Enclosure C:
Black Oak Ranch Water Conservation Project
Notice of Intent (NOI) Avoidance and Protection

(This enclosure was provided by the Black Oak Ranch Partnership and summarizes how it will comply with applicable provisions of the Restoration General Order, Order No. WQ-2022-0048-DWQ.)

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NOI VI G: Impact Avoidance Including General Protection Measures (GPM)

1. Describe project design steps taken to first avoid, and then minimize, impacts to waters of the state to the maximum extent practicable.

All elements of the Black Oak Ranch Water Conservation Project are designed to improve instream water quality and availability. Great care will be taken to make sure that no harm to water quality occurs as a result of implementation.

There are two points of diversion that will require excavation and instream work to install and improve existing infrastructure. The existing banks of these streams are mostly bare and vertical and soil already sluffs off resulting in direct sediment delivery. When the infrastructure is installed, wood and rock will be placed to reduce erosion in these locations. Strategic planting on banks where points of diversions are installed will further reduce future erosion.

The proposed pond is located in a flat field where sediment delivery would be naturally inhibited by the lack of slope. Because the pond will disturb approximately 7 acres in it's construction, a Storm Water Pollution Prevention Plan will be required. The tanks are likewise located on a flat plateau far from streams. Overflows from both the tanks and pond are designed to release excess water on near flat slopes and allow for spreading and infiltration. While the tank location requires a less than 3-acre conversion, the location was chosen in an effort to minimize the cutting of large trees, especially hardwoods like oaks and madrones. The design minimizes excavation and earthwork so that little new bare soil and bed material will be exposed or moved.

GPM-1: Receipt and Copies of All Permits and Authorizations

All permits obtained by ERRP for the Black Oak Ranch Water Conservation Project will be provided to the State Water Resources Control Board Water Rights Division 401 staff as soon as secured, including CDFW 1600 LSA Agreement, ACOE 404 permit, and NMFS Programmatic Biological Opinion for Northern California restoration projects. Copies of permits will also be printed and available on-site from the construction foreman/manager on the project site for the duration of the project.

GPM-2: Construction Work Windows

All instream work on the Project and all grading work will be done between May 15 and October 15 in order to avoid saturated ground conditions in the meadow area or wet conditions of roadbeds and stream crossings.

Construction of the diversion infrastructure at the unnamed tributary will begin after May 15th. Construction of diversion infrastructure on Streeter Creek will take place in the summer after July 15, when the likelihood of salmonids being present in Streeter Creek is low. If it appears that Streeter Creek may lose surface flow altogether, the start of construction may be deferred to August 1. All construction of instream work will cease by October 15th. Construction of tanks, plumbing, electrical, and treatment infrastructure may occur year-round.

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GPM-3: Construction Hours.

All work on all projects will take place during daylight hours between 7 AM and 7 PM.

GPM-4: Environmental Awareness Training

All contractors associated with the Black Oak Ranch Water Conservation Project will be informed about sensitive aquatic and wetland resources prior to implementation, especially those involved in the construction of Streeter Creek point of diversion that may affect ESA-listed salmonids. A specially trained crew will be on hand for the construction of a coffer dam and by-pass pipe in case it is necessary to dewater Streeter Creek to construct the diversion infrastructure. They will be trained in the identification and handling of listed species by a qualified fisheries biologist approved by CDFW and NMFS who will operate the electrofisher and oversee relocation to an area suitable for the survival of fish removed.

GPM-5: Environmental Monitoring

All aspects of the Black Oak Ranch Water Conservation Project will be monitored to make sure that no environmental damage results from any activity conducted. The greatest risk to aquatic resources is from the construction of the point of diversion on Streeter Creek, which will be supervised very closely. In the event that equipment used is leaking fluids or otherwise causing pollution in the stream bed, all work will be halted, the spill kit materials will be applied, and equipment will be moved away from the stream, and appropriate repairs made. Managers of different project elements will keep a daily journal of compliance with permit mitigation measures and record-related activities and those records will be part of deliverables and kept on file by ERRP.

GPM-6: Work Area and Speed Limits

The work areas for stream-related projects will be located at:

The parking areas on either side of the new Streeter Creek bridge, and the field adjacent to (and south of) the unnamed tributary POD. They will be set back from the stream to limit potential contamination of the waters from construction-related runoff.

The access to the stream will be directly from the 3 work areas, connecting them to the POD locations with a short, narrow road to minimize disturbance directly adjacent to the stream that could result in excessive sediment delivery. The bank will be pulled back adjacent to where the Streeter POD will be installed at the stream restoration site. It may also be accessed from the opposite bank by a mini-excavator on the trail, but no trees should be removed, so the equipment must be small to pass between them.

Equipment and traffic on the Black Oak Ranch property will not exceed 15mph. A water truck will be used periodically during grading work for dust abatement.

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GPM-7: Environmentally Sensitive Areas

There are no environmentally sensitive areas near the sites beyond Streeter Creek and the unnamed tributary already mentioned. There is a wetland in the field several hundred feet away from the pond. Because of the flat nature of the field, sediment, and contaminants are not at risk of being transported near this wetland.

GPM-8: Prevent the Spread of Invasive Species

Before being imported to the site, heavy equipment for construction of diversion infrastructure and water storage will be thoroughly cleaned at a car wash or similar facility to ensure that no invasive weed seeds are imported or pathogens, such as sudden oak death syndrome spores. Post-project monitoring will include checking that pests like star thistle were not introduced and ensuring they are removed to prevent their establishment and spread. All mulch or straw used to control surface erosion after project completion will be certified weed-free. Construction supervisors will be aware of these requirements, make sure protocols are followed, and record compliance in their daily journals. Protocols for preventing the importation of invasive species and their eradication, if introduced, will follow the guidance of CDFW's California Aquatic Invasive Species Management Plan (CDFW 2008) and Aquatic Invasive Species Disinfection and Decontamination Protocols (CDFW 2016). However, there is little opportunity for the importation of invasive animal species related to project construction.

GPM-9: Practices to Prevent Pathogen Contamination

The Guidelines for Restoration and Fieldwork published by the California Oak Mortality Task Force will follow to make sure that equipment imported to build water conservation infrastructure will have been thoroughly cleaned to prevent importation of sudden oak death syndrome (Phytophthora).

GPM-10: Equipment Maintenance and Materials Storage

All equipment will be maintained in top working order and measures taken to prevent any leaks of fuel or petroleum products during operation, staging, and on-site storage. Absorbent padding "Diapers," a tarp, and a bucket will be the minimum contents of spill kits kept on sight. Equipment will be inspected daily and any sign of impairment will lead to a stop work order until appropriate repairs are made. Absorbent pads will be placed under equipment when it is not being operated to detect leaks and prevent contamination of soil. Fueling and the addition of fluids necessary for equipment operation will take place at least 100 feet from any water course. All fuel and other fluids needed for equipment operation will be in leak-proof containers and kept either in a truck bed or some other form of secondary containment.

GPM -11: Material Disposal

All aspects of the Black Oak Ranch Water Conservation Project will be diligent in making sure that no refuse, contaminants, or debris is left at the job site upon project completion. Any hazardous materials, such as fuel and lubricants for equipment, will be handled with caution and any fueling will take place further than 100 feet from any water course. Containers for hazardous materials will be closely controlled and disposed of appropriately off-site at an appropriate facility.

GPM-12: Fugitive Dust Reduction

As noted in GPM-6, vehicles traveling on the Black Oak Property will travel at a speed of 15 mph or slower to reduce dust caused by traffic. During grading activities, a water truck will be used to control dust from road grading and culvert replacement activities.

GPM-13: Trash Containment and Removal

All trash generated by any activity related to the Black Oak Ranch Water Conservation Project activities will be immediately confined in sealed trash containers and placed at the staging area. All project materials will be secured in staging areas and no packaging or empty containers left untended that the wind could carry away. No trash will be left at the job site or at the staging area at the end of the project.

GPM-14: Project Cleanup After Completion

All construction materials, work pads, and trash receptacles will be removed from all job sites at the completion of work and all sites fully treated to prevent erosion. At the stream sites, there will be no foreign materials of any kind at the end of each day and materials will be secured away from the stream in staging areas.

GPM-15: Revegetate Disturbed Areas

The disturbed areas will be revegetated with native grass seed as well as native forbs. The tanks are located in areas that will undergo a forestland conversion. Trees will not be replanted because they are at risk of falling on the tanks. Willows will be planted at the Streeter Creek POD next to the fish habitat enhancement structure.

Water Quality and Hazardous Materials

WQHM-1: Staging Areas and Stockpiling of Materials and Equipment.

Staging areas will be located on the flat field next to the pond and the point of diversion for the unnamed tributary. Equipment for the Streeter POD will be located on the flat area beyond the bank of the stream near the existing water treatment facility. The tanks may be staged in the flat parking lot near Irene's Farm prior, and up the hill on top of the plateau where tank construction will occur. All equipment staging areas will have straw wattles available onsite in case a summer storm occurs.

Maintenance of equipment will take place in these staging areas. A botanical survey was conducted as part of our current permitting process and no rare and endangered plants were identified or noted as needing protection. If rain is predicted in the forecast any construction work would cease and any exposed soil areas in the project treated with weed-free straw to prevent surface erosion.

Erosion and Sedimentation Control Measures

WQHM-2: Storm Water Pollution Prevention Plan.

The County of Mendocino requires a Storm Water Pollution Prevention Plan for pond construction because it is over an acre of grading as part of a subsequent implementation project. However, County permits will be pursued in a separate, subsequent implementation grant. A SWPP will not be required by the County for the tanks, under a separate building permit, unless disturbance exceeds an acre.

WQHM-3: Erosion and Sediment Control Measures

Following grading of the two water storage locations erosion control materials will be installed. These will include a native seed mix and weed-free straw. Biodegradable wattles will be staked around the edges of the graded areas. Erosion and sediment control measures are discussed above in GPM-4, GPM-6, GPM-12, and GPM-14. Best management practices that will be employed to reduce the risk of sediment contributions are 1) application of rice straw or weed-free mulch to any bare soil areas at project completion or during any wet period during construction; 2) planting native grass seed on bare soil areas will help with soil stabilization in the long term, 3) planting riparian plants near the points of diversion in addition to native grasses with long term benefit of erosion control accrued as bushes mature and root systems expand. Coir may be used for erosion control because it is made of coconut fiber and breaks down completely over time.

WQHM-4: Hazardous Materials Management and Spill Response Plan

ERRP will create an Accidental Discharge of Hazardous Materials memo that site managers for the various elements of the project will all have that directs them on response to spills of fuel or lubricants for equipment that are the only hazardous materials employed by the project. Sections above in GPM-10 and GPM-14 note that no fueling or replacement or addition of fluids to any piece of equipment will take place within 100 feet of a water course. As noted in GPM-11, all containers with petroleum products will also be stored, tracked, and disposed of appropriately after contents have been added to machines. A tarp, tray, or truck bed will be placed under any stored fuel and lubricants in the staging area prior to use. Equipment used to create the point of diversion infrastructure will be especially closely scrutinized and inspected daily before conducting work in the stream bed. If any leak is detected, work will stop and absorbent pads used to make sure that no significant pollution of the stream bed occurs.

WQHM-5: In-Water Concrete Use.

The concrete used in diversion infrastructures will be installed and allowed to cure when the streams are dry or diverted. Personnel working on concrete will be trained on stormwater pollution prevention measures. All concrete equipment and tools will be rinsed at a washout station designed to hold the wash water with either berms and a tarp or a kitty pool such that the water can evaporate. The remaining dried-out concrete will be brought to a waste disposal site.

WQHM-6: Accidental Discharge of Hazardous Materials

The Accidental Discharge of Hazardous Materials memo created for this project will be in the possession of project managers and will have contact information in the event of a significant fuel or fluid spill for 1) universal emergencies (911), 2) the Office of Emergency Services (OES) State Warning Center at (800) 852-7550 or (916) 845-8911, and 3) the North Coast Regional Water Quality Control Board (707 576-2220).

IWW-1: Appropriate In-Water Materials

Nothing will be introduced to the stream channel except boulders and large wood with root wads that will be used for the fish habitat enhancement structure that will buttress intake of Streeter Creek POD. These materials have no risk for introduction of aquatic pathogens. Any sediment that might slough from banks during construction of diversion works or fish habitat structure will be removed before heavy equipment leaves the channel.

IWW-2: In-water Vehicle Selection and Access

A 33,000 pound tracked excavator will be used to install fish habitat enhancement structure at Streeter POD and for creation of diversion works. The equipment will enter the channel only after the stream has been de-watered and fish removed and relocated. Heavy equipment will be moved to storage locations outside the channel in the evening and absorbent pads placed under it to catch any leaking fluids.

IWW-3: In-Water Placement of Materials, Structures, and Operation of Equipment

As noted above in WQHM-3, no sediment or pollution of any kind will be introduced into stream channels during construction of PODs because of implementation of BMPs.

IWW-5 & IWW-6: Coffer Dam Construction & Dewatering/Diversion

A single coffer dam will be constructed above the Streeter Creek POD to de-water the creek so that fish can be removed and relocated and the plan is detailed in the *Biological Assessment and EFH Assessment for Black Oak Ranch Water Conservation Project (Higgins 2023)*. The dewatering and fish removal and relocation plan is being approved by NMFS and CDFW and will be covered by a NMFS Take Permit.

IWW-7 & IWW-8: Fish Exclusion During Construction and Removal of Barrier

Similar to IWW-5 and IWW-6, the BA and EFH for BOR (Higgins 2023) includes detailed plans for fish removal and relocation and for limiting the time that stream flow is routed through by-pass pipe to the minimum possible. Any foreign materials or sediment will be removed from stream channels before flow is restored.

VHDR-1: Avoidance of Vegetation Disturbance

The pond will be constructed in a field that has a history of cultivation for agriculture since the 1860s and has largely non-native grasses, and the pond berm will be mulched and native grass seed spread. The construction of the unnamed creek POD and renovation of Streeter Creek POD will not require any riparian disturbance to other than non-native plants, but willows will be planted after construction to help prevent erosion.

VHDR-2: Native Vegetation Removal – Non-Native Plant Material Disposal

No native vegetation or trees will be removed and no chain saws will be used in project construction. Non-native grasses removed by excavation during pond construction will be re-interred with soil to build the berm surrounding the pond and native grass seed will be planted on the top of the berm.

VHDR-3: Revegetation Materials and Methods

As noted above in GPM-15, mulch will be spread on disturbed soil areas and native grass seed spread, including on the berm surrounding the pond. Native willows will also be planted around the PODs after construction for long term erosion control and to improve riparian function.

VHDR-4: Revegetation Erosion Control Materials and Methods

Mulch mixed with native grass seed will be the preferred method of preventing erosion of soil in areas disturbed by construction. If any erosion control fabric is used, it will be coir, which is coconut fiber that breaks down completely over time.

VHDR-5: Revegetation Monitoring and Reporting

Bare soil areas covered with mulch and planted with native grass seeds will develop ground cover of at least 60% or native grass seed will be spread repeatedly until this cover level is achieved.