

Project Title: Kāko‘o I Ka Lāhui: Supporting a Nation Through Connectivity (Infrastructure)

A. Executive Summary:

The “Kāko‘o I Ka Lāhui: Supporting a Nation Through Connectivity” project is a comprehensive broadband initiative aimed at improving internet access and bridging the digital divide on Hawaiian Home Lands. While our total allotment under TBCP NOFO 2 is \$72,715,237.15, we have developed a project estimated to cost \$66,915,621.00. Submitting the Tribal Broadband Connectivity Program (TBCP) Grant will accomplish the following objectives: 1) connect currently unserved Department of Hawaiian Homelands (DHHL) households to current middle mile fiber routes that will provide service of at least 1000 Mbps symmetrical; 2) connect those extremely rural DHHL households with low earth orbit (LEO) satellite connections of at least 100 Mbps download and 20 Mbps upload; 3) construct and fill conduit with middle mile fiber to DHHL homestead communities that are currently being constructed; 4) construct community digital innovation centers to be used for digital workforce development training and digital literacy training courses in order to build the capacity and knowledge base of our local population; 5) manage DHHL’s existing tower infrastructure. By focusing on these 5 crucial priorities, we will meet the need for improved connectivity on Hawaiian Home Lands across the State of Hawaii and service 100% of all currently unserved Native Hawaiian households, businesses, and community anchor institutions, on Home Lands, in both suburban and rural communities with qualifying broadband speeds which also means we will connect 100% of Native Hawaiian households that are at or below 150% of the poverty line to qualifying broadband speeds.

B. Status of Eligible Entity, Table of Funded Participants, and Resumes of Key Personnel:

Section 905(a)(8) of the Consolidated Appropriations Act specifies the Department of Hawaiian Home Lands on behalf of the Native Hawaiian Community including Native Hawaiian Education Programs as the eligible entity and also appropriates set-aside funding directly to DHHL. The Department of Hawaiian Home Lands is governed by the Hawaiian Homes Commission Act of 1920, enacted by the U.S. Congress to protect and improve the lives of Native Hawaiians. The Act created a Hawaiian Homes Commission to administer certain public lands, called Hawaiian home lands, for homesteads. Native Hawaiians are defined as individuals having at least 50 percent Hawaiian blood.

The Act was incorporated as a provision in the State Constitution in 1959 when Hawai‘i was granted statehood. Responsibility for the Commission and the Hawaiian home lands was transferred to the State at that time. Except for provisions that increase benefits to lessees or relate to administration of the Act, the law can be amended only with the consent of Congress. As a condition of statehood in 1950, the federal government delegated administration of the Act to the newly created State of Hawaii. The State then delegated the administration of the Act to the Department of Hawaiian Home Lands, a State agency within the executive branch. As an agency of the State of Hawai‘i, the Department does not enjoy the quasi-sovereign rights and protections of federally recognized Indian tribes. The Department is partially funded by the State Legislature, which also exercises oversight over the Department.

The primary responsibilities of the Department of Hawaiian Home Lands are to serve its beneficiaries and to manage its extensive land trust. The land trust consists of over 200,000 acres on the islands of Hawai‘i, Maui, Moloka‘i, Lāna‘i, O‘ahu, and Kaua‘i with over 50 homesteads

and nearly 10,000 leases for residential, agricultural, and pastoral uses.

The Department of Hawaiian Home Lands' oversight of the land trust serves three classes of beneficiaries: 1) those Native Hawaiians of 50% blood quantum or greater who have already received a lease from the Commission and currently resides on Hawaiian home lands, numbering approximately 10,000 households; 2) those Native Hawaiians of 50% blood quantum or greater who have not yet received a lease, are on the Department's waiting list, and live both on and off Hawaiian home lands, numbering approximately 28,000 individuals; and 3) those Native Hawaiians of 50% blood quantum or greater who have not applied for a homestead with the Department.

The Department also has a fourth, expanded, definition of its beneficiary class for the specific purposes of Title VIII of NAHASDA (25 U.S.C. 4221) and the Consolidated Appropriations Act of 2021, Division N, Title IX, Section 905(c) which authorizes this Tribal Broadband Connectivity Program. The aforementioned definition allows any Native Hawaiian able to trace their genealogy back to pre-1778, without regard for current blood quantum, to be eligible for assistance under both Acts. The proposed project will target all four beneficiary classes.

Furthermore DHHL has demonstrated organizational capabilities to successfully manage federal funding of similar size and scopes. Annually working with an operational budget of \$85 million dollars, of which the majority stems from federal and state funding we again are confident in our ability to manage this project. Additionally, as indicated in our attached resumes as well as within our table of funded and unfunded participants we are confident in our relevant experienced needed to complete this project within the proposed timeline and where we may fall short in capacity we have recognized this and will contract with subject matter experts to ensure our projects success.

C. Description of activities to be funded by the grant:

The "Kāko'ō I Ka Lāhui" project embodies our commitment to the welfare and prosperity of the Native Hawaiian community. By harnessing the transformative power of enhanced broadband infrastructure, we anticipate substantial economic development, educational enrichment, improved telehealth services, and strengthened community bonds. This project description outlines the core objectives and strategies for each component, paving the way for a digitally connected and thriving future for Hawaiian Home Lands.

Overall our priorities are the following and a detailed breakout by Island and Homestead area can be found following these priorities:

1. Connect currently unserved Department of Hawaiian Homelands (DHHL) households to currently build middle mile fiber routes that will provide service of at least 1000 Mbps symmetrical.
 - a. To achieve this, we will collaborate with local Internet Service Providers (ISPs) to expand their networks in the home lands. We hope to demonstrate that our proposed network will be scaled up and can continue to be to accommodate commercial grade equipment (i.e. fiber and other technologies), which will allow this network to increase its speed offerings over time. 334 Native Hawaiian homes, currently unserved, are proposed to be connected under this priority.
2. Connect those extremely rural DHHL households with low earth orbit (LEO) connections of at least 100 Mbps download and 20 Mbps upload.

- a. Due to the extreme remoteness of some of our Native Hawaiian households, low earth orbit solutions make the most fiscal sense. 118 Native Hawaiian homes that are currently unserved are proposed to be connected under this priority.
3. Construct conduit and fill it with middle mile fiber to DHHL homestead communities that are currently being constructed to ensure service of at least 1000 Mbps symmetrical.
 - a. The Department of Hawaiian Homelands has secured approximately \$600 million from both state and federal funding sources to build additional homes across the State on DHHL lands. DHHL will use TBCP funding to ensure these developments, that are currently under construction, will have middle mile fiber so that once complete (estimated 2028) an internet service provider can light up these routes and bring high speed internet service to these Native Hawaiian households. It is estimated that these middle mile routes (where the last mile connection will be less than 50 feet) will guarantee that more than 985 future Native Hawaiian homes and a Community Health Center will have access to high-speed internet.
4. Construct community digital innovation centers to be used for digital workforce development training and digital literacy training courses in order to build the capacity and knowledge base of our local population.
 - a. Across the Hawaiian Islands, Native Hawaiians, lack sufficient community spaces that can be used for digital literacy training and related workforce development classes. Therefore, it is a priority for DHHL to build these spaces on home lands. In order to accomplish this, we have partnered with local Homestead Associations on various islands who have designated land for such digital innovation centers. Across the Hawaiian Islands we are proposing to build four community digital innovation centers.
5. Manage DHHL's existing tower infrastructure.
 - a. On DHHL lands are 25 wireless towers ranging from 50 feet tall micro-cell towers to 180 feet tall, guyed macro-cell towers. These towers are currently operational and service the radio and wireless data needs of the home lands. With data consumption, coming from wireless data users, expected to precipitously increase in the coming years, managing this infrastructure is vital to maintaining an acceptable standard of service. A short summary of each respective aspect of management is listed below that will be completed by a contractor – more information can be found in our budget narrative for this activity:
 1. *Site Audits:* Site examination of critical components such as antennas, transceivers, power systems, and supporting structures. By documenting signs of wear and tear, adherence to safety standards, and potential issues, we'll be able deploy resources for timely maintenance interventions to mitigate the risk of unexpected failures. Moreover, an analysis of environmental factors, including weather conditions and exposure to corrosive elements, adds a layer of contextual understanding, facilitating the development of targeted strategies for site-specific challenges.
 2. *Lease Management:* Within the unique context of our operations, DHHL serves as the landowner, and we facilitate land dispositions for tower owners and operators. Our approach to lease management involves proactively engaging with leaseholders to effectively manage leases, ensuring a mutually beneficial

partnership.

3. *Financial Management*: Crafting a comprehensive budget will serve as the cornerstone of our financial management strategy. Developing a financial plan will ensure that DHHL can allocate resources judiciously and prioritize key initiatives. This entails a meticulous examination of both operating and capital expenses encompassing factors such as maintenance costs, equipment upgrades, and regulatory compliance. By proactively anticipating financial needs and challenges, the Department can make informed decisions that optimize financial resources and contribute to the sustainable growth and performance of our network of radio and wireless towers.
4. *Field Operations*: A team of local tower operators equipped with specialized expertise will ensure optimal performance, adherence to industry safety and maintenance standards, and efficient troubleshooting when necessary. The comprehensive management approach encompasses various aspects, including regular site inspections, equipment maintenance, compliance monitoring, and timely issue resolution, all aimed at ensuring the reliability and effectiveness of the radio and cell tower network.
5. *Reporting*: Detailed and regular reports offer valuable insights into key metrics such as site conditions, equipment functionality, and adherence to regulatory standards. These reports serve as a crucial communication tool, enabling stakeholders at various levels to make informed decisions and allocate resources strategically. Moreover, the reporting process will be instrumental in fulfilling our obligations to our grantor, the National Telecommunications and Information Agency, by providing them with accurate and timely updates on initiative progress and outcomes. Additionally, the reports will be pivotal in communicating relevant information to the Hawaiian Homes Commission, ensuring transparency and accountability in our endeavors as we strive to meet the unique needs and expectations of our local community.

To that end, DHHL will serve a total of 5 separate islands, each listed below and organized by separate priorities pertaining to their location.

Island of Molokai

On the island of Molokai, DHHL has six separate areas of jurisdiction. Of these six areas, three have no broadband serviceable locations, and three include homes, community anchor institutions, and/or businesses that do not have access to qualifying broadband speeds. On the island of Molokai there are 750 DHHL homes, 11 of which do not have access to qualifying broadband speeds. Below you will find each of our priorities broken out in detail as they pertain to the island of Molokai.

Island - Molokai	
DHHL Homestead Area	Solution Type and Additional Comments
Ho'olehua-Palā'au	Last mile solutions to unserved BSLs will be served by fiber or low earth orbit. <ul style="list-style-type: none">• (4) unserved locations to be served by fiber• (3) unserved locations to be served by low earth orbit.

Kalama'ula	Last mile solutions to unserved BSLs will be served by fiber solution. <ul style="list-style-type: none"> (1) unserved locations to be served by fiber
Kalaupapa	Last mile solutions to unserved BSLs will be served by low earth orbit satellite. <ul style="list-style-type: none"> (3) unserved locations to be served by low earth orbit.

Priority 1 & 2: Connect unserved DHHL households to current middle mile fiber routes & connect those extremely rural DHHL households with low earth orbit (LEO) connections: As noted above, Molokai and its three project areas (Ho'olehua-Palā'au, Kama'ula, and Kalaupapa) each include unserved DHHL households. The table above shows the number of households in each service area and how they will be served. Fiber routes will either be hung on existing poles or a direct bury. To accomplish the Fiber to the home (FTTH) aspect of this project, DHHL will contract out work with the incumbent ISP or other entity utilizing our procurement policy. For details on these agreements, please see section M. on sustainability. For those locations that are extremely remote, therefore FTTH is not a viable solution, we will utilize low earth orbit solutions.

Island of Kauai

On the island of Kauai, DHHL has eight separate areas of jurisdiction. Of these eight areas, six have no broadband serviceable locations, and two include homes, community anchor institutions, and/or businesses that do not have access to qualifying broadband speeds. Furthermore, on the island of Kauai there are 710 houses, 2 of which do not have access to qualifying broadband speeds. Within 2 DHHL jurisdictions, Hanapepe and Anahola, TBCP funds will be used to construct new telecommunications conduit to service 82 new homes in Hanapepe and 51 new homes in Anahola. Additionally, Kauai lacks space for community members to gather and be trained in digital literacy skills. DHHL also plans to utilize TBCP funds to assist the community organization, Kulukulu Kumuhana O Anahola (KKOA), in the construction of the KKOA Community Digital Innovation Center (Ulupono O Anahola), a multiuse digital access center for the Eastern Kauai Homestead community. Below you will find each of our priorities broken out in detail as they pertain to the island of Kauai.

Island - Kauai	
DHHL Homestead Area	Solution Type and Additional Comments
Anahola – Residential	Last mile solutions to unserved BSLs will be served by fiber or low earth orbit. <ul style="list-style-type: none"> (1) unserved locations to be served by fiber <p>New development Piilani Mai Ke Kai (PMKK2) will be serviced by deploying middle mile fiber optic cable.</p> <ul style="list-style-type: none"> (51) near-future BSLs <p>CAI to be built in this community (Kulukulu Kumuhana O</p>

	Anahola (KKOA). <ul style="list-style-type: none"> (1719) beneficiaries in the Anahola community.
Moloa'a	Last mile solutions to unserved BSLs will be served by: Fiber solution. <ul style="list-style-type: none"> (1) unserved locations to be served by fiber
Hanapepe	New development will be serviced by newly constructed middle mile conduit and fiber optic cable. <ul style="list-style-type: none"> (82) near-future BSLs

Priority 1 & 2: Connect unserved DHHL households to current middle mile fiber routes & connect those extremely rural DHHL households with low earth orbit (LEO) connections: As noted above Kauai and its two service areas (Anahola – Residential, and Moloa'a) include unserved DHHL households. The table above shows the number of households in each service area and how they will be served. Fiber routes will either be hung on existing poles or a direct bury. To construct Fiber to the home (FTTH) aspect of this project, DHHL will contract out work with the incumbent ISP or other entity utilizing State procurement policy. For details on these agreements, please see section M. on sustainability.

Priority 3: Construct and fill conduit with middle mile fiber to DHHL homestead communities that are currently being constructed. Under Act 279, Session Laws of Hawaii (SLH) 2002, “Waitlist Reduction Act”, DHHL will develop 2,727 new homes in the upcoming years. On Kauai, 82 new homes will be developed in the Hanapepe subdivision. It is our intent to use TBCP funds to construct only the telecommunication infrastructure for this development. Additionally, in alignment with this priority and not connected to Act 279 projects, the Department intends to utilize TBCP funds to pull middle mile fiber to service the 51 new homes in Piilani Mai Kekai Phase 2, a new development in the Anahola Hawaiian homestead area. To accomplish this, DHHL will contract out work according to State procurement policy. For details on these agreements, please see section M. on sustainability.

Priority 4: Construct community innovation labs to be used for digital workforce development training and digital literacy training courses. DHHL, on the island of Kauai, lacks sufficient community spaces that can be used for digital literacy training and related workforce development classes. Therefore, we are proposing to build, in collaboration with Kulukulu Kumuhana O Anahola (KKOA), a community anchor institution that will be used as a computer lab and digital literacy training facility. Additionally, this structure can be used by community members for telehealth appointments and remote education with respect to higher education opportunities and K-12 online tutoring. The location of this structure has been selected and will be built on an existing plot of land that has been specifically selected for this purpose.

Priority 5: Manage existing wireless towers on DHHL lands. DHHL will utilize TBCP funds to manage its' network of 25 already built wireless towers. There are 4 towers on the Island of Kauai.

Hawaii Island

On Hawaii island, DHHL has twenty-four separate areas of jurisdiction. Of these twenty-four areas, twelve have no broadband serviceable locations, three areas that have unserved BSL that are currently served and/or covered under a federal enforceable commitment to deploy qualifying broadband service and nine include homes, community anchor institutes, and/or businesses that do not have access to qualifying broadband speeds. Furthermore, on the island of Hawaii there are 2,144 houses, 183 of which do not have access to qualifying broadband speeds. Additionally, Hawaii Island lacks space for community members to gather and be trained in digital literacy skills. DHHL plans to utilize TBCP funds to assist the community organizations, O Makuu Ke Kahua and Keaukaha-Panaewa Community Alliance, in constructing the Makuu Community Digital Innovation Center and Pana’ewa Community Digital Innovation Center, respectively. Each building will be a multiuse digital access center for their respective Homestead communities. Below you will find each of our priorities broken out in detail as they pertain to the island of Hawaii.

Hawaii Island	
DHHL Home Stead Areas	Solution type and additional comments
Pana’ewa	<p>Last mile solutions to unserved BSLs will be served by fiber solution.</p> <ul style="list-style-type: none"> • (64) unserved locations to be served by fiber <p>CAI to built in this community (Keaukaha Panaewa Community Digital Innovation Center (KPCDIC))</p> <ul style="list-style-type: none"> • (3,769) beneficiaries in the Keaukaha and Panaewa Communities
Maku’u	<p>Last mile solutions to unserved BSLs will be served by fiber solutions.</p> <ul style="list-style-type: none"> • (15) unserved locations to be served by fiber <p>CAI to be built in this community (‘O Maku’u Ke Kahua Community Center (OMKKCC))</p> <ul style="list-style-type: none"> • (75) beneficiaries in the Maku’u community
Humu’ula-Upper Pi’ihonua	<p>Last mile solutions to unserved BSLs will be served by fiber solution.</p> <ul style="list-style-type: none"> • (1) unserved locations to be served by fiber
Waiākea	<p>Last mile solutions to unserved BSLs will be served by fiber solutions</p> <ul style="list-style-type: none"> • (2) unserved locations to be served by fiber

Kealakehe	<p>Last mile solutions to unserved BSLs will be served by low earth orbit satellite.</p> <ul style="list-style-type: none"> • (1) unserved locations to be served by low earth orbit.
Pu‘ukapu	<p>Last mile solutions to unserved BSLs will be served by fiber or low earth orbit satellite.</p> <ul style="list-style-type: none"> • (61) unserved locations to be served by fiber • (4) unserved locations to be served by low earth orbit. <p>New development will be serviced by newly constructed middle mile conduit and fiber optic cable.</p> <ul style="list-style-type: none"> • (1) near-future BSL (Waimea Nui Health Clinic)
Nienie	<p>Last mile solutions to unserved BSLs will be served by fiber solution.</p> <ul style="list-style-type: none"> • (20) unserved locations to be served by fiber • (5) unserved locations to be served by low earth orbit.
Honokaia	<p>Last mile solutions to unserved BSLs will be served by fiber solution.</p> <ul style="list-style-type: none"> • (12) unserved locations to be served by fiber
Keoniki	<p>Last mile solutions to unserved BSLs will be served by fiber solution.</p> <ul style="list-style-type: none"> • (3) unserved locations to be served by fiber

Priority 1 & 2: Connect unserved DHHL households to current middle mile fiber routes & connect those extremely rural DHHL households with low earth orbit (LEO) connections: As noted above Hawaii Island and its nine service areas include unserved DHHL households. The table above shows the number of households in each service area and how they will be served. Fiber routes will either be hung on existing poles or a direct bury. To accomplish the Fiber to the home (FTTH) aspect of this project, DHHL will contract out work with the incumbent ISP or other entity utilizing our State procurement policy. For details on these agreements, please see section M. on sustainability. For those locations that are extremely remote, and therefore FTTH is not a viable solution, we will utilize low earth orbit solutions.

Priority 3: Construct and fill conduit with middle mile fiber to DHHL homestead communities that are currently being constructed. Under Act 279, SLH 2002, “Waitlist Reduction Act”, DHHL will develop 2,727 new homes in the upcoming years. On Hawaii Island, we plan to use TBCP funds to develop telecommunications infrastructure for the Waimea Nui Health Clinic in Puukapu. It is our intent to use TBCP funds to construct only the telecommunication infrastructure for this development. To accomplish this, DHHL will contract out work according to State procurement policy. For details on these agreements, please see section M. on sustainability.

Priority 4: Construct community innovation labs to be used for digital workforce development training and digital literacy training courses. DHHL on the island of Hawaii lacks community spaces that can be used for digital literacy training and related workforce development classes. Therefore, we are proposing to build in collaboration with O Makuu Ke Kahua and Keaukaha-Pana’ewa Community Alliance, the Makuu Community Digital Innovation Center and Panaewa Community Digital Innovation Center, respectively, that will be used as a computer lab and digital literacy training facility. Additionally, this structure can be used by community members for telehealth appointments and remote education with respect to higher education opportunities and K-12 online tutoring. The location of this structure has been selected and will be built on an existing plot of land that has been specifically selected for this purpose.

Priority 5: Manage existing wireless towers on DHHL lands. DHHL will utilize TBCP funds to manage its’ network of 25 already built wireless towers. There are 13 towers on the Island of Hawaii.

Island of Maui

On Maui, DHHL has nine separate areas of jurisdiction. Of these nine areas, two have no broadband serviceable locations, one area that has Unserved BSLs that are currently served and/or covered under a federal enforceable commitment to deploy qualifying broadband service and two include homes, community anchor institutions, and/or businesses that do not have access to qualifying broadband speeds. Furthermore, on the island of Maui there are 587 houses, 108 of which do not have access to qualifying broadband speeds. Within 2 DHHL jurisdictions, Leialii and Puuhona, TBCP funds will be used to construct new telecommunications conduit to service 342 new homes. Additionally, Maui lacks sufficient space for community members to gather and be trained in digital literacy skills. DHHL plans to utilize TBCP funds to assist the community organization, Waiohuli Hawaiian Homes Association, in the construction of the Waiohuli Community Center’s Computer Lab. This space will be a multiuse digital access center for the Homestead communities in the Central Maui area. Below you will find each of our priorities broken out in detail as they pertain to the island of Maui.

Island - Maui	
DHHL Homestead Area	Solution Type and Additional Comments
Waiohuli	CAI to be built in this community (Waiohuli Community Digital Innovation Center (CDIC)) <ul style="list-style-type: none"> (1594) beneficiaries in the Waiohuli and Keokea communities
Kēōkea	Last mile solutions to unserved BSLs will be served by fiber solutions <ul style="list-style-type: none"> (7) unserved locations to be served by fiber

Kahikinui	Last mile solutions to unserved BSLs will be served by low earth orbit satellite. <ul style="list-style-type: none"> (101) unserved locations to be served by low earth orbit.
Leiali'i	New development will be serviced by newly constructed middle mile conduit and fiber optic cable <ul style="list-style-type: none"> (181) near-future BSLs
Pu'u'hona	New development will be serviced by newly constructed middle mile conduit and fiber optic cable <ul style="list-style-type: none"> (161) near-future BSLs

Priority 1 & 2: Connect unserved DHHL households to current middle mile fiber routes & connect those extremely rural DHHL households with low earth orbit (LEO) connections: As noted above Maui and its two service areas (Keokea, Kahikinui) include unserved DHHL households. The table above shows the number of households in each service area and how they will be served. Fiber routes will either be hung on existing poles or a direct bury. To accomplish the Fiber to the home (FTTH) aspect of this project, DHHL will contract out work with the incumbent ISP or other entity utilizing State of Hawaii procurement policy. For details on these agreements, please see section M. on sustainability. For the communities receiving LEO connections, DHHL will contract out work with a licensed installer and service provider according to State of Hawaii procurement policy.

Priority 3: Construct and fill conduit with middle mile fiber to DHHL homestead communities that are currently being constructed. Under Act 279, SLH 2002, "Waitlist Reduction Act", DHHL will develop 2,727 new homes in the upcoming years. On Maui, we plan to use TBCP funds to develop telecommunications infrastructure for 342 new homes to be built in the Leiali'i and Pu'u'hona subdivisions. It is our intent to use TBCP funds to construct only the telecommunication infrastructure for these developments. To accomplish this, DHHL will contract out work according to State procurement policy. For details on these agreements, please see section M. on sustainability.

Priority 4: Construct community innovation labs to be used for digital workforce development training and digital literacy training courses. DHHL on the island of Maui lacks the community spaces that can be used for digital literacy training and related workforce development classes. Therefore, we are proposing to build, in collaboration with the Waiohuli Hawaiian Homesteaders Association (WHHA), a community anchor institution that will be used as a computer lab and digital literacy training facility. Additionally, this structure can be used by community members for telehealth appointments and remote education with respect to higher education opportunities and K-12 online tutoring. The location of this structure has been selected and will be built on an existing plot of land that has been specifically selected for this purpose.

Island of Oahu:

On Oahu, DHHL has seventeen areas of jurisdiction. Of these seventeen areas, zero have no broadband serviceable locations, zero have areas that include unserved BSL that are currently

served and/or covered under a federal enforceable commitment to deploy qualifying broadband service, and one includes homes, community anchor institutions, and/or businesses that do not have access to qualifying broadband speeds. Within 2 DHHL jurisdictions, Kaupea and East Kapolei, TBCP funds will be used to construct new telecommunications conduit to service 510 new homes. Below you will find each of our priorities broken out in detail as they pertain to the island of Oahu.

Island – Oahu	
DHHL Homestead Area	Solution Type and Additional Comments
Waimānalo	Last mile solutions to unserved BSLs will be served by Fiber Solution <ul style="list-style-type: none"> • (2) unserved locations to be served by fiber
Kaupe‘a	New development will be serviced by newly constructed middle mile conduit and fiber optic cable <ul style="list-style-type: none"> • (60) near-future BSLs
East Kapolei	New development will be serviced by newly constructed middle mile conduit and fiber optic cable <ul style="list-style-type: none"> • (450) near-future BSLs

Priority 1 & 2: Connect unserved DHHL households to current middle mile fiber routes & connect those extremely rural DHHL households with low earth orbit (LEO) connections: As noted above Oahu and its 17 service areas (review table above) only 1 includes unserved DHHL households. The table above shows the number of households in each service area and how they will be served. Fiber routes will either be hung on existing poles or a direct bury. To accomplish the Fiber to the home (FTTH) aspect of this project, DHHL will contract out work with the incumbent ISP or other entity utilizing State of Hawaii procurement policy. For details on these agreements, please see section M. on sustainability.

Priority 3: Construct and fill conduit with middle mile fiber to DHHL homestead communities that are currently being constructed. Under Act 279, SLH 2002, “Waitlist Reduction Act”, DHHL will develop 2,727 new homes in the upcoming years. On Oahu, 510 new homes will be developed in the Kaupea and East Kapolei subdivisions. It is our intent to use TBCP funds to construct only the telecommunication infrastructure for these new homes.

Priority 5: Manage existing wireless towers on DHHL lands. DHHL will utilize TBCP funds to manage its’ network of 25 already built wireless towers. There are 8 towers on the Island of Oahu.

D. Description of Community Needs and Project Beneficiaries

After completing community outreach DHHL’s leadership consolidated our priorities into our objectives listed throughout this narrative. To reiterate our project benefits please see the table

below with additional information.

TOTAL Number of Tribal Households on Tribal Land?	10,048
Number of UNSERVED Tribal households on Tribal Land?	334
Number of UNSERVED Tribal households that this project will connect to Qualifying Broadband Service (defined as 25 Mbps download/3 Mbps upload with sufficient latency for real time interactive applications)?	334
Number of UNSERVED Tribal Businesses that this project will connect to Qualifying Broadband Service?	58
Number of UNSERVED Community Anchor Institutions that this project will connect to Qualifying Broadband Service?	4

In addition to connecting unserved homes, businesses, and anchor institutions, DHHL leadership has received feedback from community and elected leaders that physical infrastructure is lacking across various islands and that space for digital training and workforce development does not exist. Therefore, to address this challenge, our project is proposing to construct 4 community innovation centers that can be used to train Native Hawaiians with digital literacy skills in addition to hosting workforce development workshops and sessions.

Finally, housing is limited on the Hawaiian Islands. Currently, there are 10,048 existing lessees on residential, agricultural, and pastoral trust lands spread across the state, with over 27,000 applicants on the waitlist. As a result, the state has allocated funding for additional DHHL homestead developments that are currently being built and will be complete by 2028. DHHL will utilize TBCP funding to ensure that these developments have fiber optic conduit and fiber to guarantee these developments have the middle mile infrastructure needed for an existing ISP to connect them to last mile service.

Our project plans, description of activities, and budget documents support these needs and illustrate how DHHL will ensure these benefits to our population and service area.

Poverty for those residing on DHHL reaches a level of approximately 31%. This information is consistent with our Project information form which states that of the 10,048 DHHL homes, 3,114 are at or below 150% of the poverty line. Due to the fact that we are connecting all DHHL homes and guaranteeing 100% of unserved households will be connected to qualifying broadband we can ensure that all homes that fall at or below 150% of the poverty line will have access to qualifying broadband speeds.

E. Description of Area to Be Served

Section 905(a)(8) of the Consolidated Appropriations Act specifies the Department of Hawaiian Home Lands on behalf of the Native Hawaiian Community including Native Hawaiian Education Programs as the eligible entity. The Department of Hawaiian Home Lands (DHHL) is governed by the Hawaiian Homes Commission Act of 1920, enacted by the U.S. Congress to protect and improve the lives of Native Hawaiians. The Act created a Hawaiian Homes Commission to administer certain public lands, called Hawaiian Home Lands, for homesteads.

Native Hawaiians are defined as individuals having at least 50 percent Hawaiian blood. Section (a)(13) of the Act in pertinent part defines tribal lands as “(D) Hawaiian Home Lands, as defined in section 801 of the Native American Housing Assistance and Self-Determination Act of 1996 (25 U.S.C. 4221)”. Under 25 U.S.C. 4221, Section 801 - Hawaiian Home Lands is defined as lands that-- (A) have the status as Hawaiian home lands under section 204 of the Hawaiian Homes Commission Act, 1920 (42 Stat. 110); or (B) are acquired pursuant to that Act. Those lands are highlighted below in green.

Hawaiian home lands currently serve approximately 10,048 households and 700 businesses, community anchor institutions, and tenants. Of those approximately, 334 households across the state are connected at speeds below 25/3. For the purposes of this project, DHHL will provide 1 Gbps broadband service to 100% of those households identified by the NTIA’s Indicator of Broadband Need.

The NTIA’s Map of Broadband Need identifies the number of households in trust land areas with fixed broadband speeds below 25/3 as well as the percentages of households without 1) internet access and 2) internet connectivity devices, by county. While DHHL believes that there are additional unserved households, for the purposes of this project, the department will rely on the number of unserved households reported in the NTIA Indicator of Broadband Need.

F. Description of Households

Based on a 2020 survey of Native Hawaiian lessee households living on Hawaiian home lands, DHHL has been able to determine that the average family size is approximately 4.2 persons per household, while noting that approximately 38% of households had more than five individuals residing therein. This survey primarily relied on 2019 household income data; thus, the 2019 HHS Poverty Guidelines are most appropriate for providing and supporting this analysis. These statistics only apply to existing households and not upcoming projects and Native Hawaiians on a wait list.

The 2019 HHS Poverty Guideline for the State of Hawai‘i for a household of four individuals was \$29,620. Extrapolating the data for those households at or below 150% of the poverty line (\$44,430), the Department’s data indicates approximately 31.3% of households, or approximately 3,130 of the nearly 10,000 households on Hawaiian home lands were at or below 150% of the 2019 HHS Poverty Guideline.

G. Estimate of Jobs That Will Comply with TERO

As an agency of the State of Hawai‘i, DHHL cannot legally give preference to Native Hawaiian contractors or their employees and will comply with all Federal, State, and local mandates as it relates to employment practices. We believe that DHHL should not be deducted points in any phase of TBCP’s review with respect to this topic. With that said, we are creating the position and hire a community outreach coordinator who will engage in 100% programmatic activities in a full time position. In addition, we are currently planning to use our administrative funding which is currently allocated as one-line item for our discretion and usefulness to create and fill a full time administrative assistant.

H. Description of the pricing for the broadband services

It is not DHHL's intent to, itself, provide broadband service to Home Land areas. Instead, DHHL will work with the existing Service Providers and provide equal access to DHHL lands. Our highest priority is to ensure that all ISPs within the State have access to Home Lands so that prices for service remain affordable for Beneficiaries. DHHL will work with all ISPs in the State to ensure that services within Home Land areas are priced fairly as compared to prices in the surrounding area. For more information on terms for ISPs to serve DHHL lands, please view section M. "Long-term Network Sustainability" below.

I. Description of Labor Standards

DHHL operates as a State agency, and consequently, there are no specific Tribal or Native Hawaiian laws applicable to Hawaiian home lands. Instead, full compliance with all relevant Federal, State, and local labor standards is ensured, aligning with the practices of any other State-sponsored project. Numerous development initiatives on Hawaiian home lands, including recent endeavors in renewable energy, commonly involve community benefit agreements. These agreements typically incorporate provisions facilitating Native Hawaiian training opportunities and contributions to Hawaiian home lands Community Associations and Community Development Corporations.

Furthermore, the Department's administrative rules mandate the execution of Beneficiary Consultation, an administrative process through which the Department engages with Native Hawaiian communities affected by any project. This process seeks beneficiary input, ensuring that community benefits directly serve these communities and align with their priorities. This commitment reflects the Department's adherence to administrative guidelines and its dedication to meaningful engagement with and consideration of the perspectives of Native Hawaiian communities impacted by its initiatives.

J. Assessment of Weather and Climate Hazards

Hawaii's challenges relating to weather and climate hazards and the possible negative impacts to telecommunications infrastructure are numerous. DHHL, taking into account threats such as heavy rains leading to flooding, wildfires, volcanic eruptions, earth quakes and related tsunamis, and sea level rise, has ensured that, where possible, all telecommunications infrastructure will be placed below ground. As was evident after the 2023 Lahaina Fire, 2018's Hurricane Lane, and 2018's Kilauea eruption and subsequent damage to Hawaii Island, subterranean infrastructure will be the most resilient deployment of broadband service. In addition, a substantial amount of Home Lands reside near the ocean which again reinforces the importance of deploying subterranean infrastructure.

K. Project Plan

A well-coordinated and diverse framework is imperative to establish the Native Hawaiian home lands broadband infrastructure as a reliable, stable, and high-performance platform, facilitating

the adoption and beneficial use of broadband internet by Native Hawaiians. The operational aspects of this network are designed to deliver initial overarching functionality and interoperability, seamlessly connecting thousands of Native Hawaiians to dependable, robust, and consistent broadband services. Given the challenging topography and limited backbone resources in the unique island environment, a multimodal infrastructure is anticipated. It is crucial to ensure effective network operation across these connections to provide the capability for services to reach a minimum speed of 1000 Mbps symmetrical for all Home Lands areas.

To expand broadband coverage in the Hawaiian home lands, considering the topographical, social, and historical realities of the project area, a fiber network approach is deemed the most effective in terms of building off of existing infrastructure to ensure DHHL homes, businesses, and anchor institutions have access to high-speed internet. The project team has already taken initial steps towards determining the ideal network infrastructure design for this unique multimodal approach. Collaboration has commenced with potential partner network engineers, resulting in the development of a robust infrastructure for a fiber system.

By working with existing ISPs to extend current infrastructure we are confident that DHHL homes will have access to high-speed internet by the end of our period of performance. We also recognize the need to go through certain processes such as environmental review, procurement, and network testing. A draft project plan specific to each individual island and objectives on each island with detailed milestones and dates can be viewed in Section C. of this project narrative.

L. Details/Evidence of Proactivity

DHHL has a long-standing relationship with current ISPs within the State and has made sure that access to Hawaiian home lands is open for the benefit of all DHHL beneficiaries. DHHL plans to use the funds from TBCP NOFO 2 as a major way to bring all beneficiaries into the highest level of service currently available within the State of Hawaii far, surpassing TBCP and BEAD qualifying broadband speeds. These major actions through TBCP NOFO 2, along with DHHL's NOFO 1 Use and Adoption Projects, are the Department's biggest steps to filling service and access gaps currently within the Hawaiian Home Lands system.

DHHL will also develop contract language that will ensure equal access to high speed services at affordable rates, as well as perpetual maintenance of all physical broadband assets, and increased workforce development. Please see section "M. Long-term Network Sustainability" for more information.

M. Long-term Network Sustainability

DHHL's goal is to ensure that our Native Hawaiian beneficiaries have access to reliable, affordable, high- speed Internet. DHHL does not intend to become an Internet service provider. Therefore, DHHL will place the responsibility of long-term network sustainability on the provider(s) that are bringing service to, and profiting from, DHHL homesteaders via a Master License Agreement which is required between all public utility companies and DHHL. By including the items listed below in all Master License Agreements with ISPs servicing DHHL

homes, we will ensure long-term network sustainability for the physical infrastructure and the services that it offers.

- Standardized service terms for the customer: Consistent service rates and quality across Hawaiian home lands priced at or below comparable plans within the service area.
- Operations and Maintenance of all physical assets: ISPs will be responsible to maintain, operate, monitor, and repair all infrastructure deployed to ensure reliable broadband service.
- Fund depreciation of capital assets to ensure lifecycle sustainability.
- ISPs will be required to participate in all federal & state subsidy programs they are eligible for that will lower the cost of high-speed internet for the DHHL home owner. This includes but is not limited to FCC's ACP.
- Bring awareness to Native Hawaiians of any and all public workforce opportunity training programs being offered by the ISP.
- Provide DHHL with copies (and updates as applicable) all terms of service documents for applicable services offered to homesteaders.
- Terminating electronics will be included in ISP costs to service our populations

By establishing Master License Agreements with the above items, DHHL can create a thriving broadband ecosystem that empowers the Hawaiian home lands community with affordable, reliable internet access for generations to come. This strategic approach leverages DHHL's existing strengths while fostering a competitive landscape that prioritizes community benefit and long-term network sustainability.

Included in our application is the required pro-forma document, illustrating that whichever ISP is contracted to bring high-speed internet to our DHHL homes, will be able to financially sustain the network and provide services including, but not limited to, customer care, billing, and marketing/outreach. This is primarily due to DHHL through this TBCP award providing the one time investment of bringing physical infrastructure to these unserved areas and the contracted ISP not being required to contribute capital for these build-outs.

N. Description of Physical Project Area

The envisioned initiative encompasses the entirety of the State of Hawai'i, extending across six primary islands and encompassing 53 Hawaiian Homesteads. DHHL census tracts traverse diverse topographies, climates, and natural resource areas, including mountains, rivers, wetlands, forests, beaches, and oceans. Functioning as a State agency, DHHL prioritizes the conscientious management of Hawai'i's natural resources, often collaborating with the State Department of Land and Natural Resources.

Hawaiian home lands exhibit a spectrum of development, ranging from undeveloped, unoccupied parcels to highly developed residential homesteads within a single census tract. Currently, approximately 66% of Hawaiian home lands are allocated for homesteading, 31% fall under special use districts or conservation lands, and 1.3% serve commercial and/or industrial purposes.

With a two-decade track record as a recipient of federal funds under the Native American

Housing Assistance and Self-Determination Act of 1996, Title VIII - Native Hawaiian Housing Block Grant, DHHL possesses a deep understanding of NEPA and NHPA compliance. Moreover, the Department is obligated to adhere to NAGPRA and the State Historic Preservation Division to ensure alignment with federal and State safeguards for Native Hawaiian burials. Operating with its zoning authority, DHHL is not bound by local ordinances governing land use. The Department is committed to exerting every effort to adhere to all relevant environmental, historic preservation, and cultural prerequisites associated with the proposed project.