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EXECUTIVE CHAMBERS

HONOLULU

DAVID Y. IGE
GOVERNOR

September 16, 2015

Honorable Suzanne Case, Chairperson
State of Hawai'i, Department of Land and Natural Resources,
1151 Punchbowl Street, Room 310
Honolulu, Hawai'i 96813

Dear Chairperson Case,

SUBJECT: Acceptance of the K6ke'e and Waimea Canyon State Parks Master Plan, Island of Kaua'i Final Environmental Impact Statement

I hereby accept the Final Environmental Impact Statement for the Koke'e and Waimea Canyon State Parks Master Plan, as satisfactory fulfillment of the requirements of Chapter 343, Hawai'i Revised Statutes. The economic, social, and environmental impacts which will likely occur should this project be built, 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.

In implementing this project, I direct the Hawai'i Department of Land and Natural Resources and/or its agent to perform these or comparable mitigation measures at the discretion of the permitting agencies. The mitigation measures identified in the environmental impact statement are listed in the attached document.

Sincerely,

DAVID Y. IGE
Governor, State of Hawaii

Attachment

c: Office of Environmental Quality Control

MITIGATION MEASURES IDENTIFIED IN THE
KŌKE'E AND WAIMEA CANYON STATE PARKS MASTER PLAN
FINAL ENVIRONMENTAL IMPACT STATEMENT
Attachment to the Governor's Acceptance

Mitigation measures for the Kōke'e and Waimea Canyon State Parks Master Plan Final Environmental Impact Statement are listed below.

SOILS

Because Kōke'e and Waimea Canyon State Parks are located in areas subject to soil erosion, care must be taken during construction to mitigate runoff from construction sites. Generally, exposed soils should be revegetated as soon as practicable to prevent soil loss. Another method to prevent soil loss is to minimize the area that is opened at any given time. Further, best management practices and good housekeeping at the work site should be observed.

SURFACE WATER AND GROUND WATER

Surface and groundwater resources in the Parks are essential elements of the area. The streams provide habitat for the native flora and fauna as well as the nourishment the plants in the area require to survive. Groundwater resources provide drinking water for the park users. In order to protect the surface water resource from being lost to contamination and degradation, the following actions are proposed:

1. Cesspools should not be located along streams.
2. Cesspools should not be allowed within 1,000 feet of existing drinking water wells.
3. Grading should not occur along stream, or if required, berms and silt fences should be installed to prevent runoff from entering the stream.
4. The potable water system should be protected and monitored by a private contractor as follows:
    - Coliform monitoring program
    - Lead and copper monitoring program
    - Chemical monitoring by the Safe Drinking Water Branch (DOH). Cesspools should not be allowed within 1,000 feet of an existing well. Phase II and Phase V monitoring program.
    - Water quality parameter sampling program.

NATURAL HAZARDS

Each of the hazards identified: earthquakes, hurricanes, floods, and forest fires; will impact the Parks in different ways. Mitigating actions proposed, however, can only lessen the overall impact by minimizing property damage and the loss of life. Mitigating action proposed include:

1. Earthquake - require structures to be built according to current building codes for the appropriate seismic zone.
2. Hurricane - require structures to be built according to current building codes for wind loads. Provide adequate warning system for evacuation, if required.

3. Floods - require structures to be setback away from streams to prevent flood damage.
4. Forest fires - require fuel breaks between structures and vegetated areas.
5. Utilizing the roads as fuel breaks.
6. Minimizing of fuel loading along roadways by removal or chipping of pruned branches and/or trees.

PLANTS

The introduction of non-native, invasive plant species pose the greatest impact to the native forest. Unintentional and intentional introductions have created situations where eradication may be currently out of the question, such as in the case of blackberry (*Rubus fruticosus*) and banana poka (*Passiflora mollisima*). In these instances, controlling the spread should be undertaken by manual removal, herbicide, and biological controls. Control of seed carriers, such as pigs, should also be undertaken. Education should also be part of an overall strategy of controlling the spread of invasive species. Controlling new introductions should be a priority. An education program should be included in the program for hikers and lessees to caution against the inadvertent release of an invasive plant species. Existing timber resources should continue to be managed to the point where the trees are of commercial value. Once the timber is harvested, however, the area should be replanted with native tree species suitable for the area. Long-term plant species management should include the removal of all non-native species. This work can be done incrementally as the trees become diseased or are damaged through natural causes. Plant nurseries should be a part of an overall strategy for reforestation.

ANIMAL RESOURCES

The control of non-native animal species in the Parks and the native ecosystem, in general, is the primary mitigation required. The feral animals, especially those that feed on the native plants are of particular concern. Feral animals impact the forest not only by feeding on the plants, but they are also responsible for the spreading of non-native plant species in the forest. Actions that can be taken include eradication and control. To protect the Kuʻia Natural Area Reserve from the impact of pigs, goats and deer, the Department of Land and Natural Resources (DLNR) proposes to construct about 3.7 miles of steel mesh fencing to enclose approximately 550 acres of native habitat. In addition, fencing will be installed for the proposed plant preserves in the two parks to include all the different habitats. The proposed fencing will provide a protected area for existing plant species and future restoration and outplanting projects. Opposition to the fencing project has been voiced by local hunting groups who are concerned about loss of access to prime hunting areas.

NOISE

Short-term noise impacts will be construction related and will stop at the conclusion of work. Other short-term noise impacts, such as those associated with park users, can be mitigated, to some degree, through education and the exercise of courtesy. As part

of the permitting process, information will be provided to the users to be courteous to other users. No long-term impacts are anticipated.

AIR QUALITY
Short-term impacts to air quality are anticipated during construction. Exhaust fumes can be mitigated through the use of properly maintained equipment and limiting the amount of engine idle time. The use of equipment that releases smoke can be curtailed by monitoring the construction project. The release of fugitive dust can be controlled by keeping loose soil moistened or covered. In areas that are in close proximity to park users, such as picnic or lookout areas, dust screens can be erected. No long-term impacts to air quality are anticipated.

KŌKE‘E LODGE
The existing Lodge is proposed to be incorporated into a new facility that would accommodate all of the existing functions in a new low-profile single structure or as two buildings as they now occur. A new facility will be able to accommodate park visitors in a more efficient manner by combining functions and by accommodating services not previously provided. The new facility is proposed to be designed in keeping with the existing rustic architecture. The predominant building material should be wood. Further, in keeping with the area, the facility should be designed with a low profile and not be an imposing edifice on the Meadow.

KANALOAHULUHULU RANGER STATION
No impacts are anticipated for the Ranger Station. The functions of the station building, grounds, and accessory buildings will change from support of the Lodge operations to support facilities for the Division of State Parks. The change in function will not impact the exterior view of the area. No mitigation is proposed or required.

KŌKE‘E NATURAL HISTORY MUSEUM (HUI O LAKA)
The existing Museum functions are proposed to be integrated into a new building that would serve also as a visitor center. The new visitor center would be constructed in keeping with the rustic architectural theme of the Parks. The predominant building material should be wood. Further, in keeping with the area, the facility should be designed with a low profile and not be an imposing edifice on the Meadow. The Land Board approved a new, 20-year lease with Hui o Laka for management and use of the Civilian Conservation Corps Camp facilities.

CIVILIAN CONSERVATION CORPS (CCC) CAMP
No impacts are anticipated for the CCC Camp. No changes to the functions of the CCC Camp buildings, grounds and accessory buildings are anticipated. The CCC Camp is on the historic register, and therefore, exterior changes will be reviewed prior to the change taking place. The Land Board approved a lease with Hui o Laka for management and use of the facilities at the CCC Camp. No mitigation is proposed or required.

RENTAL CABINS

In the near term (within the next five years), no impacts are anticipated for the twelve rental cabin units. In the long-term, however, DLNR is considering the development of up to twelve additional rental cabins in the same general location as the existing state rental cabins to provide additional short-term rental capacity to meet existing demand. Impacts anticipated include: a) earthwork or grading, b) noise from construction activity, c) dust, and d) changes in land use. The proposed construction impacts can be mitigated through the implementation of best management practices such as: a) installation of erosion control measures, and b) good housekeeping during construction. Long-term impacts are beneficial because the new structures will be designed in keeping with the Parks' architectural theme, allow limited access to the handicapped, be more energy efficient, provide additional accommodations to park visitors, and enhance the revenues to State Parks. During redevelopment, create low-maintenance fuel breaks behind cabins by excavating as necessary, grading and grassing so that it can be easily mowed.

BASEYARDS

No impacts are anticipated for the baseyards, however, some of the functions will be relocated to other areas in the Parks. No changes to the functions of the baseyards buildings, grounds and accessory buildings are anticipated. No mitigation is proposed or required.

- Develop new baseyard site on Kōkeʻe Road east of the Water Tank Road intersection, between the head of Noe Stream and Kōkeʻe Road. The new facility will contain an administrative office, maintenance shop, repair shop, garage, storage buildings, and restrooms with showers.
- Relocate main baseyard functions, including office space, vehicle parking, material stockpiles, and non-hazardous material storage. Dedicate space for use by other state agencies. Include space for fire equipment and the possible inclusion of a water tank for fire-response use.
- The National Aeronautics and Space Administration (NASA) maintenance annex will continue to serves as a maintenance shop, helicopter landing zone, and the site for the installation of an above-ground fuel storage tank. DSP use of the NASA site will be minimized due to DSP's lack of authority over the site.

AWAʻAWAPUHI PLANT NURSERY AND KALALAU RIM OUTPLANTING SITE

The Division of Forestry and Wildlife (DOFAW) operates a plant nursery for the propagation and plant acclimatizing facility on a three-acre site. This site is used to propagate native species for outplanting in the Kōkeʻe area and is also used to grow plants at certain elevations and climate. The area is fenced to keep animals out, such as deer and pigs. The facility is comprised of former Army buildings, a warehouse (16 feet by 20 feet), and a shed to store firefighting equipment. The Kalalau Rim Site is a 9 acre area used to outplant native plants propagated in the nursery and is fenced to keep animals out, such as deer and pigs. No impacts are anticipated for the plant nurseries.

No changes to the functions of the nursery's buildings and grounds are anticipated. No mitigation is proposed or required.

AQUATIC RESOURCES
No impacts are anticipated for the fishing program. No mitigation is proposed or required.

CONSERVATION ENFORCEMENT
No impacts are anticipated for the functions of the Division of Conservation and Resources Enforcement (DOCARE). No mitigation is proposed or required.

FEDERAL AGENCIES (NASA AT HALEMANU, U.S. AIR FORCE KŌKEʻE MICROWAVE ANTENNA STATION, HAWAIʻI AIR NATIONAL GUARD 150TH AIRCRAFT CONTROL AND WARNING SQUADRON AT KAHUAMAʻA FLATS, AND U. S. NAVY PACIFIC MISSILE RANGE FACILITY)
No impacts are anticipated for the functions of the federal agencies at the Parks. No mitigation is proposed or required.

DEPARTMENT OF EDUCATION – KŌKEʻE DISCOVERY CENTER
No impacts are anticipated for the functions of the Department of Education's Kōkeʻe Discovery Center. When the facility was constructed, it was anticipated that its sewer system would be connected to the Parks' treatment system. This connection to the sewer treatment system is recommended to mitigate potential impacts to groundwater.

HISTORICAL RESOURCES
In order to preserve the historic character of the area, the recreation residences have been proposed as a "historic preservation and restoration project" under the provisions of Chapter 171-36.2. Design standards are being developed for the preservation of the recreation residences. The historic preservation and restoration project designation allows DLNR to directly negotiate with current lessees for their continued use of the cabins. No impacts are anticipated to the historic structures within the two parks. In order that the historic character of the structures maintains their integrity, design guidelines will be developed to continue the rustic tradition of the area. This may require that structures be removed or demolished because it is out of character with the intended cultural landscape or a fuel break cannot be cleared without the cabin becoming a visual eyesore. Interpretive programs are proposed by DSP for Tax Map Key: (4) 1-4-004:024, the Kōkeʻe Ditch irrigation system, and the Puʻu Lua Ditchmans' cabin. The interpretive program should include the history of the ditch system and development of Kōkeʻe's cultural landscape, the role of the ditch in West Kauaʻi's agricultural economy, and individuals associated with the ditch history. Program elements may include signage, restoration of ditch facilities, and self-guided and docent-guided interpretive hiking trails along segments of the ditch.

CULTURAL EVENTS AT THE PARKS
No impacts are anticipated to the continuation of the cultural events at the Parks; therefore no mitigation is proposed. A study is recommended to determine event parking needs and require event organizers to provide parking and transportation alternatives. These alternatives can include parking at the lookouts and providing a shuttle or parking in Waimea town with a shuttle to the Parks.

SCENIC RESOURCES - Waimea Canyon Lookout, Puʻu Hinahina Lookout, Kalalau Lookout

The lookouts are the most visited of the park facilities and as a result are the most impacted by visitor use. Improvements are proposed for each of the existing lookouts and the creation of new viewing areas is recommended. Improvements proposed will impact the environment by introducing new facilities. These new facilities will be in the form of new or improved buildings, restrooms, parking areas, walkways, landscaping, and interpretive signs. Impacts to the environment will be temporary, and confined to the construction period. Long-term impacts are anticipated to be beneficial in that the new facilities will better accommodate the visitors, provide for additional interpretation, and provide restroom facilities that are clean and energy efficient (e.g., use of solar power and use of non-potable water for the toilets).

SECONDARY SCENIC VIEWS (Waimea Canyon Drive Scenic Roadway, Kōkeʻe Road Scenic Roadway, Kanaloahuluhulu Meadow Scenic Location, Puʻu Lua Reservoir, Various Views of the Kōkeʻe Irrigation Ditch, Various Views of Tree Stands, and the Air Force Tracking Station Views)
The views that are located within the Parks are important assets that are to be preserved and protected. New lookouts are proposed as a means of providing a safe viewing location, rather than relying on the informal view spots along the roadway to the Parks. The primary impact to the environment will be construction related and will be short-term. Implementation of erosion control measures and the requirement of best management practices will mitigate the short-term construction impacts. Mitigating the impacts of the development of secondary scenic views includes: a) the turnouts at mile markers 2.3 and 3.5; b) the proposed turnouts at mile markers 2.0 and 3.3 require the realignment of Waimea Canyon Drive and would take less than an acre of land away from sugar cane cultivation; and c) the proposed lookouts are proposed not only to provide a safe viewing location, but also to direct sightseers to the better view points. Long-term benefits include the development of safe viewing areas along the road to the Parks.

HIKING RESOURCES (Nā Ala Hele, including commercial activities)
No impacts to the existing hiking resources are anticipated and no mitigation is proposed or required. Improvements planned to the trail system include improved signage and trail markers, and the creation of trail hubs. Additional trail improvements are described in Section 2 of the Final EIS. The trail hub will be centered around

existing parking areas. The parking area will also be provided with composting toilets to remove the necessity of developing cesspools or leach fields. DSP will open selected trails for commercial tours once the trails are brought up to standards and adequate parking can be provided.

RESOURCE GATHERING

Many people use the forest to gather plant materials for a variety of purposes. Gathering Methley plums is allowed by permit only. This popular fruit is characterized by a deep, red color at maturity. The flesh is sweet, while the skin is bitter and it is a favorite for use in making cracked seed, umeboshi (Japanese salted plum), jams and jellies. Pickers have favored sites to which they return year after year. Pockets of Methley plum trees are found along the road to the Kalalau Lookout from the Kōkeʻe State Park Headquarters. They were planted in 1935 by the Civilian Conservation Corps. The plum trees along the road from the Kalalau Lookout to the Puʻu o Kila lookout were planted in 1954 when the road was constructed. Currently in Kōkeʻe, they range across a variety of trails in the study area, and there are special places favored by pickers. The season for plum picking traditionally starts in late June or early July.

Permits are also required to pick maile, mokihana, ferns, dead wood and other plant material, including weeds such as banana poka. Permit applications are available at the DSP office in the State building in Lïhuʻe. Maile and mokihana gathering normally occurs in the area above the Puʻu ka Pele cabins. No impacts to the existing resource gathering program are anticipated, and no mitigation is proposed or required.

PICNIC AND CAMPING FACILITIES

None of the facilities are ADA accessible. Parking areas at Puʻu ka Pele should be paved and properly drained to prevent the accumulation of water during wet periods and to prevent soil erosion. One-Stop Permitting - Currently, visitors to the area are required to make reservations with the different agencies for different activities. The public would be better served by consolidating the permit process for different activities and different jurisdictions into a “one-stop” permit source. Nonprofit agencies should be required to provide open-public rental periods for groups and families. These dates should be made known to DLNR annually.

Camping opportunities in Kōkeʻe and Waimea Canyon State Parks include backcountry camping, individual car and tent camping, individual cabins, and group camping in developed campground facilities. Camping facilities are described in detail in a Facility Inventory Assessment Report. A total of eight group camping facilities accommodating up to 338 individuals currently exist within the park boundaries. A ninth facility, consisting of 12 State cabins (sleeps up to 75 persons) is available for public use. No impacts to the existing wilderness camping resources are anticipated.

EQUESTRIAN USE ALONG THE KUKUI TRAIL AND THE NUʻALOLO TRAIL

No impacts to the existing resources for equestrian use within the Parks are anticipated, and no mitigation is proposed or required.

BICYCLING

Off-road bicycling is currently prohibited within Kōkeʻe and Waimea Canyon State Parks. Numerous conflicts with mountain bike use, including damage to trails in sensitive ecological areas, erosion, introduction of seeds and plant material, encounters with hikers and hunters, and noise that frightens game in hunting areas, are cited as the reasons for prohibiting mountain bikers from park trails and natural areas. The prohibition is announced on a sign posted at the entrance of Waimea Canyon State Park on Kōkeʻe Road. Mountain biking is allowed on dirt roads in the two parks and in the State Forest Reserves. A list of trails and roads open to non-motorized vehicle use, including bicycles, within the forest reserves of western Kauaʻi has been prepared. All of these roads are accessed through Kōkeʻe and Waimea Canyon State Parks. Mountain bikers access Waimea Canyon Trail from Waimea Town. All other trails in the State forest reserves are closed to all wheeled vehicles. Representatives of mountain biking groups have requested access to the park and development of designated mountain biking trails. A suggestion has been made to designate mountain biking tracks within timber groves where native natural communities are not likely to be impacted. The dirt roads of Kōkeʻe, Halemanu, and Puʻu ka Pele provide a pleasant environment for recreational bicycling, but have not been promoted for such use. It would be difficult to regulate different classes of recreational bicyclers to allow low-impact recreational uses while prohibiting high-impact mountain biking. Commercial tour operators conduct downhill bicycling on Kōkeʻe Road (State Route 550). All downhill bicycling operations are staged within the State right-of-way, thus are outside the jurisdiction of DSP. No impacts to the existing resources for recreational bikers are anticipated, and no mitigation other than an education program is proposed or required to inform bikers on the need to stay on the roads and to prevent conflicts with hikers.

MOTORIZED VEHICLE USE

Motorized recreational vehicle use is currently not permitted off road within the two State Parks. Four wheel-drive vans were permitted in the past to operate tours of Camp 10 Road and Halemanu Road under commercial license. Due to the extremely heavy impact of the commercial vehicles on these roads, lack of funding for maintenance, and liability concerns, off-road tours are no longer permitted within the Parks. Off-road motorcycle riders regularly trespass into the park, particularly at lower elevations near the entrance to Waimea Canyon State Park and via Waimea Canyon Trail. Illegal motorcycle use is credited with destroying ground cover, causing erosion, creating unauthorized trails, spreading weed species, disturbing native birds and game animals, and conflicting with hunters and hikers using the parks. Enforcing prohibitions on motorcycle use within the park is difficult due to their mobility and the large areas in which they are known to operate. No impacts to the existing resources are anticipated because off-road motorized use is prohibited in the Parks. To prevent unauthorized use of unpaved roads and trails, gates will be installed.

PROPOSED NATURE TRAILS

The unique environment and diverse plant and animal life found in Kōkeʻe and Waimea Canyon State Parks attract many amateur naturalists. Trails throughout the parks provide access to the complete inventory of natural communities, geologic formations, and climatic zones within the parks, and provide an opportunity to encounter rare and endangered plants and animals that inhabit the area. The State plans to develop new ADA-accessible interpretive trails to highlight the four main forest types found in Kōkeʻe and Waimea Canyon State Parks: ʻAʻaliʻi Lowland Dry Shrubland; Koa Lowland Mesic Forest; Koa / ʻŌhiʻa Montane Mesic Forest; and ʻŌhiʻa Montane Wet Forest. Trail facilities at all four locations will include parking and interpretive signage. Hikers will be directed by signage to the nearest restroom facilities at major lookouts or trailheads. Interpretive facilities at the parks are limited given the rich natural resources found in the region. Trails that provide interpretive signage include: Awaʻawapuhi Trail, Nature Trail at Kōkeʻe Lodge, and the Iliau Nature Loop Trail. No impacts to the existing resources are anticipated, and no mitigation is proposed or required as most of the interpretive work will be confined to existing trails; and signs or placards will be placed next to trees and shrubs.

TRAFFIC AND ROADWAYS

The roadway provides a potential medium for interpreting the changing vegetation zones, from the lowland environment affected by agricultural activities and coastal processes, through mid-level mixed forests, to native dominant rain forest. Center line and pavement edge night reflectors are installed on only limited segments of Kōkeʻe Road, and cease altogether at the intersection of Halemanu and Kōkeʻe Road. Installation of reflectors along the entire length of Kōkeʻe Road and Waimea Canyon Drive would greatly improve safety, especially at night and during foggy or rainy conditions. Regrading and repair is needed at many dirt road segments. If performed periodically, this form of maintenance may be adequate for some of the less traveled roads. A more permanent treatment, such as AC paving should be considered at the roads that are more heavily utilized. Demand for parking is evident at the Kukui/Iliau Nature Loop Trailhead and at the Kōkeʻe Road and Halemanu Road intersection. Currently, cars park on the unimproved shoulder. Parking space is particularly limited at the Kukui/Iliau Nature Loop Trailhead. Off-road parking accommodations should be planned in coordination with the trail interpretation program. No impacts to the existing roadway (paved and unpaved) network is anticipated as no new roads are proposed in the next five years, nor are existing roads to be closed. Improvements to existing roads and parking areas in the short-term are limited to repair and maintenance work. Short-term impacts to the environment will result from the paving and grading activities. These impacts include runoff from the graded road sections. These impacts are proposed to be mitigated through the use of best management practices and good housekeeping during construction. Future improvements include: a) widening the travelway to 18 feet to increase safety; b) providing shoulders (up to 10 feet) to allow space for pedestrians and the ability for vehicles to pull off; c) clearing of shoulders for fuel breaks and controlling flammable grasses alongside Kōkeʻe Road, Camp 10-Mōhihi

Road, Kumuwela Road, and Mākaha Ridge Road; d) designing and reconstructing Kōkeʻe Road to improve sight distances; e) lessening the curves to minimize impacts to the shoulders from automobiles and to accommodate large vans and buses with special permits; and f) reconfigure the parking lots at Waimea Canyon Lookout, Puʻu Hinahina Lookout, Kanaloahuluhulu Meadow, and Kalalau Lookout to operate more efficiently.

UTILITIES

The capacity of the existing well and storage system is not sufficient to meet the demand or to expand the existing facilities. Development of water features for the park can be considered through the use of the existing Kōkeʻe Ditch System, expanding the ditch system to include additional reservoirs or new ditch segments. Recreational opportunities for the non-potable water systems can be developed, i.e., fishing in streams and the use of Puʻu Lua Reservoir as a visitor attraction--interpretive site for viewing and learning about the Kōkeʻe Ditch System. Many of the main lines of the system are old and in poor condition. A detailed analysis should be performed and necessary replacement/repair work be completed as soon as possible.

Potable water for the existing restrooms at the Waimea Canyon Lookout and Kalalau Lookout are needed. Backup sources of potable water are needed for the park to service existing uses (recreation residences, Kōkeʻe Lodge and Kōkeʻe Natural History Museum, State cabins, and CCC Camp), as well as provide additional capacity for park development. Well exploration should continue as a high priority. Establish a Wellhead Protection Zone of 1,000 feet from cesspools for potable well sources. Non-potable water supply for firefighting purposes. According to DOFAW, a fire engine's water carrying capacity is 750 gallons and its pump operates at 1,500 gallons per minute. The rescue truck carries 200 gallons and pumps at 125 gallons per minute. If thirty minutes of firefighting capacity is required for the engine, 45,000 gallons of water storage will be required. Clear access to Puʻu Lua Reservoir is required for helicopters to access this water supply for fighting wildland fires. In addition, development of dip tanks in open areas will also facilitate fighting wildland fires. Water meters should be installed for all major users, i.e., Kōkeʻe Discovery Center, Kōkeʻe Lodge, Kōkeʻe Natural History Museum, etc. The water source and treatment systems might best be managed by out sourcing to a private operator. The existing potable water system at the Parks will be impacted by the proposed improvements. Additional demand will require the development of additional storage capacity and the development of new wells to support the demand. As part of the water source development, no building of wastewater disposal system within the wellhead protection zone will be enforced. In addition, the fire protection system at the Parks is currently inadequate. Therefore, a non-potable system is proposed for fire control. The existing Kōkeʻe Ditch System is proposed to support fire control. In order for these systems to be put in place, land will need to be set aside for storage tanks. Ground disturbing activities, such as trenching for new waterlines, will require the installation of erosion control measures to prevent water pollution. Further, best management and good housekeeping practices will be required for the contractors who perform this work. During construction activities, traffic

impacts are anticipated due to work on the roadways. In order to promote conservation, user fees will be initiated.

WASTEWATER FACILITIES

Leach field expansion is required to handle effluent in ground saturation conditions during periods of high and prolonged rainfall. Because the potable water source for the Kōkeʻe area is located down gradient of the buried caldera, and because lease lots have been developed up-slope of the drinking water source, use of cesspools at individual cabin lots in the Kōkeʻe area should be discontinued unless alternative treatment systems are implemented, such as individual wastewater systems. Plans to eventually tie the Kōkeʻe Discovery Center (DOE) into this sewer system have been formed but no timetable for implementation has been established. The remaining large users within the Kōkeʻe lease lots should convert to individual wastewater treatment systems – septic tank systems as a condition of lease renewals. Expansion of the leach field will be necessary to handle periods of high rainfall. Existing sewage disposal methods at the Parks fall into two categories: cesspools and individual wastewater treatment systems. In order to protect groundwater in the area, no new cesspools are being allowed; and where large capacity cesspools are located, they will be converted to individual wastewater treatment systems; depending on the proximity to the Parks' treatment system, these uses are proposed to be connected to the treatment system, such as the Kōkeʻe Discovery Center. Further, uses within 1,000 feet of the potable water wells will also be required to connect to the Parks' waste treatment system, or be placed on individual treatment systems. Ground-disturbing activities, such as trenching for the new sewer lines, will require the installation of erosion control measures to prevent water pollution. Best management and good housekeeping practices will be required for the contractors who perform this work.

COMMUNICATION FACILITIES

Primary electrical service is provided by Kauaʻi Island Utility Cooperative (KIUC) via overhead power lines and a substation located at approximately one half mile before the Kukui Trail. The Hawaiian Telcom antenna stands high atop Puʻu ka Pele. This repeater site provides services to the Pacific Missile Firing Range Facility at Barking Sands and Kukui o Lono. The site also provides communications links for the NASA facility and the Navy facilities in the Parks. This facility consists of a 180-foot high communication tower surrounded by several buildings that contain repeater equipment owned by federal, state and county agencies. This facility is located within a 1.25-acre parcel situated along the west side of Kōkeʻe Road at about the 9-mile marker. The Kukui Tower site has potential for parking and a trailhead for the Kukui Trail and Iliau Nature Loop Trail. There is limited parking at Puʻu ka Pele and the site does not have a potable water source or restroom. Due to the presence of the microwave antennae tower, use of archaeological features at Puʻu ka Pele as an interpretive site is problematic. Also, the site is difficult to monitor. Drawing public attention to an isolated archaeological site subjects the site to the potential for vandalism and destruction. The interpretation of this site can be revisited if the site is no longer needed for communications purposes. The existing Kukui Tower is a visual intrusion into the

landscape. The tower is visible from the Puʻu Hinahina and Waimea Canyon Lookouts. Mitigating this issue will require the cooperation of multiple agencies with jurisdiction over the site, including DLNR and the U.S. Air Force. The risk of losing power and communications, and creating a safety hazard exists because of the potential for trees or branches falling onto overhead power lines. Undergrounding of the power and communication lines is an expensive solution. An alternative to undergrounding the power and communication lines is to reroute lines to less visible areas. DLNR is proposing the installation of a repeater for their radio system to provide communications in Kalalau Valley. This service will be available to DSP, DOFOW, and DOCARE. Currently, there are no means of establishing communications from workers along the Nā Pali Coast, especially during emergencies. A repeater site is proposed to be installed in close proximity to the Puʻu o Kila Lookout. The facility will include an antenna and an equipment vault.

EMERGENCY SERVICES – POLICE AND FIRE

Primary law enforcement within the Parks is the responsibility of DLNR, Division of Conservation and Resources Enforcement (DOCARE). The Division, with full police powers, enforces all State laws and rules involving State lands, State Parks, historical sites, forest reserves, aquatic life and wildlife areas, the Conservation District, as well as county ordinances involving county parks. DOCARE also enforces laws relating to firearms, ammunition, and dangerous weapons.

Kōkeʻe and Waimea Canyon State Parks are designated as a Fire Management Co-Response Area. Under this designation, primary responsibility for fighting fires within the park boundaries falls to the Kauaʻi Fire Department (KFD). DOFAW will respond to fires within the Parks only at the direct request of KFD, but retains primary firefighting responsibility for conservation lands outside the park, including the forest reserves, natural area reserves, and wilderness preserve. Requests for DOFAW assistance must come from KFD through the County Civil Defense to State Civil Defense to DOFAW. DOFAW Administrator or State Fire Protection Forester will then contact the respective DOFAW Kauaʻi Manager who will then mobilize his resources to assist the County Fire Department.

No impacts are anticipated for police services. Fire control services, however, will be impacted by the additional demand due to new facilities. DOFAW currently provides fire control services as they relate to wildland fires. In order to facilitate fire control, non-potable water sources and storage tanks near to the build-up areas are proposed. Impact to the environment will be short-term and limited to the construction period. Long-term beneficial impacts are the prevention of spreading of fires within the Parks and a higher level of protection for park users.