

## 1. INTRODUCTION

At the request of WSP, on behalf of the State of Hawai‘i Department of Transportation (HDOT), ASM Affiliates (ASM) has prepared this Archaeological Monitoring Plan (AMP) for the proposed Kuhio Highway Emergency Shoreline Mitigation at Wailua Beach, Wailua Ahupua‘a, Puna District, Island of Kaua‘i (Figures 1, 2, and 3). This archaeological monitoring plan has been prepared in compliance with the Department of Land and Natural Resources-State Historic Preservation Division’s (SHPD) Rules Governing Standards for Archaeological Monitoring Studies and Reports as contained in Hawai‘i Administrative Rules (HAR) 13§13-279. As the bridge improvements are being conducted with aid of monies from the Federal Highway Administration (FHWA), this plan has also been prepared in compliance with commitments made during the National Historic Preservation Act (NHPA) Section 106 process, and any additional work that is performed during the monitoring project will be consistent with the *Secretary of the Interior’s Standards and Guidelines for Archaeological Documentation* (48 FR 44734-370). A description of the proposed Undertaking and the Area of Potential Effects (APE) is presented below. This is followed by an outline of the area’s culture-historical context and *ahupua‘a* settlement pattern, and a summary of prior archaeological studies and previously documented archaeological/historical sites. Lastly, a discussion of anticipated remains is presented along with an outline of the procedures to be followed and implemented during the archaeological monitoring and subsequent reporting effort.

## PROPOSED UNDERTAKING

In March of 2021, a large storm impacted the Wailua Beach area on Kaua‘i, resulting in the removal of protective beach dunes, large sections of *naupaka* and ironwood trees, and caused severe undermining of highway infrastructure. As a result, on March 9, 2021, Governor David Ige issued an emergency proclamation to provide relief for disaster damages, losses, and suffering. The emergency proclamation exempted this project from review under Hawai‘i Revised Statutes (HRS) Chapter 6E. This undertaking addresses permanent repairs to prevent further damage. HDOT, in cooperation with the Federal Highway Administration (FHWA), is planning to undertake installation of an un-grouted rock revetment following storm damage to the area and to protect highway infrastructure from extreme storm events, such as storm surges. Ideally, in conjunction with revetments, a protective beach should be preserved due to concerns about “flanking erosion.” In addition to the un-grouted revetment, HDOT proposes to install a new, patented beach nourishment technology called Sandsaver which uses the energy of breaking waves to thrust suspended sand particles up the beach, while simultaneously breaking down wave energy, thereby building sand dunes while reducing erosion. The project is viewed as a prototype in Hawai‘i that can potentially be used in other areas.

Additionally, to study wave action along Wailua Beach, HDOT, in collaboration with the University of Hawai‘i (UH) is proposing the placement of Acoustic Doppler Current Profilers (ADCPs) at various locations along the ocean floor, which will capture full wave spectrum and current velocity of the water column. Finally, HDOT is also proposing the removal of a concrete slab, sandbags, concrete column, trees and debris, and installation of signs, traffic delineators, a concrete slab, boulders, and *naupaka* (*Scaevola*).

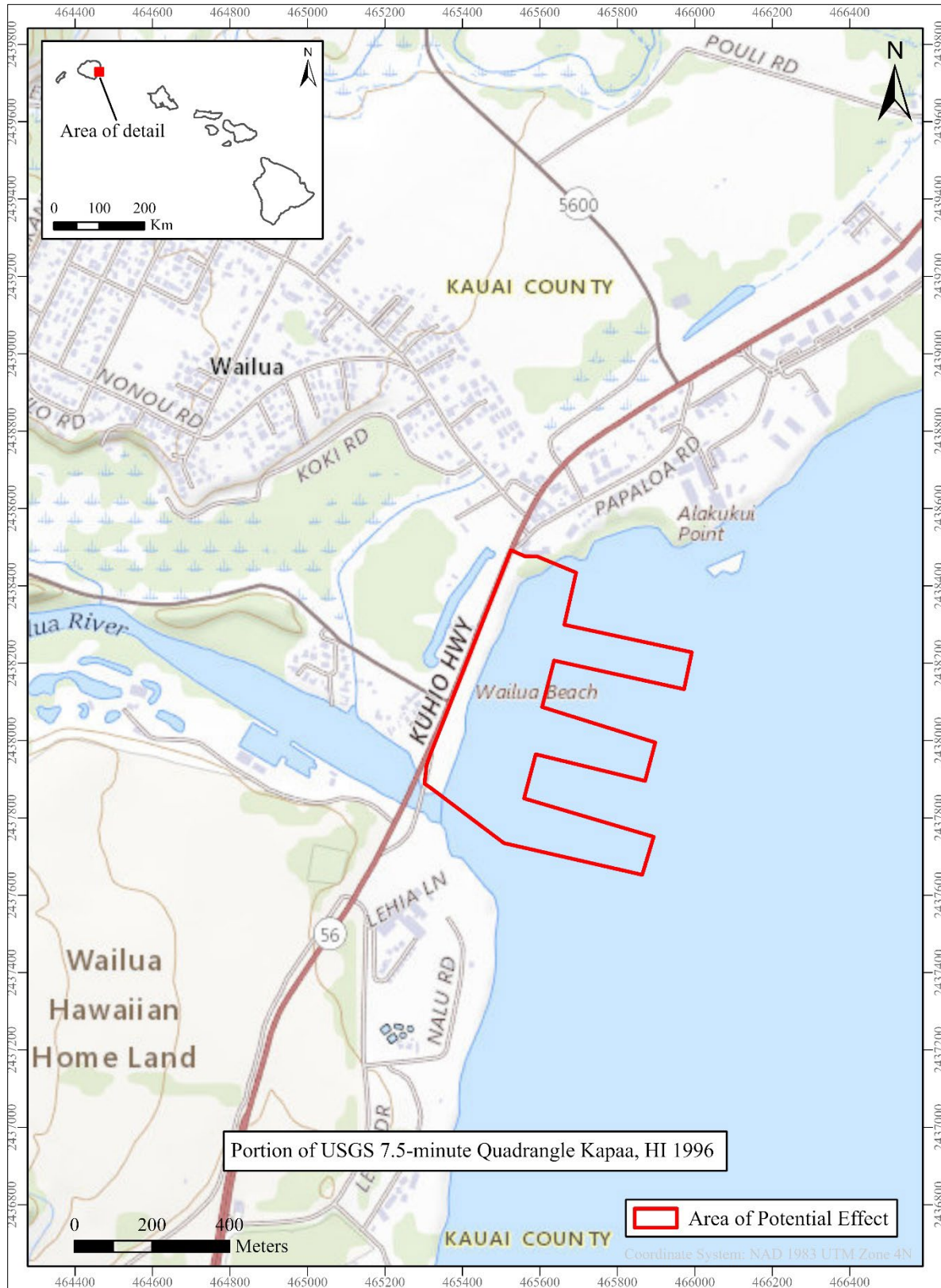


Figure 1. Area of Potential Effects (APE).



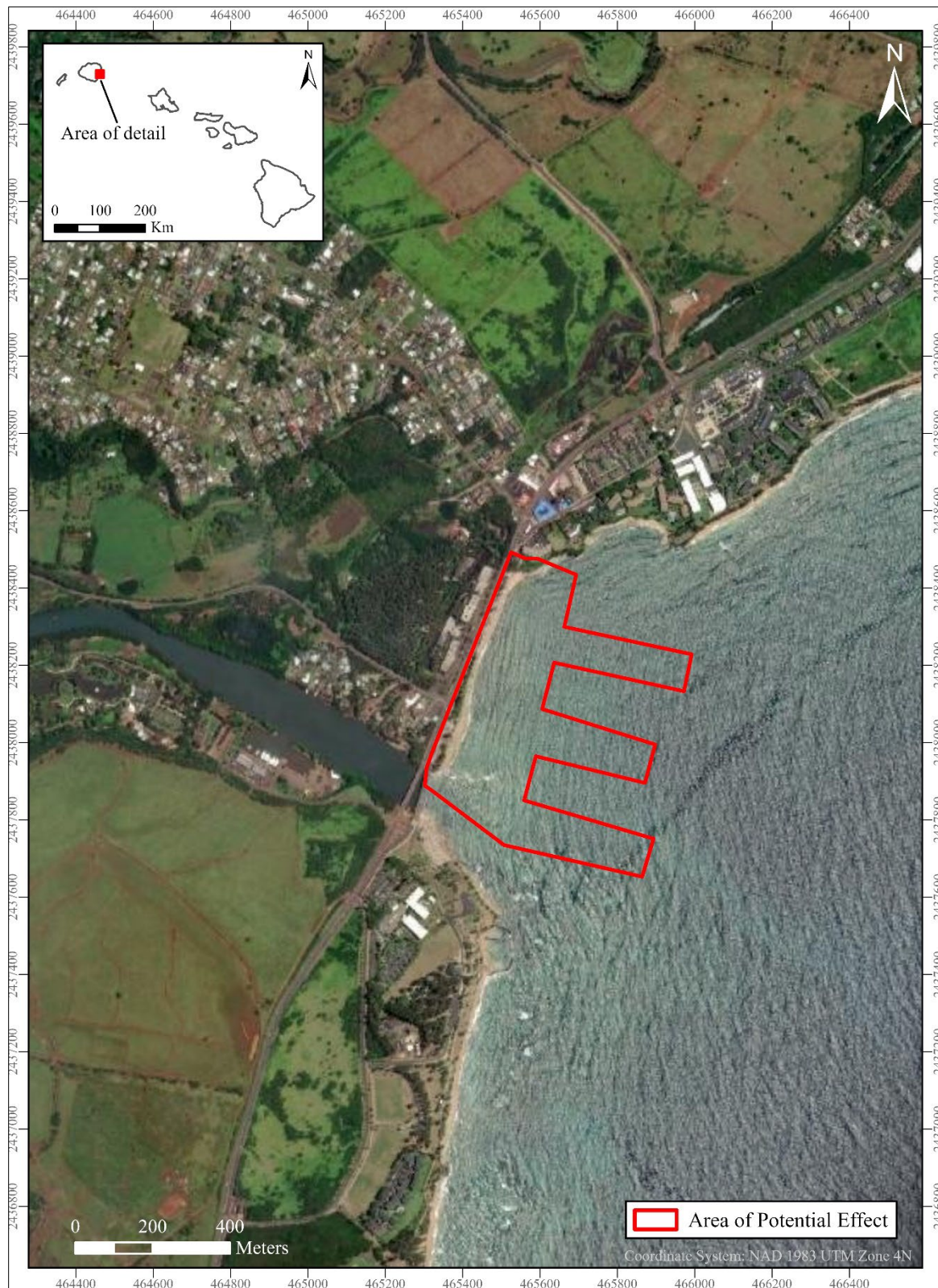


Figure 2. Recent satellite imagery with APE outlined in red.

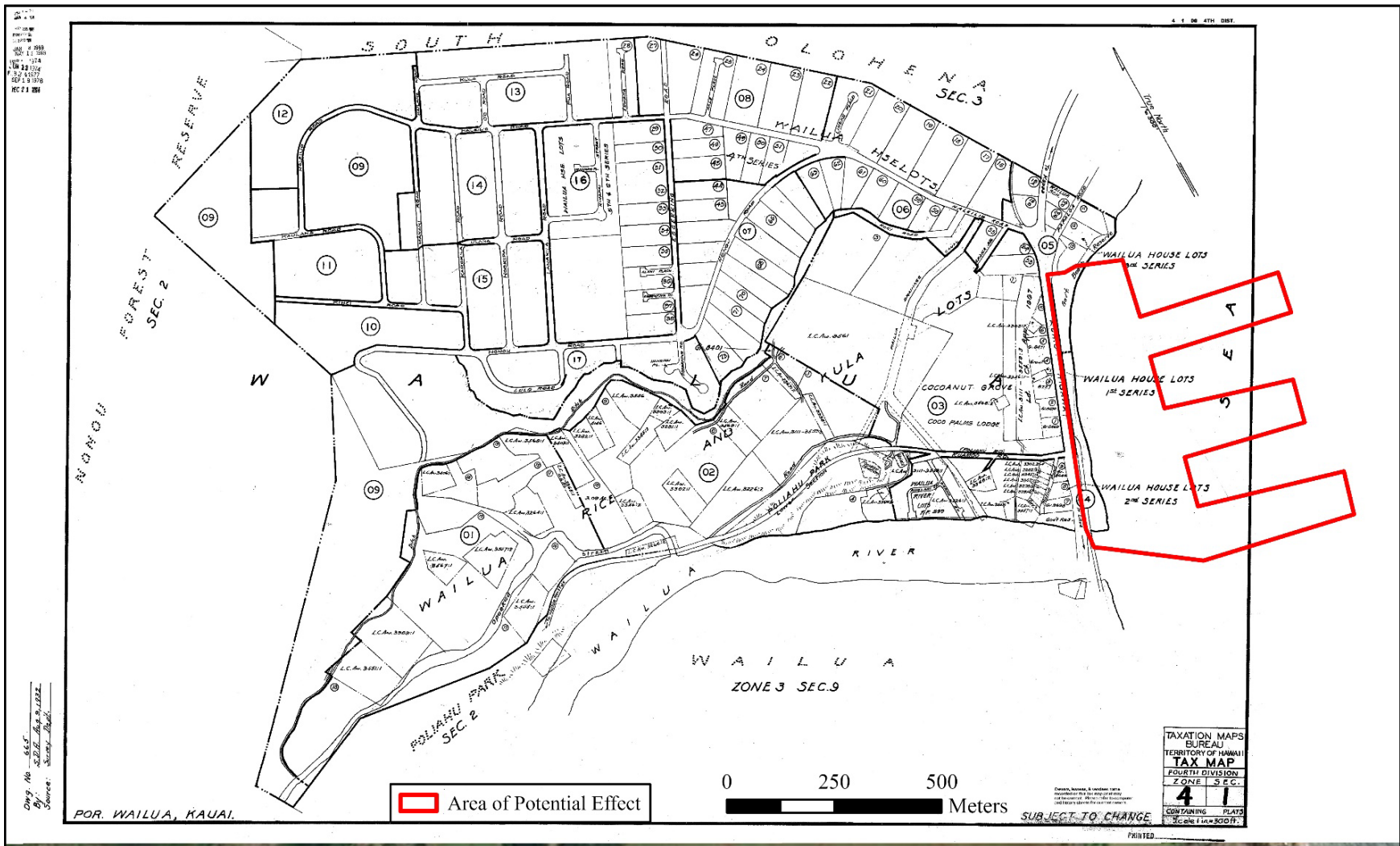


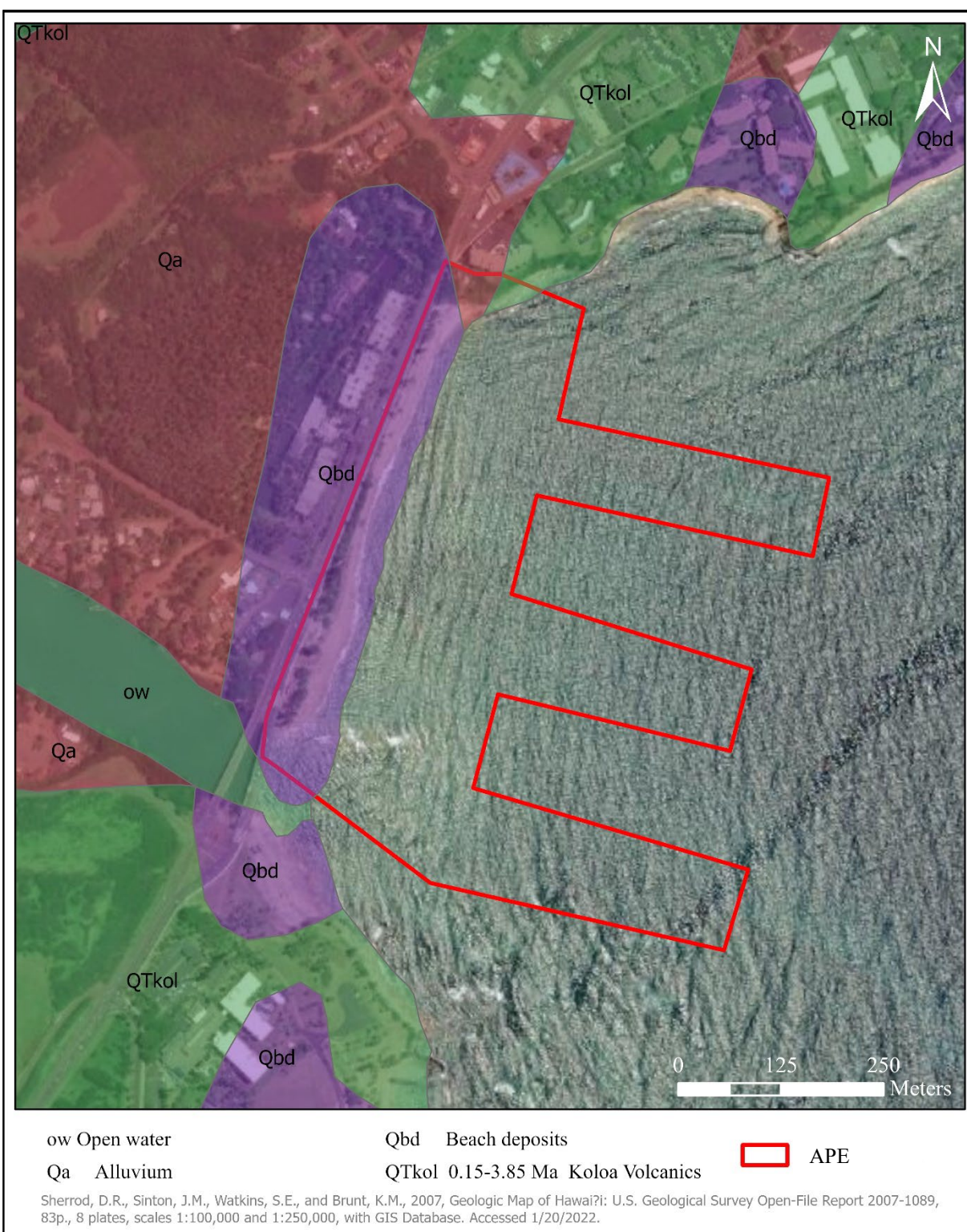
Figure 3. Tax Map Key (TMK): (4) 4-1 with APE outlined in red.





Figure 4. Soils within the APE, which is outlined in red.





## AREA OF POTENTIAL EFFECTS (APE)

Pursuant to Section 106 of the National Historic Preservation Act (NHPA) and Title 36 of the Code of Federal Regulations (CFR), Section 800.16(y), the FHWA and the HDOT received concurrence from the State Historic Preservation Officer (SHPO) regarding the APE for the subject project on October 5, 2021 (Appendix A; Project No.: 2021PR01064, Doc. No.: 2110SH01). The Area of Potential Effects (APE) entails a 0.36-mile long stretch of Kuhio Highway with an area of approximately 63 acres and includes the following TMKs: (4) 3-9-006:012, 4-1-004:001, (4) 4-1-004:020, (4) 4-1-004:999, (4) 4-1-005:004, (4) 4-1-005:014, (4) 4-1-005:017, and (4) 4-1-005:999 along Kuhio Highway beginning in the vicinity of Kuamoo Road and extending toward the vicinity of Papaloa Road. The APE is roughly 2,030 feet wide throughout its length and extends from approximately the middle of Kuhio Highway's right-of-way, toward the ocean. The APE is situated along the coastal plain on the eastern side of Kaua'i Island between the Waialua River and the town of Waipouli. Elevations in this area range from sea level to approximately 40-feet above sea level. Soils within the APE (Figure 4) are classified as Beaches and Marsh with the far northern portion being Lihue silty clay (Soil Survey Staff 2022). Figure 5 depicts the geology of the APE, where the majority of the APE consists of beach deposits (Qbd). To the north of the APE are small concentrations of alluvium (Qa) and Koloa Volcanics (QTKol). Vegetation within the APE (Figures 6, 7, and 8) is extremely limited and includes Ironwood trees, coconut trees, *naupaka*, false *kamani*, and *hala* (pandanus; *Pandanus odoratissimus*).



Figure 6. Northern end of APE, view looking southwest.





Figure 7. Central portion of the APE, view looking northeast.



Figure 8. Southern end of the APE looking northeast.