APPENDIX F

ASSESSMENT OF POTENTIAL BIOLOGICAL IMPACTS

ZANDER ASSOCIATES

Environmental Consultants

August 15, 2017

Rebecca Auld
Lamphier-Gregory
1944 Embarcadero
Oakland, CA 94606

Addendum to Biological Impact Assessment
Turk Island Project
Union City, California

Dear Rebecca:

In December, 2016, Zander Associates provided an assessment of potential impacts on biological resources for the Turk Island residential development project in Union City, California. This Addendum provides additional information/clarification with respect to the project area, existing conditions, and potential impacts.

The field visit conducted on November 11, 2016 included a survey of Parcel "C" as well as the primary Turk Island Landfill and the pedestrian trail extension north of Sea Breeze Park. The vegetation on the primary landfill is dominated by non-native annual grasses similar to those found on Parcel "C" and also includes some dense stands of fennel (*Foeniculum vulgare*). The area is managed as a closed landfill and may be selectively mowed. There are surface pipelines placed throughout that appear to be venting landfill gasses. No ground squirrels or signs of ground squirrel activity (burrows, runways) were observed on the primary landfill site during the November 11, 2016 survey and no evidence of deer or canids (antlers, scat, etc.) was detected. The primary landfill is bordered by bay margin wetland habitats to the north, west and south.

The pedestrian trail north of Sea Breeze Park will follow an existing gravel path that is situated between a storm drain retention basin and single family homes. A chain link fence follows the edge of the path adjacent to the retention basin preventing access into that area. The retention basin is densely vegetated with cattail and could provide habitat for bird species known to occur in the vicinity such as tri-colored blackbird (*Agelatus tricolor*) or saltmarsh common yellowthroat (*Geothlypis trichas sinuosa*). Directed surveys for these bird species were not conducted for this assessment.

ASSESSMENT OF POTENTIAL IMPACTS

In addition to the removal of approximately 6.3 acres of non-native annual grassland vegetation for residential development, up to 20 additional acres of non-native annual grassland on the primary Turk Island Landfill will be temporarily disturbed for the placement and capping of

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landfill debris excavated from Parcel "C". Non-native grassland communities are relatively common to the region and loss of this habitat is not considered significant unless it supports special status species. No special status plant species were found or would be expected to occur on Parcel "C" or on the primary Turk Island Landfill. One special status animal species, the California burrowing owl, has the potential to use this grassland habitat, though no owls or signs of owl activity were observed in the project area during the November 2016 site survey.

Neither Parcel "C" nor the primary Turk Island Landfill contains wetland or riparian habitats that would be directly affected by project activities. However, the primary Turk Island Landfill is adjacent to the Alameda County Flood Control wetlands to the north, former salt evaporation ponds to the west, and seasonal wetlands in the former duck club to the south. Material excavated from Parcel "C" will be placed on top of the existing ground in two separate areas on the primary landfill but would not change the overall footprint or nature of the landfill. Both of these areas are a minimum of 150 feet away from and higher in elevation than the adjacent wetlands. Implementation of Best Management Practices during construction will reduce potential direct or indirect effects on these adjacent wetlands by preventing the release of material or sediment-laden runoff into the habitat. According to the hydrological analysis in the DEIR (Chapter 9), the project is not expected to result in substantial changes to runoff from the landfill that could significantly affect adjacent wetlands.

The cattail wetland habitat associated with the retention basin adjacent to the pedestrian trail extension is separated from the proposed trail by a chain link fence. According to the project plans, this fence will remain in place. The fence prevents access into the basin by trail users and dogs that could disturb/degrade the marsh habitat and its occupants. The fence therefore minimizes potential effects on the wetland habitat resulting from increased human access through this area.

The project is not expected to interfere substantially with the movement of wildlife in the area. Animals inhabiting the bay margin habitats to the west are not likely to use Parcel "C" as a travel corridor because it is surrounded by development on three sides and is a relatively exposed area providing few shrubs or trees that could provide cover for wildlife. The primary Turk Island Landfill is also very exposed but animals could travel north-south across the area to reach different wetland habitats. Any interference of this wildlife movement would be temporary as project activities would not change the overall footprint or nature of the site.

Should you have any questions or require further assistance with this project, please don't hesitate to call me.

Sincerely,

Leslie Zander

Leslie Zander
Principal Biologist

ZANDER ASSOCIATES

Environmental Consultants

August 15, 2017

Rebecca Auld
Lamphier-Gregory
1944 Embarcadero
Oakland, CA 94606

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Turk Island Project
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ASSESSMENT OF POTENTIAL IMPACTS

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Should you have any questions or require further assistance with this project, please don't hesitate to call me.

Sincerely,

Leslie Zander

Leslie Zander
Principal Biologist

ZANDER ASSOCIATES

Environmental Consultants

December 30, 2016

Rebecca Auld
Lamphier-Gregory
1944 Embarcadero
Oakland, CA 94606

Assessment of Potential Biological Impacts
Turk Island Project
Union City, California

Dear Rebecca:

Zander Associates is providing this assessment of potential impacts on biological resources for the Turk Island residential development project in Union City, California. We understand this assessment will be incorporated into the Environmental Impact Report being prepared for the project. This assessment describes existing biological resources in the project area, identifies project-related impacts on those resources and outlines mitigation measures to reduce potentially significant impacts to less-than-significant levels. Information used in the preparation of this assessment was obtained from the California Department of Fish and Wildlife's California Natural Diversity Database (CNDDB), California Native Plant Society Electronic Inventory, USDA Soil Survey for Alameda County, U.S. Fish and Wildlife Service National Wetland Inventory, and previous biological reports for the project site. A field visit to describe existing biological resources present on and surrounding the site was conducted November 11, 2016.

ENVIRONMENTAL SETTING

The project site is located in western Union City, adjacent to the closed Turk Island Landfill. It is approximately 6.3 acres and is bordered to the north by Sea Breeze Park, to the east and south by existing residential areas and to the west by the closed Turk Island Landfill. The site was also a landfill and scattered piles of debris and hummocky topography remain as evidence of that activity. The vegetation consists of non-native grasses and forbs including; ripgut brome (*Bromus diandrus*), soft chess (*Bromus hordeaceus*), Italian ryegrass (*Lolium multiflorum*), wild radish (*Raphanus sativus*), common lipia (*Phyla nodiflora*), and bindweed (*Convovulus arvensis*), star thistle (*Centaurea solstitialis*), tall wheat grass (*Elymus ponticus*), and perennial peppergrass (*Lepidium latifolium*). The main Turk Island Landfill is also dominated by non-native grasses with some dense stands of fennel (*Foeniculum vulgare*) scattered about the area.

Wildlife expected to be resident on or in the immediate vicinity of the site are those species typically associated with grasslands that are able to adapt to disturbance and residential land

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uses. This generally includes small mammals, birds, and reptiles. Species observed during the November 11, 2016 site visit included primarily birds: crows (*Corvus brachyrhynchos*), western meadowlark (*Sturnella neglecta*), and white crowned sparrow (*Zonotrichia leucophrys*). No ground squirrels or signs of ground squirrel activity (burrows, runways) were observed on the site and there was no evidence of deer or canids (antlers, scat, etc.). It is possible that shorebirds using the marshland habitat to the west could forage on the site but there appeared to be little if any prey base present.

Special Status Species

A list of special status species[1] considered for potential to occur in the project area was generated through review of previous environmental documents prepared for the property, information available for Coyote Hills Regional Park, and a query of the CNDDB. The list is provided in Table 1, along with a summary of our findings.

The majority of special status plants considered are known to occur in coastal salt marsh or wetland habitats that are not present on the project site. One species, Congdon's tarplant, is also found in grassland communities but usually associated with alkaline habitat. This tarplant would have been identifiable at the time of the field survey and was not observed on the project site.

The only special status animal with potential to use the habitat present on the project site is the California burrowing owl. This species is a year-round resident of open, dry grasslands. It uses rodent or other burrows for roosting and nesting cover, usually nesting in old burrows of ground squirrels or other small mammals. If small mammal burrows are scarce or absent from an area, burrowing owls may use pipes, culverts, or the nest boxes of other bird species as nests. There are several recorded occurrences of burrowing owl in the vicinity. No burrowing owls or signs of burrowing owl activity (e.g. large mounds with pellets, bones, feathers) were observed on the project site during the November 11, 2016 site visit. We also did not observe any ground squirrels, small mammal burrows, or other suitable nesting habitat for owls on the site.

ASSESSMENT OF POTENTIAL IMPACTS

The assessment of potential impacts presented in this section is based on review of the Vesting Tentative Map Tract 7728 prepared by Ruggeri-Jensen-Azar (July, 20 2016) and Offsite Improvements Plan prepared by Ripley Design Group (September 6, 2016). The Turk Island project includes: development of single-family residential units over the entire 6.3 acre site; excavation and removal of all landfill debris from the property and placement of material onto the adjacent closed Turk Island Landfill; offsite improvements to Sea Breeze Park including extension of a pedestrian trail north, following the storm water basin. The evaluation of project effects presented below follows the environmental checklist provided in Appendix G of the CEQA Guidelines.

[1] Special Status Species include: plants and animals listed, proposed or candidates as threatened or endangered by USFWS; listed or proposed as rare, threatened, or endangered by the CDFW; plants ranked 1A, 1B, 2A or 2B by CNPS; animals designated as "Species of Special Concern" by the CDFW.

The project will result in the removal of approximately 6.3 acres of non-native annual grassland vegetation for residential development. Up to 20 additional acres of non-native annual grassland on the adjacent Turk Island Landfill will be temporarily disturbed for the placement and capping of landfill debris excavated from the project site. Non-native grassland communities are relatively common to the region and loss of this habitat is not considered significant unless it supports special status species. As described above, no special status plant species have been found or would be expected to occur in the habitat present on the project site. One special status animal species, the California burrowing owl, has the potential to use the habitat on the site, though no owls or signs of owl activity were observed during the November 2016 site survey.

There are no wetlands or riparian habitats on the site. The closed Turk Island Landfill is adjacent to salt flats and wetlands associated with the bay but the areas that will be temporarily disturbed for placement of excavated material from the project site are high above those wetlands and proposed activities will not have direct or indirect effects on those habitats. The offsite trail improvements are adjacent to a storm drain retention basin that is densely vegetated with cattail and could support several bird species known to use bay margin habitats. The trail will follow an existing gravel path and will be fenced along the western edge, which will reduce indirect effects on the wetland habitat in this area.

Although burrowing owls are not currently using the project site, there is potential for individual owls to move into the area, particularly if construction activities are not initiated prior to the start of the breeding season (March-August). Direct loss or injury to burrowing owls or the forced evacuation from occupied burrows would be a potentially significant impact. The following mitigation measure would reduce this impact to a less-than-significant level:

> Within 30 days prior to construction, a qualified biologist shall conduct a survey to determine if any burrowing owls are occupying the project site. If occupied burrows are found, the biologist shall consult with the California Department of Fish and Wildlife to establish appropriate avoidance measures until such time as the owls are no longer occupying the site. Such avoidance measures may include:
>
> - Halting all construction around occupied burrows and for a certain distance around the burrows until such time as the birds abandon the burrow, as determined through monitoring.
> - Implementing passive relocation measures developed in consultation with CDFW to encourage owls to move from occupied burrows to alternate natural or artificial burrows placed away from the impact zone.

The project is not expected to interfere substantially with the movement of wildlife in the area because most wildlife probably move through the open grasslands and marshlands to the west, which will not be affected.

Indirect effects on salt marsh habitats to the west and the stormwater basin to the north could occur as a result of project-generated runoff. However, the project is required to comply with the C.3 requirements in the California Regional Water Quality Control Board Municipal Regional

Permit and stormwater treatment areas have been incorporated into the project design to control runoff and trap pollutants before flow is released into the receiving water. These treatment areas will mitigate any potential effects from project-generated runoff on adjacent wetland habitats.

In conclusion, the Turk Island residential development project is not expected to have any substantial adverse effects on native habitats, species, sensitive natural communities, or special status species. Although the potential is low, California burrowing owls could occupy the site prior to initiation of construction. Direct loss or injury to burrowing owls or the forced evacuation from occupied burrows is a potentially significant impact that can be reduced to a less-than-significant level with mitigation.

Should you have any questions or require further assistance with this project, please don't hesitate to call me.

Sincerely,

Leslie Zander
Principal Biologist

Enclosure: Table 1: Special Status Species Evaluated for Potential to Occur on the Turk Island Project Site

Table 1: Special Status Species Evaluated for Potential to Occur on the Turk Island Project Site

PLANTS	**Status[1] Fed/CA/CNPS**	**Habitat and Blooming Period**	**Findings[2]**
Astragalus tener var tener alkali milk vetch	--/--/1B.2	Valley grassland, alkali sink, playas and vernal pools; March-June	Unlikely to occur, no suitable habitat.
Centromadia parryi ssp. congdonii Congdon's tarplant	--/--/1B.1	Valley grassland, coastal salt marsh; May-November	Unlikely to occur, no suitable habitat. Not observed during site survey
Chloropyron maritimum ssp palustris Point Reyes salty bird's beak	--/--/1B.2	Coastal salt marsh, wetland, riparian; June-October	Unlikely to occur, no suitable habitat.
Eryngium aristulatum var. hooveri Hoover's button celery	--/--/1B.1	Coastal salt marsh; July	Unlikely to occur, no suitable habitat.
Lasthenia conjugens Contra Costa goldfields	E/--/1B.1	Low flats and borders of vernal pools: April-May	Unlikely to occur, no suitable habitat.
Plagiobothrys glaber hairless popcorn flower	--/--/1A	Coastal salt marshes and alkaline meadows	Unlikely to occur, no suitable habitat. Historical occurrence nearby possibly extirpated.
Senecio aphanactis chaparral ragwort	--/--/2B.2	Chaparral, coastal scrub; drying alkali flats	Unlikely to occur, no suitable habitat. 1892 occurrence at Coyote Hills presumed extant.
Suaeda californica California seablite	--/--/1B.2	Coastal salt marsh; July-October	Unlikely to occur, no suitable habitat.
Trifolium hydrophilum saline clover	--/--/1B.2	Wetland, riparian; April-June	Unlikely to occur, no suitable habitat.
ANIMALS	**Status[1] Fed/CA**	**Habitat**	**Findings**
AMPHIBIANS / REPTILES			
Rana draytonii California red-legged frog	T/CSC	Lowlands and foothills in or near permanent sources of deep water within streams, marshes, and occasionally ponds with dense, shrubby, or emergent riparian vegetation.	Unlikely to occur. Nearest recorded occurrence about four miles east near Mission Blvd. No breeding habitat onsite.
Ambystoma californiense California tiger salamander	T/T	Grasslands and open oak woodlands; requires seasonal ponds for breeding; uses ground squirrel or gopher burrows in upland areas for aestivation sites	Unlikely to occur. Nearest recorded occurrence more than 7 miles south near Pacific Commons.
BIRDS			
Circus cyaneus (nesting) northern harrier	--/SSC	Marshes and open grasslands. Nests in marsh vegetation or in tall grass.	Could forage in grassland. No suitable nesting habitat present.
Rallus longirostris obsoletus California clapper rail	E/E	Perennial inhabitant of tidal salt marshes of the greater San Francisco Bay, although some individuals use brackish marshes during the spring breeding season	Unlikely to occur, no suitable habitat.
Laterallus jamaicensis coturniculus California black rail	--/T	Requires high marshes with little annual and/or daily fluctuations in water levels. Prefers marshlands with unrestricted tidal influence	Unlikely to occur, no suitable habitat.
Charadrius alexandrinus nivosus (nesting) western snowy plover	T/SSC	Requires sandy, gravelly or friable soils on sandy beaches, salt pond levees and shores of large alkali lake for nesting.	Known to nest in salt ponds at Eden Landing Ecological Reserve just west of site. No suitable habitat on site

Table 1 cont'd

ANIMALS	Status[1] Fed/CA	Habitat	Findings
Rynchops niger (nesting colony) black skimmer	--/SSC	Ocean beaches, tidewater. Favors waters protected from open surf. Nests on sandy islands, beaches, shell banks	Unlikely to occur, no suitable habitat.
Sternula antillarum browni (nesting colony) California least tern	E/E	Sandy beaches, near-shore ocean waters; limited range and most nesting colonies known and tracked	Historic nesting occurrence at Alvarado Salt Ponds just west of site. No suitable habitat onsite.
Asio flammeus (nesting) short-eared owl	--/SSC	Tule patches/tall grass needed for nesting/daytime seclusion. Nests on dry ground in depression concealed in vegetation	Unlikely to occur, no suitable habitat.
Athene cunicularia burrowing owl	--/SSC	Ground nester in open dry annual or perennial grasslands with low-growing vegetation, dependent upon burrowing mammals (i.e. California ground squirrel)	Several recorded occurrences in the vicinity. Grasslands provide suitable habitat but no ground squirrel or other burrowing observed on the site during field visit.
Riparia riparia (nesting) bank swallow	--/T	Near water; fields, marshes, streams and lakes. Nests in colonies in vertical banks of dirt or sand usually along rivers or ponds.	Unlikely to occur, no suitable habitat.
Geothlypis trichas sinuosa saltmarsh common yellowthroat	--/SSC	Requires thick, continuous cover down to water surface for foraging; tall grasses, tule patches, willows for nesting	Recorded occurrences in marshes nearby but no suitable habitat on site.
Agelaius tricolor (nesting colony) tricolored blackbird	--/SSC	Freshwater marsh; requires open water, protected nesting substrate, & foraging area with insect prey nearby.	Unlikely to occur, no suitable habitat.
MAMMALS			
Reithrodontomys raviventris salt-marsh harvest mouse	E/E	Pickleweed marsh with higher areas for flood escape	Unlikely to occur, no suitable habitat.
Sorex vagrans halicoetes salt marsh wandering shrew	--/SSC	Tidal marshes where abundant driftwood is scattered among pickleweed	Unlikely to occur, no suitable habitat.

1. Status Explanations

Federal (Fed)
E = listed as endangered under federal ESAt
T = listed as threatened under federal ESA
D = delisted
-- = no designation

California State (CA)
R = listed as rare under CESA
E = listed as endangered under CESA
T = listed as threatened under CESA
SSC = CDFW Species of Special Concern
-- = no designation

California Native Plant Society (CNPS)
1A presumed extinct in California
1B rare, threatened or endangered in California and elsewhere
Threat Rank
0.1-Seriously threatened in California
0.2-Fairly threatened in California
0.3-Not very threatened in California

2. Findings based on literature review, 11/17/16 field survey, assessment of habitat types present, and knowledge of species habitat requirements.

*Source: Search of the California Department of Fish and Wildlife Natural Diversity Database (CDFW 2016) occurrences and information in previous biological reports prepared for the area.