed response as described in Item 28 at each of the sites and will submit additional reports as described in *Remediation Plan, Kirkwood Mountain Resort* dated 15 September 2016 submitted by the Resort. It is not necessary for the remediation to be completed in order to proceed with this administrative civil liability. However, if the Resort fails to complete its remediation to the satisfaction of the regulatory agencies, then additional civil liability may be proposed.

Legal Authority

15. Section 301 of the Federal Water Pollution Control Act (Clean Water Act) (33 U.S.C. § 1311) prohibits the discharge of pollutants, including dredged spoil, rock and sand, to waters of the United States except in compliance with Section 404, among others, of the Clean Water Act (33 U.S.C. § 1344). Section 404 requires any person proposing to discharge dredged or fill material into navigable waters to obtain a permit from the Army Corps of Engineers.

16. California Water Code section 13376 requires that a person who proposes to discharge dredged or fill material to navigable waters of the United States shall file a report of waste discharge with the Regional Water Board at least 180 days prior to discharging said dredge or fill materials.

17. Heavenly Valley, Limited Partnership, d/b/a Kirkwood Mountain Resort is alleged to have violated both Water Code section 13376 and Section 301 of the Clean Water Act by discharging asphalt grindings into waters of the United States without first filing a

report of waste discharge or obtaining a Section 404 permit.

18. The Central Valley Water Board adopted the *Water Quality Control Plan for the Sacramento River and San Joaquin River Basins, Fourth Edition* (hereafter Basin Plan) pursuant to Water Code Section 13243. The Basin Plan designates beneficial uses, establishes water quality objectives, sets forth prohibitions, contains implementation plans and policies for protecting waters of the basin, and incorporates by reference plans and policies adopted by the State Water Resources Control Board.

19. Surface water drainage from the Resort flows to Kirkwood Creek, tributary to Caples Creek, which flows to the South Fork of the American River upstream of Placerville. The beneficial uses of the South Fork of the American River upstream of Placerville as stated in the Basin Plan are municipal and domestic supply; hydropower generation; water contact recreation; non-contact water recreation; warm freshwater habitat; cold freshwater habitat; cold water spawning, and wildlife habitat.

20. California Fish and Game Code section 5650 makes it unlawful to discharge asphalt into state waters. Fish and Game Code section 12016 provides that any person who discharges or deposits any substance or material deleterious to fish, plant, bird, or animal life or their habitat into, or which threatens to enter, the waters of this state is liable civilly to the department for all actual damages to fish, plant, bird, or animal life or their habitat.

21. Fish and Game Code section 13013(c) authorizes the Department of Fish and Wildlife to seek costs incurred in the administration and enforcement of applicable pollution laws.

Alleged Violations

22. The Prosecution Team alleges that the Discharger violated Water Code section 13376 and Section 301 of the Clean Water Act by discharging asphalt grindings into waters of the United States without first filing a report of waste discharge or obtaining a Section 404 permit. Pursuant to Water Code section 13385, subdivision (a), any person who violates Water Code section 13376 or Section 301 of the Clean Water Act is subject to administrative civil liability pursuant to Water Code section 13385, subdivision (c), 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 and (2) where there is a discharge, any portion of which is not susceptible to cleanup or is not cleaned up, and the volume discharged but not cleaned up exceeds 1,000 gallons, an additional liability not to exceed ten dollars ($10) multiplied by the number of gallons by which the volume discharged but not cleaned up exceeds 1,000 gallons.

23. The Discharger estimates that between 900 and 1,840 cubic yards of asphalt grindings were discharged from its parking lots in Sites #1-4, and that it recovered 970 cubic yards. Using the midpoint of the discharge estimate, approximately 1,370 cubic yards were discharged, 970 cubic yards were recovered, and 400 cubic yards remains in Sites

#1-4. The Resort has not yet estimated the volume of asphalt grindings that has been discharged in Sites #5-8. Using a volume conversion, approximately 80,790 gallons were discharged to Sites #1-4 but not cleaned up. To facilitate the settlement negotiations, the days of violation were stopped on 31 October 2016.

Settlement

24. The Parties have engaged in settlement negotiations and agree to settle the matter without administrative or civil litigation and, for the Prosecution Team and the Discharger, by presenting this Stipulated Order to the Central Valley Water Board, or its delegee, for adoption as an order by settlement pursuant to Government Code section 11415.60.

25. The liability imposed by this Order is consistent with a reasonable liability determination using the penalty methodology in the State Water Resources Control Board's (State Water Board's) Water Quality Enforcement Policy (see Attachment A for the specific penalty calculation). The Prosecution Team believes that the resolution of the alleged violations set forth herein is fair and reasonable and fulfills all of its enforcement objectives, that no further action is warranted concerning those violations, except as provided in this Stipulated Order, and that this Stipulated Order is in the best interest of the public.

26. The Discharger agrees to the settlement of this matter without conceding liability in accordance with section II.15 of this Stipulated Order.

27. The Parties have agreed that this settlement will include recovery both for CDFW staff costs already incurred ($17,112) and for reasonable CDFW staff costs associated with future resources monitoring (up to $22,130; see Attachment B to this Agreement). While the over-all penalty amount found in Attachment A has not changed ($754,732), the Water Board has agreed to reduce the amount it receives by the CDFW staff and monitoring costs.

28. The Parties have agreed that, as long as the Discharger completes timely and reasonable remediation of the Cross Country Ski Parking Lot, and timely and reasonable assessment and proposes a response for the Chair 9 parking lot, Red Cliffs Admin Building Parking Lot, and Kirkwood Meadows Drive shoulder, enforcement actions will not be pursued for the Sites #5-8, in particular, the asphalt grindings that have been pushed off the edge of the Cross Country Center parking lot.

SECTION II: STIPULATIONS

The Parties stipulate to the following:

1. **Administrative Civil Liability:** The Discharger hereby agrees to pay **seven hundred fifty four thousand seven hundred thirty two dollars ($754,732)** in stipulated administrative civil liability to resolve the Water Code violations, as follows:

   a. **Seventeen thousand one hundred twelve dollars ($17,112)** shall be paid to the California Department of Fish and Wildlife (CDFW) Fish and Wildlife Pollution Account to reimburse CDFW staff costs associated with the response, cleanup and investigation of this incident. Payment shall be made no later than thirty (30) days following execution of this Order by the Central Valley Water Board or its delegee, by check or money order payable to the *Department of Fish and Wildlife Fish and Wildlife Pollution Account* and sent by certified mail to: Wendy Johnson, Staff Counsel III, Department of Fish and Wildlife, Office of Spill Prevention and Response/Legal Unit, P.O. Box 160362, Sacramento, CA 95816-0362.

   b. **Twenty two thousand one hundred thirty dollars ($22,130)** shall be paid to the CDFW Fish and Wildlife Pollution Account for reasonable future costs associated with oversight of the Discharger's implementation of the remediation plan as well as resource monitoring to be conducted by CDFW for up to three years, as described in Attachment B to this Order. Payment shall be made no later than thirty (30) days following a quarterly invoice sent to the Discharger. Payment shall be made by check or money order payable to the *Department of Fish and Wildlife Fish and Wildlife Pollution Account* and sent by certified mail to: Wendy Johnson, Staff Counsel III, Department of Fish and Wildlife, Office of Spill Prevention and Response/Legal Unit, P.O. Box 160362, Sacramento, CA 95816-0362.

   c. **Three hundred fifty seven thousand seven hundred forty five dollars ($357,745)** shall be paid to the State Water Resources Control Board Cleanup and Abatement Account for Water Board staff costs and penalties. Payment shall be made no later than thirty (30) days following execution of this Order by the Central Valley Water Board or its delegee, by check or money order made payable to the *State Water Pollution Cleanup and Abatement Account,* and referencing the number of this Order. The Discharger shall send the original signed check to:

      Accounting Office
      Attn: ACL Payment
      State Water Resources Control Board
      P.O. Box 1888
      Sacramento, CA 95812-1888.

Copies of the check shall be sent to:

Howard Hold
Regional Water Quality Control Board
Central Valley Region
11020 Sun Center Drive, Suite 200
Rancho Cordova, CA 95670

and to

Naomi Kaplowitz
Office of Enforcement
State Water Resources Control Board
P.O. Box 100, Sacramento, CA 95812.

d. **Three hundred fifty seven thousand seven hundred forty five dollars ($357,745)** shall be paid for Supplemental Environmental Projects to the National Fish and Wildlife Foundation (NFWF) for placement in the California Environmental Management Fund (Environmental Fund for Habitat and Incident Specific Restoration Projects) to be expended by NFWF to fund aquatic restoration projects benefitting Alpine and Amador County watersheds. Payment shall be made no later than thirty (30) days following execution of this Order by the Central Valley Water Board or its delegee, by check or money order made payable to the *National Fish and Wildlife Foundation* and send by certified mail to:

Wendy Johnson
Department of Fish and Wildlife
Office of Spill Prevention and Response/Legal Unit
P.O. Box 160362
Sacramento, CA 95816-0362.

2. **Supplemental Environmental Project:** The Parties agree that the payment specified in Section II.1.d is a Supplemental Environmental Project (SEP). The Central Valley Water Board is entitled to recover any SEP funds that are not expended in accordance with this Order from the Discharger. Detailed project descriptions, including milestones, budgets, quarterly reporting schedule, and performance measures are attached hereto as Attachment C – SEP Proposal and incorporated herein by reference.

   a. **Description:** The goal of this SEP is to provide funding for aquatic restoration in Alpine and Amador Counties. The SEP is to be implemented by the National Fish and Wildlife Foundation (NFWF), with CDFW providing oversight. The NFWF shall provide CDFW with a report of SEP expenditures annually by January 31 until SEP funds have been expended.

b. **Publicity:** Should Discharger or its agents or subcontractors publicize one or more elements of the SEP, they shall state in a prominent manner that the project is being partially funded as part of the settlement of an enforcement action by the Central Valley Water Board against the Discharger.

c. **Compliance with Applicable Laws:** The Discharger understands that payment of administrative civil liability in accordance with the terms of this Stipulated Order and or compliance with the terms of this Stipulated Order is not a substitute for compliance with applicable laws, and that future and/or continuing violations of the type alleged in the Complaint may subject it to further enforcement, including additional administrative civil liability.

3. **Party Contacts for Communications related to Stipulated Order:**

For the Regional Water Board:
Howard Hold
Regional Water Quality Control Board
Central Valley Region
11020 Sun Center Drive, Suite 200
Rancho Cordova, CA 95670
howard.hold@waterboards.ca.gov

For CDFW:
Wendy Johnson
Staff Counsel III, Specialist
Department of Fish and Wildlife
Office of Spill Prevention and Response
1700 K Street, Suite 250
Sacramento, CA 95811
wendy.johnson@wildlife.ca.gov

For the Discharger:
Timothy Swickard, Counsel
Lewis, Brisbois, Bisgaard & Smith, LLP
2020 West El Camino Avenue , Suite 700
Sacramento, CA 95833
tswickard@lbbslaw.com

4. **Attorney's Fees and Costs:** Each Party shall bear all attorneys' fees and costs arising from the Party's own counsel in connection with the matters set forth herein.

5. **Matters Addressed by Stipulation**: Upon the Central Valley Water Board's adoption of this Stipulated Order, and unless as otherwise referenced in Finding 28, this Order represents a final and binding resolution and settlement of all claims, violations or

causes of action that could have been asserted against the Discharger arising from the facts recited herein by the State Water Resources Control Board or CDFW as of the effective date of this Stipulated Order based on the specific facts alleged in this Order ("Covered Matters"). The provisions of this Paragraph are expressly conditioned on the full payment of the stipulated administrative civil liability, in accordance with Stipulation Paragraph 1 herein.

6. **Public Notice:** The Parties understand that this Stipulated Order must be noticed for a 30-day public review and comment period prior to consideration by the Central Valley Water Board or its delegee. In the event objections are raised during the public review and comment period, the Central Valley Water Board or its delegee may require a public hearing regarding this Stipulated Order. In that event, the Parties agree to meet and confer concerning any such objections, and may agree to revise or adjust the proposed Order as necessary or advisable under the circumstances. If significant new information is received that reasonably affects the propriety of presenting this Stipulated Order to the Central Valley Water Board, or its delegee, for adoption, the Assistant Executive Officer may unilaterally declare this Stipulated Order void and decide not to present it to the Central Valley Water Board or its delegee. The Discharger agrees that it may not rescind or otherwise withdraw the approval of this proposed Stipulated Order by its governing bodies.

7. **Addressing Objections Raised During Public Comment Period:** The Parties agree that the procedure contemplated for the Central Valley Water Board's adoption of the settlement by the Parties and review by the public, as reflected in this Stipulated Order, is lawful and adequate. In the event procedural objections are raised prior to the Stipulated Order becoming effective, the Parties agree to meet and confer concerning any such objections, and may agree to revise or adjust the procedure as necessary or advisable under the circumstances.

8. **No Waiver of Right to Enforce:** The failure of the Prosecution Team, the Central Valley Water Board or CDFW to enforce any provision of this Stipulated Order shall in no way be deemed a waiver of such provision, or in any way affect the validity of the Order. The failure of the Prosecution Team, the Central Valley Water Board or CDFW to enforce any such provision shall not preclude any of them from later enforcing the same or any other provision of this Stipulated Order.

9. **Central Valley Water Board and CDFW Shall Not Enforce on Each Other's Behalf:** The Central Valley Water Board and CDFW are each responsible for enforcing this Order with respect to the matters falling under their respective jurisdictions. The Central Valley Water Board shall not enforce provisions of this Order for which CDFW has jurisdiction under the Fish and Game Code, and CDFW shall not enforce provisions of this Order for which the Central Valley Water Board has jurisdiction under the Water Code and/or the Clean Water Act.

10. **Interpretation:** This Stipulated Order shall be construed as if the Parties prepared it jointly. Any uncertainty or ambiguity shall not be interpreted against any one Party. The Parties are represented by counsel in this matter.

11. **Modification:** This Stipulated Order shall not be modified by any of the Parties by oral representation made before or after its execution. All modifications must be in writing, signed by all Parties, and approved by the Central Valley Water Board or its delegee.

12. **If Order Does Not Take Effect:** In the event that this Stipulated Order does not take effect because it is not approved by the Central Valley Water Board, or its delegee, or is vacated in whole or in part by the State Water Board or a court, the Parties acknowledge that the Discharger and the Prosecution Team expect to proceed to a contested evidentiary hearing before the Central Valley Water Board to determine whether to assess administrative civil liabilities for the underlying alleged Water Code violations, unless the Parties agree otherwise. The Parties agree that all oral and written statements and agreements made during the course of settlement discussions, including but not limited to this Stipulated Order, will not be admissible as evidence in the hearing. The Parties agree to waive any and all objections based on settlement communications in this matter, including, but not limited to:

    a. Objections related to prejudice or bias of any of the Central Valley Water Board members or their advisors and any other objections that are premised in whole or in part on the fact that the Central Valley Water Board members or their advisors were exposed to some of the material facts and the Parties' settlement positions as a consequence of reviewing the Stipulation and/or the Order, and therefore may have formed impressions or conclusions prior to any contested evidentiary hearing on the Complaint in this matter; or

    b. Laches or delay or other equitable defenses based on the time period for administrative or judicial review to the extent this period has been extended by these settlement proceedings.

13. **No Admission of Liability:** In settling this matter, the Discharger does not admit to any of the findings in this Stipulated Order, or that it has been or is in violation of the Water Code, or any other federal, state, or local law or ordinance; however, the Discharger recognizes that this Stipulated Order may be used as evidence of a prior enforcement action consistent with Water Code section 13327 or section 13385, subdivision (e).

14. **Waiver of Hearing:** The Discharger has been informed of the rights provided by Water Code section 13323, subdivision (b), and hereby waives its right to a hearing before the Central Valley Water Board prior to the adoption of the Stipulated Order.

15. **Waiver of Right to Petition:** The Discharger hereby waives its right to petition the Central Valley Water Board's adoption of the Stipulated Order, as written, for review by the State Water Board, and further waives its rights, if any, to appeal the same to a California Superior Court and/or any California appellate level court.

16. **Covenant Not to Sue:** The Discharger covenants not to sue or pursue any administrative or civil claim(s) against any State Agency or the State of California, its

officers, Board Members, employees, representatives, agents, or attorneys arising out of or relating to any matter expressly addressed by the Stipulated Order.

17. **Central Valley Water Board and CDFW Are Not Liable: C**DFW, the Central Valley Water Board members, the Central Valley Water Board staff, attorneys, or representatives shall not be liable for any injury or damage to persons or property resulting from acts or omissions by the Discharger, its directors, officers, employees, agents, representatives or contractors in carrying out activities pursuant to this Stipulated Order.

18. **Authority to Bind:** Each person executing this Stipulated Order in a representative capacity represents and warrants that he or she is authorized to execute this Stipulated Order on behalf of and to bind the entity on whose behalf he or she executes the Order.

19. **No Third Party Beneficiaries:** This Stipulated Order is not intended to confer any rights or obligations on any third party or parties, and no third party or parties shall have any right of action under this Stipulated Order for any cause whatsoever.

20. **Severability:** The terms of this Stipulated Order are severable; should any provision be found invalid, the remainder shall be in full force and effect.

21. **Effective Date:** This Stipulated Order shall be effective and binding on the Parties upon the date the Central Valley Water Board, or its delegee, enters the Order.

22. **Counterpart Signatures; Facsimile and Electronic Signature:** This Stipulated Order may be executed and delivered in any number of counterparts, each of which when executed and delivered shall be deemed to be an original, but such counterparts shall together constitute one document. Further, this Stipulated Order may be executed by facsimile or electronic signature, and any such facsimile or electronic signature by any Party hereto shall be deemed to be an original signature and shall be binding on such Party to the same extent as if such facsimile or electronic signature were an original signature.

IT IS SO STIPULATED.

California Regional Water Quality Control Board Prosecution Team
Central Valley Region

By: Andrew Altevogt
Andrew Altevogt, Assistant Executive Officer

Date: 9/5/17

California Department of Fish and Wildlife
Office of Spill Prevention and Response

By: _____
Thomas Cullen
Administrator
Office of Spill Prevention and Response

Date: _____

FOR THE DISCHARGER:

Heavenly Valley, Limited Partnership, d/b/a Kirkwood Mountain Resort

By: _____
Doug Pierini, Vice President and General Manager

Date: _____

SECTION III: ORDER OF THE CENTRAL VALLEY WATER BOARD

1. The terms of the foregoing Stipulated Order are fully incorporated herein and made part of this Order of the Central Valley Water Board.

2. In adopting this Stipulated Order, the Central Valley Water Board or its delegee has considered, where applicable, each of the factors prescribed in CWC sections 13327 and 13385(e), and has applied the Penalty Calculation Methodology set forth in the State Water Board's Enforcement Policy as shown in Exhibit A, which is incorporated herein by this reference. The consideration of these factors is based upon information and comments obtained by the Central Valley Water Board's staff in investigating the allegations set forth in the Stipulated Order, or otherwise provided to the Central Valley

IT IS SO STIPULATED.

California Regional Water Quality Control Board Prosecution Team
Central Valley Region

By: _____
Andrew Altevogt, Assistant Executive Officer

Date: _____

California Department of Fish and Wildlife
Office of Spill Prevention and Response

By: Julie Yamamoto for
Thomas Cullen
Administrator
Office of Spill Prevention and Response

Date: July 14, 2017

FOR THE DISCHARGER:

Heavenly Valley, Limited Partnership, d/b/a Kirkwood Mountain Resort

By: _____
Doug Pierini, Vice President and General Manager

Date: _____

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2. In adopting this Stipulated Order, the Central Valley Water Board or its delegee has considered, where applicable, each of the factors prescribed in CWC sections 13327 and 13385(e), and has applied the Penalty Calculation Methodology set forth in the State Water Board's Enforcement Policy as shown in Exhibit A, which is incorporated herein by this reference. The consideration of these factors is based upon information and comments obtained by the Central Valley Water Board's staff in investigating the allegations set forth in the Stipulated Order, or otherwise provided to the Central Valley

IT IS SO STIPULATED.

California Regional Water Quality Control Board Prosecution Team
Central Valley Region

By: _____
Andrew Altevogt, Assistant Executive Officer

Date: _____

California Department of Fish and Wildlife
Office of Spill Prevention and Response

By: _____
Thomas Cullen
Administrator
Office of Spill Prevention and Response

Date: _____

FOR THE DISCHARGER:

Heavenly Valley, Limited Partnership, d/b/a Kirkwood Mountain Resort

By: _____
Doug Pierini, Vice President and General Manager

Date: 8/17/17

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2. In adopting this Stipulated Order, the Central Valley Water Board or its delegee has considered, where applicable, each of the factors prescribed in CWC sections 13327 and 13385(e), and has applied the Penalty Calculation Methodology set forth in the State Water Board's Enforcement Policy as shown in Exhibit A, which is incorporated herein by this reference. The consideration of these factors is based upon information and comments obtained by the Central Valley Water Board's staff in investigating the allegations set forth in the Stipulated Order, or otherwise provided to the Central Valley

Water Board or its delegee by the Parties and members of the public. In addition to these factors, this settlement recovers the costs incurred by the staff of the Central Valley Water Board for this matter.

3. This is an action to enforce the laws and regulations administered by the Central Valley Water Board. The Central Valley Water Board finds that issuance of this Order is exempt from the provisions of the California Environmental Quality Act (Public Resources Code, sections 21000 et seq.), in accordance with section 15321, subdivision (a)(2), Title 14, of the California Code of Regulations.

4. The Executive Officer of the Central Valley Water Board is authorized to refer this matter directly to the Attorney General for enforcement if the Discharger fails to perform any of its obligations under this Order.

Pursuant to Water Code section 13323 and Government Code section 11415.60, **IT IS HEREBY ORDERED** by the California Regional Water Quality Control Board, Central Valley Region.

By: Pamela C Creedon
Pamela C. Creedon, Executive Officer

Date: 12/13/7

Attachment A: Penalty Calculation Methodology
Attachment B: Kirkwood Asphalt Discharge Recommended Habitat Enhancement Monitoring
Attachment C: SEP Proposal

Attachment A – Settlement Order R5-2017-0540
Specific Factors Considered for Administrative Civil Liability
Heavenly Valley, Limited Partnership, d/b/a Kirkwood Mountain Resort
Amador and Alpine Counties

The State Water Board's *Water Quality Enforcement Policy* (Enforcement Policy) establishes a methodology for determining administrative civil liability by addressing the factors that are required to be considered under California Water Code section 13327. Each factor of the ten-step approach is discussed below, as is the basis for assessing the corresponding score. The Enforcement Policy can be found at:
http://www.waterboards.ca.gov/water_issues/programs/enforcement/docs/enf_policy_final111709.pdf.

Violation of Water Code section 13376 and Section 301 of the Clean Water Act

During the summer of 2015, the Heavenly Valley, Limited Partnership, d/b/a Kirkwood Mountain Resort (Discharger or Kirkwood) resurfaced several parking lots at the Kirkwood Mountain Resort (Site or Resort) using recycled asphalt pavement grindings from a nearby highway construction project. The Discharger allowed the highway project contractor to temporarily stockpile grindings at the Resort in exchange for re-surfacing several of the parking lots with the grindings. During the winter of 2015-2016, a portion of the newly-laid asphalt grindings were pushed and/or blown off of the parking lots during snow removal operations.

During the April and May 2016 inspections, the Discharger and Central Valley Water Board staff identified four main areas where discharges were observed (Sites 1 through 4). After further assessment, it was determined that Site 3 did not contain significant quantities of asphalt grindings and what was observed at that location were "cinders" (crushed volcanic rock) used for traction on paved roads in the area. According to the Discharger's estimates submitted with the 19 August 2016 *Site Assessment Survey*, approximately 900 to 1,840 cubic yards of asphalt grindings were discharged at Sites 1, 2, and 4 onto the surrounding hillsides, meadows, wetlands, tributaries and drainages that flow to Kirkwood Creek and directly into Kirkwood Creek from the three originally identified sites.

The *Site Assessment Survey* also identified four additional sites where asphalt grindings had been dislodged during snow removal operations during the winter of 2015-2016. According to the Discharger, three of the four additional sites (Red Cliffs Admin Parking Lot, Chair 9 Parking Lot, and the Kirkwood Meadows Drive Shoulder) were relatively minor in comparison to the originally identified areas. A full assessment has not yet been completed but is scheduled in 2017. The fourth area (Cross Country Ski Lot) appeared to have multiple years of discharges and is scheduled to be cleaned up and restored in 2017 following US Army Corps of Engineers permitting approval.

On 15 September 2016, the Discharger submitted a *Remediation Plan* which documented that cleanup at Sites 1, 2, and 4 had been completed and approximately 970 cubic yards of asphalt grindings had been recovered. Restoration of these sites was in the planning phase and expected to be completed by 31 October 2016.

Heavenly Valley, Limited Partnership, d/b/a Kirkwood Mountain Resort violated both Water Code section 13376 and Section 301 of the Clean Water Act by discharging asphalt grindings into waters of the United States without first filing a report of waste discharge or obtaining a Section 404 permit. This Complaint only assesses penalties for the discharges from the originally identified locations (Sites 1, 2, and 4) and the Central Valley Water Board retains the right to assess penalties for the additional locations.

Step 1 – Potential for Harm for Discharge Violations

The "potential harm to beneficial uses" factor considers the harm to beneficial uses that may result from exposure to the pollutants in the discharge, while evaluating the nature, circumstances, extent, and gravity of the violation(s). A three-factor scoring system is used for each violation or group of violations: (1) the potential to harm to beneficial uses; (2) the degree of toxicity of the discharge; and (3) whether the discharge is susceptible to cleanup or abatement.

Factor 1: Harm or Potential Harm to Beneficial Uses

This factor evaluates direct or indirect harm or potential for harm from the violation. A score between 0 and 5 is assigned based on a determination of whether the harm or potential for harm to beneficial uses is negligible (0) to major (5). In this case the potential harm to beneficial uses was determined to be **moderate** (i.e. a score of 3), which is defined as a "*moderate threat to beneficial uses (i.e. impacts are observed or reasonably expected and impacts to beneficial uses are moderate and likely to attenuate without appreciable acute or chronic effects)*."

The *Water Quality Control Plan for the Sacramento River and San Joaquin River Basins, Fourth Edition* (hereafter Basin Plan) designates beneficial uses, establishes water quality objectives, contains implementation plans and policies for protecting waters of the basin, and incorporates by reference plans and policies adopted by the State Water Resources Control Board. Surface water drainage from the Resort flows to Kirkwood Creek, a tributary to Caples Creek, which flows to the South Fork of the American River upstream of Placerville.

According to the Basin Plan, the existing and potential designated beneficial uses of the South Fork of the American River (and all tributaries not specifically excluded in the Basin Plan) are municipal and domestic supply; hydropower generation; water contact recreation; non-contact water recreation; warm freshwater habitat; cold freshwater habitat; cold water spawning, and wildlife habitat. Warm and cold freshwater habitats were the beneficial uses most obviously affected by the discharge of asphalt grindings.

Discharges of asphalt grindings can smother aquatic habitat and spawning areas and impede navigation. Also, asphalt grindings can potentially be toxic to rainbow trout eggs and alevins[1] Asphalt grindings also contain petroleum constituents which can leach hydrocarbons and polycyclic aromatic hydrocarbons (PAHs) into the water column which can also negatively impact aquatic life. Samples collected by California Department of Fish and Wildlife during 20 May 2016 and 27 May 2016 inspections confirmed that samples collected from the snow stockpiles and creek sediments contained petroleum constituents. Therefore, a score of 3 is appropriate.

Factor 2: The Physical, Chemical, Biological, or Thermal Characteristics of the Discharge

A score between 0 and 4 is assigned based on a determination of the risk or threat of the discharged material. In this case, a score of **3** was assigned. A score of 3 is defined as the chemical and/or physical characteristics of the "*discharged material poses an above-moderate risk or threat to potential receptors (i.e. chemical and/or physical characteristics of the*

[1] California Department of Fish and Game, 1996. The Toxicity of Milled Asphalt Pavement to Aquatic Organisms and its Effects on Stream Substrates in Deep Creek, San Bernardino County

discharged material exceed known risk factors and/or there is substantial concern regarding receptor protection)." Discharges of asphalt grindings can smother aquatic habitat and spawning areas and impede navigation. Asphalt grindings also contain petroleum constituents which can leach hydrocarbons and polycyclic aromatic hydrocarbons (PAHs) into the water column which can also negatively impact aquatic life. Samples collected by California Department of Fish and Wildlife during 20 May 2016 and 27 May 2016 inspections confirmed that samples collected from the snow stockpiles and creek sediments contained petroleum constituents. Therefore, a score of 3 is appropriate.

Factor 3: Susceptibility to Cleanup or Abatement
A score of 0 is assigned for this factor if 50% or more of the discharge is susceptible to cleanup or abatement. A score of 1 is assigned if less than 50% of the discharge is susceptible to cleanup or abatement. This factor is evaluated regardless of whether the discharge was actually cleaned up or abated by the discharger. In this case, more than 50% of the discharged asphalt grindings in Sites #1-4 were susceptible to cleanup and were cleaned-up by the Discharger. Therefore, a factor of **0** is assigned.

Final Score – "Potential for Harm"
The scores of the three factors are added to provide a Potential for Harm score for each violation or group of violations. In this case, a final score of **6** was calculated. The total score is then used in Step 2 below.

Step 2 – Assessment for Discharge Violations
This step addresses penalties based on both a per-gallon and a per-day basis for discharge violations.

Per Gallon Assessments for Discharge Violations
When there is a discharge, the Central Valley Water Board is to determine the initial liability amount on a per gallon basis using the Potential for Harm score from Step 1 (a score of 6 was determined) and the extent of Deviation from Requirement of the violation.

The Deviation from Requirement reflects the extent to which the violation deviates from the specific requirement (effluent limitation, prohibition, monitoring requirement, etc.) that was violated. For this discharge, the Deviation from Requirement is considered "**Major**" because the Discharger did not comply with the Water Code requirement to apply for a permit before discharging pollutants to waters of the U.S.

Table 1 of the Enforcement Policy is used to determine the "per gallon factor" based on the total score from Step 1 and the Deviation from Requirement. For this case the factor is **0.22**. This value is multiplied by the volume of discharge and the per gallon civil liability, as described below.

In the Discharger's 15 September 2016 *Remediation Plan*, the Discharger estimated that between 900 and 1,840 cubic yards of asphalt grindings were discharged off of the Sites #1-4 parking lot areas during the winter of 2015-2016 due to snow removal operations. The Discharger has not yet estimated the volume of asphalt grindings that were discharged off of Sites #5-8. The Discharger also estimated that approximately 970 cubic yards of asphalt grindings has been recovered from Sites #1-4.

Water Code section 13385(c)(2) states that a maximum civil liability amount of $10 per gallon is to be based on the number of gallons discharged but not cleaned up, over 1,000 gallons for the discharge. Board staff assumed that at least 90 cubic yards (18,178 gallons) of asphalt discharged from the Site #1-4 parking lots and was not recovered. Therefore, 17,178 gallons of asphaltic grindings are subject to penalties under Water Code section 13385(c)(2).

The Enforcement Policy allows reductions in the maximum per gallon liability based on the volume discharged and the material discharged. The Enforcement Policy recommends a maximum of $2 per gallon for very large sewage spills or municipal or construction storm water discharges. In addition, a maximum of $1 per gallon is recommended for discharges of recycled water. The material discharged does not meet the Enforcement Policy's criteria for a high volume discharge subject to a reduced maximum per gallon liability. Therefore, the Prosecution team used the statutory maximum of $10 per gallon in this case.

The Per Gallon Assessment is calculated as (0.22 factor from Table 1) x (17,178 gallons) x ($10 per gallon) = $37,792.

Per Day Assessments for Discharge Violations
When there is a discharge, the Board is to determine an initial liability amount on a per day basis using the same Potential for Harm factor score (6) and the extent of Deviation from Requirement (Major) that were used in the per-gallon analysis. The "per day" factor (determined from Table 2 of the Enforcement Policy) is 0.22.

According to the Discharger's 19 August 2016 *Site Assessment Survey*, the first day of snow removal operations from the parking lots that were resurfaced with asphalt grindings was on 3 November 2015. Although asphalt grindings are still in place in several areas without a permit, Board staff stopped the days of violation on 31 October 2016 to facilitate settlement negotiations. The discharged asphalt grindings that are the subject of this enforcement action were in place without a permit for a total of 364 days. Therefore, the Per Day Assessment is calculated as (0.22 factor from Table 2) x (364 days) x ($10,000 per day) = $800,800.

Initial Liability Amount: The value is determined by adding together the per gallon assessment and the per day assessment. For this case, the total is $37,792 + $800,800 for a total initial liability amount of **$838,592**.

Step 3 – Per Day Assessment for Non-Discharge Violation
The Enforcement Policy states that the Board shall calculate an initial liability for each non-discharge violation. In this case, this factor does not apply because all of the violations are related to the discharge of asphalt grindings, and the liability was determined in Step 2.

Step 4: Adjustment Factors

Culpability
Higher liabilities should result from intentional or negligent violations as opposed to accidental violations. A multiplier between 0.5 and 1.5 is to be used, with a higher multiplier for intentional or negligent behavior. The Discharger was assigned a multiplier value of **1.2**.

The Prosecution team alleges that the Discharger did not anticipate what a reasonable person would have by using asphalt grindings on the parking lots which are cleared of snow using heavy equipment on a regular basis. The dispersal of asphalt during snow clearing operations should have been noticed during the early part of the 2015-2016 snow season and operations changed to avoid repeat discharges. In addition, based on apparent years of use of the asphalt grindings at the Cross Country Ski Area parking lot, the Discharger should have been aware of the potential for asphalt grindings to be pushed or blown off of parking lots during snow removal operations. Therefore, a multiplier of 1.2 is justified.

Cleanup and Cooperation

This factor reflects the extent to which a discharger voluntarily cooperates in returning to compliance and correcting environmental damage. A multiplier between 0.75 and 1.5 is to be used, with a higher multiplier when there is a lack of cooperation.

Heavenly Valley, Limited Partnership, d/b/a Kirkwood Mountain Resort has been very cooperative and responsive since the discharge violation was identified during the 27 April 2016 inspection. Assessment and cleanup was been completed in a timely manner with coordination between Water Board, California Department of Fish and Wildlife, and US Army Corps of Engineers staff. Therefore, a multiplier of **0.75** is appropriate.

History of Violation

When there is a history of repeat violations, the Enforcement Policy requires a minimum multiplier of 1.1, with higher values as appropriate. When there is no history of repeat violations, a neutral factor of 1.0 is used. Board staff is unaware of prior similar violations and therefore, a neutral multiplier of **1.0** is appropriate.

Step 5 - Determination of Total Base Liability Amount

The Total Base Liability is determined by applying the adjustment factors from Step 4 to the Initial Liability Amount.

Total Base Liability Amount

Total Initial Liability x Culpability Multiplier x Cleanup and Cooperation Multiplier x History of Violations Multiplier = Total Base Liability

$838,592 x 1.2 x 0.75 x 1.0 = $754,732

Total Base Liability = **$754,732**

TOTAL BASE LIABILITY

The combined base liability is **$754,732.**

Step 6 – Ability to Pay and Continue in Business

The ability to pay and to continue in business must be considered when assessing administrative civil liability. According to Vail Resorts Fiscal 2015 Fourth Quarter and Full Year Results[2], Vail Resorts' total net revenue was $1,399.9 million for fiscal 2015 compared to $1,254.6 million in the prior fiscal year, an 11.6% increase. Given this, the Prosecution Team asserts that the discharger has the ability to pay the penalty and remain in business.

Step 7 – Other Factors as Justice May Require

The costs of investigation and enforcement are "other factors as justice may require", and could be added to the liability amount. The Central Valley Water Board Prosecution Team has incurred over $45,000 (300 hours at a statewide average of $150/hour) in staff costs associated with the investigation and enforcement of the violations alleged herein. While this amount could be considered a factor in assessing the penalty, the Prosecution Team, in its discretion, is not increasing the penalty amount based on this factor.

If the Central Valley Water Board believes that the amount determined using the above factors is inappropriate, the amount may be adjusted under the provision for "other factors as justice may require" but only if express findings are made to justify this.

Step 8 – Economic Benefit

Pursuant to Water Code section 13385(e), civil liability, at a minimum, must be assessed at a level that recovers the economic benefit, if any, derived from the acts that constitute a violation. The violations described in the Complaint identify several delayed and avoided expenses that have significantly benefited the Discharger.

The Discharger has identified several corrective actions that could have prevented, or limited the unauthorized discharge of asphalt grindings. For the upcoming winter season, the Discharger has proposed developing a comprehensive Operations and Maintenance Plan (O&M Plan) to manage snow removal and storage. The O&M Plan will include details related to approved storage locations, installation and maintenance of source control measures (Best Management Practices [BMPs]), and weekly inspections/monitoring that will be conducted by facility staff. The Central Valley Water Board estimates that completion of the plan will take a minimum of 80 labor hours, based on the content provided in the O&M Plan outline. The Central Valley Water Board further assumes that the O&M Plan is being prepared by a professional consultant, competent in plans of this nature. Therefore, a consultant labor rate of $100 per hour was used to compute the estimated plan completion cost of $8,000. This cost is assumed to a delayed expense, as the Discharger is currently preparing the plan for the upcoming.

As the O&M Plan calls for weekly inspections of snow stockpiles, drainage systems, and installed BMPs, the Central Valley Water Board contends that this practice, had it been implemented in the previous winter season, could have prevented or limited material discharges. As a result, the Discharger avoided this expense for the previous season. The Water Board estimates that weekly inspections (including visual observations, minor BMP maintenance, documentation, and reporting) would take a minimum of five labor hours to complete. At an estimated seasonal employee labor rate of $25 per hour, the weekly avoided inspection cost is $125. The effective season warranting weekly inspections occurred from

[2] http://investors.vailresorts.com/releasedetail.cfm?ReleaseID=933358

November 3, 2015 to April 27, 2016. Therefore, 26 weekly inspections could have been conducted over the winter season. The total avoided cost of weekly inspections is approximately $3,250.

The BEN financial model provided by the United States Environmental Protection Agency was used to compute the total economic benefit of noncompliance, which includes corrections to delayed and avoided costs for such factors as time value and tax deductibility. These factors may increase or decrease the actual delayed or avoided cost. Cost estimate and other financial assumptions are detailed in the attached table. For computational purposes, the penalty payment date was established as January 21, 2017. It is further assumed that the Discharger will have completed the O&M Plan by this date. Changes to this date will affect the total economic benefit. Based on specific assumptions within the model, the total economic benefit of noncompliance was determined to be approximately $2,298. The Enforcement Policy states (p. 21) that the total liability shall be at least 10% higher than the economic benefit, “so that liabilities are not construed as the cost of doing business and the assessed liability provides meaningful deterrent to future violations.” Therefore the minimum total liability associated with the economic benefit is approximately $2,528.

Step 9 – Maximum and Minimum Liability Amounts

Minimum Liability Amount**:** Economic benefit plus 10% or **$2,528**.

Maximum Liability Amount: **$4,437,900**

Step 10 – Final Liability Amount

The final liability amount consists of the added amounts for each violation, with any allowed adjustments, provided amounts are within the statutory minimum and maximum amounts. Based on the foregoing analysis, and consistent with the Enforcement Policy, the final proposed Administrative Civil Liability is **$754,732.**

Attachment: Exhibit 1: BEN model

Economic Benefit Analysis

Kirkwood (Page 1)

Compliance Action		One-Time Non-Depreciable Expenditure Amount	Basis	Date	Delayed?	Non-Compliance Date	Compliance Date	Penalty Payment Date	Discount Rate	Benefit of Non-Compliance
Weekly Inspection (11/6/15)		$ 125.00	ECI	1/21/2017	N	11/6/2015	1/1/2016	1/1/2016	7.40%	$ 74
Weekly Inspection (11/13/15)		$ 125.00	ECI	1/21/2017	N	11/13/2015	1/1/2016	1/1/2016	7.40%	$ 74
Weekly Inspection (11/20/15)		$ 125.00	ECI	1/21/2017	N	11/20/2015	1/1/2016	1/1/2016	7.40%	$ 73
Weekly Inspection (11/27/15)		$ 125.00	ECI	1/21/2017	N	11/27/2015	1/1/2016	1/1/2016	7.40%	$ 73
Weekly Inspection (12/4/15)		$ 125.00	ECI	1/21/2017	N	12/4/2015	1/1/2016	1/1/2016	7.40%	$ 73
Weekly Inspection (12/11/15)		$ 125.00	ECI	1/21/2017	N	12/11/2015	1/1/2016	1/1/2016	7.40%	$ 73
Weekly Inspection (12/18/15)		$ 125.00	ECI	1/21/2017	N	12/18/2015	1/1/2016	1/1/2016	7.40%	$ 73
Weekly Inspection (12/25/15)		$ 125.00	ECI	1/21/2017	N	12/25/2015	1/1/2016	1/1/2016	7.40%	$ 73
Weekly Inspection (1/1/16)		$ 125.00	ECI	1/21/2017	N	1/1/2016	1/1/2016	1/1/2016	7.30%	$ 73
Weekly Inspection (1/8/16)		$ 125.00	ECI	1/21/2017	N	1/8/2016	1/1/2016	1/1/2016	7.30%	$ 73
Weekly Inspection (1/15/16)		$ 125.00	ECI	1/21/2017	N	1/15/2016	1/1/2016	1/1/2016	7.30%	$ 73
Weekly Inspection (1/22/16)		$ 125.00	ECI	1/21/2017	N	1/22/2016	1/1/2016	1/1/2016	7.30%	$ 73
Weekly Inspection (1/29/16)		$ 125.00	ECI	1/21/2017	N	1/29/2016	1/1/2016	1/1/2016	7.30%	$ 72
Weekly Inspection (2/5/16)		$ 125.00	ECI	1/21/2017	N	2/5/2016	1/1/2016	1/1/2016	7.30%	$ 72
Weekly Inspection (2/12/16)		$ 125.00	ECI	1/21/2017	N	2/12/2016	1/1/2016	1/1/2016	7.30%	$ 72

Income Tax Schedule: Corporation **Analyst:** Bryan Elder **Total Benefit:** **$ 1,095**

USEPA BEN Model Version: Version 5.6.0 (April 2016) **Date/Time of Analysis:** 10/19/2016 13:58

Assunptions:

1 Inspection labor rate assumed to be $25 per hour. Weekly inspections assumed to require 5 hours of labor.

2 O&M Plan development assumed to include 80 hours of labor at consultant rate of $100 per hour.

3 Labor rates indexed using the Employment Cost Index (ECI).

4 Non-compliance Date for each weekly inspection is assumed to be Friday for each week of operation, with the exception of April 27, 2016, which was identified as the final day of the snow removal period.

5 Compliance date for weekly inspection is irrevelant, as these expenses are assumed to be avoided.

6 Compliance date for O&M Plan is assumed to be January 21, 2017.

7 Penalty Payment Date is assumed to be January 21, 2017.

Economic Benefit Analysis

Kirkwood (Page 2)

Compliance Action		One-Time Non-Depreciable Expenditure Amount	Basis	Date	Delayed?	Non-Compliance Date	Compliance Date	Penalty Payment Date	Discount Rate	Benefit of Non-Compliance
Weekly Inspection (2/19/16)		$ 125.00	ECI	1/21/2017	N	2/19/2016	1/21/2017	1/21/2017	7.30%	$ 78
Weekly Inspection (2/26/16)		$ 125.00	ECI	1/21/2017	N	2/26/2016	1/21/2017	1/21/2017	7.30%	$ 78
Weekly Inspection (3/4/16)		$ 125.00	ECI	1/21/2017	N	3/4/2016	1/21/2017	1/21/2017	7.30%	$ 78
Weekly Inspection (3/11/16)		$ 125.00	ECI	1/21/2017	N	3/11/2016	1/21/2017	1/21/2017	7.30%	$ 77
Weekly Inspection (3/18/16)		$ 125.00	ECI	1/21/2017	N	3/18/2016	1/21/2017	1/21/2017	7.30%	$ 77
Weekly Inspection (3/25/16)		$ 125.00	ECI	1/21/2017	N	3/25/2016	1/21/2017	1/21/2017	7.30%	$ 77
Weekly Inspection (4/1/16)		$ 125.00	ECI	1/21/2017	N	4/1/2016	1/21/2017	1/21/2017	7.30%	$ 78
Weekly Inspection (4/8/16)		$ 125.00	ECI	1/21/2017	N	4/8/2016	1/21/2017	1/21/2017	7.30%	$ 78
Weekly Inspection (4/15/16)		$ 125.00	ECI	1/21/2017	N	4/15/2016	1/21/2017	1/21/2017	7.30%	$ 78
Weekly Inspection (4/22/16)		$ 125.00	ECI	1/21/2017	N	4/22/2016	1/21/2017	1/21/2017	7.30%	$ 77
Weekly Inspection (4/27/16)		$ 125.00	ECI	1/21/2017	N	4/27/2016	1/21/2017	1/21/2017	7.30%	$ 77
Development of O&M Plan		$ 8,000.00	ECI	1/21/2017	Y	11/3/2015	1/21/2017	1/21/2017	7.40%	$ 350

Income Tax Schedule: Corporation **Analyst:** Bryan Elder **Total Benefit:** **$ 1,203**

USEPA BEN Model Version: Version 5.6.0 (April 2016) **Date/Time of Analysis:** 10/19/2016 13:58

Assunptions:

1 Inspection labor rate assumed to be $25 per hour. Weekly inspections assumed to require 5 hours of labor.

2 O&M Plan development assumed to include 80 hours of labor at consultant rate of $100 per hour.

3 Labor rates indexed using the Employment Cost Index (ECI).

4 Non-compliance Date for each weekly inspection is assumed to be Friday for each week of operation, with the exception of April 27, 2016, which was identified as the final day of the snow removal period.

5 Compliance date for weekly inspection is irrevelant, as these expenses are assumed to be avoided.

6 Compliance date for O&M Plan is assumed to be January 21, 2017.

7 Penalty Payment Date is assumed to be January 21, 2017.

Kirkwood Asphalt Discharge Recommended Habitat Enhancement Work Fish and Wildlife Habitat Monitoring

Carol Oz, Senior Environmental Scientist (Specialist) March 27, 2017

Cleanup and restoration activities continue at Kirkwood Resort subsequent to recycled asphalt discharge to Kirkwood Creek and several of its tributaries. CDFW recommends the following habitat enhancement work and natural resources monitoring.

I. Habitat Restoration/Enhancement: Conducted by Vail

A. Continue with restoration plans including willow, alder, and native grasses and plants planting. Monitor for success.
B. Increase natural vegetative buffer distances along impacted areas of Kirkwood Creek and tributaries to protect the stream water quality and increase habitat.
C. Remove culverts that were discarded in Kirkwood Creek just upstream of Highway 88 (and the Kirkwood Inn parking lot asphalt discharge). These culverts act as impediments in fish habitat. Removal will increase and enhance existing trout habitat in this location and protect downstream Wild Trout waters. Kirkwood/Vail/CalTrans may all be responsible for removing the impediments.
D. Educate maintenance workers and the public regarding sensitive resources (e.g., pictorial signage at storm drain locations showing that drainage leads to fish habitat, nature trails with placards showing resources information, etc.).

II. Resources Monitoring Conducted by CDFW

A. Conduct benthic macroinvertebrate (BMI) and water quality monitoring in spring and late summer 2017 index periods. Field work is expected to take 2-days, calculations add a 3rd day for buffer. Potential for 2nd year follow-up. This BMI assessment will include both qualitative and quantitative measurements: physical habitat and water quality measurements will be conducted to determine impacts from asphalt and inform assessment of resource recovery.
B.

Staff Position	Hourly rate	Duration in field/cost	Mileage cost (.064/mile, 164 miles RT)
ES	$84.26	3 days (24 hrs)=$2022.24	$31.48
Sen ES Spec	$97.01	$2328.24	$31.48

C. Fish and Amphibian surveys: Evaluate trout population in Kirkwood Creek; evaluate potential fish barrier caused by asphalt fill; assess fishery above spill impact area; survey Kirkwood Creek, tributaries, and meadow habitat for Sierra Nevada Yellow-legged frog and southern long-toed salamander. Survey is expected to take 2 days utilizing electro-fishing, two Environmental Scientists and one Senior Environmental Scientist Specialist.

Staff Position	Hourly rate	Duration in field	Mileage cost (.064/mile, 164 miles RT)
(2) ES	$84.26	2 days (16 hrs)=$1348.16	$31.48
Sen ES Spec	$97.01	$1552.16	$31.48

Total estimated cost for CDFW 2017 (one season) resources monitoring = $7,376.72.

Depending on 2017 monitoring and survey findings, additional year(s) monitoring may be warranted up to three years**.**

Total cost for 3 years CDFW seasonal monitoring = $22,130.16

Note: This cost estimate does not include habitat restoration/enhancement implementation costs referenced in section I, which should be incurred by respective responsible party(s). This cost estimate is for oversight and monitoring associated with appropriate remediation work undertaken by the responsible party.

Attachment C – Settlement Order R5-2017-0540
Supplemental Environmental Project:
Hope Valley Restoration and Aquatic Habitat Enhancement

Project Proponent: The National Fish and Wildlife Foundation (NFWF) will contract with the Alpine Watershed Group to complete this project.

Estimated Budget: The proposed total cost for the SEP is $362,420. Of this, $357,745 will be paid by Vail Resorts Management. The NFWF Environmental Fund for Habitat and Incident Specific Restoration Projects, Riverine Habitat Fund, will provide $4,675 to close the funding gap for the SEP.

Accounting: The NFWF will provide detailed accounting reports for all SEP funds to the California Department of Fish and Wildlife (DFW) who will, in turn, provide the information to the Central Valley Water Board.

Project Description: The project will support the stabilization of over 800 feet of eroding banks along the West Fork of the Carson River, and help improve aquatic habitat along nearly 0.5 miles of river at four specific sites. The proposed 0.5 mile stretch through lower Hope Valley would be contiguous with the 2015 restoration project conducted by American Rivers. The project would fund implementation of one demonstration project at the most heavily used and highly visible sites (Phases 1 and 2, below).

Location: West Fork Carson River through lower Hope Valley. The Project area consists of four meanders from the Highway 88 bridge (38.771890, - 119.934319) about 0.5 river miles downstream, ending just before (but not including) the meander restored in fall of 2015 (38.776818, -119.933301).

Affected Watershed and/or Groundwater Basin: North Lahontan Hydrologic Unit Region, HUC Unit: 16050201 – Upper Carson; Carson Valley Groundwater Basin (6-06), Upper Carson Watershed, Lower Carson Watershed, and Hope Valley Meadow.

Expected Benefits or Improvements to Water Quality and/or Beneficial Uses: The project will reduce erosion and sedimentation and provide shading in the West Carson River at the four proposed sites. The results will include improved water quality and aquatic habitat. The project will also benefit water users in the Carson Valley, fishing and other recreation activities for visitors and residents of Alpine County, and the environment through more a connected and functional channel and floodplain.

Meadow restoration projects have been demonstrated to increase water storage capacity. Through restoration, these meadows are reconnected to groundwater, which usually results in reduced water temperatures in summer. Reconnecting the meadow with its floodplain also reduces erosion and sediment delivery.

Project Readiness: The project has undergone initial planning by project partners including American Rivers, Friends of Hope Valley, and the California Department of

Fish and Wildlife (the landowner). Final design plans will be developed in order for CEQA to be completed and the project to be implemented.

Other Potential Project Benefits: This project aligns with the California Water Action Plan priorities and the Sierra Nevada Conservancy's Watershed Improvement Program by providing multiple benefits such as enhancing wildlife habitat, improving water filtration ability and augmenting carbon storage capacity. In 2015 American Rivers completed the first stream bank restoration project along the West Fork Carson within Hope Valley. The site was on California Department of Fish and Wildlife land in the Lower Hope Valley, at the downstream end of this proposed project. In 2016, a second major restoration project is being completed further upstream. This reach currently under construction consists of approximately 25 treatments for bank stabilization and riparian restoration along a 1.3 mile section of USFS land in the Upper Hope Valley. This proposed project would address the land between these two projects, leveraging greater ecological benefit and larger areas of connection of stream to meadow floodplain, while completing one of the final needed restorations on the Upper West Carson River. The project will help to mitigate the potential long-term impacts of climate change. Reestablishing a functional floodplain and meadow system will allow the river corridor to accommodate variable flows in the future. In addition, due to the potential for earlier spring runoff, it will be important for these meadowlands to serve as natural storage areas. Meadows provide an important form of natural water storage, which also improves late season, in-stream flows.

This project will address several of the California Water Plan Update (2013) resource management strategies in the "Ecosystem Restoration" category, including the following: 1) Reconnect rivers to their historic floodplains as part of new flood management approaches, 2) Restore mountain meadows, 3) Maintain and create habitat around stream and river corridors that is compatible with stream and river functions, 4) Restore and preserve stream channel morphology to provide floodwaters access to the floodplain and to encourage stable banks and channel form.

This project would also be considered an effective strategy according to the California Water Action Plan (2016) priorities to ensure the following: 1) Restore key mountain meadow habitat, 2) Manage headwaters for multiple benefits, and 3) Protect and restore degraded stream and meadow ecosystems to assist in natural water management and improved habitat.

Environmental Justice Concerns that may be Addressed by the Project: The project area represents an important historical and cultural resource of the Washoe Tribe. For over 10 years, the Alpine Watershed Group has been working with the Washoe Tribe's Cultural and Environmental Departments in addressing water quality issues and developing projects such as this one which benefit tribal resources.

Disadvantaged Community Concerns that may be Addressed by the Project: The Woodfords Community of the Washoe Tribe is considered a disadvantaged community and is located downstream of the proposed project site. As mentioned above, this project helps to protect the cultural and environmental resources of significance to the Washoe Tribe.

Audit of Expenditures: The Project Proponent agrees to an audit of SEP expenditures, upon request by the Central Valley Water Board.

Tasks, Budget, and Timeline: The project will consist of three phases, and will be completed in its entirety by December 31, 2019.

Phase I: Design and Permitting
The phase will include environmental review and pre-project monitoring. The expected cost is $118,550.

Phase II: Restore Site #1
The phase is the restoration of Site #1, as a demonstration project. The expected cost is $115,530.

Phase III: Restore Site #2
Under Phase III, Site 2 will be restored. The expected cost is $128,340.

Deliverables:
The DFW will submit quarterly reports to the Central Valley Water Board until completion of the SEP. Quarterly monitoring reports will be due on the 15th of April, July, October, and February and will describe the progress of each SEP phase and monies expended. The first quarterly report will be due on 15 October 2017.

The February 2020 quarterly report will also serve as the final report and shall include a Certification of Completion. The Certificate shall be submitted under penalty of perjury and shall include the following:

a. Certification that the SEP has been completed in accordance with the terms of this Stipulated Order. Such documentation may include photographs, invoices, receipts, certifications, and other materials reasonably necessary for the Regional Board to evaluate the completion of the SEP and the costs incurred by the Project Proponent.

b. Certification documenting the expenditures by the Project Proponent during the completion period for the SEP. In making such certification, the Project Proponent may rely upon tracking systems used in the ordinary course of business that capture employee time, expenditures, and external payments to outside vendors such as environmental and information technology contractors or consultants. The certification need not address any costs incurred by the Regional Board for oversight. The Project Proponent shall provide any additional information requested by the Regional Board staff which is reasonably necessary to verify SEP expenditures.

c. Certification that the Project Proponent followed all applicable environmental laws and regulations in the implementation of the SEP including but not limited to the California Environmental Quality Act (CEQA), the federal Clean Water Act, and the Porter-Cologne Act.

Request for Extension of SEP Completion Deadline: If the Project Proponent cannot meet the SEP Completion Deadline due to circumstances beyond its anticipation or control, it shall notify the Executive Officer of the Central Valley Water Board in writing within thirty (30) days of the date that it first knew of the event or circumstance that caused or could cause a violation of the terms of this Proposal. The notice shall describe the reason for the nonperformance and specifically refer to this Paragraph. The notice shall describe the anticipated length of time the delay may persist, the cause or causes of the delay, the measures taken or to be taken to prevent or minimize the delay, the schedule by which the measures will be implemented, and the anticipated date of compliance. The Project Proponent shall adopt all reasonable measures to avoid and minimize such delays.

Where the Executive Officer concurs that compliance was or is impossible, despite the timely good faith efforts, due to circumstances beyond control that could not have been reasonably foreseen and prevented by the exercise of reasonable diligence, a new compliance deadline shall be established. The Executive Officer will endeavor to grant a reasonable extension of time if warranted.