IN THE UNITED STATES DISTRICT COURT FOR THE DISTRICT OF COLORADO

Civil Action No.1:20-CV-03166-SK

UNITED STATES OF AMERICA,

Plaintiff,

v.

JOHN RAFTOPOULOS, DIAMOND PEAK CATTLE COMPANY, LLC, a Colorado Limited Liability Company, and RANCHO GRECO LIMITED, LLC, a Colorado Limited Liability Company.

Defendants.

CONSENT DECREE

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WHEREAS, the Plaintiff, the United States of America, on behalf of the United States Environmental Protection Agency ("EPA") and the United States Department of the Interior, Bureau of Land Management ("BLM"), filed a Complaint against Defendants John Raftopoulos, Diamond Peak Cattle Company, LLC, and Rancho Greco Limited, LLC, (collectively, "Defendants"), alleging that Defendants violated Section 301(a) of the Clean Water Act ("CWA"), 33 U.S.C. § 1311(a), and sections 302, 303, and 310 of the Federal Land Policy and Management Act of 1976 ("FLPMA"), 43 U.S.C. §§ 1732, 1733 and 1740, and trespassed on federal public lands.

WHEREAS, the Complaint alleges that Defendants violated CWA Section 301(a) by discharging dredged or fill material and/or controlling and directing the discharge of dredged or fill material into waters of the United States at a site located in Moffat County, Colorado (the "Site"), described and depicted on Appendix A, without authorization by the United States Army Corps of Engineers ("the Corps");

WHEREAS, the Complaint further alleges that Defendants violated FLPMA by undertaking unauthorized and unpermitted activities associated with re-routing Vermillion Creek, and related agricultural activities, including earth-moving, plowing, bridge-construction, removal of minerals, and irrigation on federal public lands managed by BLM within the Site that constitute a trespass of federal public lands;

WHEREAS, the Complaint seeks (1) to enjoin Defendants from discharging pollutants into waters of the United States in violation of CWA Section 301(a), 33 U.S.C. § 1311(a); (2) to enjoin Defendants from committing further acts of trespass upon federal property; (3) to require

Defendants, at their own expense and at the direction of EPA and BLM, to restore and mitigate the damages caused by their unlawful activities; (4) to require Defendants to pay civil penalties as provided in 33 U.S.C. § 1319(d); and (5) to require payment of monetary damages for Defendants' trespass on federal public lands managed by the BLM;

WHEREAS, this Consent Decree is intended to constitute a complete and final settlement of the United States' claims under the CWA and FLPMA set forth in the Complaint regarding the Site;

WHEREAS, the United States and Defendants agree that settlement of this case is in the public interest and that entry of this Consent Decree is the most appropriate means of resolving the United States' claims under the CWA and FLPMA against Defendants in this case; and

WHEREAS, the Court finds that this Consent Decree is a reasonable and fair settlement of the United States' claims against Defendants in this case, and that this Consent Decree adequately protects the public interest in accordance with the CWA, FLPMA and all other applicable federal law.

THEREFORE, before the taking of any testimony upon the pleadings, without further adjudication of any issue of fact or law, and upon consent of the parties hereto by their authorized representatives, it is hereby ORDERED, ADJUDGED and DECREED as follows:

I. JURISDICTION AND VENUE

1. This Court has jurisdiction over the subject matter of these actions and over the parties pursuant to 28 U.S.C. §§ 1331, 1345, and 1355, Section 309(b) of the CWA, 33 U.S.C. § 1319(b), and FLPMA Section 303, 43 U.S.C. § 1733.

- 2. Venue is proper in the District of Colorado pursuant to CWA Section 309(b), 33 U.S.C. § 1319(b), and 28 U.S.C. §§ 1391(b) and (c), because the Defendants reside and conduct business in this District, the subject property is located in this District, and the causes of action alleged herein arose in this District.
- 3. The Complaint states claims upon which relief can be granted pursuant to Sections 301, 309 and 404 of the CWA, 33 U.S.C. §§ 1311, 1319 and 1344, and Sections 302, 303, and 310 of FLPMA, 43 U.S.C. §§ 1732, 1733 and 1740.

II. APPLICABILITY

- 4. The obligations of this Consent Decree shall apply to and be binding upon Defendants, their officers, directors, agents, and employees, and their successors and assigns and any person, firm, association or corporation who is, or will be, acting in concert or participation with any of the Defendants whether or not such person has notice of this Consent Decree. In any action to enforce this Consent Decree against a Defendant, the Defendant shall not raise as a defense the failure of any of its officers, directors, agents, employees, successors or assigns or any person, firm, association, or corporation acting in concert or participation with the Defendant, to take any actions necessary to comply with the provisions of this Consent Decree.
- 5. The transfer of ownership or other interest in any portion of the Site by any Defendant shall not alter or relieve Defendants of their obligation to comply with all of the terms of this Consent Decree. At least 15 days prior to the transfer of ownership or other interest in the Site, the party making such transfer shall provide written notice and a true copy of this Consent Decree to its successors in interest and shall simultaneously notify EPA and the United States Department of Justice at the addresses specified in Section X below that such notice has been

given.¹ As a condition to any such transfer, the Defendant making the transfer shall reserve all rights necessary to comply with the terms of this Consent Decree.

III. SCOPE OF CONSENT DECREE

- 6. This Consent Decree shall constitute a complete and final settlement of all civil claims for injunctive relief, declaratory relief, civil penalties, and damages alleged in the Complaint against the Defendants under CWA Section 301, FLPMA Sections 302, 303, and 310 and common law trespass concerning the Site.
- 7. It is the express purpose of the parties in entering this Consent Decree to further the objectives set forth in CWA Section 101, 33 U.S.C. § 1251 and FLPMA, 43 U.S.C. §§ 1732, 1733 and 1740. All plans, studies, construction, restoration and mitigation, remedial maintenance, monitoring programs, and other obligations in this Consent Decree or resulting from the activities required by this Consent Decree shall have the objective of causing Defendants to achieve and maintain full compliance with, and to further the purposes of, the CWA and FLPMA.
- 8. Defendants' obligations under this Consent Decree are joint and several.
- 9. Except as in accordance with this Consent Decree, Defendants and Defendants' officers, directors, agents, employees, successors and assigns, and any person, firm, association or corporation who is, or will be, acting in concert or participation with any of the Defendants are enjoined from discharging any pollutant into waters of the United States, unless such discharge complies with the provisions of the CWA and its implementing regulations.

¹ Time periods in this Consent Decree shall be computed in accordance with Federal Rule of Civil Procedure 6(a).

- 10. Except as in accordance with this Consent Decree, Defendants and Defendants' agents, successors and assigns are enjoined from committing a trespass on BLM or other federal lands.
- 11. The parties acknowledge that Nationwide Permit 32, found at 82 Fed. Reg. 1,860, 1,992 (Jan. 6, 2017), authorizes any fill that was placed as of February 1, 2021, in the areas identified in the Restoration Plan to be submitted by Defendants and approved by EPA and BLM in accordance with Paragraph 23, to remain in place, subject to the conditions provided in Nationwide Permit 32 and this Consent Decree. The parties further acknowledge that Nationwide Permit 32 authorizes the discharge of dredged or fill material insofar as such discharge is necessary to complete the work, including monitoring, required to be performed pursuant to this Consent Decree. Any such discharge of dredged or fill material necessary for work required by this Consent Decree shall be subject to the conditions of Nationwide Permit 32 and this Consent Decree, but Defendants do not have to contact the Corps or obtain any separate Corps permit to implement the terms and conditions of this Consent Decree and any incorporated plans.
- 12. This Consent Decree is not and shall not be interpreted to be a permit or modification of any existing permit issued pursuant to Sections 402 or 404 of the CWA, 33 U.S.C. §§ 1342 or 1344, or any other law. Nothing in this Consent Decree shall limit the ability of the Corps to issue, modify, suspend, revoke or deny any individual permit or any nationwide or regional general permit, nor shall this Consent Decree limit the EPA's ability to exercise its authority pursuant to Section 404(c) of the CWA, 33 U.S.C. § 1344(c).
- 13. This Consent Decree is not and shall not be interpreted to alter the United States' authority, pursuant to FLPMA, 43 U.S.C. § 1733(b), to seek an injunction or other appropriate

order to prevent any person from utilizing public lands in violation of regulations issued by the Secretary of the Department of the Interior.

- 14. This Consent Decree in no way affects or relieves Defendants of their responsibility to comply with any applicable federal, state, or local law, regulation or permit.
- 15. This Consent Decree in no way affects the rights of the United States as against any person not a party to this Consent Decree.
- 16. The United States reserves any and all legal and equitable remedies available to enforce the provisions of this Consent Decree and applicable law.
- 17. Nothing in this Consent Decree shall constitute an admission of fact or law by any party.

IV. SPECIFIC PROVISIONS

CIVIL PENALTIES, DAMAGES, AND COSTS

- 18. Defendants shall pay a civil penalty to the United States in the amount of Two Hundred Sixty Five Thousand (\$265,000) within 30 days of entry of this Consent Decree.
- 19. Defendants shall pay civil damages to the United States in the amounts set out in the following subparagraphs A through D for their trespass on federal lands, as authorized by FLPMA and related regulations, 43 U.S.C. § 1733(g), 43 C.F.R. §§ 2920.1-1 and 2920.1:
 - A. Defendants shall pay damages to the United States for past administrative costs incurred by the BLM in the amount of Sixty-Seven Thousand Nine Hundred Sixteen Dollars (\$67,916) within 30 days of entry of this Consent Decree.
 - B. Defendants agree to pay future administrative costs incurred by BLM during the restoration design development, implementation and monitoring, within 30 days after receipt from BLM of documentation and certification of these costs, at an

amount not to exceed Twenty Thousand Dollars (\$20,000) in total for all administrative costs incurred following the entry of this Consent Decree

- C. Defendants shall pay Three Thousand Nine Hundred Twelve Dollars (\$3,912) in compensation for the alleged fair market rental value of public lands damaged by Defendants' trespass activities within 30 days of entry of this Consent Decree.
- D. Defendants shall pay Six Thousand Three Hundred Sixty Six Dollars (\$6,366) in compensation for the fair market value of minerals removed from public lands within 30 days of entry of this Consent Decree.
- 20. Defendants shall make the above-referenced payments by FedWire Electronic Funds

 Transfer ("EFT" or wire transfer) to the U.S. Department of Justice account in accordance with

 current electronic funds transfer procedures, referencing U.S.A.O. file number (2017V00603),

 EPA Region 8, BLM Region 7 and the DOJ case number 90-5-1-1-21104. Payment shall be

 made in accordance with instructions provided to the Defendants by the Financial Litigation Unit

 of the United States Attorney's Office for the District of Colorado. Any payments received by

 the Department of Justice after 4:00 P.M. (Eastern Time) will be credited on the next business

 day.
- 21. Upon payment of the civil penalty, damages and costs required by this Consent Decree, Defendants shall provide written notice, at the addresses specified in Section X of this Consent Decree, that such payment was made in accordance with Paragraph 20.
- 22. Penalty payments under this Decree pursuant to this Section or Section IX (Stipulated Penalties) are penalties within the meaning of Section 162(f)(1) of the Internal Revenue Code, 26 U.S.C. § 162(f)(1), and 26 C.F.R. § 1.162-21(a)(3)(i), and Defendants shall not deduct any

penalties paid under this Decree pursuant to this Section or Section IX (Stipulated Penalties) in calculating their federal income tax. For purposes of the identification requirement in Section 162(f)(2)(A)(ii) of the Internal Revenue Code, 26 U.S.C. § 162(f)(2)(A)(ii), and 26 C.F.R. § 162-21(b)(2)(iii)(A), performance of Paragraphs 23 and 24 are restitution, remediation, or required to come into compliance with the law.

RESTORATION, MITIGATION AND PRESERVATION

- 23. Defendants shall perform the restoration and mitigation activities under the terms and conditions of a restoration plan that is approved by EPA and BLM (the "Restoration Plan"). The Restoration Plan will be fully consistent with and implement the work plan that the parties have agreed to as set forth in Appendix B appended hereto and incorporated by reference as an enforceable part of this Consent Decree (the "Work Plan").
 - A. No later than 90 days after entry of the Consent Decree by the Court, or as otherwise agreed to by the parties, Defendants shall submit a proposed Restoration Plan to EPA and BLM for approval. After review of the Plan, EPA and BLM will: a) approve the proposed Restoration Plan, in whole or in part; b) approve the proposed Restoration Plan upon specified conditions; c) disapprove the proposed Restoration Plan, in whole or in part; or d) any combination of the above. EPA and BLM may disapprove the proposed Restoration Plan, in whole or in part, based on EPA's and BLM's determination that the proposed Restoration Plan is not in accordance with the Work Plan, or the objectives of the Consent Decree and the Clean Water Act. The Restoration Plan will provide for commencement of restoration activities no later than October 15, 2021, unless otherwise agreed to in writing by EPA.

- B. If EPA and BLM disapprove all or part of the proposed Restoration Plan,

 Defendants shall, within 30 days of receipt of the disapproval, or as otherwise agreed to

 by the parties, address the reasons for disapproval and resubmit a revised Restoration

 Plan for review and approval. If a proposed Restoration Plan submitted pursuant to this

 provision is disapproved in whole or in part three times or more, EPA and BLM may

 themselves correct the deficiencies in that Restoration Plan and require restoration in

 accordance with the Restoration Plan developed by EPA and BLM, subject to

 Defendants' right to invoke Dispute Resolution under Section VII of this Consent

 Decree. The final Restoration Plan approved by EPA and BLM will be an enforceable

 part of this Consent Decree.
- 24. Defendants shall remove the bridge they constructed on BLM land at the Site during their trespass activities, in a manner and at a time that is consistent with the purpose and design of the Restoration Plan and no later than one year after completion of restoration of Vermillion Creek to the channel location identified in the Restoration Plan unless otherwise approved in writing by EPA and BLM.
- 25. Upon completion of the terms and conditions of the Restoration Plan, Defendants shall not mow, cut, clear, cultivate, dredge, excavate, farm, fill, dewater, drain or otherwise disturb in any manner whatsoever the locations identified in the Restoration Plan that are not to be disturbed, except as authorized in the Restoration Plan or subsequently approved in writing by EPA and BLM.
- 26. To ensure that all reasonable steps are taken to prevent disturbance of the locations identified in the Restoration Plan that are not to be disturbed, except as necessary to implement

the Restoration Plan, including all monitoring, the Defendants shall, within 15 days of entry of this Consent Decree, record a certified copy of this Consent Decree with the Clerk and Recorder's Office for Moffat County, Colorado. In addition, the Defendants shall, no later than December 31, 2023, or as otherwise agreed to in writing by the Parties, make and record deed restrictions ("Deed Restrictions") for all locations on the private property identified in the Restoration Plan that are not to be disturbed in perpetuity. The Deed Restrictions shall be substantially similar to the sample attached as Appendix C, and any changes in the Deed Restrictions from the sample attached as Appendix C shall be approved in writing by EPA. The Deed Restrictions shall provide that each deed, title, or other instrument conveying an interest in the subject parcel shall contain a notice stating that the property is subject to the Deed Restrictions and shall reference the recorded location of the Deed Restrictions. The Deed Restrictions shall be recorded with the Clerk and Recorder's Office for Moffat County, Colorado. Upon recording of the Deed Restrictions and Consent Decree, the Defendants shall give notice to the United States, EPA, and BLM at the addresses in Section X no later than 15 days after recording each of the documents. The written notice must include the book and page number of the recorded documents.

27. The Parties acknowledge that Defendants hired a licensed professional land surveyor to conduct a cadastral survey and replace the survey marker(s) that were removed during trespass. This work was completed and the survey results have been recorded in appropriate state and federal offices according to appropriate federal and state standards.

V. NOTICES AND OTHER SUBMISSIONS

- 28. Within 30 days after the deadline for completing any task set forth in the Restoration Plan, Defendants shall provide the United States with written notice, at the addresses specified in Section X of this Consent Decree, of whether or not that task has been completed.
- 29. If the required task has been completed, the notice shall specify the date when it was completed, and explain the reasons for any delay in completion beyond the scheduled time for such completion required by the Consent Decree, including the steps taken by Defendants to comply with the provisions of Section VIII (Force Majeure).
- 30. In all notices, documents or reports submitted to the United States pursuant to this Consent Decree, the Defendants shall, by signature of a senior management official, certify such notices, documents and reports as follows:

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering such information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

VI. <u>RETENTION OF RECORDS AND RIGHT OF ENTRY</u>

31. Until five years after termination of this Consent Decree, Defendants shall preserve and retain all records and documents now in their possession or control or which come into their possession or control that relate in any manner to the performance of the tasks in the Restoration Plan, regardless of any corporate retention policy to the contrary. Until five years after termination of this Consent Decree, Defendants shall also instruct their contractors and agents to

preserve all documents, records, and information of whatever kind, nature or description relating to the performance of the tasks in the Restoration Plan.

- 32. At the conclusion of the document retention period, Defendants shall notify the United States at least 90 days prior to the destruction of any such records or documents, and, upon request by the United States, Defendants shall deliver any such records or documents to EPA. The Defendants may assert that certain documents, records and other information are privileged under the attorney-client privilege or any other privilege recognized by federal law. If the Defendants assert such a privilege, they shall provide the United States with the following: (1) the title of the document, record, or information; (2) the date of the document, record, or information; (3) the name and title of the author of the document, record, or information; (4) the name and title of each addressee and recipient; (5) a description of the subject of the document, record, or information; and (6) the privilege asserted by Defendants. However, no documents, reports or other information created or generated to satisfy the requirements of this Consent Decree shall be withheld on the grounds that they are privileged.
- 33. Until termination of this Consent Decree, the United States and its authorized representatives and contractors shall have authority at all reasonable times to:

A. Enter the Site to:

- 1) Monitor the activities required by this Consent Decree;
- 2) Verify any data or information submitted to the United States;
- 3) Obtain samples; and
- 4) Inspect and evaluate Defendants' restoration and/or mitigation activities;

B. Enter the place where Defendants are keeping records required to be kept under the terms and conditions of this Consent Decree to inspect and review such records.

This provision of this Consent Decree is in addition to, and in no way limits or otherwise affects, the statutory authorities of the United States to conduct inspections, to require monitoring and to obtain information from the Defendants as authorized by law.

VII. DISPUTE RESOLUTION

- 34. Unless expressly provided for in this Consent Decree, the Dispute Resolution procedures of this Section VII shall be the exclusive mechanism to resolve disputes arising under or with respect to this Consent Decree.
- 35. Any dispute that arises with respect to the meaning or requirements of this Consent Decree shall, in the first instance, be subject to negotiations between the United States and the Defendants affected by the dispute to attempt to resolve such dispute. The period for negotiations shall not extend beyond 45 days, beginning with the date written notice from one party to the other affected party or parties that a dispute exists, unless that period is modified in writing by those parties. The written notice commencing dispute resolution may include any factual data, analysis, or opinion supporting the parties' position and any supporting documentation relied upon by that party. The party responding to the written notice shall, no later than 30 days after receiving written notice of the dispute, provide a written response that may include any factual data, analysis, or opinion supporting the parties' position and any supporting documentation relied upon by that party. If a dispute between the United States and Defendants cannot be resolved by negotiations, then the position advanced by the United States

shall be considered binding unless, within 14 days after the end of the negotiations period, the Defendant(s) file a motion with the Court seeking resolution of the dispute and serve the motion on the United States in accordance with Section X. The motion shall set forth the nature of the dispute and a proposal for its resolution. The United States shall have 30 days to respond to the motion and propose an alternate resolution.

36. If the United States believes that a dispute is not a good faith dispute, or that a delay would pose or increase a threat of harm to the public or the environment, it may move the Court for a resolution of the dispute prior to the expiration of the 45-day period for informal negotiations. The Defendants shall have 14 days to respond to the motion and propose an alternate resolution.

37. Standard of Review.

- A. Disputes Concerning Matters Accorded Record Review. Except as otherwise provided in this Consent Decree, in any dispute brought under this Section VII pertaining to (i) the adequacy or appropriateness of plans, procedures to implement plans, schedules, or any other items requiring approval by EPA and/or BLM under this Consent Decree; (ii) the adequacy of the performance of work undertaken pursuant to this Consent Decree; and (iii) all other disputes that are accorded review on the administrative record under applicable principles of administrative law, Defendants shall have the burden of demonstrating, based on the administrative record, that the position of the United States is arbitrary and capricious or otherwise not in accordance with law.
- B. Other Disputes. Except as otherwise provided in this Consent Decree, in any other dispute brought under Section VII, Defendants shall bear the burden of

- demonstrating that its position complies with this Consent Decree and better furthers the objectives of the Consent Decree.
- 38. Unless otherwise ordered by the Court, the filing of a motion asking the Court to resolve a dispute shall not extend or postpone any obligation of Defendants under this Consent Decree, except as provided in Paragraph 46 below regarding payment of stipulated penalties.

VIII. FORCE MAJEURE

- 39. Defendants shall perform the actions required under this Consent Decree within the time limits set forth or approved herein, unless the performance is prevented or delayed solely by events which constitute a Force Majeure event. A Force Majeure event is defined as any event arising from causes beyond the control of Defendants, including their employees, agents, consultants and contractors, which could not be overcome by due diligence and which delays or prevents the performance of an action required by this Consent Decree within the specified time period. Force Majeure event does not include, inter alia, increased costs of performance, changed economic circumstances, changed labor relations, normal precipitation or climate events, changed circumstances arising out of the sale, lease or other transfer or conveyance of title or ownership or possession of a site, or failure to obtain federal, state or local permits.
- 40. If Defendants believe that a Force Majeure event has affected Defendants' ability to perform any action required under this Consent Decree, Defendants shall notify the United States in writing within seven days after the event at the addresses listed in Section X. Such notice shall include a discussion of the following:
 - A. what action has been affected;
 - B. the specific cause(s) of the delay;

- C. the length or estimated duration of the delay; and
- D. any measures taken or planned by the Defendants to prevent or minimize the delay and a schedule for the implementation of such measures.

Defendants may also provide to the United States any additional information that they deem appropriate to support their conclusion that a Force Majeure event has affected their ability to perform an action required under this Consent Decree. Failure to provide timely and complete notification to the United States shall constitute a waiver of any claim of Force Majeure as to the event in question.

- 41. If the United States determines that the conditions constitute a Force Majeure event, then the deadline for the affected action shall be extended by the amount of time of the delay caused by the Force Majeure event. Defendants shall coordinate with EPA to determine when to begin or resume the operations affected by any Force Majeure event.
- 42. If the parties are unable to agree whether the conditions constitute a Force Majeure event, or whether the length of time for fulfilling the provision of the Consent Decree at issue should be extended, any party may seek a resolution of the dispute under the procedures in Section VII of this Consent Decree.
- 43. Defendants shall bear the burden of proving (1) that the noncompliance at issue was caused by a Force Majeure event; and (2) the number of days of noncompliance that were caused by such Force Majeure event.

IX. STIPULATED PENALTIES

44. After entry of this Consent Decree, if Defendants fail to timely fulfill any requirement of the Consent Decree (including the Restoration Plan), the Defendants shall pay a stipulated

penalty to the United States for each violation of each requirement of this Consent Decree as follows:

A.	For Day 1 up to and including Day 30 of non-compliance	\$750.00 per day
В.	For Day 31 up to and including 60 of non-compliance	\$1,500.00 per day
C.	For Day 61 and beyond of non-compliance	\$2,250.00 per day

Except as provided in Paragraph 46, such payments shall be made upon demand by the United States on or before 30 days after Defendants receive the demand.

- 45. Any disputes concerning the amount of stipulated penalties, or the underlying violation that gives rise to the stipulated penalties, that cannot be resolved by the parties pursuant to the Dispute Resolution provisions in Section VII and/or the Force Majeure provisions in Section VIII shall be resolved upon motion to this Court as provided in Paragraphs 35 and 36.
- 46. The filing of a motion requesting that the Court resolve a dispute shall stay Defendants' obligation to pay any stipulated penalties with respect to the disputed matter pending resolution of the dispute. Notwithstanding the stay of payment, stipulated penalties shall continue to accrue from the first day of any failure or refusal to comply with any term or condition of this Consent Decree. In the event that Defendants do not prevail on the disputed issue, stipulated penalties shall be paid by Defendants as provided in this Section.
- 47. To the extent Defendants demonstrate to the Court that a delay or other non-compliance was due to a Force Majeure event (as defined in Paragraph 39 above) or otherwise prevail on the disputed issue, the Court shall excuse the stipulated penalties for that delay or non-compliance.

- 48. In the event that a stipulated penalty payment is applicable and not made on time, interest will be charged in accordance with the statutory judgment interest rate provided for in 28 U.S.C. § 1961. The interest shall be computed daily from the time the payment is due until the date the payment is made. The interest shall also be compounded annually.
- 49. Defendants shall make any payment of a stipulated penalty by FedWire Electronic Funds Transfer ("EFT" or wire transfer) to the U.S. Department of Justice account in accordance with current electronic funds transfer procedures, referencing U.S.A.O. file number (2017V00603), EPA Region 8, BLM Region 7, and the DOJ case number (90-5-1-1-21104). Payment shall be made in accordance with instructions provided to the Defendants by the Financial Litigation Unit of the United States Attorney's Office for the District of Colorado. Any payments received by the Department of Justice after 4:00 P.M. (Eastern Time) will be credited on the next business day. Further, upon payment of any stipulated penalties, Defendants shall provide written notice, at the addresses specified in Section X of this Decree.

X. ADDRESSES

50. Whenever, under the terms of this Consent Decree, notice is required to be given or a document is required to be sent by one party to another, it shall be directed to the individuals at the addresses specified below, unless those individuals or their successors give notice of a change to the other parties in writing. Except as otherwise provided, notice to a party by email (if that option is provided below) or by regular mail in accordance with this Section satisfies any notice requirement of the Consent Decree regarding such party.

A. <u>TO EPA</u>:

(1) Sheldon Muller Senior Assistant Regional Counsel United States Environmental Protection Agency Region 8 1595 Wynkoop Street Denver CO 80202-1129 Muller.sheldon@epa.gov

 Manager, NPDES and Wetlands Enforcement Section USEPA Region 8
 1595 Wynkoop St. (8ENF-W-NW)
 Denver, CO 80202-1129

B. TO THE UNITED STATES DEPARTMENT OF JUSTICE

Alan Greenberg, Attorney Environmental Defense Section U.S. Department of Justice 999 18th Street, Suite 370 Denver, CO 80202 Alan.greenberg@usdoj.gov

Jacob Licht
Assistant United States Attorney
U.S. Attorney's Office for the District of Colorado
1801 California Street, Suite 1600
Denver, Colorado 80202
Jacob.licht-steenfat@usdoj.gov

C. TO BLM:

Bruce L. Sillitoe Manager, Little Snake Field Office U.S. Bureau of Land Management Department of the Interior Region 7 455 Emerson Street Craig, CO 81625 bsillitoe@blm.gov

Ann Umphres
Attorney-Advisor
Office of the Solicitor, Rocky Mountain Region
Department of the Interior
755 Parfet Street, Suite 151
Lakewood, CO 80215
Ann.umphres@sol.doi.gov

D. <u>TO DEFENDANTS</u>:

- (1) John Raftopoulos
 Rancho Greco Limited, LLC
 351 School Street
 Craig, CO 81625
- (2) Eugene J. Riordan, Esq.
 Attorney for Defendants
 Vranesh and Raisch, LLP
 5303 Spine Road, Suite 202
 Boulder, CO 80301
 ejr@vrlaw.com

XI. COSTS OF SUIT

51. Each party to this Consent Decree shall bear its own costs and attorneys' fees in this action. Should Defendants subsequently be determined by the Court to have violated the terms or conditions of this Consent Decree, Defendants shall be liable for any costs or attorneys' fees incurred by the United States in any action against Defendants for noncompliance with or enforcement of this Consent Decree.

XII. PUBLIC COMMENT

52. The parties acknowledge that after the lodging and before the entry of this Consent Decree, final approval by the United States is subject to the requirements of 28 C.F.R. § 50.7, which provides for public notice and comment. The United States reserves the right to withhold or withdraw its consent to the entry of this Consent Decree if the comments received disclose facts which lead the United States to conclude that the proposed judgment is inappropriate, improper, or inadequate. The Defendants agree not to withdraw from, oppose entry of, or to

challenge any provision of this Consent Decree, unless the United States has notified the Defendants in writing that it no longer supports entry of the Consent Decree.

XIII. CONTINUING JURISDICTION OF THE COURT

53. This Court shall retain jurisdiction over this action in order to enforce or modify the Consent Decree consistent with applicable law or to resolve all disputes arising hereunder as may be necessary or appropriate for construction or execution of this Consent Decree. During the pendency of the Consent Decree, any party may apply to the Court for any relief necessary to construe and effectuate the Consent Decree.

XIV. MODIFICATION

54. Upon its entry by the Court, this Consent Decree shall have the force and effect of a final judgment. Any modification of this Consent Decree shall be in writing, and shall not take effect unless signed by both the United States and the Defendants and approved by the Court.

XV. TERMINATION

- 55. This Consent Decree may be terminated by either of the following:
 - A. Defendants and the United States may at any time make a joint motion to the Court for termination of this Decree; or
 - B. Defendants may make a unilateral motion to the Court to terminate this Decree after all of the following have occurred:
 - 1. Defendants have completed the Restoration Plan, including monitoring and corrective measures requirements;

- 2. Defendants have paid all penalties and other monetary obligations hereunder and no penalties or other monetary obligations are outstanding or owed to the United States;
- 3. Defendants have certified compliance pursuant to subparagraphs 1 and 2 above to the Court and all Parties; and
- 4. within 45 days of receiving such certification from the Defendants, EPA has not contested in writing that such compliance has been achieved. If EPA disputes Defendant's certification of compliance, this Consent Decree shall remain in effect pending resolution of the dispute by the Parties or the Court under the Dispute Resolution provisions in Section VII.

XVI. SIGNATORIES/SERVICE

- 56. The undersigned representative of each Defendant, EPA, BLM, and the United States

 Department of Justice, certifies that he or she is fully authorized to enter into the terms and
 conditions of this Consent Decree and to execute and legally bind the party he or she represents to
 this document.
- 57. This Consent Decree may be signed in counterparts, such counterpart signature pages shall be given full force and effect, and its validity shall not be challenged on that basis.
- 58. Defendants and the United States Department of Justice, on behalf of BLM and EPA, agree to accept service of process by mail with respect to all matters arising under or relating to this Consent Decree and to waive the formal service requirements set forth in Rules 4 and 5 of the

Federal Rules of Civil Procedure and any applicable Local Rules of this Court including, but not	
limited to, service of a summons.	
IT IS SO ORDERED.	
Dated and entered this day of, 2021.	
United States Magistrate Judge	

ON BEHALF OF THE UNITED STATES:

JEAN E. WILLIAMS Acting Assistant Attorney General Environment and Natural Resources Division

s/ Alan D. Greenberg

Alan D. Greenberg, Attorney Environmental Defense Section U.S. Department of Justice 999 18th St. – Suite 370 Denver, Colorado 80202

Phone: (303) 844-1366

E-mail: alan.greenberg@usdoj.gov

MATTHEW T. KIRSCH Acting United States Attorney District of Colorado

s/ Jacob Licht

Jacob Licht Assistant United States Attorney 1801 California Street, 16th Floor Denver, CO 80202 Dated: March 17, 2021

Dated: March 17, 2021

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

s/	She	ld	on H	<i>I.</i> 1	Mul	l	'er
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Dated: <u>March 2, 2021</u>

SHELDON H. MULLER

Senior Assistant Regional Counsel Legal Enforcement Branch U.S. Environmental Protection Agency, Region 8

s/ Suzanne J. Bohan

Dated: 03/02/2021

SUZANNE J. BOHAN

Enforcement and Compliance Assurance Division U.S. Environmental Protection Agency, Region 8

s/ Debra H. Thomas

_____ Dated: March 4, 2021

DEBRA H. THOMAS

Acting Regional Administrator

U.S. Environmental Protection Agency, Region 8

s/ Kenneth C. Schefski

Dated: 3/4/2021

KENNETH C. SCHEFSKI

Regional Counsel

U.S. Environmental Protection Agency, Region 8

Dated: <u>March 8, 2021</u>

s/ Mark Pollins

MARK POLLINS
Director, Water Enforcement Division
Office of Enforcement and Compliance Assurance
U.S. Environmental Protection Agency
1200 Pennsylvania Avenue, N.W.

Washington, D.C. 20004

UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

s/ Jamie E. Connell

JAMIE CONNELL Colorado State Director U.S. Bureau of Land Management

s/ Laura L. Chartrand

LAURA L. CHARTRAND
Regional Solicitor
Rocky Mountain Region
Office of the Solicitor
U.S. Department of Interior

Dated: <u>March 9, 2021</u>

Dated: March 9, 2021

John Raftopoulos, individually						
s/ John Raftopoulos	Dated:	2/19/2021				
Diamond Peak Cattle Company, LLC, a Colorado limited liability company						
By: <u>s/ John Raftopoulos</u> John Raftopoulos, Member	Dated:	2/19/2021				
Rancho Greco Limited, a Colorado limited liability company,						
By: <u>s/ John Raftopoulos</u> John Raftopoulos, Member	Dated:	2/19/2021				

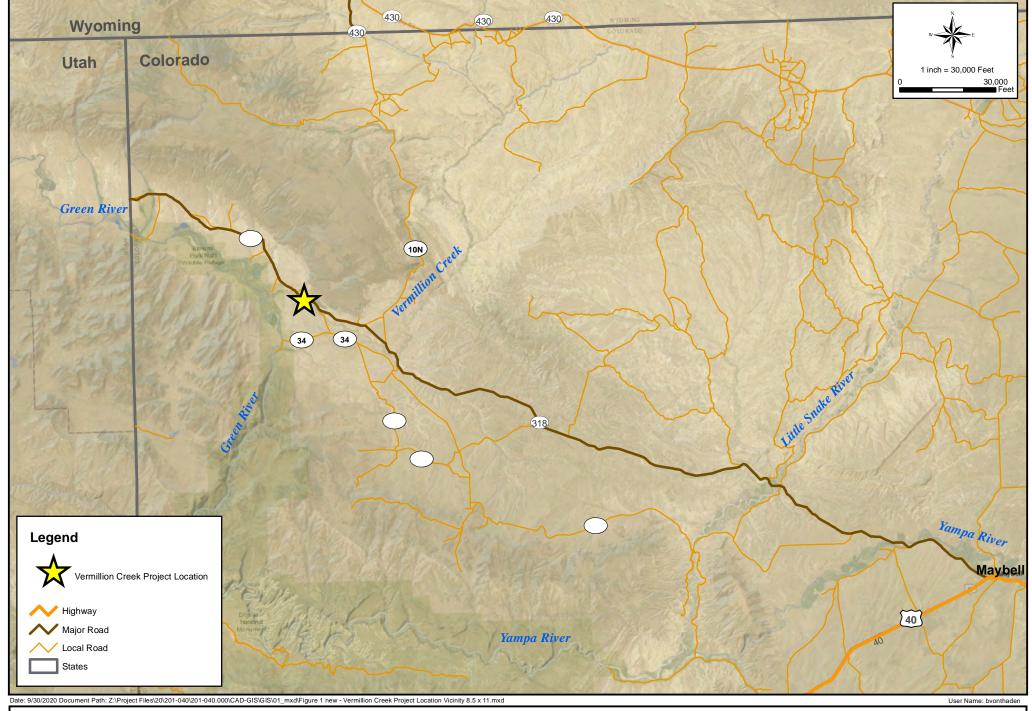
APPENDIX A

to Consent Decree

United States v. John Raftopoulos, et al.

Civil Action No.1:20-CV-03166-SKC

Case 1:20-cv-03166-SKC Document 17-1 Filed 03/18/21 USDC Colorado Page 32 of 64



UTAH, WYOMING, AND MOFFAT COUNTY, COLORADO

VERMILLION CREEK NEAR RAFTOPOULOS PROPERTY PROJECT VICINITY MAP

PROJECT NO. 201-040.000

FIGURE

Case 1:20-cv-03166-SKC Document 17-1 Filed 03/18/21 USDC Colorado Page 33 of 64 1 inch = 600 Feet Owner: Rancho Greco Limited Parcel ID: 038303200002 Owner: United States of America (BLM) Parcel ID: 039301100901 Legend Approximate Site Boundary **General Site Data** 2015 Vermillion Creek Alignment 2012 Vermillion Creek Alignment Parcels (Moffat County GIS) BLM, Moffat County, and State of Colorado Parcels

Date: 2/18/2021 Document Path: G:\WWE\181-047\010\GIS\MXDs\Figure 2 new - Approximate Project Boundary 8.5 x 11_with_Trees.mxd

User Name: sschreiber



Raftopoulos Parcels

Other Privately Owned Parcels

APPROXIMATE VERMILLION CREEK NEAR RAFTOPOULOS PROPERTY SITE BOUNDARY AND VERMILLION CREEK ALIGNMENTS

APPENDIX B

to Consent Decree

United States v. John Raftopoulos, et al.

Civil Action No.1:20-CV-03166-SKC



CONCEPT DESIGN TECHNICAL NARRATIVE

DATE: February 24, 2021

TO: John Raftopoulos, Gene Riordan and Agency Team

FROM: Grant Gurnée, PWS & Jon Dauzvardis, PWS, ecos; Julie Ash, PE, Johannes Beeby, and Travis Stroth, Stillwater; and Brad Johnson, PhD, PWS, Johnson Environmental Consultants (Technical Advisory & Review)

RE: Vermillion Creek Restoration at Diamond Peak Ranch – Conceptual Restoration Design

Shaped by discussions from a series of design coordination calls with Wright Water Engineers, U.S. Environmental Protection Agency (EPA), U.S. Army Corps of Engineers (Corps) and U.S Bureau of Land Management (BLM) (through Department of Justice personnel) (hereafter referred to cumulatively as "Agencies"), the Ecos-Stillwater Team (Team) has developed a Vermillion Creek (Creek) Conceptual Restoration Plan ("Concept Plan") for review by the Agencies. The Concept Plan includes this Concept Design Technical Narrative and the following three attachments:

- Concept Design Plan;
- Typical Wetland-Riparian Cross-Section;
- HEC-RAS 1D model.

Approval of the Concept Plan as the Work Plan under the Consent Decree is sought so that it can provide the basis for development of a mutually agreeable Restoration Plan in accordance with the Consent Decree. For purposes of the Vermillion Creek Restoration, the terms "restoration" and "establishment" are defined consistent with Title 33 of the Code of Federal Regulations (CFR), Part 332 Compensatory Mitigation for Losses of Aquatic Resources, Definitions (33 CFR § 332.2) (see below). Aquatic resources include wetland and stream habitat.

Restoration means the manipulation of the physical, chemical, or biological characteristics of a site with the goal of returning natural/historic functions to a former or degraded aquatic resource. For the purpose of tracking net gains in aquatic resource area, restoration is divided into two categories: **re-establishment** and **rehabilitation**.

Re-establishment means the manipulation of the physical, chemical, or biological characteristics of a site with the goal of returning natural/historic functions to a former aquatic resource. Reestablishment results in rebuilding a former aquatic resource and results in a gain in aquatic resource area and functions.

Rehabilitation means the manipulation of the physical, chemical, or biological characteristics of a site with the goal of repairing natural/historic functions to a degraded aquatic resource. Rehabilitation results in a gain in aquatic resource function but does not result in a gain in aquatic resource area.

Establishment (creation) means the manipulation of the physical, chemical, or biological characteristics present to develop an aquatic resource that did not previously exist at an upland site. Establishment results in a gain in aquatic resource area and functions.

Preliminary information provided in this document will be furthered during detailed analysis and design phases associated with preparation of the Restoration Plan that will follow approval of the Concept Plan.

1. Goals and Objectives

The goal of the Vermillion Creek Restoration is to remedy impacts to jurisdictional Waters of the U.S., including wetland habitat, caused by unpermitted earthwork activities in 2012 that altered channel and floodplain configurations on private property and on Bureau of Land Management (BLM) lands. The private property is the Diamond Peak Ranch (Ranch), currently owned by a limited liability company controlled by John Raftopoulos (Raftopoulos Property).

The objective of the Vermillion Creek Restoration is to replace the lost functions provided by the impacted jurisdictional aquatic resources by restoring the Vermillion Creek and its fringe wetlands, the Little Joe Creek tributary (previously referred to as the Unnamed Tributary)/wetland complex, and a downstream reach of the Disturbance Channel. The Vermillion Creek Restoration is a result of the settlement of a federal enforcement action. The project will result in a minimum of 8.47 acres of wetland restoration and return of Vermillion Creek to an alignment very close to pre-disturbance alignment.

Because the wetlands to be restored are primarily supported by Vermillion Creek and its tributaries, designing for channel and floodplain conditions that are sustainable long-term is critically important. Our Team will apply a process-based restoration approach that works with natural fluvial and ecological processes because this approach will deliver long-term functionality in this highly dynamic system.

2. Aquatic Resource Mitigation Acreage

2.1 Stream Mitigation

In order to satisfy the requirements of the settlement of the federal enforcement action, restoration activities will construct a stream channel whose length and sinuosity are approximately equal to the predisturbance channel length of 7070 feet and sinuosity of 1.3. The pre-2012 alignment and full channel length of Vermillion Creek on BLM property will be restored. On private property, the restored channel will be returned to the pre-2012 alignment with minor modifications to avoid hillslope areas. Additional channel length will be provided on private property to offset the length reduction associated with these modifications.

As described in Section 9 Adaptive Management, the restored system will be adaptively managed following construction to guide evolution of the stream and wetlands towards development of a passively functional riverine aquatic system. Specifically, after construction the restored aquatic resources are expected to adjust through time with natural flow and sediment regimes, causing channel planform and sinuosity variations, typical of a multiple thread system containing both multi- and single-thread subreaches.

2.2 Wetland Mitigation Acreage

In order to satisfy the requirements of the settlement of the federal enforcement action, the work to be performed under the Restoration Plan is intended to re-establish 9.51 acres of wetlands adjacent to the restored Vermillion Creek and Little Joe Creek tributary; and a rehabilitate 0.21 acre and establish 0.22 acre of wetlands along a downstream reach of the Disturbance Channel to achieve a minimum of 8.47 acres of wetlands. A number of Contingency Areas have been identified for additional wetland restoration or establishment as necessary to achieve the 8.47 acre requirement. The final design and initial implementation will deliver an estimated total of 9.94 acres of wetland habitat.

Our team believes, based on desktop and field investigations, that simulated beaver activity or other manipulations will be the most effective way to sustain the required 8.47 acres of wetlands. Our Team's Basis of Design has been discussed with the Agencies and will be provided with the proposed Restoration Plan and the Design-Build Plan set.

To achieve the required 8.47 acres of wetland habitat, our Team has developed a Concept Plan that provides the environment, graded to appropriate relative elevations in relation to sources of sustaining hydrology, to allow development of jurisdictional wetlands. On Vermillion Creek, channel response that narrows the channel may follow construction. Refer to Section 9 for a discussion on an adaptive management plan to best accommodate channel response and guide the system along the desired trajectory toward a new equilibrium with resilient and biologically functional conditions.

3. Concept Plan

3.1. Initial Wetland Acreage

The following text provides a summary of the measures that will be implemented to restore a minimum of 9.72 acres of wetland habitat and establish 0.22 acre of wetland habitat to achieve the required 8.47 acres of sustainable wetlands. Any required water rights associated with creating the proposed wetlands will be the responsibility of Mr. Raftopoulos. Any lack of hydrology in Little Joe Creek will not be a justification for any inability to achieve the required 8.47 acres of sustainable wetlands.

Some of the work under this Section 3.1 will occur on BLM property. Access to BLM-managed public lands and authorization from BLM to implement the Restoration Plan, without any payment, will be provided through BLM's approval of the Restoration Plan.

<u>Little Joe Creek Tributary (Re-establishment of 2.5 acres):</u> Multiple Simulated Beaver Structures (SBS) will be used to develop a wetland complex along the Little Joe Creek tributary by creating backwater conditions, effectively increasing lateral and vertical connectivity of flows, increasing habitat complexity and perhaps promoting natural beaver and/or muskrat use via restoration of suitable habitat (note: the larger extent of backwater condition required for this approach may require a grade control to reduce natural adjustment at this confluence location with Vermillion Creek). The intent is to spread tributary flows across the landscape to create multi-thread and sinuous flow paths, prevent single-thread channel formation and incision, and induce soil saturation that promotes growth of willows and herbaceous wetland vegetation. The response will likely

include a few small pools for water refuge for beaver/muskrat, dense stands of willow for food and structural building supplies, and a diverse assemblage of herbaceous wetland vegetation that also supports muskrat. Muskrat are a beaver cohort that are present at one location within the Site (based on Team observations).

<u>Vermillion Creek (Re-establishment of 7.01 acres):</u> The Concept Plan being proposed is a process-based approach that works with the stream evolution of Vermillion Creek to support wetland area within a wider inset floodplain. The majority of the pre-disturbance alignment of Vermillion Creek and certain new reaches will be excavated to an average 50-foot top of bank width (overall channel, not just inset channel), with distinct wider areas (e.g., beads along the chain) and narrower sections. The restored creek will be constructed with length and sinuosity approximately equal to the pre-disturbance channel length of 7070 feet and associated sinuosity. The restored system will be adaptively managed following construction to guide evolution of the stream and wetlands towards development of a passively functional riverine aquatic system.

Certain, individual SBS will be placed throughout the newly excavated Creek to effectively increase lateral and vertical connectivity, diversify hydraulics, and structurally encourage the geomorphic processes of channel evolution that support restoration of a relatively contiguous wetland fringe. Multiple SBS will be used in the wider areas of the Creek to structurally spread water out over these widened reaches of the inset floodplain and support a larger wetland fringe. To aid in maintaining the current hydrology of Vermillion Creek, Mr. Raftopoulos will not modify his Vermillion Creek diversion structure or the amount of diversions in any way that results in less water reaching the project area than has occurred historically.

One of the aspects the Restoration Plan will need to address is the potential for headcut(s) migrating upstream from the restoration reach of Vermillion Creek.

<u>Disturbance Channel (Rehabilitation 0.21 acre and Establishment 0.22 acre)</u>: The 0.21 acre of wetland habitat that has developed in the Disturbance Channel since 2012 is comprised of a diverse assemblage of herbaceous species with a fringe of willow and cottonwood developing. The rehabilitation measures would include grading to lay the right/east bank of the channel back to a 5:1 slope to provide conditions that are more conducive to the development of wetland and riparian species.

The Establishment aspect of this area includes the expansion of the downstream reach of the Disturbance Channel. The 0.22 acre of wetland habitat would be established by grading back the right/east bank of the channel further to allow the expansion of the channel bottom, and the right bank would be graded to a 5:1 slope to create conditions that are conducive to the development of wetland and riparian species.

3.2. Potential Contingency Wetland Areas

Potential contingency wetland areas have been identified in the event that monitoring indicates that restoration measures do not result in the required 8.47 acres of wetlands. Alternatively, these contingency wetland areas may be included in the Initial Wetland Acreage if our Team determines during development of the Restoration Plan and the final design that such inclusion would be prudent to ensure creation of the required 8.47 acres of wetlands. We have included options

identified by our Team below to illustrate potential additional areas available for wetland mitigation. Other contingency wetland areas may be proposed during development of the Restoration Plan. The potential contingency wetland areas below and any other contingency wetland areas must be approved by EPA and BLM prior to use as wetland mitigation or incorporation into the Restoration Plan. The following examples of contingency mitigation areas are listed with approximate acreage below:

- Contingency #1 Offsite Beaver Meadow (Rehabilitation ~ 2.08 acres): This area would be located along Vermillion Creek upstream of the project area in an old beaver meadow area. Proposedwork would include installing SBS across portions of incised channel to raise the channel invert and installing SBSs across the valley floor to backup and spread water across the landscape to support more wetland acreage.
- Contingency #2, 3 and 4 (Establishment or Restoration ~ 7.75 acres): These three additional Contingency Areas are located in the central portion of the valley within the flow path of seasonal peak flows from Vermillion Creek. Area #2 is located within BLM and Raftopoulos Property, Area #3 is located solely within Raftopoulos Property, and Area #4 is located solely within BLM Property. Our Team had previously viewed these areas as less desirable mitigation sites due to their suitability for grazing pasture. These areas may be evaluated in the final design phase.

Initial concepts for wetland creation at these three areas currently include:

- Concept A: Configure land via grading to detain peak flows and saturate soils, supplement with irrigation to initiate plant growth until Creek is restored and rely on hyporheic flow for sustaining hydrology to support wetland and riparian habitat development; or
- Concept B: Configure land via grading to detain peak flows and encourage creek overflow into these areas to saturate soils via the construction of a low-flow crossing or via SBS structure(s) constructed as part of the Creek Restoration, supplement with irrigation to initiate plant growth until Creek is restored and rely on over flows from the Creek and hyporheic flow for sustaining hydrology to support wetland and riparian habitat development.

If our Team recommends any or all of these four Contingency Areas during final design, then we would install shallow groundwater monitoring wells during the construction of Initial Wetland Acreage (refer to Section 3.1 above) to document sustaining hydrology for wetland habitat development (refer to Section 8 Monitoring); and all three areas would be assessed prior to construction to determine the presence/absence of jurisdictional wetland habitat (i.e., contingency areas would be monitored and subject to performance standards following the basic approaches outlined herein for the overall project).

As noted above, other contingency wetland areas may be proposed during development of the Restoration Plan and, if approved by EPA and BLM (such approval to be based on technical merit and not unreasonably withheld), incorporated into the Restoration Plan. The acreage of all contingency areas will not exceed 3.5 acres of the required 8.47 acres of wetlands after applying any adjustment to a 1:1 ratio approved by EPA to account for the functional values of these other

contingency wetland areas. Some of the work under this section will occur on BLM property. Access to BLM-managed public lands and authorization from BLM to implement the Restoration Plan, without any payment, will be provided through BLM's approval of the Restoration Plan.

If other contingency wetland areas are proposed during development of the Restoration Plan and final design, then shallow groundwater monitoring wells will be installed in those areas during the construction of Initial Wetland Acreage (refer to Section 3.1 above) to document sustaining hydrology for wetland habitat development (refer to Section 8 Monitoring); and all other contingency wetland areas would be assessed prior to construction to determine the presence/absence of jurisdictional wetland habitat (i.e., contingency areas would be monitored and subject to performance standards following the basic approaches outlined herein for the overall project).

4. Detailed Analysis and Final Design

As part of the detailed analysis and design phases that will follow approval of the Concept Plan, our Team has listed certain key items that will be included in the final design. These items have been preliminarily discussed with the Agencies and deemed to be an important component of this Concept Plan to provide clarity for the Consent Decree.

4.1. Overview

As part of the detailed analysis and design phases associated with preparation and execution of the Restoration Plan, our Team will select the appropriate analysis tools/lines of evidence for the Vermillion Creek channel and floodplain design. The table below shows analysis tools/lines of evidence that may be employed by our Team.

Design Analyses	Analyses	What are results used for?	What is learned?
Hydrology and Hydraulics	- Peak Flows - Daily Data - Flow Duration Curves/Flow Frequency Distribution - NOAA Atlas 14 - 1D and 2D hydraulic models, including HEC-RAS 1D/2D, FLO-2D, SRH-2D	- Hydraulic Geometry Equations - Substrate Sizing - Wood Design - Floodplain/Overflow Elevations - Base Flows - Sediment Transport - Effective Discharge - Floodplain Mapping	- Bankfull/Low Flow Channel Dimensions - Profile - Bed Material Sizing - Rock Sizing - Level of Service - Flood Risk
Sediment Transport	 Incipient Motion Sediment transport capacity balance code CSR Tool 	- Channel Dimension and Profile - Bed Material Sizing - Floodplain/Overflow Connection	- Proposed Design's Effect on Sediment Transport - Channel Stability - Flushing of Riffles
Large Wood Design	- Large Wood Design Tool - Scour Calcs	- Large Wood Structure Configurations and Elevations - Pool Depths	- Necessary Ballast for Stability - Necessary Footer Depths
Site Assessments	- FACWet - Geomorphic - Riparian Vegetation	System UnderstandingOverall Design ApproachMonitoringSection 404 Permitting	- Understanding of Existing Conditions - Geomorphic and Ecologic setting - Ecological lift/Loss

4.2. Planting Plans

As part of detailed analysis and design phases, our Team will prepare for inclusion in the Restoration

Plan gross-level Planting and Seeding Plans that are guided by the approved Concept Plan and the Planting Zones illustrated in the Typical Wetland-Riparian Cross-Section. The plan view planting polygons will be cross-referenced to plant and seed schedules that define the species, aerial cover percentages, percentage of the species mix, and quantities of native plant and seed material to be planted in restoration and establishment areas. Plant and seed schedules will only specify material that is native, easily collected from nearby sources, or can be readily obtained through commercial nurseries. Seed schedules will specify a diversity of warm and cool season grasses and wetland plants that are adaptable to a diversity of soil types and soil moisture regimes. Absolute cover and densities for tree, shrub, and herbaceous strata will be based on the Reference Conditions assessment (refer to Section 8.2 below).

Our Team plans for strategic layout and location of individual plants and/or groups of plants during the installation of native trees and shrubs according to natural soil moisture regimes (i.e., xeric, mesic or hydric zones), an approach that provides more sustainable zonation and naturalized structure from initial planting through maturation (as opposed to row planting).

Plant quantities outlined in plant schedules are calculated by multiplying the restoration planting areas illustrated on the Planting Plan by percent target cover (derived from Reference Conditions) and then dividing by the average plant spacing squared. Plant spacing data will be based on their mature growth habit based on data on the mature height, spread and growth habit of each plant as derived from the USDA Plants Database, plant guides, and professional judgement.

Seeding quantities are based on the percent of mix, number of seeds per pound for each species, and the number of seeds to be applied to each square foot and acre, and the number of seeds per pound for each species to arrive at the pounds of pure live seed (PLS) per acre rate by species. PLS seeds per acre for each species are then multiplied by the project acreage to arrive at a drill seeding rate. Broadcast seeding rates are double the drill seeding rate and are to be used on areas that are inaccessible by a drill seeder. The seeding and planting data are illustrated in Seed Schedules and Plant Schedules which are referenced to specific polygons (i.e., seeding and planting zones) illustrated on the Planting Plan and correlated to the Typical Wetland-Riparian Cross-Section.

The Typical Wetland-Riparian Cross-Section illustrates the Planting Zones that will guide the Planting Plan for the Vermillion Creek Restoration. The cross-section of the restored Vermillion Creek corridor is divided into Planting Zones 1 through 4 which are based on the topographic and hydrologic relationship (i.e., zonation) of the plant materials to the Creek low flow water surface elevation. The cross-section also provides data regarding habitat type, Cowardin classification, and plant palettes (which have been formulated from the Composite Species List). It provides specific details that assist both Agency reviewers and construction contractors in understanding the desired location and layout of specific plant materials.

The Planting Plans will also include:

- Typical Plant Grouping Details;
- Typical Planting Details (for trees and shrubs);
- Erosion Control Fabric Details (general installation, key trenches, staking);
- Bioengineering Measures (e.g., slope and streambank stabilization, SBS); and
- Revegetation Notes (i.e., performance specifications distilled down to key design-build guidance)

- General Notes (e.g., roles and responsibilities of Revegetation Contractor and Ecos Ecologists, role of Agencies and their consultants, inspection and approval milestones, site-specific access and protection areas, permits and approvals);
- Earthwork Notes (e.g., site preparation, BMPs, grading);
- Submittal & Substitution Requirements;
- Seeding Notes (e.g., grade and surface preparation; soil amendments; mulch; seed purity, packaging and mixing, application methods, % cover performance and replacement);
- o Planting Notes (e.g., delivery, plant quality, storage, handling, mulch, installation);
- Maintenance Notes (e.g., plant care, weed control, seeding areas, planting saucers, watering schedules and requirements broken out by plant form and seeding areas); and
- Special Notes (e.g., site-specific guidance on performance standards, planting & seeding warranties, tree and shrub salvage and transplant, wildlife antidepredation measures, utility locates, cleanup).

4.2.1. Cottonwood Restoration

The Concept Plan illustrates the cottonwood planting zone as a pink "Riparian Creation" line or band just above wetland areas. The Typical Wetland-Riparian Cross-Section illustrates this area as "Zone 3". The 4-foot wide Zone 3 within BLM land is proposed to total ~0.61 acre. Planting or encouragement of volunteer cottonwood would result in the success and survival of at least 54 trees on BLM-managed public land. Cottonwood on BLM land will be planted or volunteers encouraged at one-half of their mature spacing which equates to approximately 16-25'. Cottonwood will not be planted on private lands but will instead be allowed to establish naturally or on a volunteer basis, evolving over time in response to natural seed dispersion and flood pulses over the newly formed floodplain.

4.3. Access

As part of detailed analysis and design phases, our Team will design a low-water crossing. The low-water crossing is required to allow access to the south side of Vermillion Creek during and after construction and through the monitoring and maintenance period as the existing bridge on BLM land will not be accessible once the upstream reach of Vermillion Creek is restored. The low-water crossing (as illustrated on the Concept Plan) is at the current location of the cattle crossing (i.e., at the intersection of the Disturbance Channel and the proposed restored channel on BLM land).

The Concept Plan also illustrates the existing bridge crossing over the Disturbance Channel, as this bridge must be retained until this reach is filled in to gain access to the north side of the Restored Channel and the south side of the Little Joe Creek tributary/wetland creation area.

4.4. Fencing

The Ranch will install standard BLM fencing to exclude cattle from, at a minimum, the location of the restored Vermillion Creek, the Wetland Restoration Acreage, and a 25-foot buffer on either side of the top of bank shown on the Typical Wetland/Riparian Cross-Section. The fencing will consist of three-strand barbed wire, with the bottom wire smooth such that it is wildlife compatible. The Ranch reserves the right, however, to fence a larger area of the Site for efficiency (i.e., straight lines rather than following buffer offsets). If during the monitoring period any failure of planted or

volunteer cottonwood on BLM land is discovered due to wildlife herbivory it will be dealt with promptly with protective measures (i.e., caging).

5. Design-Build Approach

Our Team will use a Design-Build (D-B) approach. The quality and experience of the selected Contractor is one of the most significant components of restoration efforts that use a D-B approach. The Team knows a number of contractors who may be suitable for this work and will coordinate with EPA and BLM to obtain approval on proposed contractor selection.

5.1 Key Components of the Design-Build Plan Set

The following materials and deliverables will be included in our D-B Plan Set for review and approval by EPA and BLM:

- · Basis of Design
- Hydraulic Modeling data
- Hydrologic data and criteria
- Plan & Profile sheets
- Cross section sheets, including existing and proposed elevations
- Typical detail sheets
- Planting Plans
- Access and Staging Plan
- Fencing Plan
- Construction Maintenance Notes
- Stormwater Management Plan meeting minimum CDPHE requirements.

6. Goals and Performance Standards

6.1. Goals

The primary goal for this project is to restore an integrated and functional single or multi-thread stream and wetland system (i.e., riverine aquatic system) that will support at least 8.47 acres of wetland habitat with a riparian fringe of native cottonwood. Restoration activities will construct a stream channel whose length and sinuosity are approximately equal to the pre-disturbance channel length of 7070 feet and sinuosity of 1.3. The restored system will be adaptively managed following construction to guide evolution of the stream and wetlands towards development of a passively functional riverine aquatic system.

As described in Section 9 Adaptive Management, after construction the restored aquatic resources are expected to adjust through time with natural flow and sediment regimes, causing channel planform and sinuosity variations, typical of a multiple-thread system (noting that multi-thread aquatic systems are inclusive of single-thread sub-reaches). The restoration approach will create a new fluvial surface, in which multiple channels and wetlands will develop, aided by SBS, wood, vegetation, and native coarse material. The approach works with sediment transport processes (and with our adaptive management assistance) to create the desired variations/complexity to benefit geomorphology, ecology, and biology of the system.

6.2. Performance Standards

Success will be achieved when the following Performance Standards are met:

1) 8.47 acres of Jurisdictional wetland habitat have been restored per the definitions in 33

- <u>CFR § 332.2</u>: The achievement of this criterion will be based on a jurisdictional wetland habitat boundary delineation carried out according to Corps procedure (i.e., document the presence of sustaining hydrology, hydric soils, and hydrophytic vegetation)(Refer to Section 8 Monitoring); and
- 2) Gains in Functions when the riverine aquatic system is functioning as expected (based on results of FACWet assessments) and moving in the anticipated evolutionary path (based on Cluer and Thorne's Stream Evolution Model (SEM)): The achievement of this criterion will be based on a functional assessment of the restored site using the Functional Assessment of Colorado Wetlands (FACWet) methodology (Johnson et al. 2013) based on data collected at the project site, in the surrounding landscape (i.e., natural reference conditions), and wetland performance over time (Refer to Section 7 Gains in Function and Section 8 Monitoring).

Corps South Pacific Division Performance Standards structured within a FACWet framework will be evaluated to demonstrate success (and the quantitative measurements that will be used in such evaluation are provided in the following table). Variables will be assessed using either Performance Standard(s) and/or Typological Reference, as appropriate to the specific variables. The Monitoring Plan will provide additional details on the items below, including information regarding reference conditions, cross-section locations, and the number of sample locations and their placement, which will be submitted to the EPA and BLM for review and approval.

Vermillion Creek FACWet Performance Standards and Typological Reference Table

Attribute	Variable Number	Variable Name	PS #	Performance Standard	Typological Reference	Monitoring Parameters/Supporting Evidence
	V1	Habitat Connectivity	NA	Connectivity is consistent with pre-disturbance conditions	Predisturbance conditions at Site	 Remote aerial assessment, ground-truthing, agency inspections
Buffer & Landscape Context	V2	Contributing Area	1	 The mitigation site will have a 25-foot buffer area, surrounding 100% of its area. Raftopoulos will ensure the 25-foot buffer adjacent to aquatic resource habitat in the mitigation site is dominated by native or naturalized vegetation and undisturbed soils (after project construction). Specifically: a. By end of year 5, at least 70% cover by native, naturalized or 	NA	 Visual estimation of plant cover Photo points Scoring 3 FACWet Buffer Subvariables

				characteristic vegetation. b. Raftopoulos will document undisturbed soils throughout buffer (after project construction).		
	V3	Water Source		All areas intended to be wetland will have a water source capable of supporting wetland hydrology (14 consecutive days of saturation or water table within 12" of the soil surface).	Corps Wetland Hydrology Criteria	 Data-logging groundwater wells Staff gage on Vermillion Creek to estimate peak flows during the monitoring period
Hydrology	V4	Water Distribution	6 and 9	 Raftopoulos will ensure the main channel geometry (width to depth ratio, sinuosity, etc.) exists, is restored, or is established in the mitigation site such that overbank flooding occurs or water can access high-flow channel(s) in the active floodplain at least once in years 1-3 or per reference conditions. Raftopoulos will ensure the mitigation site supports features capable of storing surface water from upland sources and/or the main channel for several consecutive days during the wet season (typically 3-7 days depending on size of system) following return to baseflow condition. 	Intermittent, CO HGM Riverine	 Use valley-wide topographical cross-sections and longitudinal topographic transect (i.e., longitudinal profile) (see V6) and data-logging of groundwater wells (see V3) at representative intervals in the same locations, annually to estimate lateral extents of water distribution. Direct observation/photographic documentation Presence of hydrology indicators including: A1, B1, B2, B3, B6, B9, B10, B13, C9, D3, and/or D5.
	V5	Water Outflow		Ground and surface water will have unimpeded access to adjacent down-valley habitats.	Intermittent, CO HGM Riverine	• Photo points

Abiotic & Biotic Habitat	V6	Geomorphology	2 and 3	• Raftopoulos will ensure the overall mitigation site retains or increases SEM stream stage (i.e., positive SEM trajectory) and does not cause site, upstream, or downstream excessive erosion or aggradation. Specifically: For multi-thread (braided) channels: a. Surveys should indicate no consistent trend of excessive net erosion and aggradation across entire active flow path that encompasses the entire multi- thread system. b. Overall channel form should not indicate a consistent trajectory indicating a transition from a multi-thread to a single thread channel form. • Raftopoulos will ensure the mitigation site's riverine habitat provides physical features of macrotopographic complexity capable of dissipating energy and retaining water and organic material. Specifically: c. Annually, as viewed along representative cross-sections has at least two benches or breaks in slope, including the riparian area, above the channel bottom, not including the thalweg. d. By year 5, each of these handers plus the slopes	Intermittent, CO HGM Riverine	 At least 12 valley-wide topographical cross-sections Longitudinal topographic transect(s) Photo points Direct observation/photo documentation
				_		

			bottom area contain physical patch types or features such as boulders or cobbles, animal burrows, partially buried debris, slump blocks, furrows or runnels that contribute to abundant microtopographic relief characteristic of reference conditions.		
V7	Chemical Environment	10	• Hydric Soil Indicators - Raftopoulos will ensure area intended to be wetlands are exhibiting USDA NRCS hydric soil characteristics appropriate for the region or for Recently Developed Wetlands (e.g., as determined by Corps Regional Supplements to the Corps Delineation Manual) by year 5.	NRCS Hydric Soils Criteria Hydric Soils Technical Standard	Direct examination of soil profiles for hydric soil indicators
V8	Vegetation Structure and Complexity	27, 29 and 32	 At least 54 planted cottonwood (Populus spp.) on BLM land will survive to year 5. Dominance of hydrophytes: Raftopoulos will ensure target percent absolute cover (for combined strata) of native or naturalized, wetland species (OBL/FACW) are met for tree (volunteer or planted), shrub, and herb strata by year 5. Dominance of exotics:	NA Corps Wetland Vegetation Criteria	 Census of Populus spp. Survival Quantitative vegetation sampling in association with at least 12 sampling transects.
			Raftopoulos will ensure target absolute cover of exotic trees and shrubs (combined strata), and that exotic herb cover does not exceed the percent cover that is characteristic of the site	NA	

	or reference conditions by year 5.	

7. Gains in Functions

Baseline aquatic resource function data are not available as the pre-disturbance alignment was, and continues to be, primarily absent with only remnants remaining. Therefore, gains in function will be assessed using FACWet to estimate aquatic resource functional conditions present on the site prior to disturbance based on regional reference conditions and other data that can be used to infer pre-disturbance conditions. Gains in aquatic resource functions will be documented by comparing the inferred pre-disturbance conditions with the predicted and measured post-restoration site conditions (Section 8.2).

8. Monitoring

The Restoration Plan will contain a detailed Monitoring Plan against which the achievement of the Goals and Performance Standards (refer to Section 6) will be assessed. The Monitoring period will be at least 5 years following the implementation of Phase 3 of the restoration (refer to Section 9.0). However, Mr. Raftopolous may seek release of further monitoring if the restoration project has achieved the Performance standards in less than 5 years following the submittal of at least two consecutive annual monitoring reports that demonstrate that all final performance standards have been met, including verification through an EPA and BLM inspection.

The following describes the general concept of the monitoring approach and provides examples of a subset of the parameters and metrics that will be further refined during final design and presented in the detailed Monitoring Plan incorporated into the Restoration Plan.

8.1. Wetland Boundary Delineation

A wetland boundary delineation within the restoration areas and 25-foot buffer will be performed during an appropriate time of the growing season following the completion of Phase 3, and if necessary, Phase 4 and throughout the Monitoring Period. Aquatic resources will be identified and delineated following the technical guidelines provided in the Corps Wetlands Delineation Manual (Manual) and the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region, Version 2.0 (Supplement). The Supplement will be used in conjunction with the Manual for application in the Arid West Region. Where difference in the two documents occur, the Supplement takes precedence over the Manual. The delineation will follow current Corps' jurisdictional determination methodology to identify wetland criteria (i.e., hydrology, soils, and vegetation) to demonstrate satisfaction of the Corps' definition of wetland. The delineation will be used to demonstrate that the Performance Standards have been met.

If contingency areas are selected (and approved by EPA and BLM), a wetland boundary delineation will be performed prior to the commencement of work in these areas.

8.2. Regional References and Functional Assessment

Prior to the implementation of Phase 1, we will coordinate with Dr. Brad Johnson and the Agencies and their consultants to estimate the functional capacity of appropriate riverine aquatic resources within the reference domain, which will then inform specific restoration targets within agreed upon mitigation performance standards. The assessment of the estimated functional capacity of these assumed riverine aquatic resources will proceed as follows: (i) using existing knowledge and data about the pre-disturbance wetland conditions at the Site and the proposed riverine conditions, "reference" aquatic resource characteristics will be articulated. Reference aquatic resources within the Vermillion Creek watershed will then be identified. Reference aquatic resources will reasonably reflect presumed pre-disturbance conditions (e.g., similar landscape position, hydropattern, vegetation community and structures, and stressors); (ii) the functional capacity of those reference aquatic resources will then be assessed using FACWet and that assessment will be used to refine restoration targets and inform specific parameters of mitigation performance standards. FACWet will provide a framework for conducting level II and level III assessments. The FACWet assessment of the reference riverine aquatic resource conditions will include a discussion of basic ecological attributes and variables that will be used to formulate the scientific basis of the FACWet assessment of, and the design goals for, each specific riverine aquatic resource type proposed in the Restoration Plan.

8.3. Hydrology Assessment

Our Team will monitor sustaining hydrology in the restored Vermillion Creek channel, the Little Joe Creek channel, and the wetland restoration areas. In wetlands, hydrology will be monitored according to the Technical Standard for Water-Table Monitoring of Potential Wetland Sites (U.S. Army Corps of Engineers, 2005) using shallow monitoring wells at key locations. Additionally, we will monitor incoming flow rates to the project reach at an upstream location on Vermillion Creek. The hydrology assessment will occur following Phases 1, 2 and 3 (and 4 if necessary), and will continue through the Monitoring Period. Exact locations for shallow monitoring wells and surface flow measurement will be determined after design is completed and coordinated with the Agencies and will be identified in the Restoration Plan.

8.4. Geomorphic Assessment

Following Phases 1, 2, 3 (and 4 as necessary) and throughout the Monitoring Period, our Team will perform a visual geomorphic assessment of Vermillion Creek stream conditions incorporating appropriate elements of the Stream Evolution Model (SEM) (Cluer and Thorne, 2013) to document the riverine aquatic system is functioning as expected and moving in the anticipated evolutionary path.

8.5. Exotic Vegetation (Noxious Weeds)

Following Phases 3 (and 4 as necessary) and throughout the Monitoring Period, our Team will monitor the restoration areas and 25-foot buffer for exotic/noxious weeds on Lists A and B of the current Colorado noxious weed lists. This will occur concurrent with the wetland boundary delineation (refer to Section 8.1). Noxious weeds on Lists A and B will be eradicated throughout

the Monitoring Period.

Additional information regarding informal and formal Monitoring is included in the Adaptive Management section below.

9. Adaptive Management

Based on the flow regime (available stream power and how frequently it occurs), the restoration will be adjusted using a data-driven approach based on monitoring data. Some restoration objectives are unlikely to be achieved by a single restoration treatment (Wheaton et al., 2019), requiring instead a phased approach over the course of multiple years. Such an approach is most likely to be successful when implemented within an adaptive management framework (Bennett et al., 2019). For clarity, each subsequent phase should have its own design that is iteratively improved with adaptive management based on the evaluation of the response to the previous design(s). The same process applies each time, though subsequent treatments often do not require as extensive number of structures or material. Subsequent designs also tend to build off of past structures, wood accumulations and potential beaver dams to opportunistically accentuate those features and further accelerate the promotion of processes of wood accumulation and beaver dam activity. Plans for each phase of the Restoration Plan will be stamped by a Colorado-registered professional engineer.

Phase 1: The first phase of Project implementation would include the initial excavation of the channel to the approximate planform illustrated in the Concept Design Plan & Profile, Typical Wetland/Riparian Cross-Section and specific channel dimensions referenced in the HEC-RAS 1D Model (and supporting data). SBS and similar structures would be installed and will be supplemented with willow cuttings. Bioengineered bank stabilization structures may be added to improve the stability of specific streambanks (e.g., to reinforce a bank adjacent to the former location of the post-disturbance channel). The Zone 4 Upland Areas including the elevated floodplain adjacent to the new channel, access, staging, excavation soil placement areas (e.g., the southern mesa) and temporary construction-related disturbance areas would all be seeded to provide erosion control and vegetative stabilization, noting that the near-channel area is not expected to remain stable. This phase is specifically dedicated to allowing natural watershed processes to "do the work" of advancing channel evolution. Ideally this phase would occur before spring snowmelt runoff such that our Team may monitor channel adjustments post runoff and through summer rainstorm events.

This first phase can be used to address a number of questions such as: "Are the channel-spanning structures breaching, but still providing function to maintain wetlands?", "How much channel aggradation is occurring and is it still providing wetland habitat?", "Is there sufficient wetland vegetation recruitment occurring?" as well as logistic questions such as, "Does site access limit the use of particular equipment such as a hydraulic post driver?" As such the first phase will aid in the more efficient design and implementation in later stages by testing alternative structure designs and identifying logistical realities.

Additionally, Phase 1 construction will include:

1) The Little Joe Creek wetland complex, including grading, SBS installation, direct transplant of wetland and riparian vegetation from the Disturbance Channel, as well as planting and seeding with native wetland vegetation;

- 2) Any or all of the contingency wetland areas, or a portion thereof, up to 3.5-acres total; and
- 3) After earthwork and grading are complete, install shallow groundwater wells and initiate datalogging (refer to Variable V3 in the Vermillion Creek FACWet Performance Standards Table).

At an appropriate time during the growing season at the end of implementation of Phase 1 once earthwork and grading are complete (as approved by EPA and BLM), our Team will:

- a. locate and survey at least 12 valley-wide topographical cross-sections (refer to Variable V6 in the Vermillion Creek FACWet Performance Standards Table) to establish as-built conditions as baseline condition to compare any potential future change;
- b. locate and survey longitudinal topographic transect(s) (i.e., longitudinal profile(s)) (refer to Variable V6 in the Vermillion Creek FACWet Performance Standards Table) to establish asbuilt conditions as baseline condition to compare any potential future change;
- c. use the valley-wide topographical cross-sections and longitudinal topographic transect(s) and shallow groundwater well data-logging at representative intervals to estimate lateral extents of water distribution (refer to Variable V4 in the Vermillion Creek FACWet Performance Standards Table);
- d. establish photo points and provide photographic documentation of as-built conditions. (refer to Variables V4, V5, and V6 in the Vermillion Creek FACWet Performance Standards Table);
- e. review and summarize the data and recommended adjustments that may be necessary to maintain a trajectory toward a functional Creek that will support the required wetland acreage;
- f. perform a baseline, FACWet Level 2 Rapid Assessment; and
- g. progress presented in a Technical Memo.

Staff from Agencies and their consultants will be invited, two weeks prior to any assessments, to participate in all field assessments for all restoration phases. This assessment (and subsequent assessments) will be provided to the EPA and BLM for review and comment.

Phase 2: The second phase will allow the designers to correlate observed and measured flows to documented channel responses and refine SBS/structure as needed. Based on Phase 1 Monitoring data: 1) additional SBS or similar structures may be installed (and supplemented with willow cuttings) to reinforce Phase 1 structures or to accelerate natural processes in specific, desired areas; 2) additional seeding and planting will be implemented in areas that have temporarily stabilized and/or require additional erosion control, including: a) seeding the inset floodplain (Zone 2 Wetland); b) willow staking along the toe of bank or bars that form along the bottom of the channel (Zone 2 Wetland); c) seeding and planting native grasses/forbs and cottonwood seedlings in the Zone 3 Riparian area; and d) seeding all Zone 4 Upland areas that have been temporarily disturbed by construction activity; 3) additional bioengineered bank stabilization structures may also be added as needed; and 4) other adjustments may be implemented as deemed necessary by our Team and approved by EPA and BLM.

At an appropriate time during the growing season following implementation of Phase 2, our Team will:

a. resurvey the at least 12 valley-wide topographical cross-sections established as part of Phase 1 monitoring to monitor grade change;

- b. resurvey the longitudinal topographic transect(s) established as part of Phase 1 monitoring to monitor grade change;
- use valley-wide topographical cross-sections and longitudinal topographic transect(s) and data-logging at representative intervals in the same locations as used in Phase 1 monitoring to estimate lateral extents of shallow groundwater distribution;
- d. perform a preliminary wetland boundary delineation with a GPS with Corps datasheets; and
- e. provide photographic documentation at each established photo point;
- f. review and summarize the data and recommended adjustments that may be necessary to maintain a trajectory toward a functional Creek that will support the required wetland acreage;
- g. perform a baseline, FACWet Level 2 Rapid Assessment; and
- h. present progress in a Technical Memo.

<u>Phase 3:</u> Based on Phase 2 Monitoring data: 1) additional SBS or similar structures may be installed (and supplemented with willow cuttings) to reinforce Phase 1 and 2 structures or to accelerate natural processes in specific, desired areas; 2) additional seeding and planting measures will be implemented in areas that have stabilized and/or require additional erosion control, including: a) seeding the inset floodplain (Zone 2 Wetland); b) willow staking along the toe of bank (Zone 2 Wetland); c) seeding and planting native grasses/forbs and cottonwood seedlings in the Zone 3 Riparian area; and d) seeding all Zone 4 Upland areas that have been temporarily disturbed by construction activity; 3) additional bioengineered bank stabilization structures may also be added as needed; and 4) other adjustments may be implemented as deemed necessary by our Team and approved by EPA and BLM.

At the end of Phase 3, we will delineate wetland areas and conduct the FACWet assessment in each of the restoration areas. If the delineated wetland acreage is less than 8.47 acres or the expected gains in wetland function have not been achieved, adaptive management work will extend into a fourth phase and will include, as necessary, implementation of any one or all of the contingency wetland areas, or portions thereof, to achieve the 8.47 acres of wetlands and/or rehabilitated wetlands. At the end of Phase 4, we will delineate wetland areas in each of the restoration areas and conduct the FACWet assessment. If implementation of the Phase 4 additional adaptive management work does not achieve the Performance Standards, adaptive management will continue until those Performance Standards are achieved. Upon such achievement, as-built drawings will be prepared showing topography and vegetation and will be provided to EPA and BLM for review, comment, and approval.

At an appropriate time during the growing season following implementation of Phase 3 (and Phase 4 as necessary), our Team will:

- a. resurvey the at least 12 valley-wide topographical cross-sections from Phase 1 and Phase 2 monitoring to monitor grade change;
- b. resurvey the longitudinal topographic transect(s) from Phase 1 and Phase 2 monitoring to monitor grade change;
- use valley-wide topographical cross-sections and longitudinal topographic transect(s) and data-logging at representative intervals in the same locations as used in Phase 1 and Phase 2 monitoring to estimate lateral extents of shallow groundwater distribution;
- d. use the at least 12 valley-wide topographical cross-sections for quantitative vegetation

- sampling, including census of Populus spp. Survival, after Phase 2 (refer to Variable V8 in the Vermillion Creek FACWet Performance Standards Table);
- e. repeat the visual geomorphic assessment of Vermillion Creek stream conditions used in baseline documentation incorporating elements of the SEM (which includes assignment of SEM stage by sub-reach) after Phase 2 and 3 (and 4 if necessary);
- f. perform a wetland boundary delineation with a GPS, including direct examination of soil profiles for hydric soil indicators (refer to Variable V7 in the Vermillion Creek FACWet Performance Standards Table) (i.e., with Corps datasheets);
- g. perform a FACWet Level 3 Intensive Assessment;
- h. provide photographic documentation at each established photo point;
- review and summarize the data and recommended adjustments that may be necessary to maintain a trajectory toward a functional Creek that will support the required wetland acreage; and
- j. present a formal Monitoring Report (i.e., Monitoring Report #1).

If the transects/cross-sections do not prove to provide valuable data we will discuss their utility with the Agencies and reach consensus on reducing their number or deleting this effort.

10. Maintenance

10.1. Overview

Maintenance criteria will be clearly defined in the Construction Maintenance Notes per the examples provided in Section 5.2 and Planting Plan Maintenance Notes per the examples provided in Section 4.2.

10.2. Exotic/Weed control

Management of weeds, including noxious species, will be addressed in the Monitoring Plan that will be included in the Restoration Plan. Weed management will comply with State of Colorado and local weed control provisions and include measures to control for noxious weeds on Lists A and B of the current Colorado noxious weed lists, in accordance with the Moffat County Weed Management Plan. Mr. Raftopoulos shall retain a certified herbicide applicator who will conduct weed treatment using herbicides registered with EPA. The selected EPA-registered herbicides shall be used in a manner consistent with their labeling. Herbicides that are designated for aquatic use and selected to avoid harm to fish or other aquatic wildlife will be used. Application of herbicides shall comply with all applicable State of Colorado and local laws regarding the proper use of pesticides, including permitting requirements.

In order to assist Mr. Raftopoulos in meeting performance standards regarding Lists A and B noxious weeds, BLM has agreed to work with Mr. Raftopoulos on weed control issues on BLM-managed public lands adjacent to the Restoration Site. BLM is willing to allocate a percentage of its annual weed control funding to address areas adjacent to the Restoration Site. This allocated funding could be used to pay the same contractor that Mr. Raftopoulos hires so that treatments are conducted in a coordinated manner, e.g., the same time of year. Mr. Raftopoulos and BLM have agreed to work out the details of this coordinated weed management effort.

10.3. Uses

Except as required to implement the Restoration Plan, the Restoration Plan will prohibit persons from engaging in any of the restricted activities set out in the deed restriction attached to the Consent Decree in the Preserve Area without the prior written consent of EPA.

11. References

Bennett, S.N., Wheaton, J.M., Bouwes, N., Jordan, C.E., Macfarlane, W.W., Maestas, J.D., Portugal, E. and Shahverdian, S.M., 2019. Chapter 3 – Planning for Low-Tech Process-Based Restoration. In: J.M. Wheaton, S.N. Bennett, N. Bouwes, J.D. Maestas and S. Shahverdian (Editors), Low-Tech Process-Based Restoration of Riverscapes: Design Manual. Utah State University Restoration Consortium, Logan, Utah, pp. 24

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CONTINGENCY AREAS 1-11-1 ET CREATION ACREAGE 1-11-ETLAND TERMINOLOGY 1-18-2-12-2

#1 RENUM #2 REVISEI #3 MODIFI #4 REVISEI

2020.7-5

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Cosystem Services 455 Washbun Street ie, Colorado 80516

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- 1. TRANSITION, EXPANSION OR NATURAL MIGRATION OF SPECIES BETWEEN ZONES MAY VARY DEPENDING ON ACTUAL FIELD CONDITIONS, SLOPE, HYDROLOGY, PRETURBATION, MICRO-HABITAT, SOIL TEXTURE & MOISTURE CONDITIONS.
- 2. WIDTH OF INCISED/EXPANDED FLOODPLAIN VARIES. REFER TO CONCEPT DESIGN PLAN.
- 3. *BANKFULL DISCHARGE VARIES BETWEEN 400 800 CFS THROUGHOUT PROJECT REACH DEPENDING ON CROSS-SECTION WIDTH OF INCISED/EXPANDED FLOODPLAIN.
- 4. LOW FLOW CHANNEL AND WETLAND CONFIGURATION IS SUBJECT TO MIGRATION AND SHIFTING OVER TIME AS A RESULT OF GEOMORPHIC PROCESSES.

INSET FLOODPLAIN (FLUVIAL SURFACE)

- 5. FLATTENED WETLAND BOTTOM CROSS-SECTION WILL BE REFLECTED IN THE FINAL DESIGN-BUILD PLAN SET.
- 6. MULTI-THREAD CHANNELS SHOWN ABOVE REPRESENT TARGET CONDITIONS FOLLOWING GEOMORPHIC RESPONSE GUIDED BY ADAPTIVE MANAGEMENT.





APPENDIX C

to Consent Decree

United States v. John Raftopoulos, et al.

Civil Action No.1:20-CV-03166-SKC

WHEN RECORDED RETURN TO:

John Raftopoulos Rancho Greco Limited, LLC 351 School Street Craig, CO 81625

THIS SPACE FOR RECORDER'S USE ONLY

DECLARATION OF ESTABLISHMENT OF CONDITIONS, COVENANTS, AND RESTRICTIONS

THIS DECLARATION OF ESTABLISHMENT OF CONDITIONS,
COVENANTS, AND RESTRICTIONS (hereafter "Declaration") is made as of
, 2023, by Rancho Greco Limited, LLC (hereafter "the
Declarant").

BACKGROUND:

A Consent Decree entered by the United States District Court for the District of Colorado in *United States v. John Raftopoulos, et al.*, Case No. ________, obligates the Defendants in that case to undertake certain activities to restore, and mitigate the loss of, waters of the United States under the terms and conditions of a Work Plan and Restoration Plan incorporated into the Consent Decree. The Consent Decree also obligates Defendants to record a deed restriction on the private property that is subject to the Work Plan and Restoration Plan for all locations on the private property identified in the Work Plan and Restoration Plan that are to be protected.

- 1. The Declarant is the owner of certain real property located in Moffat County, Colorado, more specifically described in Exhibit A, attached hereto and incorporated hereby by this reference (hereafter "Preserve Area").
- 2. The Declarant in accordance with the provisions of the Consent Decree has re-established portions of Vermillion Creek and has restored or mitigated, or is in the process of restoring or mitigating, wetlands within the Preserve Area.
- 3. The Declarant, in-lieu of a permanent conservation easement held by a third party, intends to maintain the Preserve Area as a stream and

wetland preserve area, to be so held in perpetuity subject to this Declaration.

4. This Declaration shall be a binding covenant running with the land and shall be recorded against the title to the property that includes the Preserve Area in the Moffat County Clerk and Recorder's Office.

NOW THEREFORE, the Declarant declares as follows:

- 1. <u>Covenant Running with Land</u>. In consideration of the foregoing benefits flowing to all parties; in consideration of the benefits obtained by the Declarant from the Consent Decree, and other valuable consideration, the receipt and adequacy of which is hereby acknowledged, the Declarant does hereby covenant and agree to restrict, and does by this instrument intend to restrict, the future use of the Preserve Area as set forth below, by the establishment of this Covenant running with the land.
- 2. Restrictions Concerning the Preserve Area. Except for those actions necessary to accomplish creation, preservation, maintenance, repair, fire prevention, or enhancement as has been or in the future is authorized by the United States Environmental Protection Agency ("EPA") or the United States Bureau of Land Management ("BLM"), consistent with the Consent Decree, the Work Plan, and the Restoration Plan, no person shall engage in any of the following restricted activities in the Preserve Area:
 - a. No digging, disking, cutting, plowing, haying, harvesting, cultivation, or burning (other than wildfires) of the Preserve Area or any portion of such area, and no destruction, removal, or harvesting of any natural tree, shrub or other vegetation that exists upon the Preserve Area shall be done or permitted except as consistent with the terms and conditions of the Restoration Plan;
 - b. No materials or debris shall be stored or placed (whether temporarily or permanently) within the Preserve Area or any portion of such area except as consistent with the terms and conditions of the Restoration Plan;
 - c. No discharge of any dredged or fill material shall be done or permitted within the Preserve Area or any portion of such area except as consistent with the terms and conditions of the Restoration Plan;

- d. No discharge, dumping, disposal, storage or placement of any trash, refuse, rubbish, grass clippings, cuttings or other waste materials within the Preserve Area or any portion of such area shall be done or permitted;
- e. No leveling, grading or landscaping within the Preserve Area or any portion of such area shall be done after the Preserve Area is constructed, except as consistent with the terms and conditions of the Restoration Plan;
- f. No motorized vehicles shall be ridden, brought, used or permitted on any portion of the Preserve Area, except (i) in support of restoration or mitigation activities identified in the Restoration Plan; (ii) at the location of the low-water crossing identified in the Restoration Plan; or (iii) as specifically authorized in writing by EPA;
- g. No roads, utility lines, buildings, trails, benches, equipment storage, or other structures or activities shall occur within the Preserve Area except (i) as authorized in the Restoration Plan or (ii) as specifically authorized by EPA;
- h. No grazing of livestock is allowed within the Preserve Area prior to the end of the Monitoring Period under the Restoration Plan;
- i. No spraying with biocides, insecticides, or pesticides is allowed within the Preserve Area except as consistent with the terms and conditions of the Restoration Plan;
- j. No untreated storm water shall be allowed to discharge within the Preserve Area from property owned by Rancho Greco Limited, LLC, its successors and assigns, other than naturally occurring storm water (which includes snow melt) flow and/or discharge;
- k. No disturbing or interfering with the nesting or brood-rearing activities of migratory birds is allowed in the Preserve Area unless pursuant to any required permitting or other authorization under the Migratory Bird Treaty Act;
- 1. No disturbing or interfering with natural activities of wildlife other than migratory birds is allowed in the Preserve Area

- except as may be necessary to install fencing to protect the Preserve Area.
- m. No filling, draining, excavating, dredging, mining, drilling or removal of topsoil, loam, peat, sand, gravel, rock, minerals or other materials shall be allowed within the Preserve Area except as consistent with the terms and conditions of the Restoration Plan;
- n. No transfer of any water rights necessary to maintain the long term viability of the Preserve Area as a stream and wetland preserve in compliance with the Restoration Plan is allowed, except as explicitly described in the Work Plan or Restoration Plan or as specifically authorized in writing by EPA;
- o. No activity that is incompatible with maintenance of the Preserve Area as a stream and wetland preserve is allowed.

Notwithstanding anything to the contrary in subparagraphs (a) through (o) above, there shall be no prohibition on irrigating the Preserve Area for the purpose of restoring, mitigating, and maintaining the Preserve Area, or allowing or directing irrigation return flows to the Preserve Area.

- 3. <u>Not an Offer to Dedicate: No Rights of Public Use</u>. The provisions of this Declaration do not constitute an offer for public use. This instrument does not constitute an irrevocable offer to dedicate.
- 4. <u>Successors and Assigns Bound</u>. Declarant hereby agrees and acknowledges that the Preserve Area shall be held, sold, conveyed, owned and used subject to the applicable terms, conditions and obligations imposed by this Declaration relating to the use, repair, maintenance and/or improvement of the Preserve Area, and matters incidental thereto. Such terms, conditions and obligations are a burden and restriction on the use of the Preserve Area, as applicable.
- 5. <u>Enforcement</u>. The provisions of this Declaration shall (subject to the limitations contained in this Declaration and without modifying the provisions of this Declaration) be enforceable by EPA as equitable servitudes and conditions, restrictions and covenants running with the land, and shall be binding on the Declarant and upon each and all of its respective heirs, devisees, successors, and assigns, officers, directors, employees, agents, representatives, executors, trustees, successor trustees, beneficiaries and administrators, and upon future owners of the Preserve Area and each of

them. It is the intent of the Declarant that the Covenants of this Declaration shall give rise to a federally-enforceable right of action in EPA, or in any successor agency with comparable enforcement jurisdiction.

- 6. <u>Modification.</u> Declarant or its successors and assigns may request that the EPA approve a modification, alteration, release, or revocation of this Declaration. No modification, alteration, release, or revocation of this Declaration shall be effective unless EPA has approved such modification, alteration, release, or revocation in writing. EPA shall review and approve as necessary any additional structures, work, or other activities that require approval.
- 7. Transfer of Property. The terms and conditions of this Declaration shall be both implicitly and explicitly included in any transfer, conveyance, or encumbrance of the Preserve Area or any part thereof. Any instrument of transfer, conveyance, or encumbrance affecting all or any part of the Preserve Area shall set forth the terms and conditions of this document either by reference to this document or set forth in full text, and shall reference the recorded location of this Declaration.
- 8. <u>Right of Entry</u>. EPA shall have the right of entry to the Preserve Area at reasonable times with prior notice for the purpose of determining compliance with the terms of this Declaration and the Restoration Plan. Nothing in this Declaration shall impair any other authority EPA may otherwise have to enter and inspect the Preserve Area.
- 9. <u>Severability</u>. The provisions of the Declaration are severable and the invalidation of any of the provisions of this Declaration by a Court shall not affect any of the other provisions which shall remain in full force and effect.

	DECLARANT:
STATE OF COLORADO)	
COUNTY OF MOFFAT)	
9 9	ed before me by John Raftopoulos, on LC on the day of, 2023.
WITNESS my hand and official seal.	

My commission expires:	
	Notary Public

EXHIBT A - LEGAL DESCRIPTION OF REAL PROPERTY AND "PRESERVE AREA"

[NOTE: THE PRESERVE AREA WILL BE LIMITED TO THE STREAM, RIPARIAN, AND WETLAND AREAS THAT ARE NECESSARY TO SATISFY THE GOALS SET OUT IN THE RESTORATION PLAN AND WILL NOT INCLUDE A BUFFER AREA]