LAND USE COMMISSION
STATE OF HAWAII
2017 DEC -8 A 9:58

BEFORE THE LAND USE COMMISSION

OF THE STATE OF HAWAI`I

In The Matter Of The Petition Of	DOCKET NO. SP17-409
CITY AND COUNTY OF HONOLULU DEPARTMENT OF DESIGN AND CONSTRUCTION	FINDINGS OF FACT, CONCLUSIONS OF LAW, AND DECISION AND ORDER APPROVING THE RECOMMENDATION OF THE CITY AND COUNTY OF HONOLULU PLANNING COMMISSION TO APPROVE THE STATE SPECIAL USE PERMIT PETITION WITH MODIFICATIONS; AND CERTIFICATE OF SERVICE
For A Special Use Permit To Allow The Expansion Of The Honouliuli Wastewater Treatment Plant For The Development Of Full Secondary Treatment And Support Facilities Within The State Land Use Agricultural District At `Ewa, O`ahu, Hawai`i, Tax Map Key: 9-1-069: 004 And Portion Of 003	

FINDINGS OF FACT, CONCLUSIONS OF LAW, AND DECISION AND ORDER APPROVING THE RECOMMENDATION OF THE CITY AND COUNTY OF HONOLULU PLANNING COMMISSION TO APPROVE THE STATE SPECIAL USE PERMIT PETITION WITH MODIFICATIONS

AND

CERTIFICATE OF SERVICE

This is to certify that this is a true and correct copy of the document on file in the office of the

State Land Use Commission, Honolulu, Hawai`i

December 8, 2017

by _____

Executive Officer

LAND USE COMMISSION
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The State of Hawai`i Land Use Commission ("LUC"), having examined the complete record of the City and County of Honolulu Planning Commission ("Planning Commission") proceedings on the State Special Use Permit ("SUP") Petition ("Petition") filed by the City and County of Honolulu Department of Design and

Construction ("Petitioner') on behalf of the City and County of Honolulu Department of Environmental Services ("DES") to expand the existing Honouliuli Wastewater Treatment Plant ("HWWTP") in order to (1) construct treatment and support facilities necessary to comply with secondary treatment standards for all wastewater discharges from the HWWTP; (2) construct support facilities to accommodate the future relocation of non-process facilities, including laboratory, administrative support and maintenance facilities that are currently located at the Sand Island Wastewater Treatment Plant, and other decentralized facilities that support island-wide wastewater treatment system functions; and (3) include existing HWWTP facilities that were established without an SUP (collectively "Project") on approximately 27.807 acres of land within the State Land Use Agricultural District, identified as Tax Map Key ("TMK"): 9-1-069: 004 and portion of 003 ("Petition Area"), at `Ewa, O`ahu, Hawai`i, and upon consideration of the matters discussed therein, at its meeting on November 21, 2017, hereby makes the following findings of fact, conclusions of law, and decision and order:

FINDINGS OF FACT

PROCEDURAL MATTERS

1. On June 2, 2017, Petitioner filed the Petition with the City and County of Honolulu Department of Planning and Permitting ("DPP") (File No.

2017/SUP-2), pursuant to Hawai`i Revised Statutes ("HRS") §205-6 and Hawai`i Administrative Rules ("HAR") §15-15-95 *et seq.*

2. On September 13, 2017, the Planning Commission considered the Petition. There was no public testimony provided at the hearing. After due deliberation, the Planning Commission recommended approval of the Petition to the LUC, subject to ten conditions.

3. On October 25, 2017, the LUC received a copy of the decision and a portion of the record of the Planning Commission's proceedings on the Petition. On November 9, 2017, the LUC received the remaining portion of the record consisting of the September 27, 2017, agenda and minutes of the Planning Commission adopting the minutes of its September 13, 2017, hearing.

4. On November 15, 2017, the State of Hawai`i Office of Planning ("OP") filed a memorandum recommending approval of the Petition.

5. On November 21, 2017, the LUC met in Honolulu, Hawai`i, to consider the Petition. Guy Inouye and James Niermann appeared on behalf of Petitioner. Eugene Takahashi and Jeffrey Lee were also present on behalf of the DPP. Dawn Takeuchi-Apuna, Esq., and Lorene Maki entered appearances on behalf of OP. At the meeting, Petitioner provided an overview of the Project. The DPP and OP stated that they had no objections to approval of the Petition. Following questions by the

LUC, a motion was made and seconded to approve the Petition subject to the conditions as recommended by the Planning Commission. The movant subsequently clarified that the motion to approve the Petition is subject to the conditions as recommended by the Planning Commission with amendments to (1) require that the metes and bounds map and description be signed and stamped by a registered professional land surveyor and that copies of the map and description be provided to the LUC; (2) require the submittal and approval of a Traffic Impact Analysis Report ("TIAR") to the State of Hawai`i Department of Transportation ("DOT"), Highways Division; (3) require Petitioner to obtain the approval of the LUC for any time extension to the deadline by which Petitioner is to apply for a State Land Use District Boundary Amendment with the LUC and to file a motion to amend the Findings of Fact, Conclusions of Law, and Decision and Order issued in Docket No. A88-627; (4) include an additional condition to require Petitioner to cease all work and immediately contact the State of Hawai`i Department of Land and Natural Resources, State Historic Preservation Division ("SHPD"), and O`ahu Burial Council in the event historic resources are identified during demolition and/or construction activities and to obtain an archaeological clearance from the SHPD if required; (5) require Petitioner to obtain the approval of the LUC for any time extension to the deadline by which Petitioner is to establish the Project; (6) authorize LUC staff to make non-substantive changes to the conditions, as appropriate, regarding formatting,

style, and other modifications to ensure consistency; and (7) authorize the Chair to sign the Order in this matter on behalf of the LUC. The motion, as clarified, was seconded. There being a vote tally of 6 ayes, 0 nays, and 3 excused, the motion passed as clarified.

DESCRIPTION OF THE PETITION AREA

6. The Petition Area is located at 91-1000 Geiger Road, `Ewa, O`ahu, Hawai`i. It consists of approximately 27.807 acres of land and is identified as TMK: 9-1-069: 004 and portion of 003. Parcel 004, consisting of approximately 2.702 acres, is a triangular-shaped parcel that is currently developed with a pump station and odor control facilities. The portion of Parcel 003 within the Petition Area, consisting of approximately 25.105 acres, is mostly vacant with a cell tower located in the northwest corner of the lot.

7. The Petition Area is adjacent to the existing HWWTP site. The HWWTP facility is located on TMK: 9-1-013: 007.

8. The O`ahu Railway and Land Company ("OR&L") right-of-way and Varona Village are situated to the north of the Petition Area. Barbers Point Golf Course and vacant land currently being developed as the Coral Ridge and Sea Bridge residential communities by Gentry Homes lie to the south of the Petition Area. The Hui o Pupu A`o `Ewa residential neighborhood lies immediately to the west, while the

Coral Creek Golf Course, Kalo`i Gulch, and the Sun Terra South and Kula Lei residential neighborhoods are located to the east.

9. The Petition Area is gently sloping and relatively flat with mean sea level ("MSL") ranging from approximately 35 above MSL in the southern portion of the Petition Area along Geiger Road to approximately 50 feet above MSL near the northern portion of the Petition Area.

10. The Federal Emergency Management Agency Flood Insurance Rate Map identifies the Petition Area within Flood Zones D and X. The Petition Area is not located within a flood prone area.

11. The annual temperatures in the general vicinity of the Petition Area range from 60°F to 85°F, with mean monthly temperatures ranging from 73°F in January and February to 81°F in August. The area experiences average annual rainfall of 20 to 30 inches. Tradewinds from the northeast prevail approximately 70 percent of the time, with average wind speeds in the area ranging from 15 to 25 miles per hour ("mph") with occasional gusts of over 35 mph.

12. The Petition Area is owned by the City and County of Honolulu.

13. The Petition Area is designated within the Community Growth Boundary of the `Ewa Development Plan ("DP").

14. The Petition Area is zoned AG-1 Restricted Agricultural District.

15. The Petition Area is not designated as Important Agricultural Land ("IAL") nor is it proposed for such designation under HRS chapter 205.

DESCRIPTION OF THE PROPOSED USE

16. The Project involves the construction of treatment and support facilities necessary to comply with secondary treatment standards for all wastewater discharges from the HWWTP and the construction of support facilities to accommodate the future relocation of non-process facilities, including laboratory, administrative support and maintenance facilities that are currently located at the Sand Island Wastewater Treatment Plant, and other decentralized facilities that support island-wide wastewater treatment system functions. The Project also includes existing HWWTP facilities that were established without an SUP.

17. A Final Environmental Impact Statement for the Project was accepted by the DES on March 28, 2017, and published in the April 8, 2017, issue of *The Environmental Notice*.

18. The HWWTP was built in 1978 and began operations in 1984. It is owned by the DES. Upgrades were made to the site in 1996 to provide limited secondary treatment. In 2000, the City and County of Honolulu Board of Water Supply ("BWS") Honouliuli Water Recycling Facility ("HWRF") was constructed on the site. In 2011, the City and County of Honolulu acquired approximately 48.4 acres of land

abutting the north and east boundaries of the existing HWWTP to provide sufficient space for construction of treatment facilities. The entire HWWTP site, including the Petition Area, is approximately 99.765 acres. Of this acreage, approximately 71.958 acres of land are in the State Land Use Urban District. An approximately 23.3-acre portion of TMK: 9-1-069: 003 was reclassified to the State Land Use Urban District pursuant to LUC Docket No. A88-627/Gentry Development Company. Petitioner intends to file a motion with the LUC to amend the Findings of Fact, Conclusions of Law, and Decision and Order issued in this docket to bifurcate the urbanized portion of TMK: 9-1-069: 003 from the docket.

19. Under the Project, the new secondary treatment and support facilities will be constructed on TMK: 9-1-069: 003. The new secondary treatment facilities consist of a secondary process pump station, distribution box, and 6 to 8 secondary clarifiers. The support facilities include a central laboratory, Ocean Team facilities, administration building, operations building, Leeward Region maintenance building, central shops, central warehouse, and central supervisory control and data acquisition operations building. The upgrading of the existing pump station and odor control facilities will occur on TMK: 9-1-069: 004.

20. The Project is necessary to comply with a 2010 First Amended Consent Decree ("FACD") among the City and County of Honolulu, the State of

Hawai`i Department of Health ("DOH"), and the U.S. Environmental Protection Agency ("EPA") under Civil No. 94-00765 DAE-KSC. The FACD requires that the City and County of Honolulu meet certain established milestones for improving wastewater treatment plants and collection systems. The key dates in the FACD include (1) execution of a construction contract (or contracts) and issuance of a notice (or notices) to proceed with construction of all secondary treatment process facilities necessary to comply with secondary treatment standards for all wastewater discharges from the HWWTP by January 1, 2019; and (2) the complete construction of facilities necessary to comply with secondary treatment standards for wastewater discharges from the HWWTP by June 1, 2024.

21. As a short-term entitlement strategy, Petitioner filed the Petition to ensure that it meets the January 1, 2019, deadline specified in the FACD for the HWWTP. Petitioner intends to file a district boundary amendment petition with the LUC in the future to amend the Petition Area to the State Land Use Urban District, which would replace the SUP.

22. The Project is proposed to occur in two phases. Phase 1 is expected to be completed by 2023 and will involve upgrading the existing secondary treatment facilities to remain in operation through the end of their design life (+/- 2035) and constructing additional new secondary facilities to provide full secondary treatment for

2035 design flows of 37 million gallons per day ("MGD") average daily flow ("ADF") and 107 MGD peak capacity. These improvements will bring the HWWTP into full compliance with the FACD requirement for 100 percent secondary treatment by 2024. Phase 2 will involve the construction of additional new secondary treatment facilities to replace the existing facilities to provide full secondary treatment for 2056 design flows of 45 ADF and 126 MGD peak capacity. The Phase 2 improvements are required to ensure that the HWWTP is able to continue treating 100 percent of the wastewater to secondary treatment levels, and thus remain in compliance with the EPA requirements.

23. The following table reflects the breakdown of the proposed and existing buildings and uses in the Petition Area:

Table 1

Building Types	Footprint (sq. ft.)	Phase	Comments
TMK: 9-1-069: 004			
Influent Screens	2,372	Existing	Structure to remain; upgrade planned for Phase 1C
Influent Pump Station	5,415	Existing	Structure to remain; upgrade planned for Phase 1D
Venturi Pit	396	Existing	Structure to remain
Covered Vehicle Wash Station	1,200	Existing	Structure to remain
Headworks Odor Control Systems	880	Existing	To be replaced with a new structure
Solids Odor Control Systems	1,260	1A	To be demolished after Phase 1A (2018-2021)

Building Types	Footprint (sq. ft.)	Phase	Comments
TMK: 9-1-069: 004 (cont'd)			
Return Flow Pump Station	168	1A	Replace with a new substructure across parcel 004 and TMK: 9-1-013: 007
Subtotal	11,691		
TMK: 9-1-069: 003			
Secondary Clarifier 1	15,394	1B	New structure
Secondary Clarifier 2	15,394	1B	New structure
Secondary Clarifier 3	15,394	1B	New structure
Secondary Clarifier 4	15,394	1B	New structure
Secondary Clarifier 5	15,394	1B	New structure
Secondary Clarifier 6	15,394	1B	New structure
Secondary Process Pump Station	20,000	1B	New structure
Secondary Electrical Building	2,090	1B	New structure
Distribution Box	4,208	1B	New structure
Secondary Clarifier 7*	15,394	Future	New structure
Secondary Clarifier 8*	15,394	Future	New structure
Post Aerobic Digestion*	TBD	Future	New structure
Ocean Team Building	12,000	Future	New structure
Laboratory Building**	16,500	Future	New structure
Administration Building	22,000	Future	New structure
Operations Building	8,800	Future	New structure
Covered Truck Parking	9,500	Future	New structure
Central Shop Building**	23,000	Future	New structure
Warehouse Building**	25,600	Future	New structure
Subtotal	266,850		
Total	278,541		

* Phase 2 facilities required for future secondary treatment processes.

** Currently located at the Sand Island Wastewater Treatment Plant and will need to be relocated to make room at Sand Island for secondary treatment facilities required by the FACD.

24. The following describes the operations of the HWWTP upon completion of the improvements required to comply with the June 1, 2024, FACD deadline:

1. Primary and secondary wastewater treatment and solids treatment operations.
2. Production of pellets from secondary solids for reuse as fertilizer or disposal at the Waimānalo Gulch Sanitary Landfill ("WGSL") or at the Honolulu Program of Waste Energy Recovery ("H-POWER").
3. Truck hauling of solids produced by wastewater treatment processes for disposal at the WGSL or at H-POWER.
4. Septage and liquid sludge disposal by permitted private haulers and DES haulers.
5. HWRF operations.
6. Convenience Center refuse collection station.
7. Receive sludge from Wahiawā, Pa`ala`a Kai, Wai`anae, Kailua, Waimānalo, and Lā`ie wastewater treatment plants.

25. The total estimated construction cost, inclusive of the costs of upgrading the HWWTP and the costs of constructing facilities at the HWWTP required to relocate non-process related functions to the facility, is $760 million. The operation and maintenance cost of the Project is estimated at $19.8 million per year and the capital cost is estimated at $454 million (process facilities only). The life-cycle cost per year of the Project is estimated to be $32.9 million.

26. Funding for the Project will be through the Sewer Revenue Bonds issued by the City and County of Honolulu. In addition, the City and County has an option to apply for a low interest loan from the State revolving fund for some or all of the funds needed. This will be determined as the Project is developed.

IMPACTS UPON THE RESOURCES OF THE AREA

Agricultural Resources

27. The Petition Area includes soils classified by the Land Study Bureau's ("LSB") detailed land classification as overall (master) productivity rating class A, B, and E lands. The portion of Parcel 003 within the Petition Area consists of class E lands, while Parcel 004 is characterized by class A and B lands.

28. The U.S. Department of Agriculture Natural Resources Conservation Service classifies the soil types on the Petition Area as belonging to the Lualualei-Fill land-Ewa association, which consists of deep, nearly level to moderately sloping, well-drained soils that have fine textured or moderately fine textured subsoil or underlying material and areas of fill land located on coastal plains. Parcel 003 has soils that are classified as Mamala stony silty clay loam, with 0 to 12 percent slopes. Parcel 004 contains Ewa silty clay loam, moderately shallow, with 0 to 2 percent slopes; Waialua silty clay with 0 to 3 percent slopes; and Mamala stony silty clay loam with 0 to 12 percent slopes.

29. Under the Agricultural Lands of Importance to the State of Hawai`i classification system, the portion of Parcel 003 within the Petition Area contains soils that are unclassified and Parcel 004 includes approximately 1.6 acres that are classified as Prime Agricultural Land.

30. The Petition Area is not designated as IAL nor is it proposed for such designation under HRS chapter 205.

Archaeological and Cultural Resources

31. Cultural Surveys Hawai`i, Inc. ("CSH"), prepared an archaeological assessment for the Project dated December 2015. This assessment covered a portion of the Petition Area, identified as TMK: 9-1-069: 004. In March 2007, CSH prepared an archaeological assessment for the other portion of the Petition Area, consisting of TMK: 9-1-069: 003, that was accepted by the SHPD by letter dated February 10, 2009.

32. The Petition Area is within an inland, dry coral plain that in pre-Contact times had a thin to absent soil layer. Due to its distance from the coast and Pearl Harbor as well as from an adequate source of drinking water, this inland area was little used during the period prior to Western contact. Within or in the vicinity of the Petition Area, there are no Land Commission Awards, indicating that during the division and redistribution of land in 1848 there were no verified claims to lands in the area. Trails passed through the vicinity but are not believed to have passed through the

Petition Area. From the late 1800s through the late 1900s, commercial sugarcane cultivation was undertaken on the Petition Area. The intensive land disturbance associated with the establishment and operation of the sugarcane plantations likely removed most of the evidence of pre-Contact use that may have existed.

33. Previous archaeological studies have not reported archaeological resources within or in the immediate vicinity of the Petition Area. The historic sites that have been recorded within a 0.5-mile radius of the Petition Area relate to either military or the previous sugarcane plantation operations in the area.

34. On October 24, 2014, CSH conducted a pedestrian inspection of the HWWTP site and a reconnaissance of the remainder of the area consisting of relatively undeveloped contiguous areas to the north and east of the HWWTP that comprise the Petition Area. No historic properties were identified within either the HWWTP portion or the Petition Area.

35. Although shallow subsurface work may be conducted within the Petition Area, the Project will not involve construction activities in the vicinity of the previously identified historical or archaeological sites related to the operations of the military and sugarcane plantations that are listed or eligible for listing on the Hawai`i Register of Historic Places or the National Register of Historic Places. The surface conditions observed during field inspections on and in the vicinity of the Petition Area

suggest a low probability of encountering archaeological or historic resources during construction activities. Therefore, construction in the Petition Area is not anticipated to adversely impact archaeological resources.

36. By letter dated February 3, 2016, the SHPD accepted CSH's archaeological assessment dated December 2015.

37. CSH also prepared a cultural impact assessment for the Project dated April 2011. The Project may have minimal impact on potential burials and other cultural sites within the Petition Area due to underground tunneling and boring at depths below any as-yet undiscovered cultural sites. CSH recommends no further cultural resource management work for the Project.

38. In the event any archaeological, cultural, or historic resources are encountered during construction of the Project, any potential impacts will be mitigated by complying with HRS chapter 6E. Any areas of concern will be identified and data provided to determine appropriate mitigation prior to commencement of any development. The SHPD will be consulted regarding the proper handling of any resources within the Petition Area prior to implementation of the Project. Should any significant archaeological, cultural, historic sites be found during construction activities, all work in the vicinity will cease and the SHPD will be promptly notified.

Flora and Fauna

39. SWCA Environmental Consultants conducted a natural resources survey of the HWWTP site and Petition Area on November 16, 2014.

40. The vegetation on the Petition Area is primarily characterized as a highly disturbed kiawe (*Prosopis pallida*) forest with sparse Guinea grass (*Urochloa maxima*) cover in the understory due to the presence of leaf litter, dry conditions, and grazing. The kiawe trees range from 15 to 26 feet in height and constituted approximately 70 percent of the tree cover. Large koa haole (*Leucaena leucocephala*) and Manila tamarind (*Pithecellobium dulce*) trees sparsely scattered throughout the kiawe forest comprise most of the remaining tree cover. Two herbaceous species, lion's ear (*Leonotis nepetifolia*) and golden crown-beard (*Verbesina encelioides*), are widely distributed throughout the understory. Other non-native herbaceous and shrub species scattered sparsely or in isolated patches within the Petition Area include khaki weed (*Alternanthera pungens*), spiny amaranth (*Amaranthus spinosus*), wild bean (*Macroptilium lathyroides*), hairy abutilon (*Abutilon grandifolium*), bracted fanpetals (*Sida ciliaris*), and Cuban jute (*Sida rhombifolia*). The non-native, parasitic western field dodder (*Cuscuta campestris*) was also found within larger trees during the survey.

41. The Project will involve the clearing of vegetation for the construction of new facilities. Given that the Petition Area generally lacks

environmentally sensitive naturally occurring species, the proposed work is not expected to result in any significant adverse impact to any naturally occurring State or Federally-listed threatened, endangered, or candidate plant species. Native Hawaiian plants are recommended for landscaping within the Petition Area, including species such as ko`oloa`ula (*Abutilon menziesii*), kou (*Cordia subcordata*), `ilie`e (*Plumbago zeylanica*), and `a`ali`i (*Dodonaea viscosa*).

42. Non-native birds and mammals are the prevalent fauna on the Petition Area. Nine introduced and one indigenous bird species were recorded during the survey. The common myna (*Acridotheres tristis*) was the most frequently observed as were the zebra dove (*Geopelia striata*) and spotted dove (*Streptopelia chinensis*). All of these species are common in Hawai`i. Only one native species, the migratory Pacific golden plover (*Pluvialis fulva*), was observed in the area. This species is abundant throughout Hawai`i.

43. The HWWTP is located directly adjacent to the Coral Creek Golf Course, which contains water features that are attractive to waterbirds. As such, it is possible that endangered Hawaiian stilts (*Himantopus knudseni*) could be present in close proximity to the Petition Area. Hawaiian stilts and Hawaiian coots (*Fulica alai*) are highly mobile and may occupy newly created habitat for foraging and nesting in areas

that hold standing water after heavy rainfall. There are currently no nesting water birds within the Petition Area.

44. Four migratory bird species protected under the amended Migratory Bird Treaty Act of 1918 were observed during the survey, including the cattle egret (*Bubulcus ibis*), Hawaiian duck-mallard hybrids, Pacific golden plover, and house finch (*Haemorhous mexicanus*).

45. Other fauna observed during the survey included mammals, such as feral cats (*Felis catus*) and small Asian mongooses (*Herpestes javanicus*), and invertebrates, including the native globe skimmer (*Pantala flavescens*), and two butterflies, the Gulf fritillary (*Agraulis vanillae*) and the western pygmy blue butterfly (*Brephidium exilis*). No reptiles or amphibians were observed during the survey.

46. No State or Federally-listed threatened, endangered, or candidate bird, mammal, or insect species were observed during the survey. The endangered pueo (*Asio flammeus sandwichensis*) was not observed; however, this bird species occurs in habitat found at the Petition Area. Surveys were not conducted for the native and endangered Hawaiian hoary bat (*Lasiurus cinereus semotus*), but this species is not likely to utilize the fragmented and urban area surrounding the Petition Area.

47. Construction activities could create temporary depressions at the work sites. If they accumulate standing water, they may attract waterbirds such as the

endangered Hawaiian stilt to the area. If this happens, activities in the area will be disrupted and may be stopped temporarily in compliance with the Endangered Species Act. Other Best Management Practices ("BMPs"), including conducting nest searches during nesting periods prior to the start of construction, may be employed.

48. Construction lights are known to blind and disorient migratory birds. Therefore, during construction, mitigation measures including shielding lights and facing the lights downward will be used to minimize impacts to migratory birds.

49. Due to the presence of suitable habitat for the endangered pueo in the Petition Area and surrounding areas, mitigation measures will be implemented to reduce disturbance to the species, including suspending work with heavy machinery or vehicular traffic within 300 feet of any area where indications of nesting are observed until young birds have the opportunity to fledge.

50. Measures to avoid impacts to the Hawaiian hoary bat include avoiding the use of barbed wire on the top of any fences erected for the Project to prevent entanglements and avoiding trimming trees taller than 15 feet during the period when juvenile bats may be roosting.

51. The Kaloʻi Gulch Stream is located to the north and east of the Petition Area. Manmade ponds located within the golf course to the north and east of the Petition Area are connected to this stream. The U.S. Fish and Wildlife Service's

("USFWS") National Wetland Inventory classifies these ponds as Palustrine Unconsolidated Bottom, permanently flooded, and excavated. One manmade pond located within the golf course is located in close proximity to the Petition Area. In addition, an abandoned irrigation ditch flows from this pond south through the existing HWWTP property and adjacent to the Petition Area and is classified as Palustrine Scrub-Shrub, Broad-Leaved Evergreen, temporarily flooded, and excavated wetland. It is anticipated that this irrigation ditch will need to be filled to construct the various site components in that location. If the ditch is determined to be jurisdictional by one or more of the regulatory agencies, Petitioner will work with the appropriate agencies to determine acceptable mitigation options.

52. The Project is not anticipated to result in operational impacts to nearby wetlands. Wetlands may be indirectly affected by the lowering of groundwater due to increased water demand from the projected increase in population and potential subsequent reduction of groundwater recharge. However, there is the potential that treated effluent will be used for groundwater recharge, thereby minimizing impacts to groundwater. Discharge locations for groundwater recharge have not been identified yet.

53. In its review of the Petition, the DOT, Airports Division, raised concerns regarding any activity that could attract wildlife within five miles of the

Daniel K. Inouye International and Kalaeloa Airports. In the event areas of standing water are created by the Project, netting or grid wire is required to be installed to deter avian attraction and use. The Airports Division also requested that it be granted an avigation easement to protect air space into both airports from any potential wildlife hazard. To address the concerns of the Airports Division, Petitioner will enter into a memorandum of agreement ("MOA") with the Airports Division with respect to avigation and wildlife management requirements to address safety concerns for flight operations at the two airports.

Groundwater Resources

54. The Petition Area is located in the Waipahu-Waiawa system within the Pearl Harbor Aquifer sector. The sustainable yield for this system is approximately 16 MGD, and it is the primary source of drinking water for the area. The closest well to the Petition Area is approximately 3.1 miles to the north. The Petition Area is also located within the Southern O`ahu Basal Aquifer, which is designated as a Sole Source Aquifer by the EPA.

55. Groundwater moves downward until it encounters impermeable geological features where it contributes to the freshwater lens or emerges as springs. In Hawai`i, the thickness of the lens generally decreases seaward, but it can be "dammed" near the coastline by sediments or limestone caprock. The majority of the water supply

on O`ahu is from the freshwater within these aquifer systems. There are no public groundwater wells within a one mile radius of the Petition Area.

56. Groundwater recharge is a potentially feasible effluent use in addition to irrigation and industrial use that has been identified for the HWTTP effluent. In groundwater recharge, the effluent moves from the surface water to the groundwater via the vadose layer. The soils, sand, and roots in the vadose layer act as a filter before the effluent reaches the groundwater. It is anticipated that limits will be applied to the HTWWP effluent if the reclaimed water from the HWRF were considered for aquifer recharge or reuse irrigation. Discharge locations for groundwater recharge have not been identified yet.

57. Construction activities could potentially impact groundwater if encountered during construction. Mitigation measures will be implemented during construction activities to preserve the integrity of existing infrastructure and keep construction equipment in good working condition to prevent accidental spills. Dewatering may also be necessary for construction that occurs below the groundwater table. Any construction activity occurring in or near groundwater will be conducted in accordance with applicable regulations. In addition, appropriate BMPs, monitoring of groundwater, and careful site preparation will be utilized to minimize adverse impacts.

58. The stormwater detention/infiltration basins proposed at several locations within the Petition Area may have an effect on the local groundwater table by raising the local groundwater table near the basins during and for some time after rain events. Since these basins will be designed as part of a larger stormwater BMP system including vegetated drainage swales, this system is anticipated to enhance the quality of stormwater recharge to groundwater.

59. The Project is being implemented to reduce the potential of sanitary sewer overflows by increasing capacity of the existing treatment system for current and future needs. The proposed increase in capacity could also enable and/or encourage currently unsewered areas to connect to a centralized system. The conversion of existing onsite wastewater treatment population to sewered population may also result in a reduction to local groundwater recharge as its wastewater no longer will be discharged to the groundwater but will be conveyed to the HWWTP and discharged at the ocean outfall. Depending on the sub-basin area, this could have localized effects on groundwater levels.

60. As with any wastewater system, there is the potential for leakage and breakage in sewerlines that will result in impacts to groundwater. Mitigation measures for the operational impacts include proper operation and maintenance of the proposed facilities.

Visual Resources

61. The visual character of the Petition Area is primarily one of urban uses and open space. The existing HWWTP provides the dominant feature as it is visible from the Coral Creek Golf Course to the east and Barbers Point Golf Course to the south and from residential neighborhoods along the western and northwestern boundaries of the Petition Area.

62. The Project will result in temporary impacts to the viewshed from the Coral Creek Golf Course, residential areas, and the rail trail/bike path due to the clearing of trees within the Petition Area and subsequent construction activities following tree clearing. The existing kiawe forest along the perimeter of TMK: 9-1-069: 003 of the Petition Area will be preserved to visually buffer the proposed secondary treatment clarifier tanks and related structures. Visual impacts during construction as viewed from Barbers Point Golf Course are anticipated to be minimal as a result of an existing tree canopy between the Petition Area and the golf course.

63. During construction, fencing surrounding the construction site may be provided as needed to provide a visual screen from construction equipment. Any construction impacts regarding visual aesthetics are expected to be short-term and will cease after construction. The existing perimeter chain link fence will be removed and replaced with a new combination of walls, ornamental fence, and chain link fence.

Fence lines/walls along roadways/property boundaries will be improved to provide an aesthetically pleasing view to replace the industrial look that currently exists in the area, with linear landscape elements along the fences/walls.

64. The Project will include new structures that will be consistent with the industrial character of the existing HWWTP. The facilities will be designed to blend in with the existing structures and will be further designed in accordance with City and County rules and regulations. The landscaping elements around the facilities will be irrigated with reclaimed water. Drought-tolerant plants, grasses, and native species will be planted whenever feasible. It is anticipated that the height and setback of the walls will minimize impacts to the surrounding neighborhoods. At least 10 feet of clear space will be provided on both sides of fence lines for vehicle access, which will support fence line maintenance. A perimeter walking/biking path, which is proposed along the east boundary of the HWWTP outside of the fence line, will provide recreational opportunities for the public.

ENVIRONMENTAL QUALITY

Air Quality

65. AECOM prepared an air quality analysis technical memorandum for the Project dated November 2014.

66. The Project will result in short-term impacts to air quality both directly or indirectly. The major potential short-term air quality impact of the Project

will occur from emission of fugitive dust during construction activities. During construction phases, emissions from engine exhausts will also occur both from onsite construction equipment and from vehicles used by construction workers and from trucks traveling to and from the construction site.

67. Given the phasing of construction activities over several years, hot spot air quality concerns associated with concentrated equipment operations will be limited. Moreover, the construction equipment required for the Project is typical of equipment used for routine infrastructure developments in urban areas. Short-term emissions, including greenhouse gas ("GHG") emissions, from the number of construction equipment will be inconsequential compared to regional emissions or the U.S. inventory for GHG emissions, factoring in the substantially greater number of unrelated on-road vehicles and associated emissions that constitute the majority of baseline mobile emissions in the vicinity of the Petition Area. Therefore, construction equipment impacts are anticipated to be insignificant.

68. During the worst-case construction year (2021), it is anticipated that a total of 185 construction workers will arrive at the Petition Area during the AM peak hour and 185 construction workers will exit the site during the PM peak hour. This is in addition to the 8 total trips (4 entering and 4 exiting) generated by cement trucks during each of the AM and PM peak hours of traffic. Air quality impacts from these on-road

mobile source operations associated with construction activities will be temporary and comparable to the 2021 baseline condition, resulting in no significant impacts.

69. Although mitigation measures are not warranted during the construction period, BMPs to control construction emissions will be implemented to minimize visible fugitive dust emissions at the boundary of the Petition Area. The BMPs will include, but not be limited to, watering of active work areas, using wind screens, keeping adjacent paved roads clean, and covering open-bodied trucks.

70. After construction activities are completed, the long-term operational air quality impacts of the Project will include an upgrade to the standby power capacity, possible introduction of a new energy saving combined heat and power ("CHP") system, and an increase in mobile source operation due to the Project and an increase in wastewater treatment capacity.

71. Under future operational conditions, three smaller existing generators will continue to provide emergency power to the current load, and new diesel powered generators will provide standby power to the new loads. Given their use for emergency purposes, potential air quality impacts will be short in duration and will be unlikely to cause significant air quality impacts.

72. The CHP facility that may be incorporated at the HWWTP would make beneficial use of digester biogas. If such a facility is incorporated at the HWWTP,

it will need to be permitted according to State and Federal air regulations. Since this facility would be a new stationary source, the emissions at the HWWTP will increase resulting in adverse air quality impacts on the local level. However, because the feasibility of construction such a facility is still under evaluation and has no design specifics, the potential air emissions from the facility cannot be reasonably estimated. If the CHP facility option is elected in the future, the CHP facility will need to be considered for future air quality permitting in conjunction with the biosolids disposal process during the design stage. During the air permitting process, it is anticipated that a separate air quality impact modeling analysis will be conducted to address potential air quality impacts associated with the CHP facility.

73. With an anticipated 55 peak hour vehicles entering the Project under the future operational condition, the traffic movements with and without the Project at affected intersections in 2030 will remain operating at similar levels of service ("LOS"). Therefore, the air quality impacts from on-road mobile source operations associated with operational activities will be comparable to the 2030 baseline condition, causing no significant offsite mobile source air quality impacts.

74. The location of the existing influent screens and influent pump is a significant source of odors since it is handling untreated raw sewage and is located adjacent to the south property line of the HWWTP. The current odor control system is

ineffective and undersized for this location. Modern biologically-based odor control will be implemented for this facility as part of the Project.

75. The existing grit removal system and pre-aeration tank will be converted to an entirely different treatment process involving biological adsorption of organic material followed by aerated flotation clarification. There will be no grit removal or grit handling equipment with this new process. Under this process, odors will be contained by new tank covers and the tank interior will be coated for protection. Negative pressure (suction) will be maintained underneath the covers with odor control fans. The negative pressure will prevent fugitive emissions. The fans will convey the foul air to an odor control system where the odors will be treated by a new biological-based system.

76. An entirely new grit removal facility will be constructed adjacent to the existing grit removal facility. This will be a fully enclosed, brand-new concrete structure. This new grit removal system will utilize centrifugal force rather than aeration. The new grit system will also be covered to contain any generated odors. The associated grit collection/concentration equipment will be enclosed and contained within a ventilated building and treated. Negative pressure (suction) will be maintained underneath the covers with odor control fans. The negative pressure will

prevent fugitive emissions. The fans will convey the foul air to an odor control system where the odors will be treated by a biological-based system.

77. The existing primary clarifiers are a significant source of odor. As part of the Project, they will be re-purposed to wet weather storage basins and will only be used during peak flow (rainstorm) events. In addition, because the primary clarifiers will no longer be used, the gravity thickeners, which are another source of odors, will also not be needed.

78. Wastewater entering secondary treatment facilities has gone through preliminary and primary treatment so that the largest organic matter has been removed. Secondary treatment involves fully aerating the incoming wastewater and using "good" bacteria to breakdown any organics remaining in the wastewater. This aeration fully oxidizes the reduced sulfides and other odor causing compounds.

79. The existing dewatering building will be demolished in its entirety and replaced with a new building. The new dewatering process is a closed system contained within the new dewatering building. Unlike the current dewatering facility, trucks will not need to enter the building to remove dewatered sludge so doors and bins can remain closed. All dewatered cake sludge will be fully enclosed within a bin inside the new dewatering building. Since the cake is digested, it is expected to have a

minimal level of nuisance odors. Any foul air from this bin will be sent to a new biologically-based odor control system.

80. Cake will be temporarily hauled away by dump trucks after construction of the new dewatering building but prior to completion of the Dryer Building. A pipe will discharge cake sludge to the dump truck which will minimize emissions. This system will be decommissioned when the dryer building is completed.

81. The cake receiving facility will accept cakes sludge from other wastewater treatment plants to be sent to the dryer building. The receiving facility consists of two large bins where the trucks will dump. Pumps at the bottom of the bins will pump the cake sludge to the dewatered cake bin. This sludge will have been digested and dewatered prior to transport, minimizing their odor potential. The cake receiving facility bins are fully enclosed and will have odor suctions ducts near the retractable bin doors which only open to allow trucks to dump. While the trucks are dumping, the emissions will be drawn in by ducts located adjacent to the doors. Foul air will be sent to the same biological-based odor control system as for the dewatering building.

82. The sludge dryers have exhaust air with a mild, musty odor. Most of the air is recycled with waste air sent to a two-stage odor control system consisting of a water scrubber followed by a carbon media scrubber. The dried sludge itself is not a

source of odors. There will also be an Auxiliary Pellet Storage Building to stockpile the dried pellets in an emergency event where the pellets cannot be re-used or disposed of for extended periods of time. This facility is located in the center of the treatment plant and will only contain dried pellets so no odors are expected.

83. Based on these improvements, the odor impacts under the Project are not anticipated to be significant. The ambient odor monitoring program to be implemented after the completion of the Project will demonstrate compliance with the DOH ambient odor standard in terms of hydrogen sulfide ("H_2S") concentration levels.

84. It is anticipated that an increase in GHG will occur as a result of the Project. However, such an increase will be further evaluated during the final design stage when the Project component is well defined and emissions can be reasonably forecasted. It is unlikely that the increase in GHG will result in any meaningful global warming effects.

85. The potential long-term air quality impacts to the Petition Area are not anticipated to be significant, although there is the potential to increase onsite stationary and mobile source emissions due to an increase in the plant operational capacity. These emissions are primarily short in duration, with the exception of the operation of a potential CHP facility. Thus, mitigation measures in excess of odor control measures will unlikely be necessary during the operational period. Compliance

with all applicable ambient standards, including odor in terms of H_2S concentration levels, will be further demonstrated during the final design stage of the Project when the air permit is modified for applicable criteria pollutants and after the completion of construction with an ambient monitoring program for odor.

Noise

86. Ebisu & Associates prepared an acoustical study that included an analysis of noise near the Petition Area dated January 2015.

87. Daytime and nighttime noise measurements were obtained in October 2014 at or near the boundary of the HWWTP to provide a basis for describing the existing background noise levels at noise sensitive receptors in the Project's environs and to determine if the HWWTP is in compliance with the DOH noise limits. The major noise sources at the HWWTP currently include the dewatering building centrifuge, influent pump station, Blower Building No. 1 (Primary), biotower pump station booster fan, and caustic scrubber odor control blower. Based on the recorded measurements, the current HWWTP site is in full compliance with the 70 Decibel A-weighted filter ("dBA") DOH noise limit for both the daytime and nighttime periods.

88. Traffic noise level measurements were performed in the vicinity of the HWWTP in December 2014. During the daytime, motor vehicle traffic and aircraft noise become the dominant noise sources along the HWWTP property lines, and the

noise measurements were influenced by these offsite noise sources more than the HWWTP noise sources. The DOT considers traffic noise levels less than 66 Hourly Equivalent Sound Level ("Leq(h)") to be acceptable for noise sensitive land uses. This criterion level was exceeded at 50 feet from the centerline of Geiger Road and Roosevelt Avenue.

89. Audible construction noise will be unavoidable during the construction period. The construction work will be performed in phases and will move from one location to another throughout the construction period. Therefore, the length of exposure to construction-related noise at any receptor location will be less than the construction period for the entire Project. Most of the work will also be performed during the normally permitted hours of 7:00 a.m. to 6:00 p.m. on weekdays, and between 9:00 a.m. to 6:00 p.m. on Saturdays.

90. The predicted increases in traffic noise levels attributable to traffic related to the Project during the peak construction year (2021) were also evaluated. These increases will not exceed 1 decibel ("dB") along Renton Road between Kapolei Parkway and the proposed HWWTP site entrance road ("DW5"). Along all other roadways in the immediate environs of the Petition Area, increases in traffic noise levels associated with construction of the Project were expected to be less than 0.5 dB.

Construction-related noise impacts from traffic therefore are not expected at noise sensitive receptors within the immediate environs of the Petition Area.

91. Noise sensitive residences that are predicted to experience the highest noise levels during construction activities are located northwest of the Petition Area along Philippine Sea and Renton Road. Predicted construction noise levels at these residences during the site preparation phase of the work in the northwest portion of the Petition Area range from 62 to 71 dBA (plus or minus 5 dBA). The highest predicted noise levels during construction are expected to occur at the Coral Creek Golf Course during construction of proposed infrastructure improvements along the eastern boundary of the Petition Area. The closest residences located to the east of the Petition Area are beyond the Coral Creek Golf Course and are anticipated to experience construction noise levels of 65 dBA (plus or minus 5 dBA). These impacts will be limited to the temporary degradation of the quality of the acoustic environment in the immediate vicinity of the Petition Area.

92. Special construction noise mitigation measures will be implemented during construction activities. These measures include sound attenuation treatment of fixed machinery that operate continuously and requiring the use of broadband back-up alarms for vehicles that operate on the construction sites as well as the use of properly muffled construction equipment onsite.

93. Construction activities will be carried out in accordance with HRS chapter 342F, Noise Pollution; HAR chapter 11-46, Community Noise Control; and all Federal, State, and City and County of Honolulu laws and regulations. A Community Noise Variance will be required to exceed the maximum permissible sound levels or for work outside of normal hours.

94. Estimates of future Project noise levels were conducted by modeling the source noise levels of the HWWTP equipment and facilities expected to be in operation following completion of the proposed Phase 2 improvements. The utilization of sound attenuation treatments to all proposed noise sources (with the exception of the emergency generators) will not likely be required to comply with the 70 dBA DOH noise limit along the Petition Area boundary. However, acoustical treatments of louder noise sources will be incorporated into the design of the Project to reduce their contributions to the total noise levels at the Petition Area.

95. Future road traffic noise levels associated with operation of the Project in 2030 were also assessed. By 2030, traffic noise level increases attributable to the Project's traffic is expected to be less than 1.0 dB at all roadways in the Project's environs, except along the section of Renton Road between Kapolei Parkway and the DW5 entrance. The estimated increases in future traffic noise levels along this section of Renton Road are 0.9 dB due to non-Project traffic and 2.0 dB due to traffic from the

Project. Since existing traffic volumes along this section of roadway are relatively low (approximately 343 vehicles per hour), and since this area is currently undeveloped within 50 feet of the roadway's centerline, these increases in future traffic noise levels are not expected to exceed traffic noise level criteria.

96. Along Renton Road west of the DW5 entrance where existing residences are located, future traffic noise level increases associated with the Project are not expected to occur. In addition, along Roosevelt Avenue in the vicinity of Philippine Sea, future traffic noise level increases associated with Project-related traffic are anticipated to be less than 0.2 dB by 2030. Along Geiger Road and Roosevelt Avenue where existing traffic noise levels exceed the 66 Leq(h) and 65 Day-Night Average Sound Level ("DNL") noise impact thresholds, future increases in traffic noise levels due to Project-related traffic are lower than the increases associated with non-Project traffic, and are predicted to be less than 0.8 Leq(h) or DNL. These increases are not considered to be significant.

Water Quality

97. The HWWTP discharges via the Barbers Point Deep Ocean Outfall to Māmala Bay, which is classified in the DOH Water Quality Standards as a Class A "dry open coastal water." Permitted effluent discharges in Māmala Bay include point sources and non-point sources. Long-term studies of benthic organisms in the vicinity of the outfall compared to control sites indicate that effects of the existing effluent are

negligible. The HWWTP is governed by National Pollutant Discharge Elimination System ("NPDES") Permit No. HI0020877. The 2010 FACD has interim limits until full secondary treatment is completed. Effluent data from 2012 and 2013 provided by the City and County of Honolulu indicate that the HWWTP consistently complies with the 2010 FACD interim limits. However, additional treatment will be necessary to meet the treatment limits that will be associated with future full secondary treatment requirements.

98. Upgrades to the HWWTP will be designed to comply with the 2010 FACD and will result in the reduction in biological oxygen demand and total suspended solids. Although effluent flow to Māmala Bay is anticipated to increase due to the projected population growth within the sewer shed, effluent concentrations and overall loads will decrease as a result of the proposed upgrades to secondary treatment.

99. Since it is the State's position that all developments must reduce, reuse, and recycle to protect, restore, and sustain water quality and beneficial uses of State waters, planning for the Project will (1) treat stormwater as a resource to be protected by integrating it into planning and permitting; (2) include statements regarding the implementation of methods to conserve natural resources; (3) consider stormwater BMP approaches; (4) consider the use of green building practices; and (5)

identify opportunities for retrofitting or bio-engineering existing stormwater infrastructure to restore ecological function while maintain hydraulic capacity.

100. In the short term, potential construction impacts to the mapped wetland located adjacent to the Petition Area will be mitigated by adherence to State and City and County water quality regulations governing grading, excavation, and stockpiling. The proposed stormwater basins at the Petition Area will be shallow dry basins except during and after storm events until infiltration and/or evaporation of basin contents is complete. Vegetative drainage swales will be used when feasible to help enhance stormwater quality.

101. Overall, the Project will provide wastewater treatment facilities necessary to comply with secondary treatment standards and will have beneficial long-term water quality impacts on groundwater and surface and coastal waters as it will better manage peak wastewater flows.

ADEQUACY OF PUBLIC SERVICES AND FACILITIES

Roadways

102. Austin Tsutsumi & Associates, Inc. ("ATA"), prepared a Traffic Impact Analysis Report ("TIAR") for the Project in November 2014.

103. Primary access to the existing HWWTP is through an entrance on Geiger Road ("Honouliuli Driveway 1" or "DW1"). The Septage Receiving Station is accessed through a separate entrance from Geiger Road east of the main entrance

("Honouliuli Driveway 2" or "DW2"). The Petition Area may currently be accessed from the north from Malio Street via Renton Road and from Geiger Road east of the Septage Receiving Station entrance. The `Ewa Convenience Center is accessed from Geiger Road west of DW1.

104. ATA conducted manual turning movement counts and field observations for critical intersections during the peak hour and at a time when schools were known to be in session. Manual turning movement traffic counts and field observations were conducted at several intersections in the vicinity of the HWWTP and Petition Area. In its analysis of the intersections, ATA utilized methodologies prescribed by the Highway Capacity Manual.

105. Based on traffic count data, the weekday AM peak hour of traffic was determined to be from 7:00 a.m. to 8:00 a.m. and the PM peak hour of traffic was determined to be from 4:00 p.m. to 5:00 p.m. At all signalized study intersections, with the exception of Fort Weaver Road intersections, most vehicles typically cleared each intersection within one signal cycle without any heavy queuing or congestion. Most study intersections operate at LOS D or better with adequate capacity. Those intersections which did not operate at LOS D or better are not located immediately adjacent to the Petition Area.

106. The Year 2021 was selected as the base year to reflect the anticipated peak year of construction activity, which was assumed to occur during Phase 1 construction. It is anticipated that by 2021, traffic will have increased significantly over existing conditions due to the continuing development of the `Ewa-Kapolei region. The following intersections are anticipated to operate at LOS E/F in 2021: Kualakai Parkway/Kapolei Parkway Intersection, Renton Road/Kapolei Parkway, Geiger Road/Kapolei Parkway, and Fort Weaver Road/Geiger Road/Iroquois Road and Renton Road/Fort Weaver Road. All unsignalized study intersections will continue operating at LOS D or better during the AM and PM peak hours of traffic.

107. The Year 2030 was selected as the base year to reflect the anticipated buildout of the HWWTP. By 2030, traffic will continue to increase due to the continuing development of the `Ewa-Kapolei region. Based on an LOS comparison between Base Year 2021 and Base Year 2030, the majority of individual movements that are projected to operate at LOS E/F for Base Year 2021 conditions will continue operating at similar LOS for Base Year 2030 conditions during the AM and PM peak hours of traffic except for the following intersections: Kualakai/Kapolei Parkway, Renton Road/Kapolei Parkway, Roosevelt Avenue/Philippine Sea, Geiger Road/Kapolei Parkway, and Fort Weaver Road/Geiger Road/Iroquois Road and Renton Road/Fort Weaver Road.

108. Future Year 2021 trip generation is the anticipated peak year of construction activity, which was assumed to occur during Phase 1 construction of the HWWTP. It was estimated that the Project will generate 185 construction workers to/from the Petition Area, with the assumption of one vehicle trip per construction worker. Therefore, 185 construction workers will arrive to the Petition Area during the AM peak hour and 185 construction workers will exit the Petition Area during the PM peak hour. In addition to these construction workers, eight total trips (4 entering and 4 exiting) were assumed to be generated by cement trucks during each of the AM and PM peak hours of traffic.

109. Based on a LOS comparison between Future Year 2021 and Base Year 2021, the majority of individual movements that are projected to operate at LOS E/F for Base Year 2021 conditions will continue operating at similar LOS for Future Year 2021 conditions during the AM and PM peak hours of traffic except for the following intersections: Fort Weaver Road/Geiger Road/Iroquois Road and Renton Road/Fort Weaver Road and Geiger Road/DW2.

110. Future Year 2021 Project trips were assigned to all existing driveways in addition to three new proposed accesses. All movements at the three new driveway intersections will operate adequately at LOS D or better during the AM and PM peak hours of traffic. The first access ("Honouliuli Driveway 3" or "DW3") is

proposed to be located approximately 600 feet east of the existing Geiger Road/DW2 intersection. The second access ("Honouliuli Driveway 4" or "DW4") is proposed to be located approximately 600 feet east of the existing Roosevelt Avenue/Philippine Sea intersection. The third access ("DW5") is proposed to be located along Renton Road adjacent to the Malio Street intersection

111. Although entering traffic volumes at the proposed driveways are anticipated to operate with adequate LOS, eastbound left-turn lanes are recommended along Geiger Road and Roosevelt Avenue at the intersection with the Honouliuli Driveways, including DW1, DW2, DW3, and DW4, and a westbound left-turn lane is recommended at the Renton Road/DW5 intersection. In addition, the left-turn lanes entering these driveways should provide for a minimum storage of at least 50 feet, while the Renton Road/DW5 intersection should provide a minimum of at least 125 feet of storage.

112. Due to increased regional growth along the major thoroughfares and slight increases in exiting Project traffic, the Geiger Road/DW2 intersection will operate at LOS E conditions along its southbound approach but should not experience heavy queuing due to its low volume.

113. The trip generation for the Future Year 2030 scenario is based on the full buildout of the Project. This buildout will increase the staffing at the HWWTP

to an estimated 320 full-time equivalent ("FTE") positions from the current 39 FTE positions. To determine the growth in traffic generated by this increase in positions, all existing traffic turning movements were increased linearly by a factor of 8. Trips were also increased to address trips for solids and solids product handling.

114. Future Year 2030 Project trips were assigned to all existing driveways, in addition to the three proposed access points. Trip distribution is based on existing traffic flow patterns throughout the area. Based on a LOS comparison between Future Year 2030 and Base Year 2030/Future Year 2021, the majority of individual movements projected to operate at LOS E/F for Base Year 2030/Future Year 2021 conditions will continue operating at similar LOS for Future Year 2030 conditions during the AM and PM peak hours of traffic, except the following intersections: Geiger Road/DW1, Geiger Road/DW2, Geiger Road/DW3, and Fort Weaver Road/Geiger Road/ Iroquois Road and Renton Road/Fort Weaver Road.

115. Based on the anticipated increase in regional growth along the major thoroughfares (without the Project), the anticipated increase in entering/exiting Project traffic during peak hours as a result of the Project, and proposed improvements to accommodate the slight increase, impacts to traffic in the region due to operation of the Project are not anticipated.

116. The DOT, Highways Division, recommended that the TIAR be updated by 2021 and validate the adequacy of the proposed improvements, with the updated TIAR submitted to the DOT, Highways Division, for review and acceptance. The updated TIAR should be based on the projected staffing of the HWWTP in 2030, and any improvements that are recommended by the updated TIAR should be provided at no cost to the State of Hawai`i.

Wastewater

117. The HWWTP was originally built in 1978 as a primary plant and became operational in 1984. The rated design capacity is 38 MGD with one unit on standby and 51 MGD with all units in service. The HWWTP provides primary treatment to all flow received. Approximately 13 MGD undergoes further secondary treatment. A portion of the secondary effluent is treated for water reuse at the HWRF. The solids stream has a rated design capacity of solids generated from 42 MGD of primary treatment and 26 MGD of secondary treatment.

118. The Honouliuli sewer basin is the second largest on O`ahu, serving a population of over 300,000. It includes 17 wastewater pump stations excluding the Honouliuli Influent Pump Station. These pump stations are operated by the City and County of Honolulu. The Honouliuli gravity collection system is primarily made up of

approximately 83 percent vitrified clay pipes and approximately 9 percent reinforced concrete pipes.

119. The liquid treatment system at the HWWTP consists of preliminary treatment, primary treatment, and secondary treatment.

120. Preliminary treatment is a physical process in which large items such as rags, sticks, grit, grease, and other items are removed from the wastewater. The preliminary treatment equipment includes the septage receiving station, influent screens, influent pump station, influent flow measurements, preaeration tanks, aerated grit chambers, and Blower Building No. 1.

121. Primary treatment is a physical process that removes suspended solids and organic material by physical settling. The primary treatment system consists of the Primary Clarifiers and two Primary Sludge Pump Stations.

122. The secondary treatment system at the HWWTP was completed in 1996. The secondary treatment process uses a biological fixed film trickling filter process to remove biodegradable organic matter and a suspended growth solids contact process for enhanced suspended solids removal. The secondary treatment system consists of a biotower pump station, biotowers, solids contacts/reaeration basins, secondary clarifiers, Blower Building No. 2, and Parshall flumes.

123. The effluent and outfall system at the HWWTP includes the effluent channel, effluent screens, effluent flow measurement, outfall, and the HWRF. Primary effluent, excess secondary effluent, and reverse osmosis brine are combined in the effluent channel and discharged to the ocean via the outfall. The Barbers Point Deep Ocean Outfall was constructed in 1979 and has a peak flow capacity of 112 MGD. The 84-inch diameter Outfall extends approximately 8,760 feet into the ocean and discharges treated effluent approximately 200 feet below the surface through a 1,750-foot long diffuser pipe. The water reclamation processes associated with the HWRF include sand filtration, reverse osmosis, and ultraviolet disinfection.

124. The existing HWWTP solids unit processes include gravity thickeners, gravity belt thickeners, blend tanks, anaerobic digesters, and centrifuge dewatering. The solids capacity is based on solids removed from 42 MGD of primary treatment and 26 MGD for secondary treatment. Solids residues from the HWWTP are either disposed of at the WGSL or at H-POWER. The solids loading to the HWWTP is augmented by solids from the Wahiawā and Pa`ala`a Kai wastewater treatment plants, which are trucked to the HTTWP for further processing and disposal.

125. The HWWTP has six separate odor control systems that collect and treat air emissions from the plant. The odor control facilities include preliminary odor control system, primary odor control system, secondary odor control system, primary

sludge odor control system, secondary sludge odor control system, and solids dewatering odor control system.

126. Three major alternatives were considered for secondary treatment upgrades and modifications to the HWWTP to meet future flow and water quality requirements. Option 1 involves the expansion of the existing Trickling Filter/Solids Contact ("TF/SC") process to full capacity. Option 2 involves the replacement of the existing TF/SC process with Activated Sludge ("AS") to full capacity. Option 3 involves the addition to the existing TF/SC process with AS to full capacity. The phased recommendation of Option 2 is recommended and is the option that Petitioner is generally following. Option 2 has the lowest capital and operation and maintenance costs. It would also use the existing TF/SC process to the end of its useful life, maximizing the reuse of current assets; produce a higher quality secondary effluent than is currently produced at the HWWTP with associated benefits for effluent reuse; reduce future land use requirements with the smallest footprint of evaluated options; achieve ease of operation (only one process at buildout) and no need for separate nitrification and denitrification processes; and require the smallest dedicated wet weather storage basins volume. The planned layout and details of the secondary treatment facilities and non-process facilities will be modified as the design progresses.

Drainage

127. A National Wetland Inventory-mapped wetland (former drainage ditch) is located adjacent to the Petition Area, generally oriented north-south. This wetland is part of the abandoned irrigation system from when the area was used for agricultural purposes and no longer functions as an active irrigation ditch. Some standing water may be observed during rain events; however, surface water does not appear to persist throughout the year. In addition, Kalo`i Gulch Stream lies to the north of the Petition Area and several small ponds associated with Coral Creek Golf Course are located to the east of the Petition Area. Several of these small ponds are connected by small stream segments.

128. Erosion and sedimentation measures will be employed where necessary during construction activities; therefore, nearby offsite site surface waters are not anticipated to be impacted as a result of stormwater during construction activities.

129. The existing abandoned irrigation ditch will be permanently impacted during site construction. Since this ditch is no longer used for irrigation purposes, no impacts to the ability to irrigate within the vicinity of the Petition Area are anticipated. Regulatory agencies, such as the Army Corps. Of Engineers, the USFWS, and the City and County of Honolulu, will be consulted to determine whether filling of the former irrigation ditch is jurisdictional under current regulations. If the ditch is

determined to be jurisdictional by one or more agencies, the appropriate agencies will be consulted to determine acceptable mitigation options. A Stream Channel Alteration Permit may be required from the State of Hawai`i Department of Land and Natural Resources, Commission on Water Resource Management, for any temporary or permanent activity within the former irrigation ditch, and a wetland survey may be required.

130. Stormwater management retention/infiltration basins and related facilities are proposed throughout the Petition Area. The stormwater basins at the Petition Area will be shallow dry basins except during and after storm events until infiltration and/or evaporation of basin contents is complete. Surface flow conveyance will be used to the greatest extent possible by incorporating vegetative drainage swales to address constructability issues as well as to enhance stormwater quality.

131. Consideration will be given to implementation of various BMP structures from the new drainage standards that can serve as demonstration-type installations for future developments. In addition, the road frontage area along Geiger Road with large trees and a landscaped area will be used as a vegetative buffer and for stormwater management. This area will provide overland flow of stormwater across a vegetated area that will perform as both a vegetated swale and an infiltration area.

132. The Project may result in an increase in future effluent discharged to Māmala Bay via the Barbers Point Deep Ocean Outfall. However, with the implementation of BMPs onsite, the Project is not anticipated to result in operational impacts to nearby surface waters. In addition, any potential impacts to coastal waters as a result of stormwater runoff and sedimentation will be mitigated by adherence to Federal, State, and City and County water quality regulations governing grading, excavation, stockpiling, and sedimentation and erosion by stormwater during construction.

Water

133. The BWS provides the emergency fire and drinking water supply for the island of O`ahu. The BWS relies solely on groundwater for the drinking water supply. The Petition Area is located within the Waipahu-Waiawa system, which is the primary source of drinking water for the Petition Area. The closest well to the Petition Area is approximately 3.1 miles to the north. For industrial and irrigation purposes, the BWS utilizes the HWRF, operated by Veolia Water North America and located on the western side of the HTWWP, which recycles wastewater for non-drinking water uses. The HWRF provides tertiary treatment to approximately 13 MGD of secondary effluent from the HWWTP.

134. The BWS has requested consideration of a dedicated entrance and that 3 to 5 acres of land be set aside and reserved for HWRF upgrades, improvements, and/or expansion. The final determination of land area, location, and timing of expansion will need to be defined with the BWS during detailed design.

135. Water system improvements near the HWWTP may be required to improve the reliability of the existing drinking water system and for the potential expansion of the HWWTP. Coordination with the BWS will be necessary during design to avoid or minimize the potential for conflicts regarding the reclamation and reuse of wastewater. Construction drawings will be submitted to the BWS for review as part of the building permit application process and the estimate of water required during construction and availability of the water will be confirmed during the review and approval of the building permit application.

136. The BWS recommends the use of drought tolerant/low water use facilities and xeriscaping principles for all landscaping and installation of an efficient irrigation system. These recommendations will be implemented for the Project.

Solid Waste

137. Multiple roll-off dumpsters are used onsite for the separate collection of different types of materials. Combustibles are processed at the H-POWER and non-combustibles are taken to the WGSL. Yard waste is hauled to mulching and

composting sites, while large appliances, tire, and auto batteries are taken to recycling facilities. Construction debris is transported to the PVT Land Company by private haulers. The solids loading to the HWWTP comes from the HWWTP system in addition to the solids from the Wahiawa and Pa`ala`a Kai WWTPs.

138. The Project will involve the excavation of approximately 673,250 cubic yards of soil for new structures, most of which (573,000 cubic yards) will be used as backfill onsite. Excess excavated material will be approximately 100,000 cubic yards. If this material cannot be kept onsite, coordination with local landfills and recycling centers for the disposal of construction debris and/or hazardous materials may be required, and the ultimate disposal location will depend on space availability at local landfills.

139. The Project will increase the solids production. Potential options to reduce solids disposal to the landfill include building two new conventional mesophilic anaerobic digesters to accommodate the proposed secondary treatment upgrade and population growth. The quantity and quality of sludge being processed, and the biogas available for beneficial use, will depend to an extent on the outcome of the island-wide sludge planning effort and factors such as onsite processing methods and importation of sludge.

140. Waste minimization options include composting or further solids handling to reduce the volume of solids, such as drying which is the recommended process to provide for sludge reuse by land application. In addition, other solid residuals from the wastewater treatment process, including screenings and grit, will be washed and compacted.

141. Another sustainable opportunity is the conversion of solids to energy. There are both offsite and onsite opportunities for the conversion of solids to energy. One offsite alternative is to haul the solids from the HWWTP to H-POWER. H-POWER is currently accepting sludge and is a viable outlet in the near future. Onsite waste-to-energy alternatives include incineration and closed-coupled processes. Further refinement of the processing and disposal options is expected during design.

Police and Fire Protection

142. The Honolulu Police Department ("HPD") and Honolulu Fire Department ("HFD") provide emergency services on the island of O`ahu. The HPD has divided the island into eight patrol districts with five district stations. The Petition Area is located within the service area of the Kapolei district station.

143. Coordination with the HPD during construction will be necessary to mitigate traffic congestion and ensure public safety in cases when traffic control

cannot be provided by the contractor employees alone. When necessary, off-duty police officers will be scheduled and hired.

144. Coordination with the HFD for the safe design of new or upgraded structures will also be necessary. Plans will be submitted to the HFD for review and approval during the design phase. A fire apparatus access road for every facility, building, or portion of building within their jurisdiction will be provided when the structure is more than 150 feet from a fire apparatus access road. A fire department access road will extend to within 50 feet of at least one exterior door that can be opened from the outside and that provides access to the interior of the building. Onsite fire hydrants and mains capable of supplying the required fire flow will also be provided as will the water supply itself when any portion of a facility or building is in excess of 150 feet from a water supply.

Schools

145. There are several public schools in the vicinity of the Petition Area. These schools are not anticipated to be significantly impacted by the Project due to the distance between the Petition Area and these facilities. The nearest public school to the Petition Area is the `Ewa Makai Middle School located approximately 0.6 miles to the southeast, and there are no childcare facilities within a 1 mile radius of the Petition Area.

146. There may be a slight increase in traffic during construction activities at the Fort Weaver Road/Geiger Road/Iroquois Road and Renton Road/Fort Weaver Road intersections, which are located in the vicinity of the `Ewa and Holomua Elementary Schools.

Recreational Facilities

147. There are several recreational areas including golf courses, parks, and a bike trail that are located near the Petition Area. The Project is not anticipated to significantly impact these facilities. There may be some secondary minor impacts as a result of construction, such as noise, slight increase in traffic, or temporary aesthetic impacts. If construction of the Project significantly impacts any park or recreational use, the owners of the recreational facilities and the City and County of Honolulu Department of Parks and Recreation will be consulted and work will be coordinated before proceeding further to avoid any impairment to the use of these facilities. No impacts to parks and recreational facilities are anticipated during the operation of the Project.

Electrical and Communication Services

148. Hawaii Electric Company ("HECO") supplies electricity the majority of O`ahu. Two of HECO's major facilities, the Kahe and Waiau Power Plants, are located within five miles of the Petition Area. Overall facility electrical demand

currently ranges from 1,536 to 1,757 kW. HECO substation upgrades may be required to handle the new secondary power requirements.

149. Telephone and internet services within the Petition Area are provided by Hawaiian Telcom and Spectrum. Spectrum also provides cable services to the Petition Area. These services are transmitted through underground and aerial lines located in the Petition Area and surrounding areas. The existing overhead lines are recommended to be replaced with underground utilities, and the backbone of the electrical distribution will be expanded to areas with new facilities. Coordination with HECO, Hawaiian Telcom, and Spectrum will be conducted to minimize and/or avoid potential conflicts with any underground and overhead utility lines in the area. Proposed improvements, including staging areas, will be designed to avoid impacting any existing electrical and communication lines.

150. There is a cell tower located in the northwest corner of TMK: 9-1-069: 003 of the Petition Area. No impacts to the cell tower and its vehicular access is anticipated as a result of the Project.

CONFORMANCE WITH THE COASTAL ZONE MANAGEMENT PROGRAM

151. The Project generally conforms to the applicable objectives, policies, and guidelines of the Coastal Zone Management program under HRS chapter 205A.

CONFORMANCE WITH THE SUP GUIDELINES

152. The Project generally meets the SUP guidelines provided in HAR §15-15-95(c) as follows:

1. The use shall not be contrary to the objectives sought to be accomplished by chapters 205 and 205A, HRS, and the rules of the LUC.

Petitioner has elected to pursue an SUP for the Project to meet the FACD completion deadline of 2024. Although a district boundary amendment to the State Land Use Urban District would be a more appropriate vehicle for the development of wastewater treatment facilities, Petitioner is pursuing an SUP to expedite the land use approval process. Petitioner intends to file a district boundary amendment petition with the LUC to urbanize the Petition Area within three years following approval of the SUP Petition by the LUC.

2. The proposed use would not adversely affect surrounding property.

The Project will result in unavoidable short-term and long-term impacts to surrounding properties, which currently consist of vacant open space, golf courses, and a few single-family dwellings. These impacts are anticipated to be minor and will be mitigated via the implementation of BMPs and design features.

Air quality impacts in the form of odors will be addressed through upgrades in the odor control system. The ambient odor monitoring program to be implemented after the completion of the Project will demonstrate compliance with

the DOH ambient odor standard in terms of H_2S concentration levels.

There will be short-term increases in noise levels from construction activities, vehicles, and equipment. Petitioner is aware that it must comply with DOH noise regulations during construction and operation of the Project. Noise levels will remain below the maximum allowable levels.

The Project will change the visual character of the Petition Area. The additional structures will be designed in accordance with City and County development standards for height, setbacks, and landscaping to minimize visual impacts. Petitioner additionally plans to landscape public street frontages along Geiger Road and Roosevelt Avenue with canopy trees. Walls and fences screened with hedges and other landscape elements will be installed around the perimeter with a minimum of 10 feet of clearance on both sides of the fence lines. The setback will be planted with drought-tolerant plants, grasses, and native species wherever feasible. The HWWTP structures will remain below the 60-foot building height limit in conformance with the I-2 Heavy Industrial Zoning District standards of the City and County's Land Use Ordinance and setback a minimum of 50 feet from the perimeter property line unless waivers are granted from these standards. Site landscaping will also be incorporated to screen public views and improve the appearance of non-process support facilities.

The Project will comply with the new rules pertaining to the new August 16, 2017, water quality standards. Permanent BMPs will be implemented to retain stormwater onsite through a series of shallow infiltration basins in compliance with NPDES requirements. Petitioner intends to use surface flow conveyance measures, including vegetated swales that

are incorporated into the landscaped areas, to encourage stormwater treatment and infiltration to minimize non-point source pollution from stormwater runoff.

3. The proposed use would not unreasonably burden public agencies to provide roads and streets, sewers, water, drainage, and school improvements, and police and fire protection.

The Petition Area is situated along the north boundary of Geiger Road and Roosevelt Avenue and the southern portion of Renton Road. The Petition Area can currently be accessed from the north from Malio Street via Renton Road and from Geiger Road east of the Septage Receiving Station entrance.

The Project will involve the addition of three driveways into HTTWP as well as a bike lane along the eastern boundary. One of these driveways (DW5) will provide emergency access in the event disasters or disruption occurs on Geiger Road. Petitioner is seeking approval from the DOT for crossing the State-owned OR&L right-of-way at this driveway. All driveway accesses to the HWWTP will be designed to incorporate the highest pedestrian and bicycle safety measures.

Petitioner will incorporate various traffic management measures to mitigate traffic impacts in the area, including the provision of storage lanes and minimum storage of 50 feet and 125 feet for applicable intersections.

Traffic volumes during the 2021 and 2030 benchmark years used by the TIAR are anticipated to remain similar to existing conditions during the peak periods of both years with or without the expansion of the HWWTP. Petitioner intends to update the TIAR and provide a construction

management plan to identify the type, frequency, and routing of heavy trucks and construction-related vehicles.

Other measures that will be undertaken to address impacts from construction vehicles include the use of BMPs to prevent debris from falling on City and County roadways, placing construction notices on bus stops along adjacent roadways, and obtaining a street usage permit for any construction-related work that may require the temporary closure of any traffic lane on a City and County street.

Petitioner will provide and implement traffic demand management strategies, such as carpooling and ride sharing programs and bicycle and pedestrian incentives, to minimize the amount of vehicular trips for daily activities. All driveway accesses to the Petition Area will be designed with the highest pedestrian and bicycle safety measures.

The Project will be beneficial to the quality of the wastewater disposed. The HWWTP will be expanded to handle the increase in liquids and solids production generated by additional inflows and secondary treatment processing.

The Project will require improvements to the existing drinking water infrastructure. The existing service connection will be upgraded. An estimated 3 MGD of non-drinking water from the HWRF will be used by the Project. Petitioner will incorporate drought-resistant landscaping and an efficient irrigation system, such as drip irrigation, and moisture sensors will installed.

The Project will not adversely impact school facilities or services. Rather, the Project will provide positive benefits by providing secondary treatment of wastewater generated by student population increases in the sewer shed area.

Petitioner intends to upgrade several sections of the existing water pipes, and new pipes will be installed to accommodate the increased water demand needed for fire protection of the non-process support facilities. No adverse impacts to police services and operations are anticipated.

4. Unusual conditions, trends, and needs have arisen since the district boundaries and rules were established.

The FACD requires the development of the full secondary treatment and support facilities for the HWWTP by 2024. This represents an unusual situation since the district boundaries were first established, and the SUP is sought to comply with this requirement. Since the designation of the `Ewa region as the Second City on O`ahu, a majority of the development and population growth policies of the City and County have been directed to that region. The land use policies and the land use map of the `Ewa DP indicate that a wastewater treatment plant is located in this area, while agricultural uses are not supported. As a result of the City and County's policy to direct growth to the `Ewa region, there has been an increase in wastewater generation and treatment and disposal that has required the expansion of the HWWTP.

5. The land upon which the proposed use is sought is unsuited for the uses permitted within the district.

Following the use of the Petition Area for cattle ranching and sugarcane cultivation, the Petition Area eventually became fallow. In 1942, the Barbers Point Naval Air Station was commissioned on land directly west of the Petition Area. In time, the `Ewa region saw increased development for residential, civic, commercial, retail, and golf course uses consistent with the `Ewa DP. With increasing urban

development, the area became less attractive for agricultural uses. Presently, the Petition Area is isolated and is too small to support viable cattle production. The fact that the City and County acquired the Petition Area for the development of wastewater treatment facilities in compliance with the FACD (and is already built upon) together with the surrounding land uses and the land use policies of the `Ewa DP make it unlikely that the Petition Area will ever be used for agricultural production as it had been in the past.

The Petition Area represents the only land that Petitioner can use to satisfy the requirements of the FACD, and the Project will not result in the loss of any existing agricultural uses.

RULINGS ON PROPOSED FINDINGS OF FACT

Any of the proposed findings of fact submitted by any party not already ruled upon by the LUC by adoption, or rejected by clearly contrary findings of fact, are hereby denied and rejected.

Any conclusion of law herein improperly designated as a finding of fact should be deemed or construed as a conclusion of law; any finding of fact herein improperly designated as a conclusion of law should be deemed or construed as a finding of fact.

CONCLUSIONS OF LAW

1. The LUC has jurisdiction over this matter pursuant to HRS §205-6 and HAR §15-15-95 *et seq.*

2. Based upon the record of the proceedings before the Planning Commission, and pursuant to HRS §205-6 and HAR §15-15-95 *et seq.*, the LUC finds that the recommendation of the Planning Commission to approve a State SUP for the Petition Area, consisting of approximately 27.807 acres of land in the State Land Use Agricultural District at `Ewa, O`ahu, Hawai`i, identified as TMK: 9-1-069: 004 and portion of 003, generally meets the guidelines for determining an "unusual and reasonable use" within the State Land Use Agricultural District.

3. Article XI, section 1, of the Hawai`i State Constitution requires the State to conserve and protect Hawai`i's natural beauty and all natural resources, including land, water, air, minerals, and energy sources, and to promote the development and utilization of these resources in a manner consistent with their conservation and in furtherance of the self-sufficiency of the State.

4. Article XI, section 3, of the Hawai`i State Constitution requires the State to conserve and protect agricultural lands, promote diversified agriculture, increase agricultural self-sufficiency, and assure the availability of agriculturally suitable lands.

5. Article XII, section 7, of the Hawai`i State Constitution requires the LUC to protect Native Hawaiian traditional and customary rights. The State reaffirms and shall protect all rights, customarily and traditionally exercised for subsistence,

cultural, and religious purposes and possessed by ahupua`a tenants who are descendants of Native Hawaiians who inhabited the Hawaiian Islands prior to 1778, subject to the right of the State to regulate such rights.

6. The State and its agencies are obligated to protect the reasonable exercise of customarily and traditionally exercised Native Hawaiian rights to the extent feasible. *Public Access Shoreline Hawai`i v. Hawai`i County Planning Commission*, 79 Hawai`i 425, 903, P.2d 1246, *certiorari denied*, 517 U.S. 1163, 116 S.Ct. 1559, 134 L.Ed.2d 660 (1996).

7. The LUC is empowered to preserve and protect customary and traditional rights of Native Hawaiians. *Ka Pa`akai O Ka `Aina v. Land Use Commission*, 94 Hawai`i 31, 7 P.3d 1068 (2000).

DECISION AND ORDER

Having duly considered the complete record in this matter and the oral arguments presented by the Applicant in this proceeding, the LUC, through a motion having been duly made and seconded at a meeting conducted on November 21, 2017, in Honolulu, Hawai`i, and the motion having received the affirmative votes required by section 15-15-13, HAR, and there being good cause for the motion, hereby APPROVES the recommendation of the Planning Commission to approve the State SUP for the Petition Area, consisting of approximately 27.807 acres of land in the State Land Use

Agricultural District at `Ewa, O`ahu, Hawai`i, identified as TMK: 9-1-069: 004 and portion of 003, and approximately shown on Exhibit "A" attached hereto and incorporated by reference herein, subject to the following conditions:

1. Prior to building permit approval for any new structures within the Petition Area or within 180 days of the LUC's Decision and Order, whichever occurs first, Petitioner shall submit to the DPP for review and approval, the following:

   a. A survey map accompanied by a metes and bounds description of the approved SUP area. Both the metes and bounds survey map and description shall be signed and stamped by a registered professional land surveyor. A copy of the map and description shall also be provided to the LUC.

   b. A Lighting Plan with catalog cuts showing exterior fixtures are fully shielded and that the level of lighting in lumens is appropriate for its intended use. The Lighting Plan will consider dimming controls or being turned off during off peak hours.

   c. A timeline or phasing plan of the anticipated dates to obtain building permit(s) for demolition/construction work shall be prepared by Petitioner in a format acceptable to the DPP. The timeline should identify when the construction management plan,

traffic management plan, and updated TIAR will be submitted for review and approval. Updates to the timeline may be required by the DPP as needed.

2. Petitioner shall submit an updated TIAR that includes daily monitoring of hauling and delivery trucks on city roadways around the Petition Area and should be based on the projected staffing of the HWWTP in 2030. The TIAR shall be submitted to the DPP and the DOT for review and acceptance by 2021, with any recommended improvements provided at no cost to the State. Petitioner shall also submit a Construction Management Plan and a Traffic Demand Management Plan to the DPP for review and approval on a schedule acceptable to the DPP.

3. Petitioner shall apply for a State Land Use District Boundary Amendment for the 25.1-acre expansion area on Parcel 003 and the 2.702-acre Parcel 004 from the State Land Use Agricultural District to the State Land Use Urban District with the LUC within three years of the date of the LUC's Decision and Order approving the SUP. Requests for extension of this deadline shall be submitted to the Planning Commission prior to the expiration of the deadline. The Planning Commission with the approval of the LUC may grant a one-time extension to the deadline of up to three years for a total period of six years after the LUC's Decision and Order granting the SUP for Petitioner to apply for a State Land Use District Boundary

Amendment due to unforeseen circumstances that were beyond the control of Petitioner. Concurrently with the filing of the Petition for State Land Use District Boundary Amendment, Petitioner shall file with the LUC a motion to amend the Findings of Fact, Conclusions of Law, and Decision and Order issued in Docket No. A88-627 to bifurcate the urbanized portion of TMK: 9-1-069: 003 from the docket.

4. In the event that historic resources, including human skeletal remains, structural remains, cultural deposits, artifacts, sand deposits, or sink holes, are identified during demolition and/or construction activities, all work shall cease in the immediate vicinity of the find, the find shall be protected from additional disturbance, and the SHPD and O`ahu Island Burial Council shall be contacted immediately. Without any limitation to any other condition found herein, if any burials or archaeological or historic sites are discovered during the course of construction within the Petition Area, all construction activity in the vicinity of the discovery shall stop until the issuance of an archaeological clearance from the SHPD that mitigation measures have been implemented to its satisfaction.

5. Petitioner shall establish the Project by June 1, 2022. Project establishment shall be defined as the date a contractor has mobilized on site and started construction activities within the Petition Area. Requests for extension of this deadline shall be submitted to the Planning Commission prior to the

expiration of the deadline. The Planning Commission with the approval of the LUC may grant a one-time extension to the start deadline of up to three years, but not beyond June 1, 2025, due to unforeseen circumstances that were beyond the control of Petitioner.

6. This SUP will automatically expire and become null and void once a State Land Use District Boundary Amendment to the State Land Use Urban District is approved by the LUC for the Petition Area.

7. Major modifications to: (1) the approved site plan; (2) amendments to the conditions of approval; (3) change in approved uses stated herein, will be subject to the review and approval of the Planning Commission and if approved, subject to approval by the LUC. Minor modifications, including minor additions or relocations to accessory uses and structures in the approved area, are subject to review and approval by the Director of the DPP.

8. Approval of this SUP does not constitute compliance with other Land Use Ordinance or governmental agencies' requirements, including building permit approval. They are subject to separate review and approval. Petitioner will be responsible for insuring that all final plans for the Project approved under this SUP comply with all applicable governmental agencies' provisions and requirements.

9. On or before December 31 of each year that the SUP is in effect, Petitioner or its successor will file an Annual Report to the DPP and the LUC that demonstrates Petitioner's compliance with the conditions of the SUP.

10. Enforcement of the conditions of the SUP shall be pursuant to the Rules of the Planning Commission, including the issuance of an order to show cause as to the reason the SUP should not be revoked if the Planning Commission has reason to believe that there has been a failure to perform the conditions imposed herein.

11. Petitioner shall enter into an MOA between the DOT, Airport Division, and the DES with respect to avigation and wildlife management requirements to address safety concerns for flight operations at the Daniel K. Inouye International and Kalaeloa Airports. The MOA shall run with the land and shall be recorded with the Bureau of Conveyances of the State of Hawai`i, and if appropriate, the Office of the Assistant Registrar of the Land Court of the State of Hawai`i.

ADOPTION OF ORDER

This ORDER shall take effect upon the date this ORDER is certified by this Commission.

Done at Honolulu, Hawai`i, this 8th, day of December 2017, per motion on December 6 2017.

LAND USE COMMISSION
STATE OF HAWAI`I

APPROVED AS TO FORM

Deputy Attorney General

By
ARNOLD WONG
Chairperson and Commissioner

Filed and effective on:

12/ 8 /2017

Certified by:

DANIEL ORODENKER
Executive Officer

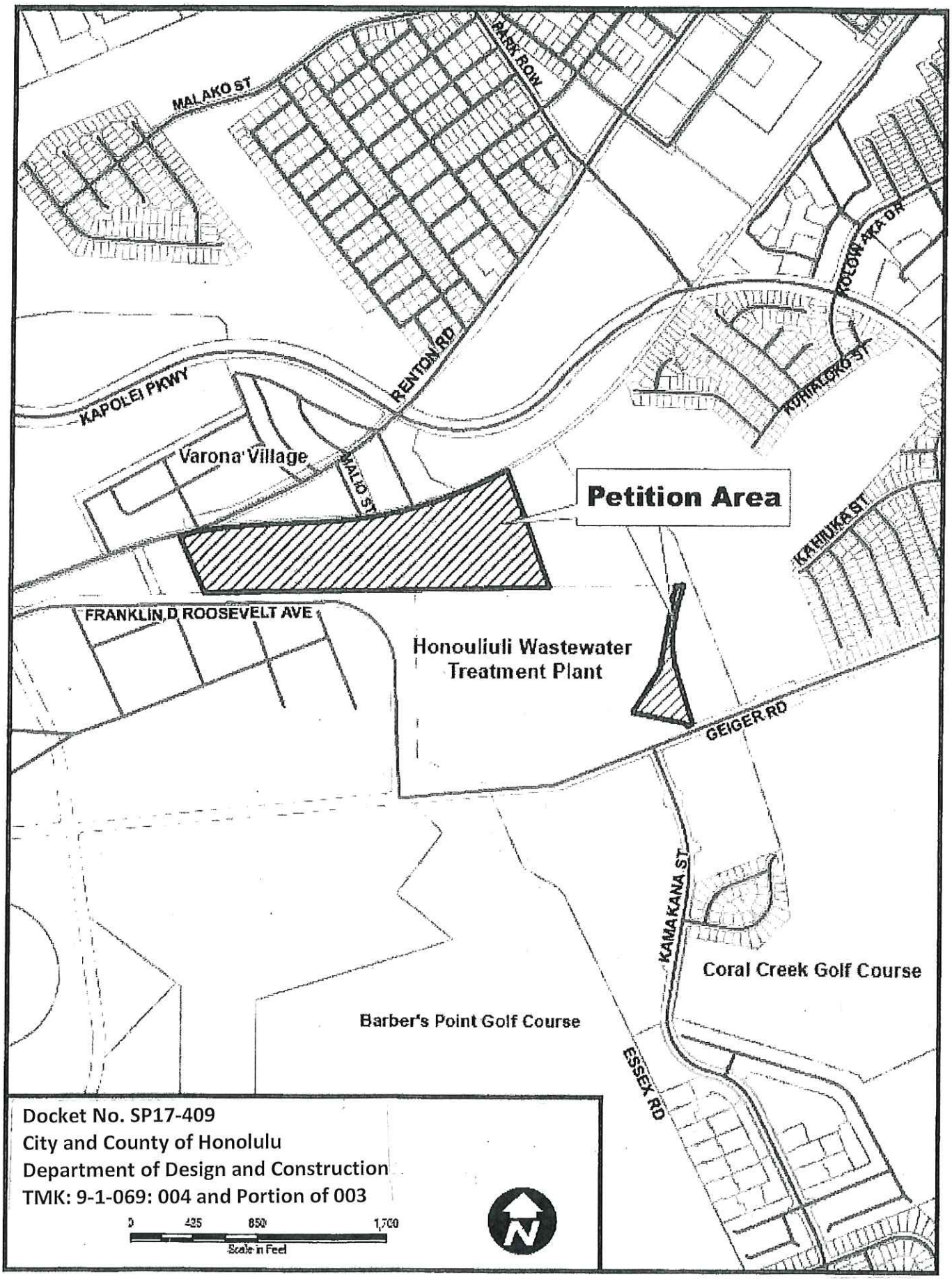
MALAKO ST
PARK ROW
KOLOA AKA DR
RENTON RD
KAPOLEI PKWY
KUHIALOKO ST
Varona Village
MALO ST
Petition Area
KAHUKA ST
FRANKLIN D ROOSEVELT AVE
Honouliuli Wastewater Treatment Plant
GEIGER RD
KAMAKANA ST
Coral Creek Golf Course
Barber's Point Golf Course
ESSEX RD
Docket No. SP17-409
City and County of Honolulu
Department of Design and Construction
TMK: 9-1-069: 004 and Portion of 003
0
425
850
1,700
Scale in Feet
N

Exhibit "A"

BEFORE THE LAND USE COMMISSION

OF THE STATE OF HAWAI`I

In The Matter Of The Petition Of CITY AND COUNTY OF HONOLULU DEPARTMENT OF DESIGN AND CONSTRUCTION For A Special Use Permit To Allow The Expansion Of The Honouliuli Wastewater Treatment Plant For The Development Of Full Secondary Treatment And Support Facilities Within The State Land Use Agricultural District At `Ewa, O`ahu, Hawai`i, Tax Map Key: 9-1-069: 004 And Portion Of 003	DOCKET NO. SP17-409 CERTIFICATE OF SERVICE

CERTIFICATE OF SERVICE

I hereby certify that a copy of the **FINDINGS OF FACT, CONCLUSIONS OF LAW, AND DECISION AND ORDER AND CERTIFICATE OF SERVICE** was served upon the following by either hand delivery or depositing the same in the U. S. Postal Service by regular or certified mail as noted:

Regular CITY& COUNTY OF HONOLULU DEPARTMENT
OF PLANNING & PERMITTING
650 South King Street
Honolulu, Hawaii 968I3
Attention: Acting Director Kathy Sokugawa

Regular Department of Design and Construction (DDC)
Director
650 South King Street, 11th Floor
Honolulu, Hawaii 96813

Regular STATE OF HAWAII
OFFICE OF PLANNING
P.O. Box 2359
Honolulu, Hawaii 96804-2359
Attention: Director Leo R. Asuncion, Jr.

Certified Department of Environmental Services (ENV)
Director
1000 Uluohia Street Suite 308
Kapolei, Hawaii 96707

Regular Department of Corporation Counsel
City & County of Honolulu
530 South King Street
Honolulu, Hawaii 96813

Regular Deputy Attorney General- Dawn Takeuchi-Apuna
Hale Auhau
425 Queen Street
Honolulu, Hawaii 96813

DATED: Honolulu, Hawai'i,
December 8, 2017.

DANIELORODENKER

Executive Officer