Exhibit B

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Ramon Montano, Code Compliance Inspector II
Monterey County Resource Management Agency
Planning Department
1441 Schilling Place, 2nd Floor
Salinas, California 93901

March 16, 2020

RE: Restoration plan for area of tributary drainage of Carneros Creek impacted by unpermitted stream alteration on the Cortez Property, 2441 San Juan Road, Aromas, California 95004. APN 181-171-010-000. Case Number 19CE00460. CDFW Violation File Number 1600-2019-0830-R4.

Dear Mr. Montano:

I conducted my survey of the Cortez Property on February 20, 2020. Owner, Rosa Cortez pointed out the approximate boundaries of the areas that were impacted, explained the nature and approximate chronologies of the violations and discussed them in relation to nearby unimpacted areas.

METHOD OF SURVEY

I carefully surveyed the impacted areas of the drainage and adjacent unimpacted areas on foot. I walked up the drainage as far as I could. I also looked over the greater surrounding area, both on and off of the Cortez Property to obtain as much information as possible about the biological nature of the areas of the drainage that were impacted.

THE PROPERTY AND PROJECT

The Cortez Property is located on the north side of San Juan Road. The property is 2.54 acres in size and roughly square in shape. It is within the coastal zone. The entire property is a west facing slope and the western boundary of the property includes some of the lower portion of the drainage bottom and much of its eastern bank.

The project consists of a restoration plan to mitigate for unpermitted clearing, stream bed alteration and deposition of material hazardous to wildlife in the portion of the drainage on the Cortez Property.

The drainage is not shown as a blue line drainage on the Prunedale USGS Quadrangle. This is consistent with my conclusion that this drainage may be best characterized as ephemeral. No water was observed in the drainage on my survey.

Most of the back yard of the property has been devoted to horses, including the portion of the drainage on the property. A fence was recently constructed on the western property line to contain the horses and a portion of this fence is on the floor of the drainage.

THE VIOLATIONS

California Fish and Game Code Section 1602 and 5650 violations were recorded on the Cortez Property by California Department of Fish and Wildlife personnel on September 6, 2019. The CDFW Violation File Number is 1600-2019-0830-R4.

Code Section 1602 covers stream alteration. Significant alteration of the drainage on the Cortez Property was observed in the form of:

1. Removal of non-woody vegetation and mature coast live oak trees. This substantially changed the bank of the drainage and removed materials from the bank.
2. Demolition of existing fence and construction of a new fence in the drainage bottom. The excavation and backfilling activities and the placement of fence materials substantially changed the bed of the drainage and obstructed the natural flow of water in the drainage.

California Fish and Game Code Section 1602 requires notification the California Department of Fish and Wildlife and possibly obtaining a stream alteration permit before any alterations of conditions in stream channels occurs.

Code Section 5650 covers direct and indirect deposition into waters of the state of any substance deleterious to plant, mammal or bird life. Deposition of this type into the drainage on the Cortez Property was observed in the form of:

1. The use of dry concrete powder in holes excavated for fence posts on the drainage floor. This could result in the discharge of concrete powder, a material deleterious to fish and aquatic life, into waters of the drainage.

An Administrative Citation and Notice of Intent to record a Notice of Violation by the Monterey County Resource Management Agency pursuant to a site visit on September 9 and confirmation visit on September 16, 2019 identified the following violations:

1. Development within a riparian corridor, vegetation clearing within 50 feet of the bank of an intermittent stream.
2. Unauthorized land clearing creating conditions likely to cause the conditions for accelerated erosion.
3. Unauthorized removal of natural vegetation in an area identified as having highly erodible soils, including the removal of two coast live oaks approximately 24 inches and 16 inches in diameter.

The RMA-Planning Department Case Number is 19CE00460.

Required corrective actions are:

1. Apply for and obtain approval for a restoration plan from the RMA-Planning Department.
2. Apply for and obtain approval for an erosion control plan from the RMA-Planning Department.

This is a restoration plan, but I will include some recommendations on erosion control as well.

BIOLOGICAL BACKGROUND

ENVIRONMENTAL OVERVIEW

Using the terminology of the California Department of Fish and Wildlife's Preliminary Description of the Terrestrial Natural Communities of California by Robert F. Holland, 1986, and A Manual of California Vegetation, Second Edition by Sawyer, Keeler-Wolf and Evans, 2009, the plant communities observed on the Cortez Property are: non-native grassland, coast live oak woodland and central coast live oak riparian forest.

The drainage on the Cortez Property is one of many drainages originating in the northern Prunedale Hills with channels that connect to Carneros Creek. Some of the drainages, including the drainage on the Cortez Property retain their riparian forest communities into the floodplain of Carneros Creek. The riparian forest in this portion of the drainage is central coast live oak riparian forest. The remaining area of the Cortez Property is suburban back yard and horse corral and little natural habitat was observed in these areas. Areas with plant growth were observed to contain weedy annual plants characteristic of the non-native grassland plant community. The trees growing on the property outside of the drainage were also observed to be coast live oaks *(Quercus agrifolia)* and are remnants of the coast live oak woodland that is common on more south and west facing slopes in the northern Prunedale Hills.

The central coast live oak riparian forest habitat on the property is overall healthy and well developed and mature trees are abundant. The understory vegetation of the central coast live oak riparian forest habitat observed on the property on my survey was low in diversity and indicative of dryness characteristic of ephemeral drainages. The most common native plants observed are California blackberry *(Rubus ursinus)* and poison oak *(Toxicodendron diversiloba)*. The herbaceous component was primarily non-native grassland species indicative of recent disturbance (please see plant list). Few species indicative of wetland conditions were observed on my survey.

SENSITIVE HABITAT

Riparian sensitive habitat was observed in the drainage on the Cortez Property on my survey. No sensitive habitat is indicated on or near the Cortez Property from California Department of Fish and Wildlife Natural Diversity Data Base records for the Prunedale Quadrangle and surrounding area.

Wetland habitats of all types, including central coast live oak riparian forest, are classified as sensitive habitats by the Monterey County Resource Management Agency and state and federal agencies concerned with environmental issues. Wetlands are defined on the basis of three criteria: vegetation, soil characteristics and hydrology. Riparian wetlands are wetlands associated with drainages containing actual or potential streams.

The most abundant sensitive habitat in north Monterey County is central maritime chaparral. This plant community composed primarily of woody shrubs is most common in the Aromas red sand soil which is commonly present on the higher ridge tops and slopes in the more southern Prunedale Hills. The typical, well drained Aromas red sand soil was not observed on the Cortez Property and neither was the central maritime chaparral plant community.

100 feet is the desired minimum setback distance of developments and other impacts from sensitive habitats but the setback can be modified with appropriate mitigations. Protection of these sensitive biological resources from all impacts is mandatory.

SENSITIVE PLANT SPECIES

No sensitive plant species were observed on the Cortez Property on my survey. No occurrence records for sensitive plant species are present on or immediately around the Cortez Property from California Department of Fish and Wildlife Natural Diversity Data Base records for the Prunedale Quadrangle and surrounding area.

The closest occurrence record for a sensitive plant species that could be present in environments similar to those present on the Cortez Property from California Department of Fish and Wildlife Natural Diversity Data Base records for the Prunedale Quadrangle and surrounding area is for fragrant fritillary *(Fritillaria liliacea)*. Fragrant fritillary is a monocot, a perennial herb (bulb) that is native to California, and is endemic (limited) to California. Its California Native Plant Society Rare Plant Rank is 1B.2, which is for plants that are moderately endangered in California and elsewhere. This plant prefers heavier soils similar to those observed on the Cortez Property.

Most of the sensitive plant species present in the Prunedale Quadrangle are found in the central maritime chaparral plant community which was not observed on the Cortez Property. The only other sensitive species record within two miles of the Cortez Property on the current California Department of Fish and Wildlife Natural Diversity Data Base records for the Prunedale Quadrangle and surrounding area is the federally threatened Monterey spineflower *(Chorizanthe pungens* var. *pungens)* which is also on List 1B.2 of the California Native Plant Society. The typical habitat for this plant is loose sandy soil, which was not observed on the Cortez Property. This plant was searched for on the Cortez Property and none were found. If there are any other sensitive plant species present in the local area, they would most likely be present in the central maritime chaparral habitat located near the ridge tops and higher portions of the Prunedale Hills.

All sensitive plant species that have been found on the Prunedale Quadrangle and surrounding area were thoroughly searched for in my survey as were other sensitive plants known to occur in the greater local area from California Department of Fish and Wildlife Natural Diversity Data Base records and from occurrences known to myself and other botanists familiar with the local area.

SENSITIVE ANIMAL SPECIES

No evidence for the presence of any sensitive animal species was observed on my survey of the Cortez Property. No occurrence records for sensitive animal species are present on or immediately

around the Cortez Property from California Department of Fish and Wildlife Natural Diversity Data Base records for the Prunedale Quadrangle and surrounding area.

The closest occurrence record to the Cortez Property for a sensitive animal species is for the California red-legged frog *(Rana draytonii)*, at 0.8 mile to the east. This occurrence is within riparian wetland habitat of the drainage that runs along Carpenteria Road.

The California red-legged frog is federally listed as threatened and is a state species of special concern. Temporary as well as permanent water sources can serve as breeding areas for these amphibians. The most suitable areas for California red-legged frog breeding are deep side pools of flowing streams and rivers with emergent vegetation, but other habitats containing preferably flowing water can also function as breeding habitat. The ephemeral nature of the drainage on the Cortez Property makes it unlikely to contain suitable aquatic breeding habitat for California red-legged frogs and other amphibians.

California red-legged frogs can also be present in terrestrial habitats near wetland areas, most often within 200 feet of their aquatic habitats, but they may range into upland habitats for up to a mile or more from their wetland breeding habitats. They often reside in rodent burrows in their upland terrestrial habitats, especially those of California ground squirrels *(Spermophilus beecheyi)*. No California ground squirrel burrows were observed on the Cortez Property on my survey. There was evidence for the presence of burrows of valley pocket gophers *(Thomomys bottae)*. It is not likely that the few dirt filled valley pocket gopher burrows observed on the property would be used as upland habitat shelters for California red-legged frogs or other amphibians. No adult California red-legged frogs were observed under logs, boards and other objects on the property.

There are records for two other sensitive animal species within a three-mile radius of the property. They are the California tiger salamander *(Ambystoma californiense)* 2.5 miles to the east and the western pond turtle *(Actinemys marmorata)* 1.9 miles to the east.

The California tiger salamander is federally listed as threatened. Temporary as well as permanent water sources can serve as breeding areas for these amphibians. Breeding in California tiger salamanders is more likely in ponds and vernal pools while breeding in California red-legged frogs is more likely in quiet waters of streams. California tiger salamanders spend most of their lives in their terrestrial habitats near wetland areas and may range into upland habitats for over a mile from their wetland breeding habitats. They also most often reside in rodent burrows in their upland terrestrial habitats, especially those of California ground squirrels.

The western pond turtle is a small to medium sized aquatic turtle living in both permanent and intermittent waters which are not present on the Cortez Property. It is classified as a California Department of Fish and Wildlife Species of Special Concern, a Bureau of Land Management Sensitive Species, a vulnerable Species by the International Union for Conservation of Nature and Natural Resources and a United States Forest Service Sensitive Species. These omnivorous turtles live in waters with structures that they can climb out on to bask, such as logs and boulders.

No evidence for the presence of any of these sensitive animal species was observed on the Cortez Property on my survey.

The ephemeral nature of the drainage on the Cortez Property makes it not likely to be a dependable source of water for breeding for amphibians and habitation for western pond turtles. Suitable habitat for the breeding of California red-legged frogs and other amphibians is present in the riparian corridor of Carneros Creek as close as 0.1 mile away. The closeness of suitable habitat to the property mandates a preconstruction survey for the presence of California red-legged frogs and California tiger salamanders in the areas where impacts could occur to them prior to the start of any earth moving activities.

There are several other animal species with ranges that include the local area that are classified by various agencies as species of special concern, protected or sensitive species. These species include the California legless lizard *(Anniella pulchra pulchra)*, California horned lizard *(Phrynosoma coronatum frontale)*, white-tailed kite *(Elanus leucurus)*, tricolored blackbird *(Agelaius tricolor)*, bank swallow *(Riparia riparia)*, ornate shrew *(Sorex ornatus)*, pallid bat *(Antrozous pallidus)*, Monterey dusky-footed woodrat *(neotoma fuscipes luciana)*, and badger *(Taxidea taxus)*.

No evidence for the presence of any of these animal species on the property was observed on my survey.

RESTORATION

FENCE REMOVAL AND HORSE EXCLUSION

Prior to restoration, the following must be completed:

1. The fence built on the property line in the drainage shall be removed. The removal of the fence posts shall include removal of an extra six inches of soil from all sides of the hole around the concrete surrounding the posts to ensure removal of any remaining concrete powder. This soil shall be deposited at least 50 feet from the top of the bank of the drainage.
2. The horses on the property shall be excluded from the top of the bank, the bank itself and the floor of the drainage. A fence strong enough to securely contain the horses shall be built a minimum of eight feet from the edge of the bank.

THE RESTORATION

Approximately 10,040 square feet of the drainage on the Cortez Property will require restoration. This area total can be divided into the floor of the drainage on the Cortez Property, which is approximately 5224 square feet in area, and the south bank of the drainage on the Cortez Property, which is approximately 4816 square feet in area.

<u>General guidelines for the restoration process:</u>

- All activities related to the restoration shall occur within the defined areas. The primary staging area for the restoration activities shall be on the open area on the top of the bank at the southwestern end of the property.
- All work shall take place during daylight hours. Lighting of natural habitat areas is prohibited.

- The construction site shall maintain good construction site housekeeping controls and procedures. These include cleaning up all leaks, drips and other spills immediately, proper disposal of all wastes in trash receptacles placed on site for that purpose, keeping all construction related materials covered when necessary to reduce impacts from rain and wind, removal of all construction related debris from the site, etc.
- All personnel working on this project shall be educated as to the mandatory following of the above guidelines as well as others that may need to be implemented.

SITE PREPARATION

Following the fence removal and horse exclusion, the project area will be ready for pre-planting preparation.

1. The soil on the drainage floor and south bank of the drainage shall be prepared for seeding and planting.
2. All refuse and major large pieces of wood shall be removed from the restoration area.
3. As much non-native vegetation (weeds) as possible shall be removed.

Bare ground shall be cultivated and raked to a moderately fine consistency prior to seed distribution. During the raking, as much non-native vegetation as possible shall be raked into piles and removed. This can be accomplished by hand or by using a tractor. The relatively small project area and irregular contours makes hand preparation possible and desirable. If a tractor is used, the soil can be cultivated to six-inch depth in two directions perpendicular to each other, followed by pulling a ring-roller over the areas to break clods and even the surface.

The area will now be ready for revegetation.

REVEGETATION

The total area of the drainage on the Cortez property that will require restoration is 10048 square feet in area. That includes 5232 square feet of drainage floor and 4816 square feet of south bank of the drainage. This entire area will be seeded first with Regreen sterile wheat/wheatgrass hybrid, a temporary, sterile, erosion control annual grass cover crop, and next fall, with the native herbaceous plant seed mix will be a primary component of the restoration and will also have the important function of quick soil stabilization for erosion control.

Half of the approximately 5232 square foot floor of the drainage on the Cortez Property, which is approximately 2616 square feet in area, and the entire south bank of the drainage on the Cortez Property, which is approximately 4816 square feet in area will require restoration with perennial plants. So, in all, approximately 7432 square feet of the drainage on the Cortez Property will require restoration with perennial plants.

The revegetation of the impacted areas will serve three purposes:

1. Restoring native vegetative cover to areas now devoid of or deficient in vegetative cover.
2. Encouraging the growth of native species currently present on the property in the restoration area.
3. Providing control of erosion from water and wind.

Revegetation will involve three processes, listed in consecutive order.

1. Planting shrubs and trees. This should be completed as soon as possible.
2. Planting Regreen sterile wheat/wheatgrass hybrid as soon as possible after the planting of the shrubs and trees.
3. Spreading and planting seeds from the native herbaceous plant restoration and erosion control seed mix. This should be completed by October 15 of this year or after the first significant fall rains.

Shrubs

The natural vegetation of the drainage was observed to be composed of only three types of native shrubs, California blackberry *(Rubus ursinus)*, poison oak *(Toxicodendron diversiloba)* and coyote brush *(Baccharis pilularis)*. Himalayan blackberry, a non-native shrub, was also observed. The only tree present was coast live oak *(Quercus agrifolia)*.

I measured the total length of the drainage on the property to be approximately 344 feet long. I divided the drainage into an approximately 244-foot long upper portion and an approximately 100-foot long lower portion.

The natural spacing of shrubs in the approximately 244-foot long upper portion of the drainage averages around one shrub for every 36 square feet. This includes the banks of the drainage and only approximately half way to the center of the floor of the drainage. That means that only half of the approximately 3416 square feet area of the upper 244 feet of the drainage floor, or approximately 1708 square feet, will require revegetation with shrubs. The full approximately 3416 of the upper bank will require revegetation with shrubs. That gives us approximately 5124 square feet of the upper portion of the drainage that will require revegetation with shrubs. At one shrub per 36 square feet, this means that 142 shrubs will be planted in the approximately 5124 square foot upper restoration area. Shrubs should be at least one-gallon pot size.

The natural spacing of shrubs in the approximately 100-foot long lower portion of the drainage averages around one shrub for every 64 square feet. This includes the banks of the drainage and only approximately half way to the center of the floor of the drainage. That means that only half of the approximately 1816 square feet area of the lower 100 feet of the drainage floor, or approximately 908 square feet, will require revegetation with shrubs. The full approximately 1400 square feet of the lower bank will require revegetation with shrubs. That gives us approximately 2308 square feet of the lower portion of the drainage that will require revegetation with shrubs. At one shrub per 64 square feet, this means that 43 shrubs will be planted in the approximately 2308 square foot lower restoration area. Shrubs should be at least one-gallon pot size.

A grand total of 185 shrubs shall be planted.
Out of the 185 shrubs to be planted:
105 shall be California blackberry
20 shall be coyote brush
No poison oak will be planted
60 shrubs not observed to be present in the restoration project area but native to the local area shall be chosen from the following list:

black sage *(Salvia mellifera)* in sunnier areas

blue blossom *(Ceanothus thyrsiflorus)*
blue elderberry *(Sambucus nigra* ssp. *caerulea)* in sunnier areas
California coffeeberry *(Rhamnus californica)*
California mugwort *(Artemisia douglasiana)*
California sagebrush *(Artemisia californica)*
California wild rose *(Rosa californica)*
coyote brush *(Baccharis pilularis)*
deerweed (*Lotus scoparius)* in sunnier areas
golden yarrow *(Eriophyllum confertiflorum)* in sunnier areas
red-flowered current *(Ribes sanguineum)*
silver bush lupine *(Lupinus albifrons)*
snowberry *(Symphoricarpos mollis)*
sticky monkey flower *(Mimulus aurantiacus)*
toyon *(Heteromeles arbutifolia)*

Trees
Two mature coast live oak trees, one approximately 24 inches in diameter and one in approximately 16 inches in diameter were removed.

Due to the density of the closed canopy coast live oak forest that covers most of the drainage, I recommend planting two coast live oaks to replace the two removed (1:1 mitigation). Trees should be at least one-gallon pot size.

You will need to water the shrubs and trees well when planted and then hand water once every two weeks for the first year unless we are having regular winter season rains. Hand watering would generally be easiest and best for scattered plants in a natural area. Slow release packs and drip irrigation may present problems, because the plants should not be continuously wet. They need to dry out somewhat between waterings. If any plants die, immediately plant replacements in the same general places.

Checking on the condition of the plants and their need for irrigation at least once every two weeks during the dry season the first year is recommended with additional checks during excessively warm periods and during extended droughts during the rainy season. Once established, the plants should be able to survive without care, but an occasional check during extreme conditions is recommended.

After the trees and shrubs are planted, Regreen sterile wheat/wheatgrass hybrid seeds shall be spread and planted.

Seeds for Herbaceous Plants
There are two seed mixes for this project, one for now and one for next fall.

The seeds for planting immediately after the planting of the trees and shrubs are only one species – Regreen sterile wheat/wheatgrass hybrid. This is a quick- growing erosion control cover crop that is not photoperiod sensitive and can be planted virtually any time to quickly stabilize the soils of the drainage.

Next fall, close to October 15, the beginning of the winter rainy season, the Regreen sterile wheat/wheatgrass hybrid plants shall be cleared out and the straw saved for mulch and erosion control, the area shall again be prepared for seed planting and the native herbaceous plant restoration and erosion control mix shall be planted.

The native herbaceous plant seed mix will be a primary component of the restoration and will also have the important function of quick soil stabilization for erosion control. It is very important that this seed mix is composed of seeds from California native plants of as local origin as possible. Central Coast Wilds of Santa Cruz (831-459-0656, centralcoastwilds.com) is a local native plant nursery with a large selection of seeds available that I most often use as a source for native grass and native herbaceous plant seed mixes. They can also provide some good suggestions of blends depending on the conditions of the restoration area and can usually get the amounts of seeds necessary in a short time.

This seed mix should contain fast growing native annual grasses for quick soil stabilization and should contain a high proportion of native perennial grasses which can, in time, restore our historic native perennial grassland. Native perennial grasses of the local area include, purple needlegrass *(Nassella pulchra),* tufted hair grass *(Deschampsia ceaspitosa* ssp. *ceaspitosa),* California hair grass *(Deschampsia. caespitosa ssp. holciformis)* and beardless ryegrass *(Leymus triticoides).* These perennial grasses actually do better if mowing (for fire control, etc.) occurs before the non-native annual grasses and weeds, which can out-compete the native perennials, drop their seeds. This mowing can't be too close to the ground, however.

These seed mixes can also contain showy native wildflowers, such as sky lupine *(Lupinus nanus)* and California poppy *(Eschscholzia californica).*

I recommend the use of the following seed mix for this restoration project. 15 pounds of seeds is the desired amount for the approximately 10,048 square foot restoration area. It contains:

2.5 lbs. red fescue *(Festuca rubra)*
2.5 lbs. small fescue *(Festuca microstachys)*
2.5 lbs. California brome *(Bromus carinatus)*
2.5 lbs. blue wild rye *(Elymus glaucus)*
1.25 lbs. beardless rye *(Leymus triticoides)*
1.25 lbs. Purple needlegrass *(Stipa pulchra)*
1 lb. sky lupine *(Lupinus nanus)*
0.5 lbs. common yarrow *(Achillea millefolium)*
0.5 lbs. California poppy *(Eschscholzia californica)*
0.5 lb. blue eyed grass *(Sisyrinchium bellum)*

There are a number of native plant nurseries in the central coast area that are good sources for native plants and native plant seeds and seed mixes. I know and have worked with and can recommend Central Coast Wilds of Santa Cruz (831-459-0656, centralcoastwilds.com) Rana Creek Nursery in Carmel Valley (831-659-3820, ranacreekdesign.com), and Yerba Buena Nursery in Half Moon Bay (650-851-1668, yerbabuenanursery.com). In addition, Pacific Coast Seeds in Livermore (925-373-9417, pcseed.com) can supply a wide diversity of native plant seeds and seed mixes and Native Revival in Aptos (831-684-1811, nativerevival@sbcglobal.net) carries a nice

selection of native plant seeds available in smaller quantities. These nurseries are good sources for native plants and seeds of local origin including erosion control seed mixes and plantings and for recommendations on planting and maintaining plants. Native grass mulches, wattles and hay bales are recommended and may also be obtained from these sources.

The planting of the seeds both now, and in the fall, will be divided into the following two steps:

Step 1:
The seed shall be evenly hand broadcast across the entire area and raked in to embed and cover the seed with 1/4-1/2 inch of soil. Native grass hay should be used as needed for mulch and for rolls or wattles and bales used in erosion control. The straw from the Regreen sterile wheat/wheatgrass hybrid can be retained and used for mulch and erosion control in the fall.

Step 2:
The entire area should be watered gently, but generously, initially and thereafter before the top layer of soil becomes dry. This will likely be approximately once per week unless regular winter rains are in progress. Next fall's seed mix can be spread over the entire restoration area in the late fall or early winter after the site has received sufficient moisture to wet the top 1/2 inch of the soil profile. The area should generally be watered when dry periods extend longer than one week within the first 3 months following seed installation, and if dry periods extend longer than 3 weeks thereafter.

No surface erosion control measures other than straw mulch, such as blankets, nets or hydroseeding, prior to seed germination and growth should be required for the project area because of the slope contours on the property are only moderate a most. Within two weeks, these plants should produce a root network that will provide effective control of erosion from water and wind and, of course, this erosion control potential should steadily increase as time goes on, for around six months for the Regreen sterile wheat/wheatgrass hybrid and ongoing for the native herbaceous restoration and erosion control mix.

Hydroseeding is another option for restoring herbaceous plant cover. It is initially more expensive, but there are a number of benefits to using hydroseeding. As straw mulch breaks down it can leach nitrogen from soil. By contrast, when wood fiber mulch, as in hydromulch, breaks down, it will leach much less nitrogen and will actually add to the humus content, creating a healthier underlayer for grasses. Hydromulch is far superior for protecting against soil erosion. On its own, the wood fiber that can be included in a hydroseeding slurry will significantly inhibit soil erosion, but hydroseeding also allows for the addition of a tackifier, a kind of organic "glue" that helps to bind the mulch to the underlying soil. So, while mats and straw can help to some degree in inhibiting soil erosion on slopes, a hydroseed crust will perform much better. As the application hardens, many potential erosion problems can be well controlled until the seed germinates, grows and establishes itself as a permanent erosion inhibitant. Loss from animal consumption of seeds will also be greatly reduced. Combined with the effects of the superior mulching, the fertilizer that is included in a hydroseeding slurry will do much to promote excellent growth of grasses. When all factors are taken into consideration, hydroseeding may be found to actually be cost-comparable to broadcast seeding. Central Coast Wilds of Santa Cruz does hydoseeding and Superior Hydoseeding, Inc. is a central coast company that is widely used for this purpose.

MONITORING AND OTHER INSPECTIONS

The following inspections will be conducted by me or another qualified biologist:

- A preconstruction survey shall be conducted within fourteen days of the start of land alteration associated with restoration.
- A monitoring inspection shall be conducted immediately following fence removal, horse exclusion and site preparation.
- A monitoring inspection shall be conducted immediately following the completion of planting of the trees and shrubs and the Regreen sterile wheat/wheatgrass hybrid seeds.
- A monitoring inspection shall be conducted immediately following the completion of the planting of the native herbaceous plant seed mix.
- A monitoring inspection shall be conducted once each year following completion of all planting in the spring season, for the next 4 years. These inspections will monitor the quality of implementation of the restoration measures listed in this report and will monitor the protection of existing plant communities and native plants now growing on the property.

These monitoring inspections will primarily assess the percent survival of plants installed and also assess progress towards the establishment of natural levels of plant cover and plant community structure. At least 85 percent plant survival will be expected. Failure to meet this level of survival will result in the necessity of remediation measures to bring the restoration into compliance. A report on each monitoring inspection will be submitted to the California Department of Fish and Wildlife and the Monterey County Resource Management Agency.

CRITERIA FOR SUCCESS

Success of revegetation will be assessed primarily on the basis of percent survival of perennial plants, with secondary considerations of percent establishment of herbaceous plant cover and percent progress towards the establishment of plant community structure. Success will be defined as 85 percent or better of plant survival.

Please contact me if you have any questions.

Best regards,

Ed Mercurio,
Biological Consultant

PLANTS AND WILDLIFE OF THE CORTEZ PROPERTY

2441 San Juan Road, Aromas, California 95004
APN 181-171-010-000

NATIVE AND NATURALIZED VASCULAR PLANTS OF THE CORTEZ PROPERTY**

By Ed Mercurio, Biological Consultant
February 2020

DIVISION PTEROPHYTA	**FERNS AND FERN ALLIES**
PTERIDACEAE	BRAKE FAMILY
Pentagramma triangularis	Goldback Fern
DIVISION ANTHOPHYTA	**FLOWERING PLANTS**
CLASS DICOTYLEDONEAE	**DICOTS (Two seed-leaved flowering plants)**
ANACARDIACEAE	SUMAC FAMILY
Toxicodendron diversiloba	Poison Oak
APIACEAE	CARROT FAMILY
*Conium maculatum**	Poison Hemlock
ARALIACEAE	GINSENG FAMILY
Hederia helix*	English Ivy
ASTERACEA	SUNFLOWER FAMILY
Baccharis pilularis	Coyote Brush
*Carduus pycnocephalus**	Italian Thistle
*Chamomilla suaveolens**	Pineapple Weed
*Cirsium vulgare**	Bull Thistle
Erigeron Canadensis	Horseweed
*Hypochaeris glabra**	Smooth Cat's Ear
*Picris echoides**	Bristly Ox-Tongue
*Pseudonaphalium luteo-album**	Weedy Cudweed
Senecio vulgaris	Common Groundsel
*Silybum marianum**	Milk Thistle
*Sonchus oleraceus**	Common Sow Thistle
*Taraxacum officinale**	Common Dandelion
BRASSICACEAE	MUSTARD FAMILY
*Brassica nigra**	Black Mustard
Cardamine oligosperma	Bitter Cress

*Raphanus sativus**	Wild Radish
CARYOPHYLLACEAE	PINK FAMILY
*Cerastium arvense**	Common Chickweed
*Spergula arvensis**	Spurry
CONVOLVULACEAE	MORNING-GLORY FAMILY
*Convolvulus arvensis**	Bindweed
CRASSULACEAE	STONECROP FAMILY
Crassula connata	Sandy Pygmy
CUCURBITACEAE	GOURD FAMILY
Marah fabaceus	Man-Root
FABACEAE	PEA FAMILY
Medicago polymorpha ssp. *vulgaris**	Bur Clover
*Melilotus officinalis**	Yellow Sweet Clover
*Trifolium angustifolium**	Narrow-Leaved Clover
FAGACEAE	BEECH FAMILY
Quercus agrifolia	Coast Live Oak
GERANIACEAE	GERANIUM FAMILY
*Erodium sp**	Filaree
*Geranium molle**	Dove's Foot Geranium
LAMIACEAE	MINT FAMILY
Stachys bullata	Hedge Nettle
MALVACEAE	MALLOW FAMILY
*Malva parviflora**	Cheeseweed
MONTIACEAE	MINER'S LETTUCE FAMILY
Claytonia perfoliate	Miner's Lettuce
ONAGRACEAE	EVENING PRIMROSE FAMILY
Epilobium sp.	Willow Herb
OXALIDACEAE	OXALIS FAMILY
Oxalis albicans ssp. *pilosa*	Hairy Wood Sorrel
*Oxalis pes-caprae**	Bermuda Buttercup
PLANTAGINACEAE	PLANTAIN FAMILY
*Plantago lanceolata**	English Plantain

POLYGONACEAE	BUCKWHEAT FAMILY
*Rumex acetosella**	Sheep Sorrel
*Rumex crispus**	Curly Dock
PORTULACACEAE	PURSLANE FAMILY
*Portulaca oleracea**	Common Purslane
PRIMULACEAE	PRIMROSE FAMILY
*Anagallis arvensis**	Scarlet Pimpernel
ROSACEAE	ROSE FAMILY
*Rubus armeniacus**	Himalayan Blackberry
Rubus ursinus	California Blackberry
RUBIACEAE	MADDER FAMILY
*Galium aparine**	Goose Grass
URTICACEAE	NETTLE FAMILY
*Urtica urens**	Dwarf Nettle
CLASS MONOCOTYLEDONEAE	**MONOCOTS (One seed-leaved Flowering Plants)**
CYPERACEAE	SEDGE FAMILY
Carex sp.	Sedge
JUNCACEAE	RUSH FAMILY
Juncus sp.	Rush
POACEAE	GRASS FAMILY
Agrostis pallens	Leafy Bent-Grass
*Avena fatua**	Wild Oat
*Bromus hordeaceus**	Soft Chess Grass
*Cynodon dactylon**	Bermuda Grass
*Lolium multiflorum**	Italian Ryegrass
Melica sp.	Melic

* = Naturalized species not native to the Cortez Property
** = Based on field studies done by Ed Mercurio in February of 2020.

WILDLIFE LIST FOR THE CORTEZ PROPERTY
More common Birds Observed or Likely to Occur on the Property**
By Ed Mercurio, Biological Consultant
February 2020

HAWKS, FALCONS, VULTURES (ORDER FALCONIFORMES)
Turkey Vulture

American Crow

CHICKADEES, BUSHTITS (FAMILY PARIDAE)
Chestnut-backed Chickadee
Bushtit

WRENS (FAMILY TROGLODYTIDAE)
House Wren[s]
Bewick's Wren

KINGLETS, ETC. (SUBFAMILY SYLVIINAE)
Ruby-crowned Kinglet[w]

THRUSHES (SUBFAMILY TURDIDAE)
Western Bluebird
American Robin
Swainson's Thrush[s]
Hermit Thrush[w]

MOCKINGBIRDS, THRASHERS (FAMILY MIMIDAE)
Northern Mockingbird

WAGTAILS, PIPITS (FAMILY MOTACILLIDAE)
American Pipit[w]

WAXWINGS (FAMILY BOMBYCILLIDAE)
Cedar Waxwing[w]

SHRIKES (FAMILY LANIIDAE)
Loggerhead Shrike[w]

STARLINGS (FAMILY STURNIDAE)
European Starling*

VIREOS (FAMILY VIRIONIDAE)
Hutton's Vireo
Warbling Vireo[s]

WOOD WARBLERS (SUBFAMILY PARULINAE)
Orange-crowned Warbler
Yellow Warbler[s]
Yellow-rumped Warbler (Myrtle & Audubon's Warblers)[w]
Townsend's Warbler[w]
Common Yellowthroat[w]
Yellow Breasted Chat[s]
Wilson's Warbler[s]

White-tailed Kite
Sharp-shinned Hawk[w]
Cooper's Hawk[w]
Red-tailed Hawk
Red-shouldered Hawk
Northern Harrier (Marsh Hawk)[w]
American Kestrel (Sparrow Hawk)
Merlin[w]

SHOREBIRDS (ORDER CHARADRIIFORMES)
Killdeer

PIGEONS, DOVES (ORDER COLUMBIFORMES)
Rock Dove*
Mourning Dove

OWLS (ORDER STRIGIFORMES)
Barn Owl
Great Horned Owl

SWIFTS, HUMMINGBIRDS (ORDER APODIFORMES)
Anna's Humminbird
Rufous Humminbird
Allen's Hummingbird[s]

WOODPECKERS (ORDER PICIFORMES)
Common Flicker (Red Shafted)
Hairy Woodpecker
Downy Woodpecker
Nuttall's Woodpecker

PERCHING BIRDS (ORDER PASSERIFORMES)

TYRANT FLYCATCHERS (FAMILY TYRANNIDAE)
Western Wood Pewee[s]
Black Phoebe
Say's Phoebe[w]
Western Flycatcher[s]

SWALLOWS (FAMILY HIRUNDINDIDAE)
Tree Swallow
Violet-green Swallow
Barn Swallow[s]
Cliff Swallow[s]

JAYS, CROWS, MAGPIES (FAMILY CORVIDAE)
Scrub Jay

SPARROWS (SUBFAMILY EINBERIZINAE)
Brown Towhee
Savannah Sparrow[w]
Junco (Oregon race of dark-eyed Junco)
White-crowned Sparrow[w]
Golden-crowned Sparrow[w]
Song Sparrow
Lincoln's Sparrow[w]

GROSBEAKS, BUNTINGS (SUBFAMILY CARDINALINAE)
Black-headed Grosbeak[s]
Lazuli Bunting[s]

BLACKBIRDS, ORIOLES (FAMILY ICTERINAE)
Red-winged Blackbird
Western Meadowlark
Northern Oriole[s]
Brewer's Blackbird
Brown-headed Cowbird

FINCHES (FAMILY FRINGILLIDAE)
House Finch
Lesser Goldfinch
Lawrence's Goldfinch[s]
American Goldfinch

WEAVERS (FAMILY PASSERIDAE)
House Sparrow*

** = Based on National Audubon Society data base printout for the greater local area; and field studies done by Ed Mercurio in February 2020.
* = naturalized species not native to the Cortez Property.
w = likely to be present only in winter
s = likely to be present only in summer

More common Amphibians, Reptiles and Mammals
Observed or Likely to Occur on the Cortez Property **
By Ed Mercurio, Biological Consultant
February 2020

Common Name	Scientific Name
AMPHIBIANS	**CLASS AMPHIBIA**
SALAMANDERS	ORDER CAUDATA

NEWT FAMILY	SALAMANDRIDAE
Coast range newt	*Taricha torosa torosa*
LUNGLESS SALAMANDER FAMILY	PLETHODONTIDAE
Monterey salamander	*Ensatina eschscholtzii eschscholtzii*
Arboreal Salamander	*Aneides lugubris*
Pacific slender salamander	*Batrachoseps pacificus*
FROGS AND TOADS	ORDER SALIENTIA
TRUE TOAD FAMILY	BUFONIDAE
California toad	*Bufo boreas halophilus*
TREEFROG FAMILY	HYLIDAE
Pacific treefrog	*Hyla regilla*
TRUE FROG FAMILY	RANIDAE
Bullfrog	*Rana catesbeiana*
REPTILES	**CLASS REPTILIA**
LIZARDS AND SNAKES	ORDER SQUAMATA
IGUANID FAMILY	IGUANIDAE
Northwestern fence lizard	*Sceloporus occidentalis occidentalis*
SKINK FAMILY	SCINCIDAE
Skilton skink	*Eumeces skiltonianus skiltonianus*
ALLIGATOR LIZARD FAMILY	ANGUIDAE
California alligator lizard	*Gerrhonotus multicarinatus multicarinatus*
San Francisco alligator lizard	*Gerrhonotus coeruleus coeruleus*
BOA FAMILY	BOIDAE
Pacific rubber boa	*Charina bottae bottae*
COLUBRID FAMILY	COLUBRIDAE
Monterey ringneck snake	*Diadophis punctatus vandeburghi*
Sharp-tailed snake	*Contia tenuis*
Western yellow-bellied racer	*Coluber constrictor mormon*
Pacific gopher snake	*Pituotphis melanoleucus catenifer*
California kingsnake	*Lampropeltis getulus californiae*
California red-sided garter snake	*Thamnophis sirtalis infernalis*
Coast garter snake	*Thamnophis elegans terrestris*
Santa Cruz garter snake	*Thamnophis couchi atratus*

MAMMALS	**CLASS MAMMALIA**
POUCHED MAMMALS	ORDER MARSUPIALIA
OPOSSUM FAMILY	DIDELPHIDAE
Oppossum*	*Didelphis virginiana*
INSECT EATERS	ORDER INSECTIVORA
SHREW FAMILY	SORICIDAE
Ornate shrew	*Sorex ornatus*
MOLE FAMILY	TALPIDAE
Shrew-mole	*Neurotrichus gibbsi*
Broad-handed mole (California mole)	*Scapanus latimanus*
BATS	ORDER CHIROPTERA
EVENING BAT & PLAINNOSE BAT FAMILY	VESPERTILIONIDAE
Little brown myotis	*Myotis lucifugus*
Yuma myotis	*Myotis yumanensis*
Long-eared myotis (hairy-winged myotis)	*Myotis volans*
California myotis	*Myotis californicus*
Small-footed myotis	*Myotis leibli*
Western pipistrel	*Pipistrellus hesperus*
Big brown bat	*Eptesicus fuscus*
Red bat	*Lasiurus borealis*
Hoary bat	*Lasiurus cinereus*
Western big-eared bat (Lump-nosed bat)	*Plecotus townsendi*
Pallid bat	*Antrozous pallidus*
FREETAIL BAT FAMILY	MOLOSSIDAE
Brazilian freetail bat (Mexican freetail bat)	*Tadarida brasillensis*
FLESHEATERS	ORDER CARNIVORA
RACCOON FAMILY	PROCYONIDAE
Raccoon	*Procyon lotor*
WEASEL AND SKUNK FAMILY	MUSTELIDAE
Longtailed weasel	*Mustela frenata*
Badger	*Taxidea taxus*
Spotted skunk	*Spilogale putorius*
Striped skunk	*Mephitis mephitis*
DOG, WOLF AND FOX FAMILY	CANIDAE
Coyote	*Canis latrans*

Red fox*	*Vulpes fulva*
CAT FAMILY	FELIDAE
Bobcat	*Lynx rufus*
GNAWING ANIMALS	ORDER RODENTIA
SQUIRREL FAMILY	SCIURIDAE
California ground squirrel	*Spermophilus beecheyi*
Eastern gray squirrel	*Sciurus carolinensis*
Fox squirrel	*Sciurus niger*
POCKET GOPHER FAMILY	GEOMYIDAE
Valley pocket gopher	*Thomomys bottae*
POCKET MOUSE AND KANGAROO RAT FAMILY	HETEROMYIDAE
California pocket mouse	*Perognathus californicus*
Heermann kangaroo rat	*Dipodomys heermanni*
RAT AND MOUSE FAMILY	CRICETIDAE
Western harvest mouse	*Reithrondontomys megalotis*
California mouse	*Peromyscus californicus*
Deer mouse	*Peromyscus maniculatus*
California meadow mouse (California vole)	*Microtus californicus*
OLD WORLD RAT AND MOUSE FAMILY	MURIDAE
House mouse*	*Mus musculus*
Norway rat*	*Rattus norvegicus*
Black rat*	*Rattus rattus*
HARES AND RABBITS	ORDER LAGOMORPHA
HARE AND RABBIT FAMILY	LEPORIDAE
Blacktail jackrabbit	*Lepus californicus*
Audubon cottontail (Desert Cottontail)	*Sylvilagus audubonii*
Brush rabbit	*Sylvilagus bachmani*
EVEN-TOED UNGULATES	ORDER ARTIODACTYLA
DEER FAMILY	CERVIDAE
Mule deer (Blacktail deer)	*Odocoileus hemionus*

* = Naturalized species not native to the Cortez Property.
** = Based on distribution maps for wildlife of Monterey County and field studies done by Ed Mercurio in February of 2020.

ED MERCURIO, BIOLOGICAL CONSULTANT
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Ramon Montano, Code Compliance Inspector II
Monterey County Resource Management Agency
Planning Department
1441 Schilling Place, 2nd Floor
Salinas, California 93901

April 8, 2021

RE: Reassessment of Restoration plan for an area of a tributary drainage of Carneros Creek impacted by unpermitted stream alteration on the Cortez Property, 2441 San Juan Road, Aromas, California 95004 after a year of deferred plantings. APN 181-171-010-000. Case Number 19CE00460. CDFW Violation File Number 1600-2019-0830-R4.

Dear Mr. Montano:

At the request of the property owners, on March 29, 2021 I conducted survey to assess current conditions on the property and monitor the current state of implementation of the March 16, 2020 restoration plan for the Cortez Property. Owner, Rosa Cortez explained that fence removal, horse exclusion and tree planting had taken place, but other planting requirements for the project had not been undertaken. She mentioned that California Department of Fish and Wildlife had dropped their involvement in the violation on the property that they had recorded, and considering that natural regrowth of shrubs and herbaceous plants in the project area has taken place, are there any changes in the restoration requirements that could now be made.

OBSERVATIONS

I observed the following:

1. All remains of the fence and the holes for their posts within the drainage had been removed.
2. Refuse and major large pieces of wood have been removed from the restoration area.
3. The horses were now contained in fenced areas sufficiently distant from the edge of the drainage.
4. Extensive regrowth of non-native grasses and forbs had occurred throughout the drainage during this winter rainy season.
5. Erosional impacts to the slopes bordering the drainage had been minimal due to the low impacts of water erosion of this past mild rainy season combined with the regrowth of shrubs and erosion controlling non-native grasses and forbs that had occurred.
6. Shrub regrowth has been greatest for California blackberry *(Rubus ursinus)* and poison oak *(Toxicodendron diversiloba)*, the most common native plants observed in the project area, and was considerably less for the other native shrubs observed in the area. This is due to the fact that California blackberry and poison oak readily regrow from underground root stocks when the above-ground portions have been removed.

REVISION OF RESTORATION PLANTING REQUIREMENTS

Seeds for Herbaceous Plants

The seed mix recommended for this area in the original restoration plan contains fast growing native annual grasses and forbs for quick soil stabilization for erosion control and as a primary component of the restoration and also contains a high proportion of native perennial grasses which can, in time, restore historic native perennial grassland. Erosion has been largely controlled by the regrowth of non-native grasses and forbs had occurred throughout the drainage during this winter rainy season. It is still important to seed the restoration area with native grasses and herbaceous plants which take a much longer time to recolonize an area than the non-native grasses and forbs do. The amount of seeds required can be reduced, however, because the erosion control function of the seeding is no longer a primary function.

In the original plan, 15 pounds of the native herbaceous plant seed mix was recommended. At the current stage of regrowth of the restoration area, 5 pounds is recommended. This seed mix should be broadcast over the entire restoration area around the start of the next rainy season, October 15th of 2021. The soil should be prepared for seeding as described in the original restoration plan.

Trees

The only tree observed to be present in the restoration area was coast live oak *(Quercus agrifolia)*. Two coast live oaks were to specified to be planted in the original restoration plan to replace the two removed (1:1 mitigation). I observed that seven coast live oaks have been planted.

Shrubs

The natural vegetation of the drainage was observed to be primarily composed of only three types of native shrubs, California blackberry, poison oak and coyote brush *(Baccharis pilularis)*. Himalayan blackberry, a non-native shrub, was also observed.

In the original restoration plan, A grand total of 185 shrubs were to be planted. 105 California blackberry, 20 coyote brush and 60 shrubs that are rare or not observed to be present in the restoration project area but native to the local area.

Due to the extensive regrowth of California blackberry and poison oak, primarily from sprouting from underground root stocks, and the regrowth of some other native shrubs, including coyote brush, from seeds, the number of shrubs to be planted can be revised to 30 California blackberry, 10 coyote brush and 20 shrubs rare or not observed to be present in the restoration project area but native to the local area.

These shrubs should be selected and planted as described in the original restoration plan. Spacing of the plants, however, should now be based on where additional plants are needed within this naturally regrowing environment. Most of the California blackberry are needed on the (south) bank of the upper portion of the drainage. The other shrubs can be more evenly distributed over the bank areas and along the edges of the drainage floor.

Removal of invasive plant

Since my previous survey of the property, English ivy *(Hederia helix),* has grown to cover approximately 100 square feet of the lower bank near the upper end of the restoration area, close to the fence there. This fast growing, non-native invasive plant must be totally removed from the restoration area. It can quickly take over an area, crowd out, kill and weaken most of the native plants present.

MONITORING AND OTHER INSPECTIONS

The monitoring inspections required, conducted by me or another qualified biologist can now be revised to:

Monitoring inspections shall be conducted once each year in the spring season following completion of all planting for 2022 and 2023. These inspections will monitor the quality of implementation of the restoration measures listed in this report and will monitor the protection of existing plant communities and native plants now growing on the property.

These monitoring inspections will primarily assess the percent survival of plants installed and also assess progress towards the establishment of natural levels of plant cover and plant community structure. At least 85 percent plant survival will be expected. Failure to meet this level of survival will result in the necessity of remediation measures to bring the restoration into compliance. A report on each monitoring inspection will be submitted to the Monterey County Resource Management Agency.

CRITERIA FOR SUCCESS

Success of revegetation will be assessed primarily on the basis of percent survival of perennial plants, with secondary considerations of percent establishment of herbaceous plant cover and percent progress towards the establishment of plant community structure. Success will be defined as 85 percent or better of plant survival.

Please contact me if you have any questions.

Best regards,

Ed Mercurio,
Biological Consultant

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Mary Israel, Associate Planner
Monterey County Planning Department
1441 Schilling Place, 2nd Floor
Salinas, California 93901

June 12, 2022

RE: Current status of the restoration of the area of a tributary drainage of Carneros Creek impacted by unpermitted stream alteration on the Cortez Property, 2441 San Juan Road, Aromas, California 95004 after two years of deferred plantings. APN 181-171-010-000. Case Number 19CE00460. CDFW Violation File Number 1600-2019-0830-R4.

Dear Mary Israel:

On June 6, 2022, I conducted survey to assess current conditions on the property and monitor the current state of implementation of the March 16, 2020 restoration plan for the Cortez Property. Owner, Rosa Cortez explained that fence removal, horse exclusion and tree planting had taken place early, but other planting requirements for the project had not been implemented until the fall of 2021. She mentioned that California Department of Fish and Wildlife had dropped their involvement in the violation on the property that they had recorded, and considering that natural regrowth of shrubs and herbaceous plants in the project area had taken place, they wanted to see if the requirements could be modified. I Inspected the restoration site and wrote a reassessment of the restoration plan dated April 8, 2021 to reflect the natural regrowth of shrubs and herbaceous plants in the project area that had taken place. This report records the implementation of that restoration plan reassessment.

OBSERVATIONS MADE ON THE APRIL 8, 2021 REASSESSMENT

I observed the following:

1. All remains of the fence and the holes for their posts within the drainage had been removed.
2. Refuse and major large pieces of wood had been removed from the restoration area.
3. The horses were now contained in fenced areas sufficiently distant from the edge of the drainage.
4. Extensive regrowth of non-native grasses and forbs had occurred throughout the drainage during the 2021 rainy season.
5. Erosional impacts to the slopes bordering the drainage had been minimal due to the low impacts of water erosion of the generally mild rainy season combined with erosion control seeding and the regrowth of shrubs and erosion controlling non-native grasses and forbs that had occurred.
6. Shrub regrowth had been greatest for California blackberry *(Rubus ursinus)* and poison oak *(Toxicodendron diversiloba),* the most common native plants observed in the project area, and was considerably less for the other native shrubs observed in the area. This is

due to the fact that California blackberry and poison oak readily regrow from underground root stocks when the above-ground portions have been removed.

REVISION OF RESTORATION PLANTING REQUIREMENTS MADE ON THE APRIL 8, 2021 REASSESSMENT

Seeds for Herbaceous Plants

The seed mix recommended for this area in the original restoration plan contains fast growing native annual grasses and forbs for quick soil stabilization for erosion control and as a primary component of the restoration and also contains a high proportion of native perennial grasses which can, in time, restore historic native perennial grassland. Erosion had been largely controlled by the regrowth of non-native grasses and forbs that had occurred throughout the drainage during the 2021 rainy season. It was still important to seed the restoration area with native grasses and herbaceous plants which take a much longer time to recolonize an area than the non-native grasses and forbs do. The amount of seeds required was reduced, however, because the erosion control function of the seeding was no longer a primary function.

In the original plan, 15 pounds of the native herbaceous plant seed mix was recommended. At the spring 2021 stage of regrowth of the restoration area, 5 pounds was recommended. This seed mix was recommended to be broadcast over the entire restoration area around the start of the next rainy season, October 15th of 2021. The soil was to be prepared for seeding as described in the original restoration plan.

Trees

The only tree observed to be present in the restoration area was coast live oak *(Quercus agrifolia).* Two coast live oaks were to specified to be planted in the original restoration plan to replace the two removed (1:1 mitigation). I observed that seven coast live oaks had been planted.

Shrubs

The natural vegetation of the drainage was observed to be primarily composed of only three types of native shrubs, California blackberry, poison oak and coyote brush *(Baccharis pilularis).* Himalayan blackberry, a non-native shrub, was also observed.

In the original restoration plan, A grand total of 185 shrubs was to be planted. 105 California blackberry, 20 coyote brush and 60 shrubs that are rare or not observed to be present in the restoration project area but native to the local area.

Due to the extensive regrowth of California blackberry and poison oak, primarily from sprouting from underground root stocks, and the regrowth of some other native shrubs, including coyote brush, from seeds, the number of shrubs to be planted was revised to 30 California blackberry, 10 coyote brush and 20 shrubs rare or not observed to be present in the restoration project area but native to the local area.

These shrubs were to be selected and planted as described in the original restoration plan. Spacing of the plants, however, was now to be based on where additional plants are needed within

this naturally regrowing environment. Most of the California blackberry were needed on the (south) bank of the upper portion of the drainage. The other shrubs were to be more evenly distributed over the bank areas and along the edges of the drainage floor.

Removal of invasive plant

Since my previous survey of the property, English ivy *(Hederia helix),* had grown to cover approximately 100 square feet of the lower bank near the upper end of the restoration area, close to the fence there. I specified that this fast growing, non-native invasive plant must be totally removed from the restoration area.

MONITORING AND OTHER INSPECTIONS

I recommended that the monitoring inspections required, conducted by me or another qualified biologist be revised to:

Monitoring inspections shall be conducted once each year in the spring season following completion of all planting for 2022 and 2023. These inspections are to monitor the quality of implementation of the restoration measures listed in this report and will monitor the protection of existing plant communities and native plants now growing on the property.

These monitoring inspections are to primarily assess the percent survival of plants installed and also assess progress towards the establishment of natural levels of plant cover and plant community structure. At least 85 percent plant survival will be expected. Failure to meet this level of survival will result in the necessity of remediation measures to bring the restoration into compliance. A report on each monitoring inspection will be submitted to the Monterey County Planning Department.

CRITERIA FOR SUCCESS

Success of revegetation will be assessed primarily on the basis of percent survival of perennial plants, with secondary considerations of percent establishment of herbaceous plant cover and percent progress towards the establishment of plant community structure. Success will be defined as 85 percent or better of plant survival.

MY OBSERVATIONS ON JUNE 6 2022

Seeds for Herbaceous Plants

An erosion control seed mix was broadcast over the entire restoration area around the start of the 2021- 2022 rainy season. On this June 6, 2022 survey, I observed that this seed mix had its job effectively and formerly bare areas were covered sufficiently to control erosion well. This seed mix contained Italian rye grass, which is a preferred fast growing, short lived non-native grass for quick, slope stabilization, but it also contained native grasses suitable for erosion control, such as small fescue *(Festuca microstachys).*

Trees

Two coast live oaks were to specified to be planted in the original restoration plan to replace the two removed (1:1 mitigation). I observed that seven coast live oaks had been planted on April 8, 2021. I observed that 8 had been planted on this June 6, 2022 survey.

Shrubs

On this June 6, 2022 survey, I observed that approximately 50 blackberry plants, approximately 10 Coyote brush and approximately 12 poison oak had been planted in the restoration area. Over 85 percent plant survival was observed.

Removal of invasive plant

On this June 6, 2022 survey, I observed that the English ivy *(Hederia helix)*, that had grown to cover approximately 100 square feet of the lower bank near the upper end of the restoration area, had been totally removed from the restoration area.

Monitoring

This June 6, 2022 survey can also be considered the final monitoring inspection for this project. As I mentioned previously, over 85 percent survival was observed for all of the approximately 50 blackberry plants, approximately 10 Coyote brush and approximately 12 poison oak had been planted during the fall in the restoration area to complete the requirements for the restoration plan.

CONCLUSION

I have observed on this June 6, 2022 survey that all of the requirements of the March 16, 2020 restoration plan for the Cortez Property have now been satisfactorally implemented.

Please contact me if you have any questions.

Best regards,

Ed Mercurio,
Biological Consultant

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