EXECUTIVE CHAMBERS
HONOLULU

DAVID Y. IGE
GOVERNOR

April 24, 2018

Hakim Ouansafi, Executive Director
Hawai'i Public Housing Authority
State of Hawai'i
1002 N. School Street
Honolulu, Hawai'i 96817

Dear Mr. Ouansafi:

Subject: Acceptance of the Mayor Wright Homes Redevelopment
Final Environmental Impact Statement

I hereby accept the Final Environmental Impact Statement for the Mayor Wright Homes Redevelopment, as satisfactory fulfillment of the requirements of Chapter 343, Hawai'i Revised Statutes. The economic, social, cultural, and environmental impacts that will likely occur, should this project be implemented, are adequately described in the statement. The analysis, together with the comments made by reviewers, provide useful information to policy makers and the public.

My acceptance of the statement is an affirmation of the adequacy of that statement under the applicable laws. I find that the mitigation measures proposed in the environmental impact statement will minimize the negative impacts of the project. Further, I find the discussion of unresolved issues and potential for subsequent environmental review to be sufficient.

In implementing this project, I direct the Hawai'i Public Housing Authority and its agent to perform these or comparable mitigation measures at the discretion of the relevant agencies. The mitigation measures identified in the environmental impact statement are summarized in the attached document.

With warmest regards,

David Y. Ige
Governor, State of Hawai'i

Attachment

c: Office of Environmental Quality Control

18-534

AGENCY
PUBLICATION FORM

Project Name:	Mayor Wright Homes (MWH) Redevelopment
Project Short Name:	Mayor Wright Homes Redevelopment
HRS §343-5 Trigger(s):	Use of State and/or County lands and funds. It will also include improvements and/or connections to, and/or easements across, State or County facilities and lands in relation to infrastructure improvements for public facilities, roadways, water, sewer, utility, drainage or other facilities. While the specific nature of each improvement is not known at this time, the EIS is intended to address all current and future instances involving the use of State and/or County lands and funds relating to the MWH Redevelopment.
Island(s):	O'ahu
Judicial District(s):	Honolulu
TMK(s):	1-7-029:003
Permit(s)/Approval(s):	Chapter 201H, Hawai'i Revised Statutes (HRS) Grubbing, Grading, and Stockpiling Permit; Building Permit for Building, Electrical, Plumbing, Water, Sidewalk/Driveway and Demolition work; Sewer Connection Permit; Subdivision; Street Usage Permit; National Pollutant Discharge Elimination System (NPDES) Permit; Noise Permit; Permit to Perform Work within a State Highway Right-of-Way; State Transit-Oriented Development (TOD) Development Plan Approval; Historic Site Review; Section 106 Review; National Environmental Policy Act (NEPA) Compliance; Mixed Finance Application: Evidentiary Submission(s); Demolition and Disposition Application; Subsidy Layering Review
Proposing/Determining Agency:	Hawai'i Public Housing Authority (HPHA)
Contact Name, Email, Telephone, Address	Mr. Hakim Ouansafi, Executive Director Hakim.Ouansafi@hawaii.gov Telephone: (808) 832-4682 Fax: (808) 832-4679 Hawai'i Public Housing Authority (HPHA) 1002 N. School Street Honolulu, HI 96817
Accepting Authority:	Governor, State of Hawai'i
Contact Name, Email, Telephone, Address	The Honorable David Y. Ige http://governor.hawaii.gov/contact-us/contact-the-governor/ Telephone: (808) 586-0034 Fax: (808) 586-0006 Governor, State of Hawai'i Executive Chambers, State Capitol 415 South Beretania Street Honolulu, Hawai'i 96813
Consultant:	PBR HAWAII & ASSOCIATES, Inc.
Contact Name, Email, Telephone, Address	Ms. Kimi Yuen, Principal kyuen@pbrhawaii.com Telephone: (808) 521-5631 Fax: (808) 523-1402 PBR HAWAII & Associates, Inc. 1001 Bishop Street, Suite 650

	Honolulu, Hawai‘i 96813

Status (select one)	Submittal Requirements
____ DEA-AFNSI	Submit 1) the proposing agency notice of determination/transmittal letter on agency letterhead, 2) this completed OEQC publication form as a Word file, 3) a hard copy of the DEA, and 4) a searchable PDF of the DEA; a 30-day comment period follows from the date of publication in the Notice.
____ FEA-FONSI	Submit 1) the proposing agency notice of determination/transmittal letter on agency letterhead, 2) this completed OEQC publication form as a Word file, 3) a hard copy of the FEA, and 4) a searchable PDF of the FEA; no comment period follows from publication in the Notice.
____ FEA-EISPN	Submit 1) the proposing agency notice of determination/transmittal letter on agency letterhead, 2) this completed OEQC publication form as a Word file, 3) a hard copy of the FEA, and 4) a searchable PDF of the FEA; a 30-day comment period follows from the date of publication in the Notice.
____ Act 172-12 EISPN (“Direct to EIS”)	Submit 1) the proposing agency notice of determination letter on agency letterhead and 2) this completed OEQC publication form as a Word file; no EA is required and a 30-day comment period follows from the date of publication in the Notice.
____ DEIS	Submit 1) a transmittal letter to the OEQC and to the accepting authority, 2) this completed OEQC publication form as a Word file, 3) a hard copy of the DEIS, 4) a searchable PDF of the DEIS, and 5) a searchable PDF of the distribution list; a 45-day comment period follows from the date of publication in the Notice.
____ FEIS	Submit 1) a transmittal letter to the OEQC and to the accepting authority, 2) this completed OEQC publication form as a Word file, 3) a hard copy of the FEIS, 4) a searchable PDF of the FEIS, and 5) a searchable PDF of the distribution list; no comment period follows from publication in the Notice.
__X__ FEIS Acceptance Determination	The accepting authority simultaneously transmits to both the OEQC and the proposing agency a letter of its determination of acceptance or nonacceptance (pursuant to Section 11-200-23, HAR) of the FEIS; no comment period ensues upon publication in the Notice.
FEIS Statutory Acceptance	Timely statutory acceptance of the FEIS under Section 343-5(c), HRS, is not applicable to agency actions.
____ Supplemental EIS Determination	The accepting authority simultaneously transmits its notice to both the proposing agency and the OEQC that it has reviewed (pursuant to Section 11-200-27, HAR) the previously accepted FEIS and determines that a supplemental EIS is or is not required; no EA is required and no comment period ensues upon publication in the Notice.
____ Withdrawal	Identify the specific document(s) to withdraw and explain in the project summary section.
____ Other	Contact the OEQC if your action is not one of the above items.

Project Summary

Provide a description of the proposed action and purpose and need in 200 words or less.

The Mayor Wright Homes Redevelopment Project will convert the existing Mayor Wright Homes into a new mixed-income, mixed-use transit-oriented development (TOD) that will be an integral part of the Kalihi-Pālama neighborhood. The project includes 2,448 residential rental units; two-thirds are targeted for affordable units including at minimum a one-for-one replacement of the existing 364 public housing units. Up to 80,000 square feet of commercial space is also proposed and may include a mix of retail, office space, and community services to support the new residential uses and complement the surrounding neighborhood. Open spaces are envisioned throughout including a new community center, parks, community gardens, and recreational decks. New internal streets will be designed as complete streets to support safe pedestrian and bicycle circulation and will also include traffic calming measures to slow vehicle traffic through the site. Convenient pedestrian and bicycle access will also be provided to the surrounding transit facilities. The Hawai‘i Public Housing Authority is partnering with MWH Partners, LLC under a master development agreement to redevelop the property with the goals of improving housing conditions for the existing residents as well as increasing the amount of affordable housing provided in this critical TOD neighborhood.

Mitigation Measures
Mayor Wright Homes Redevelopment
Final Environmental Impact Statement
Attachment to the Governor's Acceptance

For areas of concern, the following summarizes mitigation measures recommended or planned to minimize or mitigate potential adverse impacts. Although the proposed project is estimated at 2,448 units, the technical studies rounded up to the nearest order of magnitude of 2,500 units to conservatively provide analyses of maximum impact.

Climate – The MWH Redevelopment is not expected to have a significant effect on general regional climatic conditions. However, micro-climatic effects at the property and surrounding vicinity, such as temperature and wind changes may occur. Regarding temperature, any heat island effects that may arise with the intensification of development onsite will be mitigated with proposed landscaping and the use of lighter colors on new pavement and buildings, which reflect rather than absorb heat. Other design considerations include new street trees, rooftop gardens, and landscaped recreational decks. As detailed designs for the buildings are developed, wind and shadow studies will be performed on the proposed designs to determine if there are any impacts to surrounding properties particularly along Pua Lane or internally at outdoor recreational spaces. Adjustments to the structures early in the design phase will be done to mitigate any potential wind and/or shadow impacts. The full discussion regarding climate is provided in Section 3.1.

Geology and Topography – The site has been extensively modified over the last century and a half by improvements related to human inhabitation and agricultural activities and the most recent construction of the existing facilities in the 1950s. The proposed redevelopment will occur over the existing developed areas and will involve substantial grading and land disturbance, particularly if any subsurface parking is constructed. The development will maintain the existing grades at the property boundaries and Best Management Practices (BMPs) will be employed during construction to minimize impact to the neighboring properties. All grading operations will be conducted in full compliance with dust and erosion control requirements of the City and County of Honolulu Grading Ordinance including controlling dirt and debris on area roadways. However, there will be temporary dust and noise impacts to the residents who remain onsite and surrounding properties during construction. All construction activities will comply with all federal, State, and City requirements for grading and noise and fugitive dust control. Once construction is completed, no further impacts to the geology or topography of the site is anticipated. Section 3.2 of the Final EIS contains the full discussion on geology and topography.

Soils – The MWH Redevelopment will not reduce the inventory of agriculturally significant land as it has been urbanized for over a century. During the construction phases of the project, dust generation is anticipated and there is a potential for water-borne soil erosion. Construction activities will follow strict erosion control measures specified by applicable State and City regulations. Prior to issuance of a grading permit by the City and County of Honolulu, an erosion control plan and best management practices will be submitted describing the implementation of appropriate erosion control measures. In addition, a watering program will be implemented to minimize soil loss through fugitive dust emissions during construction. After construction, establishment of permanent landscaping will serve as long-term erosion control for unpaved areas with rainwater catchment proposed for storm water control. A National Pollutant Discharge Elimination System (NPDES) permit for Storm Water Associated with Construction Activity will be necessary since the entire site will be developed and it is roughly 14.8 acres in size and each development phase is anticipated to exceed an acre.

Groundwater Resources – No impacts to groundwater resources are expected from activities associated with the redevelopment and no injection wells are proposed for the project. During the EISPN public review period, BWS initially commented that the existing water system is presently adequate to accommodate the proposed project, which will draw water from an existing network of groundwater wells. A request for service was later submitted by the project engineers for the proposed multifamily units and 75,000 SF of commercial uses to which BWS responded that the existing water system would be adequate but remains subject to availability when the building permits are reviewed. If the additional 5,000 SF of commercial space is pursued, follow up will be required with BWS to determine if it can be served. Water conservation measures will be implemented wherever possible as a part of the project's sustainable design priorities including but not limited to the installation of WaterSense-labeled low flow or ultra-low flow faucets, toilets, and fixtures, rainwater catchment and reuse, drought-tolerant and xeriscape landscaping, use of non-potable water for landscape irrigation, and efficient automated irrigation systems such as drip systems and moisture sensors to prevent overwatering. Section 3.4.1 of the Final EIS contains the full discussion groundwater resources.

Surface Water Resources – The proposed MWH Redevelopment does not anticipate any impact to wetlands given the distance to the nearest wetlands. To minimize potential impacts to surface waters, the proposed project will adhere to all requirements of the City's newly adopted "Rules Relating to Water Quality," which went into effect on August 16, 2017, as well as implement low impact development (LID) design wherever feasible. The implementation of best practices for erosion control during construction and sewer connection to the municipal wastewater system will mitigate potential impacts to surface waters at the site or secondary impacts to downstream coastal resources. Section 3.4.2 contains the full discussion on surface water resources.

Nearshore Marine Resources – The project is not anticipated to directly impact nearshore marine resources as the project site is not directly adjacent to the shoreline. However, mitigation measures will be taken to mitigate any potential impacts from on-site activities during construction as well as storm water runoff from land-based pollutants. To prevent indirect or cumulative impacts on nearshore resources, BMPs will be implemented during and after construction to prevent erosion from the project into storm drains and the long-term build-up of sediments. Compliance with City's newly adopted "Rules Relating to Water Quality" and LID measures as discussed in Sections 3.4.2 and 4.9.3 of the Final EIS will also mitigate potential impacts to nearshore resources. Additional measures may include garbage enclosures to prevent leakage or runoff into storm water drainage areas and the installation of rain gardens and bioswales within landscaped areas to help capture potential pollutants prior to entering the project's drainage system. Section 3.4.3 of the Final EIS contains the full discussion on nearshore marine resources.

Flood Hazards – The MWH Redevelopment is not anticipated to increase the property's exposure to flooding. However, there will be a net increase in impervious surfaces for which the generation of addition runoff will be accommodated onsite with onsite catchment basins (Section 4.9.3). The property is in Zone X according to the Federal Emergency Management Agency's Flood Insurance Rate Map. This zone is a Non-Special Flood Hazard Area and is located outside of the 0.2 percent annual chance floodplain. All increases in runoff above current conditions will be retained onsite as required to meet City standards and onsite drainage will be designed to flow away from buildings towards landscaped areas, bioswales, and catchment basins. In addition, reuse of the captured and filtered runoff will be considered as much as feasible as part of the design of the project. The project designers will also check with the City's National Flood Insurance Program Coordinators during detailed design to make sure the proposed redevelopment meets local flood ordinances and design standards. The full discussion is provided in Section 3.5.1 of the Final EIS.

Tsunami – The portions of the site located in the Extreme Tsunami Zone will be required to be evacuated to safe areas on the mauka side (towards the mountains) of the site or further mauka to North Vineyard Boulevard. Mitigation for the project may also include designing the structures to be flood-proof particularly on the lower floors and built to resist the effects of a tsunami and storm surges. Essential equipment should also be located on higher floors. Vertical evacuation is recommended for multistory buildings such as condos or hotels with a large concrete frame that is built to seismic standards, particularly those taller than six stories (FEMA, 2009). Section 3.5.2 of the Final EIS contains the full discussion on tsunami hazards.

Sea Level Rise and Climate Adaptation – Sea level rise of one meter is not anticipated to have significant, immediate impacts to flooding at the project site. However, adaptation and resiliency measures should be considered for improving the safety of future residents and longevity of the proposed facilities, landscaped areas, and essential infrastructure serving the project such as water, sewer, electrical, drainage, and roadways as secondary impacts from global climate change such as extreme weather events or worsening SLR may still impact the project. The MWH Redevelopment is most at risk of damage from extreme weather events and the loss of service of critical infrastructure. The project including all structures, landscaping, and vital infrastructure should be designed to withstand water inundation and extreme weather events wherever feasible. Essential equipment will also be located on higher floors wherever feasible. Consideration will also be given to some of the strategies recommended by the U.S. Army Corps of Engineers (USACE, 2014). Section 3.5.3 of the Final EIS contains the full discussion on sea level rise and climate adaptation.

Hurricanes – Like the mitigation measures proposed for the project to withstand extreme weather events generated due to global climate change and SLR, the project should be designed to provide a safe environment for future residents and improve longevity and resiliency of the proposed facilities, landscaped areas, and vital infrastructure serving the project such as water, sewer, electrical, drainage, and roadways. It will implement hazard mitigation measures where appropriate, such as hardening of the facility against hurricanes, flooding, and high winds. In the event of a hurricane, the potential impact of destructive winds and torrential rainfall will be mitigated through compliance with the 2006 International Building Code for any new construction. Essential equipment will also be located on higher floors wherever feasible to avoid inundation from storm surges. Section 3.5.4 of the Final EIS contains the full discussion on hurricane hazards.

Wildfires – While the hazard of wildland fires exists, the urbanized area in which the property is located, minimizes risk of the rapid spread of these fires. Proper ongoing landscape maintenance of the proposed facilities will also mitigate the potential risks. Section 3.5.5 of the Final EIS contains the full discussion on wildfire hazards.

Earthquakes – Older buildings such as those existing onsite may be susceptible to damage from earthquake events as building standards have been improved since they were constructed in the 1950s. The proposed project will be replacing the existing structures with new structures built to current standards in the Uniform Building Code. This is anticipated to improve safety for residents and resiliency of the structures due to potential damage from earthquakes. Section 3.5.6 of the Final EIS contains the full discussion on earthquakes.

Flora and Fauna – The MWH Redevelopment is not anticipated to have a significant adverse impact on any Federal or State of Hawai'i listed Threatened, Endangered, or Candidate plant or wildlife species or their habitats, as none were found on the property nor are there any designated critical habitats onsite. Additionally, the property is located in an urban and highly developed area that is far from any natural or critical habitats. The incorporation of native coastal and lowland plant species is recommended and will be considered in the detailed landscape design of the project.

It is also recommended that all non-native plants selected and used in the detailed landscape design of the project be evaluated using the Hawai'i Pacific Weed Risk Assessment tool. In addition, it is recommended that the landscaping plants used in the project should be from O'ahu to avoid the importation of unwanted invasive species, pests, diseases, fungi, and other inadvertent introductions that could negatively impact O'ahu's native ecosystems and species. To minimize impacts to native seabirds such as Hawaiian petrels and Newell's shearwaters that may fly over the project, outdoor lighting will be fully shielded and downward facing. In addition, floodlighting will not be permitted except for emergencies and no nighttime construction work will occur since residents will be living on the property during construction and construction is anticipated to occur in phases. Although no manu o kū or white tern (*Gygis alba rothschildi*) were seen during the survey, their range and nesting area in urban Honolulu is growing according to the State Department of Land and Natural Resources (DLNR) Division of Forestry and Wildlife (DOFAW). The project is also proposing to install more trees along the streets and within the project site, which may encourage the area's use by the manu o kū. The following protocols for surveying trees for the manu o kū and their eggs should be followed prior to tree trimming or removal. If there are no known manu o kū nests in the project area when work on any trees commences, then a quick survey of the trees should still be done before proceeding with any tree trimming or removal. There is an arborists guide titled, "White Tern Field Protocols" (VanderWerf, 2017) available from DOFAW and the DOFAW O'ahu Branch Wildlife Program should be contacted if there are any manu o kū or eggs seen onsite prior to the commencement of work. At the time when project work commences and there are known manu o kū nests in the project area, then a qualified individual (e.g., wildlife biologist) should make a more in-depth assessment and provide a timeframe in which tree trimming or removal can be done. The work should only proceed outside the nesting period, which can occur year-round, so there needs to be site-specific monitoring once work is anticipated to start. Sections 3.6 and 3.7 (Flora and Fauna) of the Final EIS contain the full discussion.

Archaeological Resources – An archaeological literature review and field survey including trenching, identified four historic land use and filling activities at the site from pre-Contact times (prior to the early nineteenth century) through present day. No further work was recommended by the archaeologist for the four newly identified historic properties, as they have been determined to be sufficiently documented under State and Federal criteria. However, it is recommended that a second round of trench excavations be completed under the existing buildings once they are demolished to ensure that there are no as-yet undiscovered significant archaeological resources or burials in areas that were unable to be explored beneath existing buildings. Because this cannot be accomplished until the existing buildings are demolished, the potential archaeological impacts and any related mitigation are identified as an unresolved issue for the EIS. Section 4.1.1 of the Final EIS contains the full discussion on archaeological resources.

Historic Architectural Resources – The existing buildings within the property were previously identified as being eligible for listing in the Hawai'i or National Registers of Historic Places under Criterion "A" for its association with significant historic events. In this case, it involves MWH's relationship with the development of public housing in Hawai'i. In a pre-consultation meeting with SHPD and the Historic Hawai'i Foundation in January 2017, preliminary suggestions for mitigation for the anticipated impact to onsite properties included collecting oral histories from current and former MWH residents and incorporating educational information or materials regarding the history of the site into the design of the new facilities. The development team is very willing to honor the history of MWH and the diverse cultures and peoples who inhabited the site into the project design and will continue to work with SHPD on appropriate mitigation of the anticipated impacts.

With regards to potential impacts to surrounding historic properties and the experience of passersby within the neighborhood, the proposed master plan sets back the high-rise towers from the street frontage — the intent is the new design will be compatible with the existing neighborhood fabric and help mitigate impact to historic properties near the project. SHPD accepted the RLS in their letter dated August 25, 2017, which has been added to Appendix C. However, consultation with the State Historic Preservation Division on appropriate mitigation measures that will be required for architecturally historic properties both on and off the property are ongoing. Therefore, historic architectural resources are also identified as an unresolved issue that will continue to be mitigated with design and implementation of the proposed project. Section 4.1.2 of the Final EIS contains the full discussion on historic architectural resources.

Cultural Resources – According to the information provided by former and current residents of MWH, a potential cultural impact from the project may result from the inability of different ethnic groups to participate in culturally important activities, which they are currently restricted from as well. These impacts include, but are not limited to, the ability for groups to hold and participate in culturally significant gatherings and festivals, growing traditional crops and other foods for their own use, and engaging in any customary outdoor activities that require access to open space. The Cultural Impact Assessment (CIA) concluded that the extensive cultural information gathered for the MWH warrants recommendations for cultural and community elements of the redevelopment project. The following recommendations for the redevelopment of MWH are based on information from formal interviews conducted for the CIA as well as previous oral-history projects:

- Include places where the tenants can plant small gardens to live in the Hawaiian lifestyle they grew up with, and to be allowed to grow culturally-significant plants such as ti leaf and others (e.g., bananas, papaya, ginger, plumeria, etc.).
- Include a funding stream whereby community programs, events and activities are designed and implemented that bring people of different ethnic/cultural groups together, and that provide safe and healthy activities for kids and teens. These programs, events and activities could include traditional and customary (cultural) practices that highlight the different groups that call MWH their home. The idea here is to help build community.
- Develop a community-based garden program at the redeveloped MWH property so that residents can benefit from the raising and eating of fresh food. Well into the 20th century, major portions of the MWH property were still being used to grow food, including taro and other crops. Historic maps from as late as the 1920s show this continuing pattern of land use. Therefore, this recommendation about starting a community garden project or program would be consistent with the history of this place.

The proposed MWH conceptual master plan includes a mix of community spaces where people can gather, recreate, and celebrate. At the heart of the plan is a community park flanked by the community center and a multipurpose hale where community activities can be held as well as informal gatherings for family and friends. In addition, the initial landscape concept incorporates several community gardens and raised food gardens throughout the site where future residents can grow their own food. Culturally significant plants and lei plants will also be considered in the landscape design of the project so the plantings can serve multiple purposes of being useful as well as providing shade, comfort, and aesthetics.

MWH Partners, LLC are also committed to providing onsite community and social services to support future residents as well as partner with neighboring service providers to complement the services already available in the larger community. These may include and are not limited to child care and afterschool activities, education and job training, elder care and support, food distribution and summer meals, and resident associations.

Also, community festivals and celebrations may be held to commemorate the holidays and provide opportunities where the different ethnic groups can share their cultural traditions with other residents in the community. The MWH Partners, LLC is preparing a Human Capital Plan to guide them in creating a community that enhances the quality of life for its residents, which will continually be updated in their ongoing management of the site. Section 4.2 of the Final EIS contains the full discussion of cultural resources.

Noise – In the short term, construction activities for the redevelopment are expected to have temporary increases in ambient noise levels in the project area on an intermittent basis. Noise levels would fluctuate depending on the construction phase and type of construction activity (e.g. demolition, site preparation, pile driving, if necessary, etc.), equipment type and duration of use, distance between the noise source and receptor, and presence or absence of noise attenuation barriers and require mitigation. Construction noise levels near the project site would exceed the allowable noise levels listed by DOH *Noise Reference Manual Oahu Edition* for local levels as well as the allowable noise levels listed by the HAR for state-wide levels. Construction activity would typically occur from 7:00 a.m. to 6:00 p.m., Monday through Friday and 9:00 a.m. to 6:00 p.m. on Saturdays, Sundays, and holidays, which would help to minimize potential adverse effects to residents and neighboring properties from construction noise and vibration.

In addition, to minimize the potential adverse effects related to construction noise, the following is recommended:

- The project applicant shall obtain a noise permit associated with exceeding a noise level of 78 dBA L_{eq} as discussed in the Noise Reference Manual O'ahu Edition.
- The project applicant shall obtain a noise permit associated with exceeding the maximum permissible noise levels discussed in the Hawai'i Administrative Rules.
- The construction contractor shall use specialty equipment with enclosed engines and/or high-performance mufflers.
- The construction contractor shall locate equipment and staging areas as far from noise-sensitive receivers as practicable.
- The construction contractor shall limit unnecessary idling of equipment.
- The construction contractor shall install temporary noise barriers to enclose stationary noise sources, such as compressors, generators, laydown and staging areas, and other noisy equipment.
- Prior to the commencement of construction activities, notification shall be provided to the on- site residential uses that discloses the construction schedule, including the various types of activities and equipment that would be occurring throughout the duration of the construction period.
- A "noise disturbance coordinator" shall be established. The noise disturbance coordinator shall be responsible for responding to any local complaints about construction noise. The noise disturbance coordinator shall determine the cause of the noise complaint (e.g., starting too early, bad muffler, etc.) and shall be required to implement reasonable measures such that the complaint is resolved. All notices that are posted at the construction site shall list the telephone number for the noise disturbance coordinator.

For ongoing operations, the noise anticipated to be generated from project operations once construction is complete will be primarily due to traffic. The project's contribution to mobile noise sources were calculated for the years 2022 (50 percent build out) and 2028 (full build-out). The proposed project's maximum contribution to increasing noise levels in the year 2022 would occur at NAL 3, with an increase of 1.7 dBA L_{dn} above future without project noise levels. The maximum increase for the year 2028 would occur at NAL 2, with an increase of 1.4 dBA L_{dn} above future without project noise levels.

The proposed project's contribution to mobile source noise levels would be would be less than 3 dBA for both study years 2022 and 2028 and would not result in an adverse effect related to increasing noise levels at on-site or off-site sensitive receptors.

In addition to traffic noise, the HART is anticipated to be operational in the year 2025 and will operate approximately 660 feet to the southwest of the project site along Dillingham Boulevard and Ka'a'ahi Street. The Federal Transit Administration has stated that light rail transit projects have no potential to impact sensitive land uses and distances greater than 350 feet away and therefore noise from the future rail operations are not anticipated to adversely impact the MWH Redevelopment project.

Stationary noise generated at the site would primarily be generated from the operation of ventilation and air conditioning systems. Although the precise locations of these systems are unknown until detailed site plans are created, the described stationary noise sources may potentially exceed the maximum permissible sound levels as detailed in the HAR. Therefore, mitigation will include requiring enclosures for mechanical equipment, such that noise levels do not exceed the maximum permissible noise levels listed in the HAR. Section 4.3 of the Final EIS contains the full discussion on noise.

In its comment letter on the EISPN, the State Department of Transportation noted that the project site is located approximately 2.6 miles from the end of runway 26R of the Daniel K. Inouye International Airport (HNL) and is therefore within the 55-60 day-night average sound level (DNL) contour of the 2008 (Forecast) Five-Year Noise Exposure Map. The Federal Aviation Administration (FAA) has published land use compatibility guidelines that can be used to assess potential noise impacts to new development projects. The guidelines indicate that residential land uses exposed to aircraft-related noise levels of less than 65 dBA Ldn are compatible with the ambient noise environment. The current HNL noise contours indicate that the project site is in a compatible noise environment related to aircraft activities and although single event noise from aircraft operations exceeding 65 DNL may be audible at the project site, depending on multiple variables, including time of day and type of plane, single event noise levels as measured at the site were not found to be excessive during day or night time periods. In addition, it is anticipated that interior noise levels would be consistent with applicable HUD standards for new residential development and would therefore help mitigate any single event noise generated by aircraft activities.

Vibration – Temporary vibration impacts will occur during construction. Construction activity can result in varying degrees of ground vibration based on the equipment and methods used for construction. Several buildings abut the project site and several potentially sensitive buildings near the site were identified. Site visits performed by TAHA suggest that the majority of these buildings were constructed using engineered concrete and masonry. Federal guidance indicates that such buildings can withstand up to 0.3 inches per second without experiencing damage. The use of construction equipment that would produce high levels of vibration, such as large bulldozers, jack hammers, and load trucks, could exceed this criterion if occurring within 11 feet of the buildings. However, the neighboring Fujii Store and Tenement Houses would be held to the vibration standard for historic resources, which federal guidance indicates that such buildings can withstand up to 0.12 inches per second without experiencing damage. Vibration levels from construction equipment such as a large bulldozer would be 0.0039 at 200 feet and there is no potential for vibration to damage to historic structures located at a distance of 22 feet or greater. However, the Fujii Store and Tenement Houses are adjacent to the project site and could experience vibrations levels above the 0.12 inches per second threshold and therefore require additional mitigation as noted below.

In order to mitigate construction-related vibration impacts, construction activity should typically only occur from 7:00 a.m. to 6:00 p.m., Monday through Friday and 9:00 a.m. to 6:00 p.m. on Saturdays, Sundays, and holidays. In addition, to help minimize potential adverse effects associated with damage to adjacent buildings, mitigation measures for construction vibration will include the following for the sensitive structures located close to proposed construction activities:

- Prior to issuance of a grading/shoring permit, a qualified structural engineer shall survey the existing foundation and structural integrity of off-site buildings that will be located within 11 feet of large bulldozers and similar vibration-generating equipment and at the Fujii Store and Tenement Houses. The survey shall be submitted to the appropriate mitigation monitor. After vibration causing activities, the qualified structural engineer shall issue a follow-on letter describing damage, if any, to the adjacent buildings. The letter shall identify recommendations for any repair, and certify the completion of any repairs as necessary to confirm the integrity of the foundation and structure of the adjacent buildings.
- If the construction plans call for high-vibration construction activities being performed close to structures, the contractor may be required to use alternative procedures that produce lower vibration levels. Examples of high-vibration construction activities include the use of pavement breakers, vibratory compaction, and hoe rams next to sensitive buildings. Alternative procedures shall include the use of non-vibratory compaction in limited areas and concrete saws in place of jackhammers or pavement breakers for demolition.
- If piles are required to support new structures, pile driving shall be prohibited in places of cast-in-drilled-hole (CIDH) piles or caissons.

There are also several historic structures near the project site, including the Pālama Theater located approximately 200 feet to the west, Kaumakapili Church located approximately 420 feet to the northwest, Tamashiro Market located approximately 690 feet to the northwest, and O'ahu Railway and Land Company Depot – Honolulu Station located approximately 800 feet to the southwest. Federal guidance indicates that such buildings can withstand up to 0.12 inches per second without experiencing damage. Vibration levels from construction equipment such as a large bulldozer would be 0.0039 at 200 feet and there is no potential for vibration to damage to historic structures located at a distance of 22 feet or greater.

During ongoing operations once construction is complete, the proposed project would not include significant stationary sources of ground-borne vibration. Operational ground-borne vibration in the project vicinity would be generated by vehicular travel on the local roadways. However, like existing conditions, project-related traffic vibration levels would not be perceptible outside the roadway right-of- way. Therefore, the proposed project would not result in adverse effect related to the operational vibration. Section 4.4 contains the full discussion on vibration.

Air Quality – Prior to construction of the proposed project, existing structures on the project site would be demolished and the associated materials would be removed. The existing structures on the project site contain lead-based paint and asbestos, and all demolition projects within the State of Hawai'i must notify the Department of Health (DOH) Asbestos Abatement Office of the Noise, Radiation and Indoor Air Quality Branch prior to commencement of activities. Accordingly, demolition activities associated with the proposed project would be subject to the requirements of Title 11 Hawai'i Administrative Rules (HAR), DOH, Chapter 501, "Asbestos Requirements." The proposed project would complete an Asbestos Renovation/Demolition Survey to determine the potential for the presence of asbestos-containing materials (ACM). Additionally, all demolition and construction activities would adhere to the provisions of the Hawai'i DOH Construction and Demolition (C&D) Waste Disposal General Guidance to ensure proper handling of potentially contaminated materials.

Construction activity would generate emissions using heavy-duty construction equipment and through vehicle trips generated by construction workers traveling to and from the project site. Fugitive dust emissions would primarily result from demolition and site preparation (e.g., grading) activities. Nitrogen oxide emissions would primarily result from the use of construction equipment.

Construction emissions can vary substantially from day to day, depending on the level of activity, the specific type of operation and, for dust, the prevailing weather conditions.

Construction activity would occur over the entire 14.8-acre project site. A project site of this size would typically require an equipment inventory including a maximum of two scrapers and two graders to level the surface. This equipment inventory would potentially disturb up to three acres of the project site on a given day. Using USEPA AP-42 emission factors, it was determined that construction activity would generate up to ten pounds per day of fugitive dust emissions. Construction emissions would be temporary and are not considered adverse.

The project will not result in adverse effects related to air quality; however, demolition and construction activity may result in temporary emissions from vehicle exhaust and fugitive dust emissions from ground disturbance. All activities will comply with the relevant provisions of Section 11-60.1-33, HAR, on fugitive dust. Therefore, the following control measures are recommended to reduce fugitive dust emissions:

- The construction contractor shall use water or suitable chemicals to control fugitive dust in the demolition of any existing buildings or structures, construction operations, the grading of roads, or the clearing of land.
- The construction contractor shall apply asphalt, water, or suitable chemicals on roads, material stockpiles, and other surfaces which may result in fugitive dust. Ensure an adequate water source exists at the site prior to start-up of construction activities.
- The construction contractor shall cover all moving, open-bodied trucks transporting materials which may result in fugitive dust.
- The construction contractor shall maintain roadways in a clean manner.
- The construction contractor shall promptly remove earth or other materials from paved streets which have been transported there by trucking, earth-moving equipment, erosion, or other means.

The following control measures are recommended to reduce pollutant exposure to residences during the construction activities:

- Staging areas shall be located away from on-site residential land uses to create a buffer and alleviate potential nuisance problems.
- On-site electricity shall be obtained from the electrical grid rather than temporary diesel or gasoline generators.
- Equipment and vehicle engines shall be maintained in good condition and in proper tune per manufacturers' specifications.
- All construction equipment and delivery vehicles shall be turned off when not in use or prohibit idling more than five minutes. Haul trucks that stage waiting to be called to remove dirt from the site shall not be allowed to idle while queuing.
- Additional care should be taken by contractors to minimize fugitive dust from materials being hauled to or away from the project site and mud and debris tracked onto adjacent roadways.
- Contractors should also develop a dust control management plan for the different phases of construction, focusing on minimizing the amount of dust-generating materials and activities,

centralizing on-site vehicular traffic routes, and locating potential dust-generating equipment in areas of the least impact.

- Provide adequate dust control measures during weekends, after hours, and prior to daily start-up of construction activities.

Once construction is completed, the proposed project also does not include a source of direct pollutant emissions. However, indirect sources of emissions include off-site electrical generation activities (for those that are non-renewable) and tailpipe emissions from on-road vehicles and the potential air quality impacts related to the proposed project is therefore analyzed on those sources. Based on the multimodal transportation assessment (MTA) completed for the proposed project, full buildout would introduce approximately 10,085 new daily trips to the project area, including 578 trips during the AM peak hour and 959 trips during the PM peak hour. The maximum peak hour intersection volume in 2028 following full buildout would be approximately 5,069 vehicles at the intersection of North King Street, Dillingham Boulevard, and Liliha Street. Based on carbon monoxide (CO) dispersing models developed to analyze traffic-related impacts, it is projected that the roughly 5,000 vehicles would generate a maximum 1-hour CO concentration of approximately 2.3 ppm. The applicable State 1-hour average CO ambient air quality standard is 9.0 ppm. Therefore, the maximum intersection volume in the project area following full buildout of the proposed project is well below the volume that could potentially exceed the State 1-hour standard for CO.

Additionally, the maximum background 1-hour CO concentration measured near the project area was 1.4 ppm in 2015, which is approximately one-sixth of the applicable State 1-hour standard for CO. According to the MTA, the maximum existing peak hour intersection volume in the project area is 4,439 at the intersection of North King Street, Dillingham Boulevard, and Liliha Street. Under the 2028 full buildout conditions, peak hour volumes at this intersection would be 5,039 vehicles, which represent an increase of approximately 14 percent relative to existing conditions. This incremental increase in maximum peak hour traffic volumes would not have the potential to increase maximum 1-hour CO concentrations in the project area to exceed state standards. Therefore, implementation of the proposed project would not result in potential CO hot spots within the project area.

The proposed project would result in indirect greenhouse gas (GHG) emissions through electricity generation at an off-site facility. The project will require a maximum of 9.7 megawatts of power which would lead to indirect generation of GHG emissions. Hawai'i is committed to renewable energy production, which does not generate GHG emissions. In 2016, 25.8 percent of energy produced by the Hawaiian Electric Companies (HECO) was renewable. Hawai'i has enacted a law that mandates that all of the State's electricity comes from renewable sources no later than 2045. As the HECO continues to achieve those goals, project-related indirect emissions would proportionally decline until 2045, or when the State achieves a fully renewable supply of energy.

Project emissions have been conservatively estimated using existing generation information and emission rates. The 2015 Hawai'i State Electricity Profile indicates that approximately 1,600 pounds of carbon dioxide is emitted per megawatt-hour of electricity used. The analysis assumes that the average daily power use, including nighttime hours, at the project site would be 50 percent of the maximum power load. The indirect emissions from electricity use would be approximately 11,129 metric tons per year. These emissions would quickly decrease through 2045 as the State becomes fully reliant on renewable energy. Hawaiian Electric has stated there is existing capacity to service the project. The project would not interfere with the development of clean energy supplies and would not include a substantial on-site source of GHG emissions.

The proposed project would locate in-fill development near existing public transportation and shopping areas, thereby reducing mobile source emissions compared to development located outside of urban areas. For example, the trip generation analysis prepared for the proposed project anticipates that walking/biking trips would reduce passenger vehicle trips by 10 percent, residential-related transit trips would reduce passenger vehicle trips by 30 percent, and retail related transit trips would reduce passenger vehicle trips by 15 percent at full buildout. Energy conservation features and in-fill development benefits would ensure that the proposed project would not result in a significant GHG impact.

The proposed project would introduce new residential receptors to the project area that could potentially be adversely affected by existing sources of air pollution. For instance, the H-1 Freeway is located approximately 1,000 feet northeast of the project site. According to the most recently available data obtained by the State in 2012, annual average daily traffic on the segment of the H-1 Freeway in closest proximity to the project site was approximately 174,000 vehicles. Research conducted in the State of California determined that air pollution near freeways decreased by approximately 70 percent at a distance of 500 feet from the source, prompting the California Air Resource Board (CARB) to publish a recommended screening distance of 500 feet for siting new residences in proximity to freeways without mitigation. The proposed project would be located at a distance from the H-1 freeway equal to twice the California recommended screening threshold. Additionally, air pollution generated by mobile sources on the H-1 freeway would diminish by more than 80 percent before reaching the proposed project. Therefore, long-term habitation of future residences on the project site would not have the potential to expose occupants to unacceptable levels of air pollution and no adverse effects would occur.

The project site is located approximately 2.6 miles from the end of runway 26R of the Daniel K. Inouye Honolulu International Airport. Air quality near the proposed project is generally considered to be good due to the presence of northeasterly trade winds that tend to disperse pollutants seaward. Air pollutant emissions from the airport are typically blown offshore in the opposite direction of the proposed project and do not pose a significant exposure concern for future residents. Section 4.4 contains the full discussion on air quality.

Visual Resources – The four towers (ranging from 260 to 380 feet in height) on lower (four to six stories) and mid-rise podiums (up to nine stories) proposed for the MWH Redevelopment may impact distant panoramic views of natural landmarks such as Lē'ahi Crater, Pūowaina Crater, Āliamanu Crater, and the Ko'olau Mountain Range from certain viewpoints. The visual impacts from the project, however, must take into consideration the existing highly urban nature of this area and viewshed with taller buildings in Downtown Honolulu and surrounding areas extending up to about 430 feet in height. Closer to the project, the impact to mauka-makai views from Sand Island and other viewpoints should also take into consideration the urban context surrounding the property. Residential towers in the vicinity of the project area, on Liliha Street and on A'ala Street range in height from 15 to 23 stories. While views to specific landmarks from various viewpoints within the Primary Urban Center may be altered by the proposed project, the overall urban character of this viewshed will not be significantly altered.

The current master plan's mix of varied building heights and massing creates a more appealing urban form when viewed from a distance and from the nearby streetscape. It breaks up the vertical mass of the buildings, as opposed to a concept where all the buildings are shorter than the towers in height, but are taller along the street frontages and appear larger and more massive.

The plan attempts to mitigate visual impacts, particularly to mauka-makai views and historic properties, located closer to the project by:

- Providing fewer towers and more space between the towers to preserve distant views;
- Activating the street level views with commercial uses and lower- and mid-rise residential buildings along the streets;
- Creating a more interesting skyline by varying building heights;
- Setting the towers back from the street frontage to minimize view of them from the street level; and
- Orienting the towers with their narrower sides facing the mauka-makai sides of the site and their wider side facing east-west to preserve mauka to makai views.

Section 4.5 of the Final EIS contains the full discussion on visual resources.

Population and Housing – The proposed project will increase the number and density of residents living at the site. However, the project is not anticipated to have a significant impact on overall population of O'ahu as it is intended to fill the existing housing need for existing residents and not expected to attract new residents to O'ahu and Hawai'i. At the neighborhood level, it is estimated that many of the new MWH residents will come from the surrounding Kalihi-Pālama neighborhood where they are currently living with family and friends, or in less desirable housing. It is also possible that the new MWH residents will be moving from similar situations elsewhere on O'ahu with the desire to move closer to the urban core of Honolulu to reduce their commute times and be able to walk or bike to work. This would have positive secondary impacts including reducing impacts to regional traffic, vehicle emissions, and fuel consumption, and increasing individual's economic efficiencies by reducing the amount of money spent on transportation and redistributing that spending to other purposes such as housing, child care, and nutrition. The redistribution of many current O'ahu residents to the new residences at MWH therefore may have an overall positive impact on the environment and social and financial wellbeing of new residents.

The construction of 2,448 units for the MWH Redevelopment will produce a net increase of 2,084 rental units, which will help to address housing shortages in the region, particularly for residents with low- to moderate-income levels as two-thirds of the units are targeted for affordable units, which would be affordable to those earning 120 percent or below AMI. The project is estimated to house approximately 7,300 people at full build-out, an increase of approximately 5,900 people over current conditions. With the completion of the first phase, approximately 1,760 people will be living in the newly constructed buildings and an estimated 1,035 will still be living in the existing MWH buildings. At the end of the redevelopment process, approximately 1,427 persons would be in public housing units in the new structures under HUD rules and those instituted by MWH Partners, LLC for public housing rentals, while 5,871 persons - about 80 percent of the on-site resident population - would be in other units (from Section 8 rentals to market rentals). While significantly increasing the density of people living within this block, the additional rental housing units will help provide much needed rental housing for thousands of residents close to job centers and public transportation in the urban core of Honolulu. Section 4.7.1 contains the full discussion on population and housing.

Economic and Public Fiscal Impacts – The project is anticipated to generate additional revenue to the State of Hawai'i throughout the construction process and to the City and County of Honolulu throughout the project's operations. Over the construction period, the total new revenue for the State of Hawai'i is estimated to be approximately $63.6 million. Throughout the ten-year development period, school impact fees are estimated to comprise $20 million of the $63.6 million of State revenue.

However, DOE staff have noted that the fee amount per unit is under review and could be reduced considerably if space for an onsite school is provided. During that same construction period, the total new revenue generated for the City is estimated to be approximately $3.4 million. Section 4.7.2 of the Final EIS contains the full discussion.

Employment – The proposed project will generate jobs in three different categories: construction, facility management and maintenance, and commercial jobs. On-site operations employment will grow to approximately 380 new direct jobs by full buildout, more than ten times the number currently employed at MWH. The increase in annual wages on-site will be approximately $11.7 million (in constant dollars, controlling for inflation). These jobs and wages are expected to continue for many years. Construction employment will vary from year to year, since the phases of redevelopment involve areas of different sizes. At its peak, construction jobs are estimated to reach 577 direct jobs per year. These jobs, however, are temporary and will end at full project buildout. Total construction wages are projected to range between $9.9 million and $38.9 million per year. At project buildout, the induced and indirect number of jobs created by the ongoing operations of redevelopment is estimated at 189 with a total of $9.7 million in wages. During project construction, this estimate is projected to range between 191 to 751 induced and indirect jobs per year, with $9.9 million to $38.9 million in total wages. The project is anticipated to have a beneficial impact on employment and wages throughout the redevelopment process and for permanent operational jobs. Mitigation measures may include job training and encouraging contracting from local area companies and employing onsite and area residents. This will help support local economies and reduce commuting and traffic from other areas. Section 4.7.3 of the Final EIS contains the full discussion on employment.

Resident Concerns and Social Impacts - All current residents in good standing will have the first right to return to the redeveloped MWH. However, with the addition of up to 2,084 more units and up to 80,000 SF of commercial space, the redevelopment is expected to change the social dynamics of the community due to the substantial increase in the number of residents and people moving through the area including individuals from different backgrounds and income levels. Existing neighbors at MWH will likely have different neighbors in the new development as the public housing units will be dispersed throughout and residents relocated offsite will be moved into units the size they qualify for at the time they return. Increased interactions with the surrounding community are also anticipated from the addition of onsite community services, proximity to rail and other public transit, open and reconnected street network through the site, and the activation of street frontages with the proposed commercial uses. There may also be a higher turn-over rate for residents as there will be new residents from diverse income levels, who are more likely to move multiple times throughout their lives or who may seek home ownership opportunities elsewhere. However, the redevelopment is anticipated to have an overall beneficial social impact by improving current living conditions and facilities, increasing the amount of social services, amenities, and job opportunities onsite, removal of the stigma and negative perception of residents living here, fostering new relationships with people of diverse backgrounds, and stronger connections with the surrounding community through the development of a mixed-income, mixed-use community.

The following recommendations were gathered from the various participants, residents, and stakeholders to help build and strengthen the sense of community, support relationships and resident wellbeing, improve safety, and mitigate the transition for existing and future residents of the new community. They include:

- The formation of new resident associations to open communication previously lost between MWH residents and management;

- More youth programs and facilities, provided at onsite park and recreational areas and the proposed community center;
- Community events and celebrations;
- Reunion events for former residents;
- Opportunities for community gardens to provide residents with easy access to fresh produce;
- Coordinated social and health care services between onsite and offsite service providers;
- Onsite job training and retail jobs for residents and teens;
- Onsite educational programs and daycare for preschool-aged children and younger as well as kupuna care and programs; and
- Community empowerment through Neighborhood Watch, youth patrolling programs to both improve safety and strengthen relationships among residents;
- A change in onsite security methods, which may appear less safe with the removal of gated and guarded streets in favor of an open community with design features that promote pedestrian and bicycle access, slower traffic with indirect street patterns, buildings designed to look out on community spaces and public streets, improved nighttime lighting especially along public transit corridors and paths to the future rail station, individual building security systems and staff.

In addition, there was much concern voiced about the timing of construction and the transition and relocation plan for existing residents. While it is too early in the process to know the exact details for those, the primary goal is to minimize the offsite relocation of existing MWH residents during construction. The first phase of construction is anticipated to occur at the corner of North King and Liliha Streets and will involve the demolition of approximately 90–100 units. Unfortunately, this will likely require the residents of those units to be temporarily relocated offsite during the demolition and construction of the new structures. If there are units available onsite at that time, residents may be given that option. However, there will likely not be enough for all those who must be relocated. Therefore, with an estimated 650 new units being built in its place, the goal is to return those relocated residents to the new units as soon as possible and to have the residents from the next area of demolition to be able to move directly from their existing units into the new units without having to relocate offsite. Residents of subsequent phases would follow the same pattern of directly moving from existing MWH units into the newly constructed units. For those who must be relocated offsite during the first phase of construction, the development team will be responsible for coordinating placement into temporary or permanent housing. Those tenants will continue to pay the same or similar rents throughout the duration of the offsite relocation. All residents in good standing will have the first right to return to the newly constructed units at MWH.

To ease fears about the relocation and construction processes, the following are also recommended:

- Well before demolitions starts, develop a transition plan identifying anticipated phasing and construction schedules as best known and frequently update the residents whenever changes occur;
- Meet with the existing residents to identify preferences for relocation if offsite relocation is required for them;
- Maintain frequent and on-going communication between the development team and the residents throughout the redevelopment process, including residents who may be relocated offsite during construction;
- Provide relocation assistance and benefits;
- Identify a point of contact with whom residents can call or contact with any questions or concerns; and
- Collaborate with community organizations and service providers who are familiar with the needs of the current residents and surrounding community to help with support services during the redevelopment.

Other aspects of the transition and relocation plan will require detailed analysis of project phasing, financing and market considerations, temporary relocation housing availability, sensitivity to community relationships between MWH residents and other public housing facilities, as well as the individual needs of current residents who must relocate. Community organizations will also be consulted throughout the development of the relocation plan to fully address the needs of the residents and provide a smooth transition process.

The relocation process will begin its planning stages with preliminary interviews of the MWH residents to understand existing and future needs for their residence, the number and age of residents, school and work status, and other important lifestyle considerations. The MWH Partners, LLC will use this initial data and the information and additional guidelines from the Human Capital Report (Appendix K of the Final EIS) as well as insights and support from community service providers to inform a comprehensive plan and the phasing for relocation. Section 4.7.4 of the Final EIS contains the full discussion.

Environmental Justice – MWH rates relatively high in State, EPA region, and national percentiles on nine of the eleven environmental indexes reported by EJSCREEN, the Environmental Protection Agency's environmental mapping tool. This further supports the redevelopment of the site into a more sustainable project. Also, some of the other indices such as air emissions, and proximity to traffic and hazardous waste are addressed throughout Section 4. The report also notes that there are currently no Superfund sites or hazardous waste treatment, storage, or disposal facilities located within the block on which MWH is located. The full discussion is provided in Section 4.7.5 of the Final EIS.

Public Health – Living in a TOD neighborhood within the urban core of Honolulu, the thousands of future residents will be able to walk, bike, or take transit to work conveniently from MWH. They will also be able to shop, recreate, seek social services, and possibly attend school close to home. All of this contributes directly to improved health benefits from the increased physical activity and reduced stress from driving in traffic. Reduced vehicle use also contributes to reduced emissions and improved air quality, which indirectly improves public health. For those who are reducing their household costs on transportation by reducing the amount of fuel spent, or eliminating the need for a car and the related costs of purchasing or leasing a vehicle, insurance, and maintenance costs, they are also able to redistribute that spending to other purposes such as housing, child care, and nutrition, which can also indirectly improve public health and air quality. With less time spent on the road, they will also have more time to exercise, recreate, or spend time with family and friends, which can also improve their mental and emotional wellbeing in addition to their physical health. The availability of community gardens will also improve resident access to fresh produce, which in turn improves the health and physical wellbeing of future residents.

The proposed project anticipates having onsite social services and community programs and the Kalihi-Pālama Health Center is currently in development across the street on Pua Lane, which are all anticipated to serve the proposed project and surrounding neighborhood and support improved public health and access to medical and social services. Community well-being and public mental health benefits could also arise from more community activities and social events held onsite, which contributes to more opportunities to meet people from diverse backgrounds and may also stimulate new social networks, build social resilience and understanding, improve community safety, and strengthen relationships between future residents, patrons and visitors, businesses, and social services to the site.

Temporary negative public health impacts during construction include disruption to traffic, pedestrian, and bicycle circulation, which could also increase the impacts to air quality from vehicle emissions, demolition and construction activity, and the potential for increased accidents in the area.

The development team will work with HPD, the City, and State in providing adequate traffic control during construction and close adherence to health and safety regulations during construction to mitigate these potential secondary impacts.

Multimodal Transportation and Circulation – An important objective of the MWH Redevelopment is to support the use of multi-modal transportation options as meaningful alternatives to driving that take advantage of the project's access to improved bicycle and pedestrian facilities as well as its proximity to employment centers, existing transit options, and the future 'Iwilei Transit Station. The project site design includes a new internal roadway network for improved access in and out of the project, which modifies some of the surrounding streets:

- Existing Liliha Street/Kukui Street Full Access Driveway – remains a signalized intersection
- New North Vineyard Boulevard/Project Driveway – side-street-stop-controlled driveway (right-in-right-out
- Existing Pua Lane/Kukui Street access closed, and new Pua Lane intersections with Mauka Project Driveway and the Kanoa Street/Makai Project Driveway – both side-street-stop-controlled driveways
- New North King Street Bicycle and Pedestrian Driveway – not accessible by vehicles

Of the fifteen intersections analyzed for traffic impacts, two intersections are currently operating at undesirable levels of service (LOS) and will continue to operate at undesirable levels in the future even without the proposed project. These are the North King Street and Dillingham Boulevard/Liliha Street intersection and the North Vineyard Boulevard and Liliha Street intersection. A third intersection, North Vineyard Boulevard and A'ala Street, will operate at undesirable levels under future baseline conditions even without the project due to projected traffic growth and other developments anticipated to be completed during the study timeframe. With the proposed project, undesirable operations at the same intersections continue to occur during both morning (AM) and afternoon (PM) peak hours of traffic at completion of the first phase of construction, the halfway point of project buildout, and at full buildout.

An additional sensitivity analysis was undertaken for the future Iwilei Rail Station due to recent funding concerns for the Honolulu Rail Transit project. The multimodal transportation assessment (MTA) conducted for this project analyzed the potential changes to traffic impacts should the Iwilei Station not be built. The results of the analysis concluded that trip estimates without the Iwilei station would increase daily trips by approximately nine percent and would only impact the same three study intersections at full buildout of the proposed MWH Redevelopment. The impact on the study intersections, however, would be minimal as the increases in traffic volume are anticipated to be distributed among streets and intersections throughout the entire study area.

Potential traffic improvements were identified to mitigate the proposed project's cumulative impacts to the three intersections based on the impacts anticipated at full buildout. Consultation with the State of Hawai'i Department of Transportation (DOT) and the City and County of Honolulu Department of Planning and Permitting (DPP) was conducted throughout the planning process to address concerns and goals in balancing efficiency and safety for the operations of all travel modes near the project including pedestrian and bicycle. Mitigation measures are discussed in detail below for each of the three potentially impacted intersections as well as their overall feasibility and recommendations for implementation.

For the North King Street and Dillingham Boulevard/Liliha Street intersection, vehicle capacity enhancements are limited since the only possible mitigation would require acquiring substantial right-of-way on all approaches to widen all approaches to add additional through lanes and separate turn lanes.

Even adding a separate right-turn lane 'Ewa-bound on the mauka side of North King Street would result in a minimal 0.5-second improvement in delay per vehicle over baseline conditions and the overall intersection would continue to operate at undesirable levels. Substantially reducing delay at this intersection would require all intersection approaches to be widened for additional lanes. However, this is not considered feasible as it would produce secondary adverse impacts to pedestrian and bicycle facilities and adjacent properties. Heavy congestion on these roadways is primarily due to regional traffic demand and is, therefore, beyond the scope of a single development project. Additional improvements including new street connections within the greater Kalihi area would help reduce demand at this intersection and would compensate for several of the prohibited turning movements at this location.

Potential measures to improve vehicle operations at the intersection of North Vineyard Boulevard and Liliha Street include the construction of a second Diamond-Head-bound left-turn lane on North Vineyard Boulevard by:

- Taking four feet from the existing median;
- Reducing the existing Diamond-Head-bound lanes to ten feet for the left-turn lanes;
- Reducing the through lanes to eleven feet; and
- Reducing the right-turn lanes to thirteen feet to accommodate right-turn buses.

This option would address additional vehicle demand from the project and allow for intersections to operate at better than baseline levels in both the AM and PM peak hours. The reduced median strip would still be able to accommodate an ADA-compliant pedestrian refuge area and no sidewalks or adjacent properties would be impacted.

Measures to improve vehicle operations at the intersection of North Vineyard Boulevard and A'ala Street include the restriping of makai-bound lanes on A'ala Street to provide a separate left-turn lane and a combined through/right-turn lane. This mitigation action is considered feasible since the roadway is a sufficient width to accommodate improvements without impact to bike or pedestrian facilities. The restriping would require the removal of five parking stalls on A'ala Street, three on the 'Ewa side and two on the Diamond-Head side. These measures would allow the intersection to operate at a desirable LOS D in the PM peak period under Long-Term (2028) Full Buildout Conditions, which is assumed to balance out the reduction in on-street parking near the intersection.

Due to the new driveway changes on Pua Lane, the following traffic calming enhancements and parking improvements are recommended for consideration:

- Consider installation of a Neighborhood Traffic Circle (NTC) at Pua Lane/Kanoa St/Project Makai Driveway - While there are already speed humps on Pua Lane to help moderate vehicle speeds, a neighborhood traffic circle (NTC) at this intersection would further moderate vehicle speeds on
- the roadway and reduce the severity of potential collisions. The NTC would also reduce stopping on Kanoa Street and the project's makai driveway. It should be noted that an NTC would likely require elimination of several parking spaces on both sides of Pua Lane, mauka and makai of the NTC.
- Install Metered Parking on Pua Lane - This modification would promote frequent turnover of parked vehicles on Pua Lane, and would have to be implemented by the City & County of Honolulu Department of Transportation Services (DTS). The metered parking could be enforced only during typical daytime hours (e.g. 8 AM to 6 PM), so that in the evening, area residents or guests could park on Pua Lane for longer periods of time.

- Install bicycle sharrows on Pua Lane and Kanoa Street - this would highlight the presence of bicyclists on this street and inform motorists traveling on Pua Lane to share the roadway. This improvement would provide a visual connection to the planned bike facilities on North King Street that are being planned as part of the City & County's Complete Streets project.
- Install curb extensions on the makai corners of the N Vineyard Boulevard/Pua Lane intersection - this would increase pedestrian visibility through improved sight lines and increase the pedestrian waiting space. Additionally, curb extensions would decrease the walking distance for pedestrians crossing Pua Lane. Given that this is improvement is on a State facility, coordination with DOT is required to implement this improvement.

In addition to roadway improvements to accommodate additional vehicle demand, the proposed project could implement transportation demand management (TDM) strategies to reduce overall site- generated traffic volumes. Application of TDM strategies that could lead to vehicle trip reduction, use of alternative modes, and better traffic management at the site could include such provisions such as a transportation kiosk and/or on-line portal for information on ride-sharing, transit, bicycling, walking, and options for accessing the site without using a private automobile and unbundling parking from apartment units to reduce rental costs for some units and to incentivize use of non-auto travel modes. Prior to the implementation of any TDM measures, the project team will coordinate with the City and County of Honolulu and/or transit service providers.

Short-term traffic impacts will result during construction for both onsite and offsite improvements. Traffic may be impacted when materials and equipment are transported to the site. Coordination with the Honolulu Police Department, State and City roadway officials will be done in advance of any construction and will include a construction traffic management plan for each phase of construction. Ingress and egress from the site will be based upon minimizing impacts to public traffic and the surrounding areas. It will detail any road or lane closures and potential impacts to any of the bus stops should they be required and the construction team will work closely with the State and City on appropriate solutions to mitigate those impacts. If there is a need to temporarily relocate any bus stops, the area should be at least 150 feet in length to accommodate two 60-foot buses and will be coordinated with DTS Public Transit Division. DTS also recommends that construction materials and equipment be transferred to and from the project site during off-peak traffic hours (8:30 a.m. to 3:30 p.m.) as well as other best practice traffic management plans to minimize any possible disruption to pedestrians and traffic on the local streets and project driveways. The project team will collaborate with HPD and DTS to determine the optimum locations for entering and exiting the site during construction activities. HPD and DTS will be provided traffic plans prior to the start of construction once finalized with their input. Traffic plans will indicate the use of traffic controls (signage, coning, etc.), flag persons and off-duty officers as required. Prior to the commencement of construction, a pre-construction conference with subcontractors and suppliers will be held to communicate the traffic plan to all traveling and delivering material to the site. Safety orientations for all personnel working onsite will be held to educate them on the proper procedures for entering and exiting the site. Construction schedules should also be coordinated with other nearby properties that may have planned improvements to minimize potential impacts on adjacent streets wherever feasible. In addition, updates regarding potential traffic impacts during construction will be given to the public via media outreach and the project website. Direct updates can also be sent via email or other electronic methods as preferred to area residents, businesses, schools, City and State officials, emergency personnel, O'ahu Transit Services, and others. Regular updates will also be shared at the monthly Kalihi-Pālama Neighborhood Board meetings.

Also, once construction commences, approved Best Management Practices (BMP) including controlling dirt and debris on area roadways must be installed along Pua Lane and North King Street as well as other areas roadways. An NPDES permit will also be submitted to the State Department of Health for approval, which will include a discussion of the BMPs proposed at the time of construction. Also during and once construction is completed, any damages or deficiencies to Pua Lane and North King Street and other area rights-of-way caused by the project must be corrected to City and State standards and accepted by the City and State. These requirements will be incorporated into the construction documents.

For public transit, the project is expected to increase ridership in the area over the long-term. The site is well-serviced by both bus and future rail transit and is generally not expected to substantially increase the transit demand to a level where it could not be accommodated by existing or planned facilities. In addition, the new internal street network will support and encourage access through the site directly to area bus stops and the future rail station. The project is also expected to not conflict with any existing facilities and planned improvements. Recommendations have also been made to improve lighting at area bus stops to improve safety and will be included throughout the internal street network as well. The project will support the use of existing transit systems through integration of multimodal facilities such as bicycle parking and sidewalk enhancements in the site design to improve accessibility to public transit systems. To further enhance the multimodal facilities, it is also recommended that the bus stops on Liliha Street immediately adjacent to the project site be relocated onto the project property or within a future landscaping and street furniture zone along the curb to maximize the available sidewalk width and reduce conflict with pedestrians. The project team will coordinate with DTS Public Transit Division to ensure the project does not adversely affect public transit services including bus operations, bus routes, bus stops, and paratransit operations. Project plans will be submitted to DTS Public Transit Division for review and approval. Thus, the project's impacts to transit facilities and services are intended to support ridership.

It should also be noted that the April 28, 2017, Recovery Plan presented by HART and the City and County of Honolulu proposes to defer construction of the Iwilei Station to save on initial construction costs. However, the project site would continue to be well-served by bus service and anticipates no significant impact based on the above transit analyses.

Short-term impacts to the bus stops directly adjacent to the site may occur during construction should there be any road or lane closures. Bus stops may have to be temporarily relocated away from construction activities impacting the fronting the property and the development team will work closely with City transit officials to provide safe alternatives for the bus stops. This will include safe pedestrian and ADA-accessible access to the temporarily relocated bus stops and full replacement of the bus stop once construction is complete.

For pedestrian and bicycle circulation, the proposed project follows new urbanist design principles that include an emphasis on walkability and connectivity through the pedestrian and bicycle networks within the project site, on adjacent streets, and via connections to the surrounding community. The project proposes to develop complete streets within the site and enhancement of the external streets with activated streetscapes including sidewalks that are shaded by street trees and awnings along commercial frontages and residential buildings that face the streets rather than turned inward as they currently are at MWH. Street trees and landscaping strips will be designed with adequate tree wells and planter areas to minimize potential impacts to underground utilities and overhead lighting. Proposed enhancements to the pedestrian and bicycle networks are detailed in Sections 4.8.3 and 4.8.4.

Short-term temporary impacts to pedestrian and bicycle facilities may occur during construction such as sidewalk closures and rerouting of pedestrians and bicycles away from any potentially unsafe conditions. The development team will work closely with State and City roadway officials to develop safe alternate routes and include appropriate signage during construction to direct pedestrians and bicyclists to appropriate detours. Generally, the proposed project is not expected to substantially increase the walking, biking, or transit demand to a level where it could not be accommodated by existing or planned facilities. In addition, the project is expected to enhance multi-modal facilities and services, especially with the promotion of the use of passive and active spaces and non-motorized modes. The full discussion of the transportation and circulation analyses is provided in Section 4.8.

Water – Projected domestic water demands for the MWH Redevelopment was calculated for both the first phase of development and full project buildout. Phase I of the proposed project includes 650 residential units and up to 80,000 square feet of retail and commercial space to be conservative. The first phase is estimated to generate a net increase in total average daily potable water demand of approximately 229,750 gpd, a maximum daily demand of 344,600 gpd, and a peak hour demand of 689,260 gpd. Full buildout is estimated to generate a net increase in total average daily potable water demand of approximately 0.87 million gallons per day (mgd), a maximum daily demand of 1.31 mgd, and a peak hour demand of 2.62 mgd.

The Board of Water Supply (BWS) has confirmed that the existing O'ahu municipal water system is presently adequate to accommodate the proposed residential units and up to 75,000 SF of commercial. However, additional coordination with BWS is required to confirm water availability for the increase in retail and commercial development from 75,000 SF to 80,000 SF if it is pursued. Confirmation of water availability from BWS will be required at the time of building permit submittals and approvals. In addition, to reduce the amount of drinking water required to serve the proposed project, all efforts will be made to include water reducing design elements into the proposed project such as WaterSense-labeled low flow and ultra-low flow fixtures and toilets, efficient automated irrigation systems such as drip systems and moisture sensors to prevent overwatering, and water catchment and reuse for nonpotable uses such as irrigation. Landscaping will incorporate xeriscaping or native and hardy climate-adapted, or drought-tolerant plants that do not require significant amounts of water wherever possible. If dual water systems are installed at the proposed project, they will designed and constructed to comply with all DOH requirements. The project team will also submit construction plans for Board of Water Supply (BWS) review and approval and the construction schedule will be coordinated with BWS to minimize impacts to the water system. Onsite fire protection requirements will be coordinated with the Fire Prevention Bureau of the Honolulu Fire Department. Projects on State lands requiring water service from the local Board of Water Supply will be required to pay a resource development charge, in addition to Water Facilities Charges for transmission and daily storage. Section 4.9.1 of the Final EIS contains the complete discussion on water.

Wastewater – Similarly, wastewater requirements were projected for the first phase of development and full project buildout. Phase I will have an estimated net increase in average daily wastewater contribution of approximately 0.14 mgd, a max design contribution of 0.56 mgd and a peak design contribution of 0.56 mgd over existing flows. Full project buildout will have an estimated net increase in average daily wastewater contribution of approximately 0.52 million gallons per day (mgd), a max design contribution of 1.54 mgd and a peak design contribution of 1.54 mgd over existing conditions. The necessary on-site sewer system facilities will be installed to adequately service the development, including gravity sewers and related appurtenances. Additional sewer connections are needed for Phase I of the project, which will include two new sewer connections to existing eight-inch sewer mains along Desha Lane and along Pua Lane.

The sewer system will be designed in accordance with the City and County of Honolulu's *Design Standards of the Department of Wastewater Management (1993)*, or as amended or updated, and is proposed to be dedicated to the City within the public rights-of-way. The State DOH also reserves the right to review all detailed wastewater plans and requires compliance with all applicable provisions of HAR, Chapter 11-62. As the project will connect to the City's wastewater system, no individual wastewater systems or treatment facilities are proposed as a part of this project.

A sewer connection application was submitted to the City for Phase I sewer demand for 650 residential units and up to 80,000 square feet of commercial space and received approval on 12/18/2017. A copy of the approved application is included in Appendix H. Based on initial correspondence with the Department of Environmental Services (ENV), upsizing of the existing ten-inch and twelve-inch sewer lines is required for the full buildout but not for the initial Phase I increment. The eventual upsizing of the sewer line is required from the North King Street/Liliha Street intersection to the North King Street/College Walk intersection.

A Global Consent Decree (GCD), entered between the City and County of Honolulu, U.S. Environmental Protection agency, and the State of Hawai'i Department of Health outlined improvements to be implemented to the City wastewater collection and treatment systems. The City has identified deficiencies at the Awa Street waste water pump station (WWPS) and School Street, College Walk and Iwilei area sewer lines. The Awa relief sewer project will be constructed in two separate phases: Phase 1 – Install a new gravity sewer line from School Street to Nimitz Highway along Houghtailing Street and Waiakamilo Road to relieve downstream deficiencies by diverting flow from School Street and; Phase 2 – Was to relieve the Awa Street WWPS with a new gravity sewer from Awa Street WWPS to Hart Street WWPS along Dillingham Boulevard and Alakawa Street. The City is in the process of revising Phase 2 to upgrade the Awa Street WWPS. Phase 1 of the Awa relief sewer project will be implemented to correct some of the identified deficiencies and must be completed by June 30, 2020 to comply with GCD Paragraph 18.f requirements.

Implementation of the GCD Paragraph 18.f improvements are not currently required for full buildout of the MWH project. However, should additional projects within the Awa Street WWPS development area (including major developments such as Kapālama-Iwilei TOD improvements) occur prior to full project buildout, completion of both Phase 1 and Phase 2 of the Awa Relief Sewer Project could be required to provide adequate sewer capacity for the City waste water collection system. The City also adopted an action item in the Downtown Neighborhood TOD Plan that prioritizes a financing strategy to support the planning, design, and construction of the first phase of infrastructure upgrades including wastewater within three years of adoption of the TOD Plan. The project team will maintain ongoing coordination with the City in order ensure adequate wastewater service can be provided to the proposed MWH Redevelopment. However, the timing of the City's improvements may impact the development schedule of the proposed project. Section 4.9.2 of the Final EIS contains the complete discussion on wastewater.

Drainage – Runoff quantities for proposed conditions were calculated for the 10-year and a 50-year 1-hour storm events and compared to existing runoff quantities to determine the increase in runoff generated from the project. Updated analyses will be prepared during detailed design of the project as it is built out; however, based on initial analyses of the proposed conceptual plan, approximately 7,870 cubic feet of runoff would need to be retained on-site for Phase I and 26,620 cubic feet of runoff would need to be retained on-site at full buildout. All drainage improvements will be in conformance with the City DPP Storm Drainage Standards which require that there be no increase in runoff compared to existing conditions. The drainage system for the proposed development will consist of but is not limited to various roof downspouts, grassed swales, concrete curb and gutter, inlets and an underground drainage system including onsite retention

systems. Filtering and reuse of captured rainwater for nonpotable uses such as irrigation will be explored to the maximum extent practicable during detailed design of the project to improve water quality and reduce the amount of runoff conveyed to the City's offsite systems. Storm water runoff from the project will discharge to the existing Liliha Street and North King Street drainage systems but will be limited to pre-development runoff quantities. During construction, the project will be subject to the City's recently adopted guidelines for storm water quality under the *Rules Relating to Water Quality (2016)*, which went into effect on August 16, 2017. Erosion control measures will be incorporated to minimize soil loss and erosion hazards. Section 4.9.3 of the Final EIS contains the complete discussion.

Electrical and Telecommunications – The total anticipated electrical demand load is 9,688 kVA (9.688 MW or approximately 9.7 MW). The proposed project will be designed to be as energy efficient as possible to reduce electrical demand and include elements such as solar hot water heating, operable windows for natural ventilation, light and motion sensors in non-residential areas, energy efficient lighting, and Energy Star appliances. Onsite renewable energy such as solar photovoltaics (PV) will also be evaluated during the design process and coordinated with HECO if pursued. The PV panels could be installed on the upper parking decks as shade structures and on building rooftops.

In terms of distribution, or bringing electricity to the project site from HECO's electrical grid, HECO has preliminarily indicated the existing 12 kV distribution lines currently providing service to the existing MWH buildings have inadequate capacity to provide service to the proposed redevelopment. A new 25 kV line would need to be installed and the probable point of connection is the nearby Iwilei Transmission Substation located at the intersection of Dillingham Boulevard and Ka'a'ahi Street. Pending further clarification from HECO, they have indicated that this 25 kV infrastructure would be required to be in service to energize the Phase 1 development. Temporary power for construction purposes would likely be available from their 12 kV overhead lines. As this proposed offsite 25-kV ductline would facilitate the overall TOD development of the larger Iwilei District envisioned by the City, there should also be negotiations between the State and the City for cost sharing of the duct system construction costs.

Based on current technologies, both Hawaiian Telcom (HTCO) and Oceanic Time Warner Cable (OTWC) would likely provide service to the project via fiber optic cable pairs which would be terminated at hub equipment which would, in turn, provide the bundled telecommunications services to the individual residents and businesses. Both HTCO and OTWC have indicated that they would be able to provide service to the proposed redevelopment project by reinforcing their existing aerial facilities with additional fiber optic strands. However, pending enactment of the Iwilei Special Design District TOD legislation, a determination would need to be sought from DPP whether the supplementary fiber optic lines could be added to the existing aerial joint poles or would be required to be placed underground.

The off- and on-site electrical and telecommunications utility lines will therefore likely be placed underground and the design of the duct system will be in accordance with the specifications and standard practices of the respective utility companies utilizing the duct system. In addition, a determination will need to be made during the design phase as to whether the State and the State's lessee will own and maintain the electrical and telecommunications duct systems or whether this responsibility will be dedicated to the respective utility companies.

Illumination for at-grade roadways and parking spaces will be designed to meet Illuminating Engineering Society (IES) RP-8 criteria. Luminaires selected will be specified with conformance with Act 287 and be designed to minimize glare and provide illumination levels in conformance with the above stated criteria.

All outdoor lighting will also be fully-shielded and downward facing to minimize impacts to endangered native birds such as the Hawaiian petrel and Newell's shearwater. Section 4.9.4 of the Final EIS contains the complete discussion on electrical and telecommunication systems.

Solid Waste – Short-term impacts include additional solid waste generated at the site during construction. Waste is expected to consist of materials from demolition, construction, and grading activities. Because of the potential for lead-based paint and asbestos on the existing buildings, the development team will work with the State DOH Asbestos Abatement Office of the Noise, Radiation and Indoor Air Quality Branch and special contractors to manage the hazardous materials and to ensure exposure by residents remaining onsite is minimized as detailed in Section 4.10. Best management practices during construction will be implemented including every effort to divert materials that can be reused or recycled from landfills as well as minimizing the amount of waste generated.

Solid waste will also be generated by households remaining on the site through the construction process as well as new households once construction is completed. There will also be solid waste generated by the proposed commercial uses and green waste from the landscape maintained onsite. The proposed project will support recycling as much as possible for both households and commercial uses as well as green wastes generated onsite. Detailed design will include but not limited to onsite facilities to support separating wastes into recyclable and non-recyclable materials and for central collection facilities within the buildings. MWH Partners, LLC will also work with the City and contracted collection services to ensure as much recyclable materials are diverted from the waste stream from the project as they will be managing ongoing operations of the site once construction is complete. All remaining non-hazardous waste generated by the project must be disposed of at a solid waste management facility that complies with applicable State regulations of HAR, Chapter 11-58.1. No open burning of wastes either onsite or offsite will be permitted. Section 4.9.5 of the Final EIS contains the full discussion on solid waste.

Gas Utility – Hawai'i Gas maintains underground utility gas mains near MWH, which serve commercial and residential customers in the area and is interconnected with the utility network in Honolulu. The proposed redevelopment of MWH does not anticipate connecting to the Hawai'i Gas utility gas services at the current time. The project team will work closely with Hawai'i Gas during the detailed design process and construction phases to minimize any potential conflicts or impacts to their existing facilities.

Hazardous Waste – No hazardous waste discharges, injection wells, or underground storage tanks are included as part of the proposed project and therefore no hazardous waste is anticipated to be generated. No further mitigation measures are therefore proposed for the ongoing operations of the proposed project. However, given the age of the existing MWH facilities and the initial finding of lead-based paint and asbestos in the existing buildings, HPHA and MWH Partners, LLC will work with the State DOH Asbestos Abatement Office of the Noise, Radiation and Indoor Air Quality Branch and contractors who are specifically trained in lead-based paint (LBP) and asbestos containing materials (ACM) abatement to safely remove these hazardous materials and limit any potential exposure to residents who may be onsite during demolition. Full inspections by certified inspectors will be carried out prior to demolition and a LBP and ACM abatement plan developed with all required federal, State, and City agencies prior to demolition. All abatement work will be performed per all applicable State and federal requirements and guidelines. Upon completion of the work, all required clearances will be provided for the abated areas of work and LBP chips will be HEPA-vacuumed from the surrounding ground and placed in DOT-approved disposal containers. All material disposal manifests will be provided from certified disposal sites upon final disposition of the hazardous materials. Section 4.10 contains the full discussion.

Public Schools – The increase in the number of residential units at MWH is anticipated to increase enrollment in area schools. While it is not known now how many of the future residents of the proposed project will attend public schools, during the EISPN public review period, the State Department of Education (DOE) commented that additional discussions were needed regarding the impact of the redevelopment on the schools that will serve the project. Discussions will focus on the projected number of units and their intended markets, as well as a school impact fee for new developments, which is being proposed by the DOE to fund new and expanded schools for the designated Kalihi to Ala Moana School Impact Fee District. While the fee amount per unit has not been announced yet, initial DOE proposals included fees in lieu of land plus ten percent of the cost of construction of new schools. In urban Honolulu, where the cost of land is high, the fee in lieu of land is estimated to be $8,790 per unit, along with an estimated fee of $584 per unit for construction, for a total of $9,374 per unit. Throughout the estimated ten-year development period, school impact fees may create up to $20 million in State revenue to the DOE trust accounts for school land or improvements, which are controlled by the DOE and are managed according to the impact fee law. This is based on a multiplication of the $9,374 fee per unit and the 2,084-unit increase estimated above the existing 364 units at MWH should the development team decide to go with the all-cash in-lieu option. However, the DOE notes that this $9,374 per unit fee was estimated for an all-cash impact fee and could be reduced considerably if the project provides school space and construction onsite. DOE staff have also noted that the estimated fee is under review and has not been announced yet. The development team is open to this option and will continue to coordinate with the DOE on different options to support the public-school facilities serving future residents at MWH. If the school is built onsite, it would likely be of an urban design and built into the lower floors of a mixed-use building. It would provide a convenient location for future residents as students could walk to school and other supporting services, all within the new onsite community.

Additional discussions regarding the schools that serve MWH were brought up during multiple community and stakeholder meetings and the Community Advisory Committee meetings, at which various representatives from nearby schools and the DOE attended and engaged in discussions with the project team. One issue brought up at the meetings by a school principal in this region discussed waiving geographical boundaries of the school complexes during the relocation and phasing periods of the project to help mitigate disruption for existing students who may have to move out of their current school districts. Additional options will also be explored to determine the appropriate measures for existing and future student enrollments within this school complex as the phasing plans become finalized.

While the elementary schools that serve the surrounding neighborhoods will require careful planning to accommodate additional students as enrollments increase, Central Middle School is anticipating lower enrollments in the future and historically McKinley High School has had higher enrollments and so the DOE has noted that the middle and high school facilities are not as critical as the elementary schools. In addition, during stakeholder meetings with the DOE, consideration for providing space onsite for at least pre-kindergarten was discussed with the potential to also have kindergarten and first grades as well, much like Linapuni School at Kūhiō Park Terrace. However, additional analysis by the DOE will be needed based on the refined plans for the project.

In later discussions, DOE Facilities Development Branch staff noted that an agreement will need to be signed between the DOE and the development team that satisfies the school impact district requirements (Section 302A-1603, HRS), even if the project is processed under Chapter 201H, HRS. Recent legislation also allows DOE to use land fees for buildings and additions rather than just new school development. Other opportunities to consider include broadening the range of partnerships between MWH and area schools, community service providers, and area legislators in integrating service needs with various school locations.

Because there are wide-ranging alternatives that could satisfy the DOE's school impact district requirements, further discussions are needed with the DOE. The project team will therefore continue to work closely with the DOE as the project refines its design and phasing plans to plan for the increased area enrollments as well as the relocation and transition of current residents. Balancing the shift in students as the redevelopment progresses will need to be coordinated closely with the DOE to ease and smooth the transition for students. Coordination with area schools is being initiated by the project team to develop a plan to minimize disruption to students and support planning by school principals well in advance of demolition and construction. This effort is ongoing and is therefore identified as an unresolved issue for the purposes of the EIS. Section 4.11.1 of the Final EIS contains the full discussion on public schools.

Police, Fire, and Medical – While the proposed project will increase the population within the immediate project area, it is not anticipated to substantially increase regional population as it is anticipated future residents will be relocating from the surrounding Kalihi-Pālama neighborhoods or elsewhere on O'ahu. As a result, existing public services and medical facilities such as police, fire, and emergency medical services may need to shift existing manpower and resources closer to Iwilei as needed to serve the proposed project. Project designers will continue to work closely with City Police, Fire and other public service providers during the detailed design of the facilities to ensure the new structures at MWH will be easily accessible by emergency services to support favorable response times. Onsite fire protection requirements will be coordinated with the Fire Prevention Bureau of the Honolulu Fire Department and design of the future facilities must meet Honolulu Fire Department (HFD) requirements including applicable Uniform Fire Code requirements and HFD review and approval of all civil drawings. The Honolulu Police Department (HPD) has also advised the project team to inform construction workers and employees not to leave any valuables in their vehicles and that all construction equipment and supplies be securely stored when not in use. They also recommended that security controls be provided at the project site to deter criminal activity and assist in the identification of perpetrators. The project development team will work together with HPD to develop a security plan for the construction of the project and will consider security measures such as security guards and camera surveillance systems for non-working hours to secure the site. Site security will also be studied to control access and secure the site during both working and non-working hours. Access controls will be important to keep the pubic off- site during working hours for public safety. Section 4.11.2 of the Final EIS contains the full discussion.

Recreational Facilities – Initial discussions with the City's DPP have indicated that park dedication requirements will need to be met by the proposed project. Based on current City standards, the park dedication requirement would be 6.2 acres, which is over 40 percent of the project site area. The conceptual plan includes a central community park with a community center and multipurpose hale as well as a variety of smaller open spaces, community gardens, and rooftop recreational decks. The proposed project will attempt to meet City park dedication requirements based on the actual number of units constructed; however, as the project is attempting to provide as many affordable housing units as reasonably possible and to keep development and ongoing management costs low to keep rental rates affordable, the project team will continue to work with DPP through the permitting process to determine what options they may pursue to balance the amount of park space provided with anticipated costs as well as competing uses such as additional housing units and rooftop areas that may be dedicated to solar panels to mitigate electricity demand. Section 4.11.3 contains the full discussion.

Community and Social Services – With the increased population onsite, MWH Partners, LLC will continue working with Kalihi area service providers to support the future populations at the redeveloped MWH as well as assist with the transition during construction and strengthen the community's social safety net so residents are well-informed and cared for during redevelopment. The proposed community center located near the heart of the project is also envisioned to house community and service providers onsite so that residents may easily access their programs and services. Section 4.11.5 contains the full discussion on community and social services.