



CEQA STATUTORY EXEMPTION FOR RESTORATION PROJECTS (SERP) CONCURRENCE REQUEST

Completion and submission of this form is voluntary. This form may be submitted to request concurrence from the Director of Fish and Wildlife pursuant to Public Resources Code section 21080.56.

Submit this form (pdf) and all attachments via the Department's [Environmental Permit Information Management System \(EPIMS\) Document Repository](#).

1. LEAD AGENCY

Lead Agency Name:	Sacramento-San Joaquin Delta Conservancy
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2. PROJECT PROPONENT

Check Box and Skip to Number 3 if Same as Lead Agency

Business/Agency/Organization:	The Nature Conservancy
Contact Person's Name:	Sydney Chamberlin
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3. PROJECT INFORMATION

A. Project Name:	Staten Island Wetland Restoration and Carbon Farming for Habitat, Climate, and Communities
B. County or Counties:	San Joaquin County
C. Lat./Long. Coordinates:	38.138725, -121.515167
D. Estimated Project Start/End Dates:	April 26, 2024; Project to be maintained at least 15 years

E. Provide a brief description of the CEQA Lead Agency's discretionary Project approval pursuant to Public Resources Code section 21065.

The Sacramento-San Joaquin Delta Conservancy (Delta Conservancy) is a California state agency that provides grant funds to implement projects supporting ecological restoration and community or economic enhancement in the Sacramento-San Joaquin Delta (Delta). The Delta Conservancy is governed by a board, with 11 voting and two non-voting members and receives assistance from 12 Liaison Advisors. Collectively, they represent the five Delta counties, local nonprofits, special districts, and state and federal agencies. The Delta Conservancy board can take discretionary action to fund projects through a majority decision by voting members. Similarly, the Delta Conservancy board can adopt CEQA determinations and findings through a board resolution.



The Staten Island Wetland Restoration Project (Project) is approximately 745.9 acres and will include wetted landscapes that will provide fish and wildlife benefits. The wetlands include both managed seasonal and semi-permanent wetlands, which will be explored for carbon farming. The Nature Conservancy is requesting funding from the Delta Conservancy to restore approximately 426 acres of wetlands as part of the larger Project (Attachment 1). The Nature Conservancy plans to privately fund or obtain additional funding from other sources, possibly from state entities, to implement the wetland restoration on the remaining Project area, approximately 319.9 acres (Attachment 2). Staten Island is a 9200-acre island with a primarily land use of wildlife-friendly agriculture, and the Project is embedded in this land-use matrix. The southeastern area of the island, where the Project is located, is the most deeply subsided, with the most organic soils, and is currently too wet for conventional agriculture. The restored wetlands will rely primarily on recycled water from farm fields on Staten Island that grow rice and row crops, but other sources also include rainwater, non-agricultural surface water, and groundwater seepage.

At this stage, the Delta Conservancy is the only public agency taking discretionary action and will, therefore, serve as the Lead Agency for CEQA purposes. Given the uncertainty about funding for implementation of the remainder of the Project and to ensure that the entire Project is evaluated for environmental impacts, the Delta Conservancy seeks a CEQA SERP exemption for the entire Project.

F. Provide a brief description of the Project location, size, and funding sources. Please cite and attach any supporting documents.

The Project is located on Staten Island in the Sacramento-San Joaquin Delta (Delta), which is the upstream portion of the San Francisco Estuary. Staten Island is located approximately eight kilometers south of Walnut Grove in San Joaquin County and is bordered on the west and northwest by the North Mokelumne River and the South Mokelumne River to the east and south. Staten Island is subject to a California Land Conservation Contract with San Joaquin County (Attachment 3) and a Conservation Easement held by the State of California Department of Water Resources (Attachment 4).

The Project will take place on approximately 745.9 acres of highly organic peat soils, which were previously used for cultivation of corn and other row crops. On the approximate 745.9-acre Project area, there will be two different habitat types: about 241.4 acres of managed seasonal wetlands (i.e., flooded for at least six months annually for migratory birds) and about 504.5 acres of semi-permanent wetlands (i.e., drained only as needed for management and flooded for at least ten months annually as habitat for breeding shorebirds, waterfowl, and listed species) (Attachment 2).

The approximately 745.9-acre Project will be split into two phases. Planning for both phases is currently funded by a Proposition 1 Delta Water Quality and Ecosystem Restoration Program grant from the State of California Department of Fish and Wildlife (CDFW) and includes 65% design plans, permitting, and project outreach. Conservation Farms & Ranches, a California nonprofit corporation (CF&R), the grantee and a supporting organization of The Nature Conservancy, manages the farming and conservation operations on Staten Island. The CDFW Prop 1 grant will be completed by March 15, 2024. The current draft of the 65% design plans has been submitted to CDFW for review and is included as an attachment with this request (Attachment 5).

The CDFW planning grant is also funding design of a 148.2-acre conversion of row crops to wildlife friendly rice directly adjacent to the Project on Staten Island. If and when implemented, the wildlife-friendly rice will provide adjacent ecosystem benefits, particularly for over-wintering waterfowl, and will also add to the overall climate benefits of the Project.



The future agricultural conversion is not included in the Project because the final design and implementation timeline have not yet been determined. Design plans are still in draft form and are currently under review by CDFW (Attachment 5). In addition, the conversion from row crops to rice that is being evaluate for this part of the Island would propose a crop conversion, rather than a change in land use as is being proposed by the Project. This separate activity can be evaluated for environmental impacts as required by CEQA, if in the future, TNC seeks public funding for the crop conversion.

The first half of the Project, Phase 1, is the northern portion of the Project and includes the 426 acres above the haul road (Attachment 2, shown as red line), plus buffer zones and infrastructure. The Nature Conservancy is seeking Nature Based Solutions funds from the Lead Agency to construct the wetlands for Phase 1, with approximately 319.8 acres to be semi-permanent wetlands and approximately 106.2 acres to be managed seasonal wetlands.

Implementation of the second half of the Project, Phase 2, includes 319.9 acres south of the haul road and will be completed at a future time, with funding anticipated from private sources. Phase 2 will consist of 184.6 acres of semi-permanent wetlands and 135.3 acres of seasonal managed wetlands.

G. Provide a brief Project description, including any post-restoration work, operation and maintenance, or other related activities. Summarize the Project's expected environmental benefits (e.g., acres or stream-miles restored/enhanced, species benefitted, etc.). Please cite and attach any supporting documents.

The approximately 745.9-acre Project will create a mosaic of seasonal and semi-permanent managed wetlands on Staten Island in the Sacramento-San Joaquin Delta. The Sacramento-San Joaquin Delta is one of the most fertile estuaries in the world. With its rich peat soil and more than 750 species of plants and animals – some of which can be found nowhere else on Earth – the Delta is vital in maintaining California's vibrant biodiversity. The historic Delta supported almost half of California's coastal wetland habitats, but this habitat has been largely lost and modified for human uses such as agricultural production, urban development, and water transport. Specifically, 98% of the Delta's freshwater emergent marsh and most of seasonal wetland have been lost (Attachment 6).

Wetland restoration funded by the Delta Conservancy would total approximately 426 acres and target land characterized by highly organic peat soils, which were previously used for cultivation of corn and other row crops (Phase 1). An additional approximately 319.9 acres in the Project area is expected to be implemented with private funding (Phase 2). Of the restored area planned to be funded by the Delta Conservancy, approximately 319.8 acres will be managed as semi-permanent wetlands, with the remaining approximately 106.2 acres as managed seasonal wetlands. Of the Project area expected to be privately funded, there will be approximately 184.6 acres of managed semi-permanent wetlands and approximately 135.3 acres of seasonal wetlands. Wetlands will include habitat islands, deep water ponds, swales (ditches), and water control infrastructure.

Future rice production adjacent to the Project, if implemented, would be expected to provide additional habitat and forage for birds. All agricultural fields on the site, including the future rice, will provide recirculated water, which will be the primary water source for the restored wetlands. It is anticipated that the recirculated water will be used to support the restored sites on a consistent basis,



particularly during the warmer summer months when evapotranspiration is greater due to higher temperatures and lower rainfall and surface water (compared to winter months). The Project will create and enhance fish and wildlife habitat, specifically providing forage for birds, while also promoting native plants and the native delta wetland ecosystem.

The wetland restoration will involve installing a pump to recirculate water from the primary drainage canal located along the center of the island to the wetland site and installation of water delivery pipes. On-site fill will be used to create wetland berms and habitat features. On-site fill will be taken from high areas within the wetland areas and excavated from ditches and deep-water ponds. Additional water control structures will be placed to help control water levels throughout the Project site. Several roads will be constructed to support restoration and management of the site; most will be small berms that will not provide vehicle access in wet conditions, and one will be a permanent haul road. No construction will take place that is not related to habitat restoration and maintenance and operation of the wetlands. The Nature Conservancy and their subcontractors will take photos to document the wetland project on Staten Island, including photos of the site prior to restoration, wetland construction on-site, and final wetland photos. Additional photos will be used for reference in ongoing maintenance at Staten Island. Once constructed, surveyors will provide as-built plans to aid in management and maintenance. Maintenance will include drainage of wetlands for vegetation management on a rotational basis, pesticide application for invasive species, ditch cleaning, leveling, replacement of water control structures as issues arise, and needed maintenance for the haul road and seasonal berm roads.

One of the primary benefits of the Project will be creating habitat for native species, particularly birds. The Delta is a critical stopover on the Pacific Flyway, and the Delta's wetlands provide habitat that enhances foraging for migratory waterfowl, resulting in improved breeding success (Attachment 7). Delta wetlands are also important breeding habitat for locally breeding waterbirds and wetland species including rails, bitterns, ducks, blackbirds and others (Attachment 8). Specifically, Swainson's hawk (*Buteo swainsoni*, state-threatened species), song sparrow ("Modesto" population) (*Melospiza melodia*, California species of special concern), Caspian Tern (*Hydroprogne caspia*, federal-species of special concern), Greater Sandhill Crane (*Grus canadensis tabida*, state-threatened species), and Lesser Sandhill Crane (*Grus canadensis*, California Species of Special Concern) have been identified on the property (Attachment 5 and Emily Wells personal observation). The cranes already visit the existing agricultural lands at Staten, and the wetlands will provide an important complement by adding beneficial food sources such as nut sedge. Other birds that might benefit from the project include tricolored Blackbird (*Agelaius tricolor*, state-endangered species) and black rail (*Laterallus jamaicensis*, state-threatened species) if they do visit the site.

Restored aquatic habitat on the Project site may also be expected to enhance phytoplankton production and expected outcomes for fish (Attachment 9). Fish expected to benefit include steelhead – Central Valley Distinct Population - (*Oncorhynchus mykiss irideus* pop. 11, federal-endangered species), which have been identified in the channel adjacent to the site (Attachment 5). The site also has the potential to support Delta smelt (*Hypomesus transpacificus*, state-endangered species), longfin smelt (*Spirinchus thaleichthys*, state-threatened species), Giant garter snake (*Thamnophis gigas*, federal-endangered species), and western pond turtle (*Actinemys marmorata*) based on a review of the California Natural Diversity Database (CNDDDB) and the United States Fish and Wildlife Services (USFWS) Information for Planning and Consultation Database (Attachment 5, 10).

Additionally, the site will be managed to enhance cover of native wetland plants. There are 20 special-status plant species that are considered to have a high or moderate potential to occur in the Project



Area based on a review of the CNDDDB and California Native Plant Society (CNPS), including alkali milk-vetch (*Astragalus tener* var. *tener*), big tarplant (*Blepharizonia plumosa*), bristly sedge (*Carex comosa*), caper-fruited tropidocarpum (*Tropidocarpum capparideum*), Delta button-celery (*Eryngium racemosum*), Delta mudwort (*Limosella australis*), Delta tule pea (*Lathyrus jepsonii* var. *jepsonii*), heartscale (*Atriplex cordulata* var. *cordulata*), legenere (*Legenere limosa*), marsh skullcap (*Scutellaria galericulata*), Mason's lillaeopsis (*Lillaeopsis masonii*), Northern California black walnut (*Juglans hindsii*), palmate-bracted bird's-beak (*Chloropyron palmatum*), saline clover (*Trifolium hydrophilum*), San Joaquin spearscale (*Extriplex joaquinana*), Sanford's arrowhead (*Sagittaria sanfordii*), side-flowering skullcap (*Scutellaria lateriflora*), Suisun Marsh aster (*Symphotrichum lentum*), watershield (*Brasenia schreberi*), and woolly rose-mallow (*Hibiscus lasiocarpus* var. *occidentalis*) (Attachment 5).

The Staten Island landowner may benefit from the Project as it will be registered as a voluntary carbon project with the American Carbon Registry and credits may be sold on the voluntary carbon market. This process will serve as a demonstration for other Delta landowners seeking alternative revenue sources to conventional agriculture. Pursuing the voluntary carbon market for wetland restoration is still novel in the Delta, but it could provide a new funding source for private landowners. The Project will be registered on the voluntary carbon market, but the landowner has not determined if they will sell carbon credits on the market. The public may also benefit through managed public hunting and birding tours through local bird festivals.

Converting areas of the heavily subsidized central Delta, such as Staten Island, to wetlands halts and reverses subsidence. This is necessary to avoid the long-term consequences of being below sea level on interior islands, such as risk of flooding. Historic diking of peat soil wetlands to dry agricultural fields in the Delta has and continues to contribute disproportionately to GHG emissions in California relative to agriculture on less organic-rich soils (Attachment 12). Climate change risks of Delta lands are higher than reported for other regions with highly organic soils (Attachment 13). It has been estimated that about 2 million tons of CO₂ are released annually from oxidizing Delta soils, which represents 20% of California's annual plant-based agricultural emissions (Attachment 14). The emission of carbon from peat soils causes continued subsidence, lowering the land level behind levees and increasing the risk of flooding, resulting in a loss of shallow water habitats that are beneficial for migratory birds and an increase in deep, open water habitats (Attachment 8). Thus, the Project will not only directly provide shallow habitat for native fish and wildlife; it will also sustain the habitat long-term by reversing land subsidence and reducing the risk of flooding. The restoration at Staten Island would serve as a climate-friendly farming demonstration for other landowners while simultaneously conserving and creating nesting and non-breeding habitat for migratory birds, foraging for raptors, and habitat refuge for other wetland plants and animals.

H. CDFW recommends public outreach and coordination with interested parties. Please provide a summary of engagement with tribes, agencies, and other interested parties. Be careful not to include any sensitive or confidential information. Please cite and attach any supporting documents.



In July 2023, The Nature Conservancy (TNC) contacted the California Native American Heritage Commission (NAHC), requesting a search of the NAHC's Sacred Lands File for the Project area and a list of California Native American Tribes who may have interest in the Project. TNC also worked with the tribal liaison at the Delta Stewardship Council to discuss how and who should be contacted from each tribe. As of mid-August, TNC initiated communications with the below listed five local tribes. TNC anticipates continuing these communications during the term of the Project and beyond. Site tours with interested tribes will be scheduled for the fall/winter months.

A summary of tribes that have been communicated with to date is as follows:

1. Shingle Springs Band of Miwok Indians
2. Yocha Dehe Wintun Nation
3. Buena Vista Rancheria of Me-Wuk Indians
4. United Auburn Indian Community
5. Wilton Rancheria

In addition, following the guidelines of the Good Neighbor Checklist in the Delta Plan, TNC and CF&R reached out to neighboring property owners, farmers, ranchers, county officials, and resource agencies to ensure no major concerns were expressed about the Project's implementation goals. Per the Good Neighbor Checklist, six neighboring property owners have been contacted and informed of the Project and the SERP request to CDFW. Neighbors are considered supportive of the project, with more conversations planned.

Numerous letters of support have been secured for the project, including from California Farm Bureau, The Delta Counties Coalition, Ducks Unlimited, Metropolitan Water District, HydroFocus, Inc., the California Climate and Agriculture Network (CalCAN), Audubon, Point Blue, Pew Charitable Trust, and neighboring landowners (Attachment 15; landowner letters not included for privacy).

The Lead Agency and The Nature Conservancy met with the Delta Stewardship Council for an early consultation to discuss a Delta Plan Consistency Determination on 6/21/2023. The Delta Stewardship Council is aware the Lead Agency is seeking a SERP determination for the Project. A final consultation meeting occurred on September 27th and this project is not a Covered Action.

Under the CDFW Proposition 1 planning grant for the Project, consultation with the US Army Corps of Engineers, California State Regional Water Quality Control Board, US Fish and Wildlife Service, CDFW, National Marine Fisheries Service, and San Joaquin County is being completed and any applications for required permits for the Project will be submitted. Several meetings have also taken place with the local vector control agency and project managers will continue to communicate with vector control to allow them to follow their best management practices for mosquito abatement.



4. REQUIRED DETERMINATIONS

Provide a full description for each determination below:

A. The Project is exclusively one or both of the following: (1) a project to conserve, restore, protect, or enhance, and assist in the recovery of California native fish and wildlife, and the habitat upon which they depend, or (2) a project to restore or provide habitat for California native fish and wildlife. Please cite and attach any supporting documents.

The Lead Agency determines that the project is both 1) intended to conserve, restore, protect, or enhance populations of California native fish and wildlife and the habitat on which they depend, and the Project will 2) restore and provide habitat for California native fish and wildlife. Historic loss of wetland habitat in the Delta means a loss of important breeding habitat for locally breeding waterbirds and wetland species including rails, bitterns, ducks, blackbirds and others (Attachment 8). Specifically, Swainson's hawk (*Buteo swainsoni*, state-threatened species), song sparrow ("Modesto" population) (*Melospiza melodia*, California species of special concern), Caspian Tern (*Hydroprogne caspia*, federal-species of special concern), Greater Sandhill Crane (*Grus canadensis tabida*, state-threatened species), and Lesser Sandhill Crane (*Grus canadensis*, California Species of Special Concern) have been identified on the property (Attachment 5 and Emily Wells personal observation), and it is anticipated they will benefit from the Project. The cranes already visit the existing agricultural lands at Staten, and the wetlands will provide an important complement by adding beneficial food sources such as nut sedge. Other birds that might benefit from the project include tricolored Blackbird (*Agelaius tricolor*, state-endangered species) and black rail (*Laterallus jamaicensis*, state-threatened species) if they do visit the site.

Restored aquatic habitat on the Project site may also be expected to enhance phytoplankton production and expected outcomes for fish (Attachment 9). Fish expected to benefit include steelhead – Central Valley Distinct Population - (*Oncorhynchus mykiss irideus* pop. 11, federal-endangered species), which have been identified in the channel adjacent to the site (Attachment 5). The site also has the potential to support Delta smelt (*Hypomesus transpacificus*, state-endangered species), longfin smelt (*Spirinchus thaleichthys*, state-threatened species), Giant garter snake (*Thamnophis gigas*, federal-endangered species), and western pond turtle (*Actinemys marmorata*) based on a review of the California Natural Diversity Database (CNDDDB) and the United States Fish and Wildlife Services (USFWS) Information for Planning and Consultation Database (Attachment 5, 10).

Additionally, the site will be managed to enhance cover of native wetland plants. There are 20 special-status plant species that are considered to have a high or moderate potential to occur in the Project Area based on a review of the CNDDDB and California Native Plant Society (CNPS), including alkali milk-vetch (*Astragalus tener* var. *tener*), big tarplant (*Blepharizonia plumosa*), bristly sedge (*Carex comosa*), caper-fruited tropidocarpum (*Tropidocarpum capparideum*), Delta button-celery (*Eryngium racemosum*), Delta mudwort (*Limosella australis*), Delta tule pea (*Lathyrus jepsonii* var. *jepsonii*), heartscale (*Atriplex cordulata* var. *cordulata*), legenere (*Legenere limosa*), marsh skullcap (*Scutellaria galericulata*), Mason's lilaeopsis (*Lilaeopsis masonii*), Northern California black walnut (*Juglans hindsii*), palmate-bracted bird's-beak (*Chloropyron palmatum*), saline clover (*Trifolium hydrophilum*), San Joaquin spearscale (*Extriplex joaquinana*), Sanford's arrowhead



(*Sagittaria sanfordii*), side-flowering skullcap (*Scutellaria lateriflora*), Suisun Marsh aster (*Symphotrichum lentum*), watershield (*Brasenia schreberi*), and woolly rose-mallow (*Hibiscus lasiocarpus var. occidentalis*) (Attachment 5).

B. An eligible project may have incidental public benefits, such as public access and recreation. Please cite and attach any supporting documents.

The Lead Agency determines that the Project may have incidental public health and safety benefits. Specifically, expected incidental public benefits include improved water quality and improved conditions for island levees. The restored wetland habitats on Staten Island, which is dominated by agricultural land use, will receive water recirculated from working farm fields. Passing this water through the wetland before returning it to the river will reduce return flows of sediment and pesticides. Sediment will have additional time to settle out of the water column and vegetated marsh will capture sediment on the Project site. Pesticides in the water will be exposed to more sun when passing through the shallow-water wetland habitat, causing additional breakdown of the chemical components. Wetland habitat restoration will also reverse ground subsidence and reduce hydrostatic pressure on the levees, which threatens the integrity of levees and this project will therefore, decrease the risk of flooding on Staten Island and surrounding islands.

The public may also benefit through managed public hunting and birding tours through local bird festivals.

C. The Project does both of the following: (1) Results in long-term net benefits to climate resiliency, biodiversity, and sensitive species recovery; and (2) Includes procedures and ongoing management for the protection of the environment. Please cite and attach any supporting documents.

Overview:

As the Lead Agency, The Delta Conservancy determines that the Project does both of the following: (1) Results in long-term net benefits to climate resiliency, biodiversity, and sensitive species recovery; and (2) Includes procedures and ongoing management for the protection of the environment.

Converting the estimated 745.9-acre parcel from corn and row crop production to wetland habitat will

increase the baseline level of habitat for native wildlife. Because habitat loss has been historically

detrimental to wildlife populations, increased habitat could help to support biodiversity and sensitive

species recovery (Swainson's hawk (*Buteo swainsoni*, state-threatened species), song sparrow

("Modesto" population) (*Melospiza melodia*, California species of special concern), Caspian Tern

(*Hydroprogne caspia*, federal-species of special concern), Greater Sandhill Crane (*Grus canadensis*



tabida, state-threatened species), Lesser Sandhill Crane (*Grus canadensis*, California Species of Special Concern), and Steelhead - Central Valley Distinct Population - (*Oncorhynchus mykiss irideus* pop. 11, federal-endangered species). The project will also assist in lowering the overall carbon footprint of the Delta by reducing existing emissions associated with land use and increasing carbon sequestration, helping to protect species by directly mitigating climate change. Wetland habitats will also provide climate resilience and adaptation benefits that support wildlife by reducing ground subsidence that threatens the integrity of levees and increases the risk of flooding that could negatively impact wildlife and ecosystems in the Delta.

Long-Term Net Benefits to Climate Resiliency:

Climate change effects are one of the greatest threats to residents of California, impacting both economic and human health outcomes, and CO₂ is the largest driver of those changes. Cultivation of the Delta's organic soils has resulted in a cycle in which oxidation of organic matter leads to the need for deepening drainage ditches for maintenance of an aerated root zone, resulting in sustained oxidation and CO₂ emissions and further subsidence, which occurs when exposure to oxygen and anerobic bacteria causes carbon rich peat soils to be converted to gaseous CO₂. A possible consequence of subsidence is the increased risk of levee failures, which threaten wildlife, Delta communities and economy, and California's primary water conveyance systems (Attachment 16).

Loss of wetland habitat is a driver of native species decline and is a major contributor to greenhouse gas production in the Delta. Since wetland ecosystems retain moisture, they halt subsidence by reducing the amount of oxygen in contact with the soil and suppress soil eroding bacteria. By converting land on Staten Island to wetland habitats, approximately 22,000 tons of CO₂ emissions annually will not be emitted from Staten Island, assuming subsidence occurs at standard rate of 22 tons per acre, per year (Attachment 17). Wetland creation and enhancement projects in the Delta should aim to reverse subsidence to lessen hydrostatic pressure on levees and to sequester carbon to lessen impacts of continued greenhouse gas emissions.

In flooded wetlands, GHG emission reductions and carbon sequestration are obtained by (1) halting or greatly reducing soil organic carbon oxidation on subsided and/or drained agricultural lands, and (2) increasing soil organic carbon storage by creating flooded wetlands (Attachment 18). This wetland restoration project, when compared to historical corn and row crop production, will reduce emissions



and sequester carbon by rebuilding peat soils and stored carbon and reducing oxidation. The Project will be registered with the American Carbon Registry (ACR) as a voluntary carbon project for the purposes of testing ACR's GHG accounting rules, tracking emissions reductions, and advancing new climate friendly farming incentives for wetland restoration and rice cultivation for farmers in the Delta. Accordingly, GHG emissions from the Project will be monitored on an ongoing basis to ensure permanence in emissions reductions as required by the ACR. If carbon credits are sold for the site, 40-year maintenance of the Project will become a requirement, further ensuring long-term net benefits of the project and providing potential funding for ongoing Project management; however, the landowner has not yet decided if they will sell the carbon credits on the market.

The Project could act as a case study for landowners to see how nature-based solutions and alternatives to drained agriculture could be economically viable by providing the opportunity to attract new sources of climate funding, such as public funding and voluntary carbon markets. This is particularly important on portions of the Delta that are increasingly becoming unsuitable for farming due to extensive subsidence and loss of peat soils.

Long-Term Net Benefits to Biodiversity:

Wetland restoration will provide a variety of benefits to humans, fish, and wildlife. One of the largest benefits, is the increase in biodiversity and abundance of waterbirds, but transitional and riparian zones also support a variety of other wildlife (Attachment 19). Historically, wetlands covered a large majority of the Central Valley, but those historic wetlands have been lost and with them biodiversity and abundance of wildlife has declined. This Project seeks to promote heterogeneity across the landscape by providing wildlife shallow water habitat populated by native plants that varies in depth by adding swales and potholes. The Project also aims to enhance upland and channel margin habitat around the wetlands to increase biodiversity. The rest of Staten Island, about 8,000 acres north and west of this 745.9-acre wetland restoration, practices wildlife-friendly agriculture, increasing the benefit of the wetlands by providing extensive transitional areas and habitat for waterbirds (Attachment 20) and other wetland native species. To the east and south of these wetlands is the Mokelumne River, which is separated from the wetlands by a levee, and a small (about 100-acre) parcel in the southeast corner adjacent to the Project area is currently being converted to riparian habitat. The wetland's proximity to upland transition, riparian, and riverine habitat further promotes biodiversity by increasing connectivity among habitat types across the landscape mosaic. Immediately upon construction, water birds are expected to use the Project site extensively, and, as the wetlands mature, the Project will provide additional habitat and productivity for wetland wildlife and other aquatic organisms (Attachment 7).

One of the primary benefits of the Project will be creating habitat for native species, particularly birds. The Delta is a critical stopover on the Pacific Flyway, and the Delta's wetlands provide habitat for migratory waterfowl that enhances foraging, resulting in improved breeding success (Attachment 8). Delta wetlands are also important breeding habitat for locally breeding waterbirds and wetland species including rails, bitterns, ducks, blackbirds and others (Attachments 9 and 21). Some species expected to benefit from the project include Swainson's hawk (*Buteo swainsoni*, state-threatened species), song sparrow ("Modesto" population) (*Melospiza melodia*, California species of special concern), Caspian Tern (*Hydroprogne caspia*, federal-species of special concern), Greater Sandhill Crane (*Grus canadensis tabida*, state-threatened species), and Lesser Sandhill Crane (*Grus canadensis*, California Species of Special Concern), all of which have been observed at the site (Attachment 5 and Emily Wells personal observation). The site also has the potential to support Steelhead - Central Valley Distinct Population - (*Oncorhynchus mykiss irideus* pop. 11, federal-



endangered species), Delta smelt (*Hypomesus transpacificus*, state-endangered species), longfin smelt (*Spirinchus thaleichthys*, state-threatened species), Giant garter snake (*Thamnophis gigas*, federal-endangered species), and western pond turtle (*Actinemys marmorata*) based on a review of the California Natural Diversity Database (CNDDDB) and the United States Fish and Wildlife Services (USFWS) Information for Planning and Consultation Database (Attachment 5, 11).

By converting land on Staten Island to wetland habitats, biodiversity will likely increase due to the increased plant species diversity, mixed aquatic/terrestrial nature of wetland habitat, and the increased availability of shade plants and protected nesting habitat for migratory bird species (Attachment 22). Special status native plants that may benefit from the restoration include bristly sedge (*Carex comosa*), Delta button-celery (*Eryngium racemosum*), Delta mudwort (*Limosella australis*), Delta tule pea (*Lathyrus jepsonii* var. *jepsonii*), marsh skullcap (*Scutellaria galericulata*), Mason's lilaeopsis (*Lilaeopsis masonii*), palmate-bracted bird's-beak (*Chloropyron palmatum*), saline clover (*Trifolium hydrophilum*), San Joaquin spearscale (*Extriplex joaquinana*), Sanford's arrowhead (*Sagittaria sanfordii*), side-flowering skullcap (*Scutellaria lateriflora*), Suisun Marsh aster (*Symphotrichum lentum*), and woolly rose-mallow (*Hibiscus lasiocarpus* var. *occidentalis*) (Attachment 5). Bird species expected to benefit are mentioned in the above paragraph. Restored aquatic habitat on the Project site may also be expected to enhance phytoplankton production and expected outcomes for fish (Attachment 9), including those listed above, which have been identified in the channel adjacent to the site (Attachment 5 and CNDDDB).

In addition to creating habitat, this Project will ultimately provide long-term shallow wetland habitat that will benefit wetland native species. Reducing the amount of subsidence (see above) helps alleviate the risk of climate change related flooding of Delta Islands. Subsidence on the Staten Island property has reduced the elevation of the soil layer to as low as 20 feet below sea level, posing a large risk of flooding in the event of further sea level rise or extreme weather events. Since 1930, there have been approximately 100 levee breaches in the Delta, most of which have not been reclaimed, resulting in an increase of open water habitat, which does not support a wide variety of native wetland species and may support invasive species (Attachment 22).

Due to the long-term management required for the site, 15 years post construction monitoring and management required by the Lead Agency in its potential grant agreement and 40 years of project maintenance if carbon credits are sold, species diversity increases will extend beyond the immediate time frame of Project implementation, allowing further maturation of the wetland ecosystem and potentially mitigating nitrogen runoff from the surrounding agricultural plots (Attachment 23). Nitrogen runoff has long been implicated in a reduction of biodiversity by killing off fish and other aquatic life via algal blooms and the resultant dissolved oxygen depletion; wetlands have been shown to reduce excess nitrogen (Attachment 24).

Long-Term Net Benefits to Sensitive Species Recovery:

Staten Island is a crucial stopover for listed and non-listed migratory birds traversing the Pacific Flyway and provides critical habitat to locally breeding birds. Some species expected to benefit from the project include Swainson's hawk (*Buteo swainsoni*, state-threatened species), song sparrow ("Modesto" population) (*Melospiza melodia*, California species of special concern), Caspian Tern (*Hydroprogne caspia*, federal-species of special concern), Greater Sandhill Crane (*Grus canadensis tabida*, state-threatened species), and Lesser Sandhill Crane (*Grus canadensis*, California Species of Special Concern), all of which have been observed at the site (Attachment 5 and Emily Wells personal observation). Increased wetland habitat will allow breeding populations to rear brood in secure, food rich habitats that provide cover from predation and shelter from anthropogenic threats.



The creation of wetland habitat increases food web productivity by facilitating the growth of primary producers like algae and vegetation and secondary consumers like zooplankton and invertebrates, both of which are crucial to the native delta food webs that support sensitive species. Drainage from the wetlands will support the aquatic food web immediately outside of the island in the Mokelumne River due to where listed and sensitive native species have been detected such as Delta Smelt, Chinook Salmon, Central Valley Steelhead, and Splittail. Sensitive riparian species such as Giant Garter Snake, Tricolored Blackbirds, and San Joaquin Kit foxes may also benefit from managed wetlands by using the upland and transitional zones (Attachment 5).

Procedures for the Protection of the Environment:

The Project will implement construction best management practices and resource protection measures to protect the environment during Project implementation. Representative measures are summarized below; additional measures will also be implemented as required by federal, state, and local permits issued for the Project.

1. The Project will observe appropriate construction work windows to avoid impacts to special-status species with the potential to occur in work areas, such as Giant Garter Snake and nesting birds.
2. Construction activities will be limited to daylight hours only.
3. Equipment will be maintained in good working order to minimize airborne noise and the potential for equipment to leak fluids onsite.
4. Where feasible, staging, storage, and stockpile areas will be in previously disturbed upland areas at least 100 feet from bodies of water.
5. Construction traffic will observe a speed limit of 15 miles per hour (MPH) on unpaved surfaces and roads to reduce dust and soil erosion, and to avoid conflicts with wildlife.
6. A Hazardous Materials Management and Spill Response Plan will be prepared and implemented. The plan will specify that hazardous materials be stored in the staging area with an impermeable membrane between the ground and hazardous materials, and that the staging area be designed to prevent the discharge of pollutants to groundwater and surface waters. Fluids will be stored in appropriate containers with covers and properly recycled or disposed of off-site. Materials stored on site will have pans or absorbent mats placed underneath potential leak areas.
7. Project-related trash, including food-related refuse that may attract potential predators and scavengers, will be properly contained in sealed receptacles and removed from the work site daily.
8. Work areas will be dry or isolated from surface waters prior to operation of heavy equipment.
9. Erosion control measures, such as straw bales, silt fences, or fiber rolls, will be installed adjacent to drainage ditches and wetlands in work areas, as needed, to avoid the release of sediment or pollutants into surface waters.
10. Areas temporarily disturbed during construction will be decompacted and graded to pre-construction contours to facilitate voluntary revegetation.
11. To prevent accidental entrapment of wildlife during construction, all excavated, steep-walled holes or trenches will be covered with appropriate material (plywood, thick metal sheets) at the end of each work way. Alternatively, one or more escape ramps (fill dirt, wood planking) will be installed at an angle of no greater than 30 degrees to allow wildlife escape. Before holes or trenches are filled or sealed, they must be inspected for trapped animals. If pipes are



stored on site or in staging areas, they must be capped when not in use or stored above ground level to minimize species entrapment. Any animals discovered will be allowed to escape voluntarily or will be relocated by a qualified biologist.

12. CF&R has already been in contact with the local vector control district about the project, and vector control will continue to be consulted throughout construction to incorporate their best management practices for the abatement of mosquitos.

Should sensitive vegetation be identified in the immediate construction areas through the special status plant surveys, appropriate avoidance, minimization, and mitigation measures will be developed.

Archival research contact with the Native American Community and field inspection of the Project's Area of Potential Effects (APE) were conducted as part of the Project design.

Ongoing Management for the Protection of the Environment:

The Project will be monitored and maintained for at least 15 years based on the Lead Agency's general grant agreement guidelines. Additionally, the Project may be required to be maintained for 40 years based on criteria for the voluntary carbon market. If TNC decides to sell carbon credits on the voluntary carbon market (the landowner has not determined if they will sell carbon credits on the market), this revenue could be used to manage the wetlands and support the island to ensure it can be effectively maintained long-term. The funding may also be used by TNC and CF&R to continue finding innovative ways to support the Delta's ecosystem and provide economic opportunities for the local community.

Ongoing management for protection of the environment will include continued biological monitoring that has been ongoing in the Project area for several years. Baseline monitoring of overwintering waterbird use were conducted from 2018-2020 using established survey protocols and will occur post- implementation to track bird use of the site. Large water bird surveys are and will continue to be conducted bimonthly. Sandhill Crane foraging and roosting surveys will be conducted bimonthly. Habitat surveys will also occur frequently over the entire island. Fixed radius shorebird surveys are conducted during spring and fall migration. All these activities will occur before, during, and after construction. TNC has an historical database from past surveys dating back at least five years, and results have been summarized in annual reports.

Monitoring of GHG emissions, elevation, and water quality has occurred during the planning phase of the Project using well-established methods and an eddy covariance tower that is located on the Project site on Staten Island. Baseline measurements of GHG emissions on Staten Island have occurred since 2020; land surface elevation change measurements and water quality monitoring occurred on site during 2021 - 2022. During and after implementation of the Project, continued measurements of GHG emissions, land subsidence, and water quality will be obtained.

Closely tracking the Project results will allow TNC to adaptively manage the Project and provide a model for the region, ultimately providing an example of a holistic mosaic of restored lands. Post-construction, habitat will be adaptively managed to achieve intended Project benefits. If subsidence has not been reversed within the Project area once plant communities have been established, additional seasonal wetlands will be managed as semi-permanent wetlands with denser tule habitat known to build soils. If subsidence is reversed under proposed habitat matrixes, seasonal wetlands will be maintained and managed using moist soil techniques to maximize migratory waterbird benefits. Continued post-implementation monitoring of water quality will inform



management of water with respect to when and how much water is recirculated into the wetlands from the rest of the island.

D. The Project does not include any construction activities, except for construction activities solely related to habitat restoration. Please cite and attach any supporting documents.

The Delta Conservancy has determined that the Project does not include any construction activities, except for construction activities solely related to habitat restoration. The construction will include a permanent haul road (red line; Attachment 2), which will be maintained along with other wetland and field access roads/ramps. The sole purpose of this road is to support the creation and ongoing management of the restoration site. There will also be berms and access ramps installed between units (white lines; Attachment 2) to manage water on each unit individually. The Project does not require the construction of any infrastructure, other than roads for vehicle access, the installation of a water pump to recirculate water between agricultural fields and wetlands, and water lines to support water management on the restoration site.

5. CERTIFICATION

I certify that I have the authority to determine whether a project is exempt pursuant to CEQA Guidelines section 15025(a)(1), and this Project meets all the requirements described in Public Resources Code section 21080.56, and that I have submitted all the determinations required therein necessary to obtain the concurrence of the Director of Fish and Wildlife.

Karen Buhr

Date: September 29, 2023

Lead Agency Signature

Printed Name and Title: Karen Buhr, Deputy Executive Officer