Proposed 69kV Kihei Transmission Line
Route Development and Evaluation Study
Fact Sheet

BACKGROUND

Maui Electric Company, Ltd. (MECO), a subsidiary company of Hawaiian Electric Company, Inc. (HECO), is the primary provider of electricity for the island of Maui. MECO's power generating stations in Kahului, adjacent to the Kahului Harbor, and in Ma`alaea, along North Kihei Road, meet approximately 84 percent of the island's electricity needs for residential, commercial, industrial and resort customers.

Towards ensuring MECO's key objective of delivering reliable sources of energy, an electrical transmission study recently conducted by HECO has determined that additional transmission capacity is needed in the South Maui region. Specifically, the installation of a new 69 kilovolt (KV) transmission line from MECO's Ma`alaea Power Plant to its proposed Kamali`i Substation would provide the infrastructural support necessary to meet the growing customer service needs of South Maui. In keeping with this mission, an evaluation of route alternatives for the proposed 69 kV transmission line was deemed essential to ensure that impacts and benefits of project implementation are taken into consideration during the planning and design processes.

PURPOSE OF THE STUDY

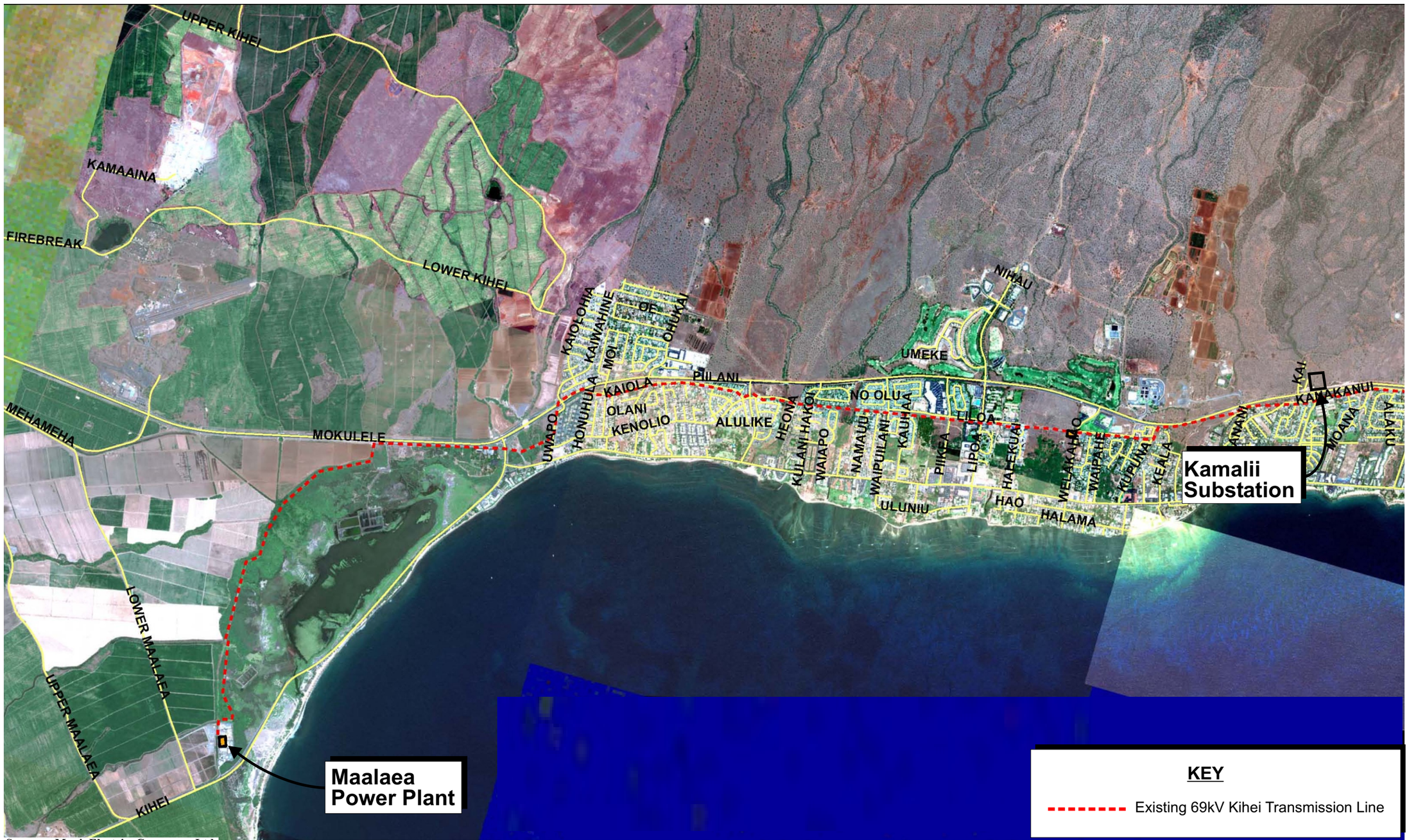
- Identify and analyze a recommended route for a second 69kV Kihei transmission line to carry electrical power from the Maalaea Power Plant to the planned Kamalii Substation. See Figure 1.

PROJECT NEED

- Anticipated increases in demand for electrical power in coming years

  Planned new developments in the region that are anticipated to contribute towards added power demand include the planned build out of approximately 1,400 units at the master planned Honua`ula (Project District 9) in Wailea. Additionally, new public/quasi-public projects, including the new Kihei Police Station and the Kihei High School, are envisioned over the near term. In-fill development potential also exists throughout the Kihei-Makena region as presently vacant and undeveloped parcels are converted to housing, condominium, and commercial uses.

- MECO's Kihei and Wailea Substations are at or near capacity
- Need for redundancy in electrical transmission infrastructure
- Alignment with the objectives and policies of the Kihei-Makena Community Plan



Source: Maui Electric Company, Ltd.

Figure 1

Kihei Route Development and Evaluation Study

Geographical Study Area

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Prepared for: Maui Electric Company, Ltd.

STUDY PHASES

- Phase I: Project Context and Work Program

  Evaluate background information establishing the need for the Study and develop methodology for the execution of the study

- Phase II: Formulation of Alternatives

  Identify a range of reasonable route alternatives in keeping with technical design requirements, environmental and geographical constraints, and implementation schedule requirements

- Phase III: Evaluation of Alternatives

  Develop an evaluative framework which considers pertinent criteria regarding the environment, land use and ownership, construction feasibility, project costs, and social impacts

- Phase IV: Dissemination of Results

  Ensure that the route selection process is transparent, with project information communicated to affected parties in a timely manner

PHASE II: FORMULATION OF ALTERNATIVES

Objectives

- Consult with major land owners and pertinent government agencies regarding future land use plans and capital improvement projects in relation to potential route alternatives
- Assess land use patterns, entitlements, and zoning designations in relation to regulatory review and permitting requirements triggered by potential route alternatives
- Assess the presence and extent of sensitive habitats, threatened and endangered species, and other biological resources which may affect potential route alternatives
- Assess the potential for archaeological and cultural resources, including historical settlements, which should be avoided by potential route alternatives
- Survey the existing 69 kV Kihei transmission line route and related easement documents regarding parameters affecting the development of the proposed 69 kV transmission line

Alternatives Formulation Methodology

- Route Segments

  Because the South Maui region contains a myriad of biological habitats, geographical features, and land use patterns, portions of the proposed route demand special attention. In the interest of enabling in-depth analysis of environmental and logistical constraints, the South Maui region was divided into five (5) distinct segments. Each segment within

itself exhibits relative homogeneity in existing land uses, land uses immediately surrounding the existing transmission line, and broader environmental and geographical features to be considered. See Figure 2, Figure 3, Figure 4, and Figure 5.

- Stakeholder Consultation
  The entities identified as stakeholders in the route selection process include major South Maui landowners, the State Department of Transportation, the County Department of Public Works, and the greater South Maui community. Introductory meetings were held to apprise each entity of the current status and overall objectives of the study, and to gather input regarding the feasibility of establishing a transmission line route through private, State, or County lands.

- Baseline Assessments
  Baseline assessments of land use parameters, environmental and biological resources, and archaeological and cultural resources were conducted, providing data highlighting areas to be avoided and areas better suited for the installation of the proposed Kihei transmission line.

- Formulation of Alternatives

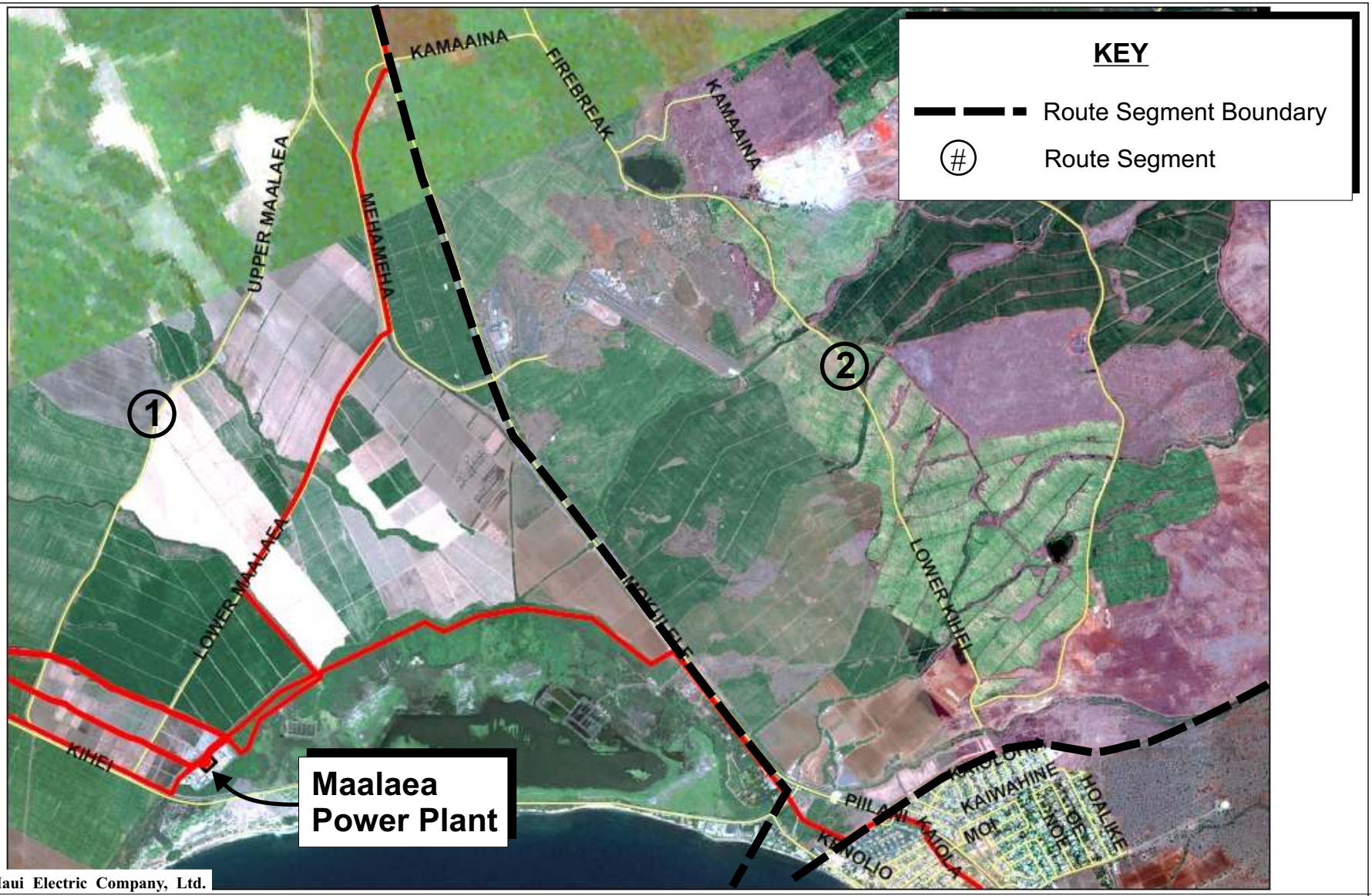
  1. Corridor Opportunities

     A synthesis of the results of the land use, biological resources, and archaeological resources assessments provided a basis for discerning a number of corridors that traverse the South Maui region. Each of these corridors defines a north-south alignment that presents an opportunity for the establishment of the proposed transmission line route. These corridor opportunities are listed below and illustrated in Figure 6.

     - Existing 69kV Kihei Transmission Line Corridor
     - Existing 69kV Kealahou Transmission Line Corridor
     - Kealia Pond Bypass Road Corridor
     - Piilani Highway Mauka Bypass Road Corridor
     - Existing Mokulele Highway-Piilani Highway Right-of-Way
     - Mid-Level Bypass Corridor
     - Lower Bypass Corridor

  2. Segment Opportunities

     In keeping with the study methodology of dividing the entire transmission line route into a series of five (5) route segments for



Source: Maui Electric Company, Ltd.

Figure 2

Route Development and Evaluation Study

Route Segments 1 and 2

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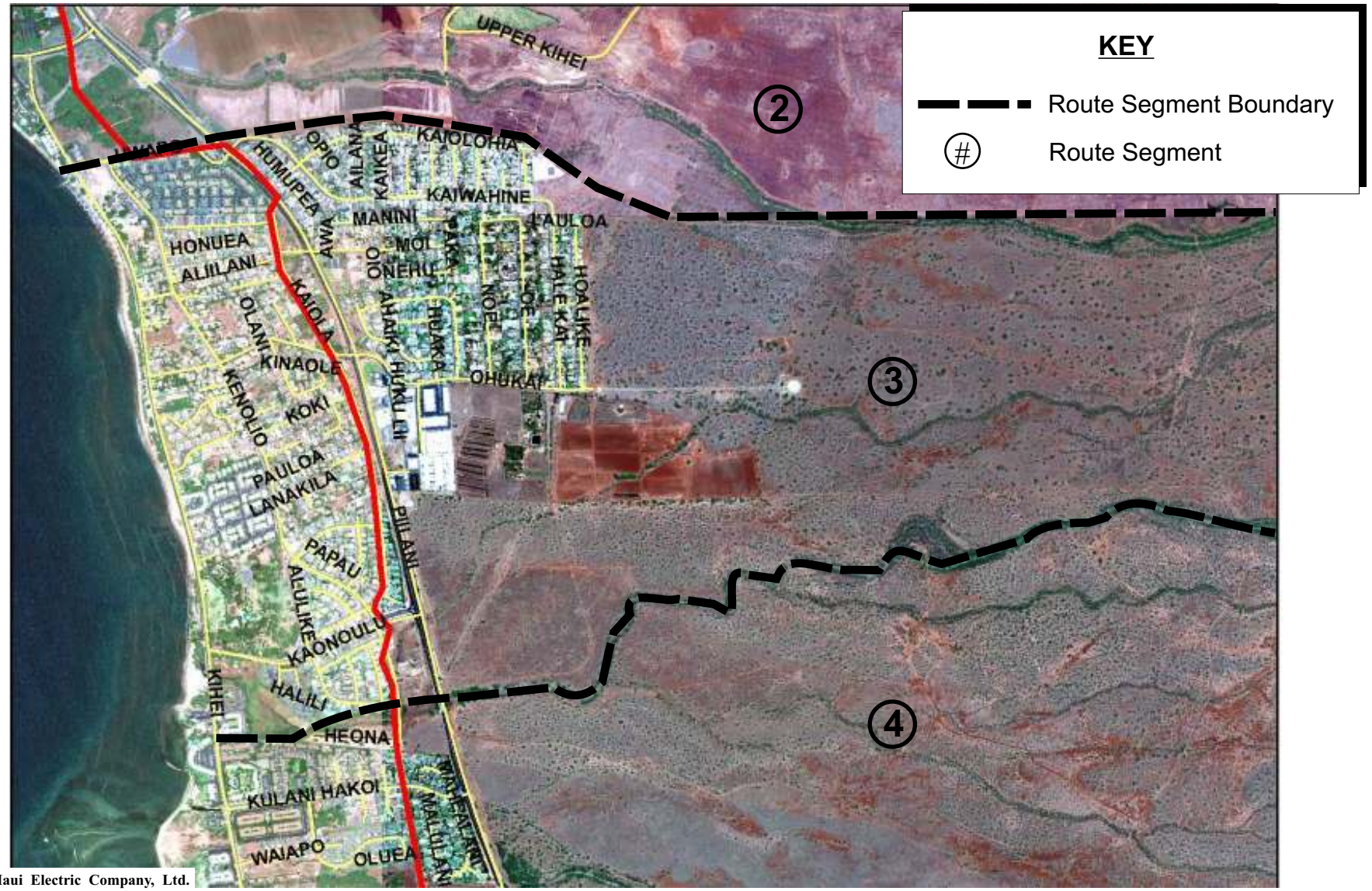
MECO\Kihei RD&E\Route Seg 1 and 2 handout



Source: Maui Electric Company, Ltd.

Figure 3

Route Development and Evaluation Study

Route Segment 3

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MECO\Kihei RD&E\Route Seg 3 handout

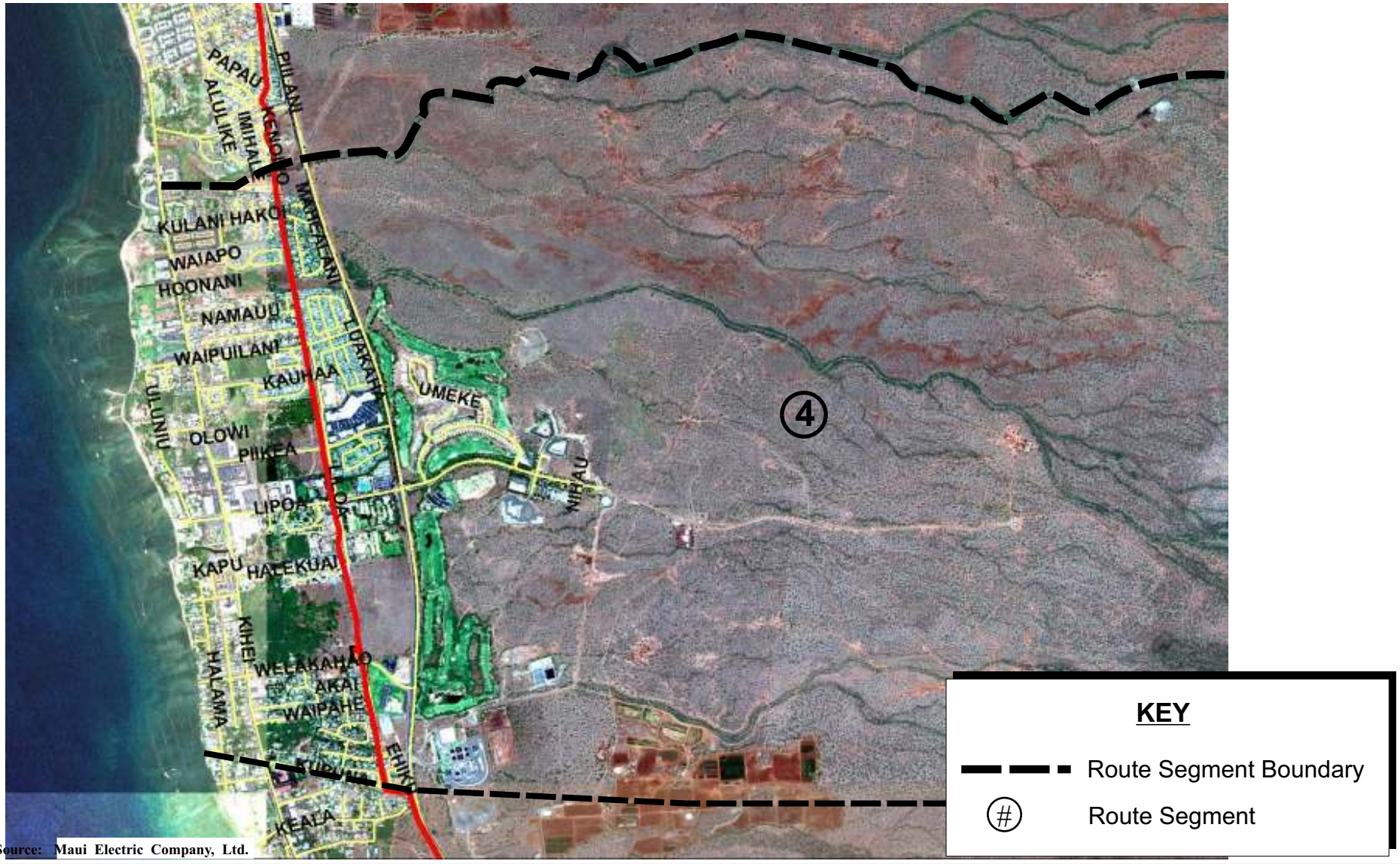

Figure 4

Route Development and Evaluation Study

Route Segment 4

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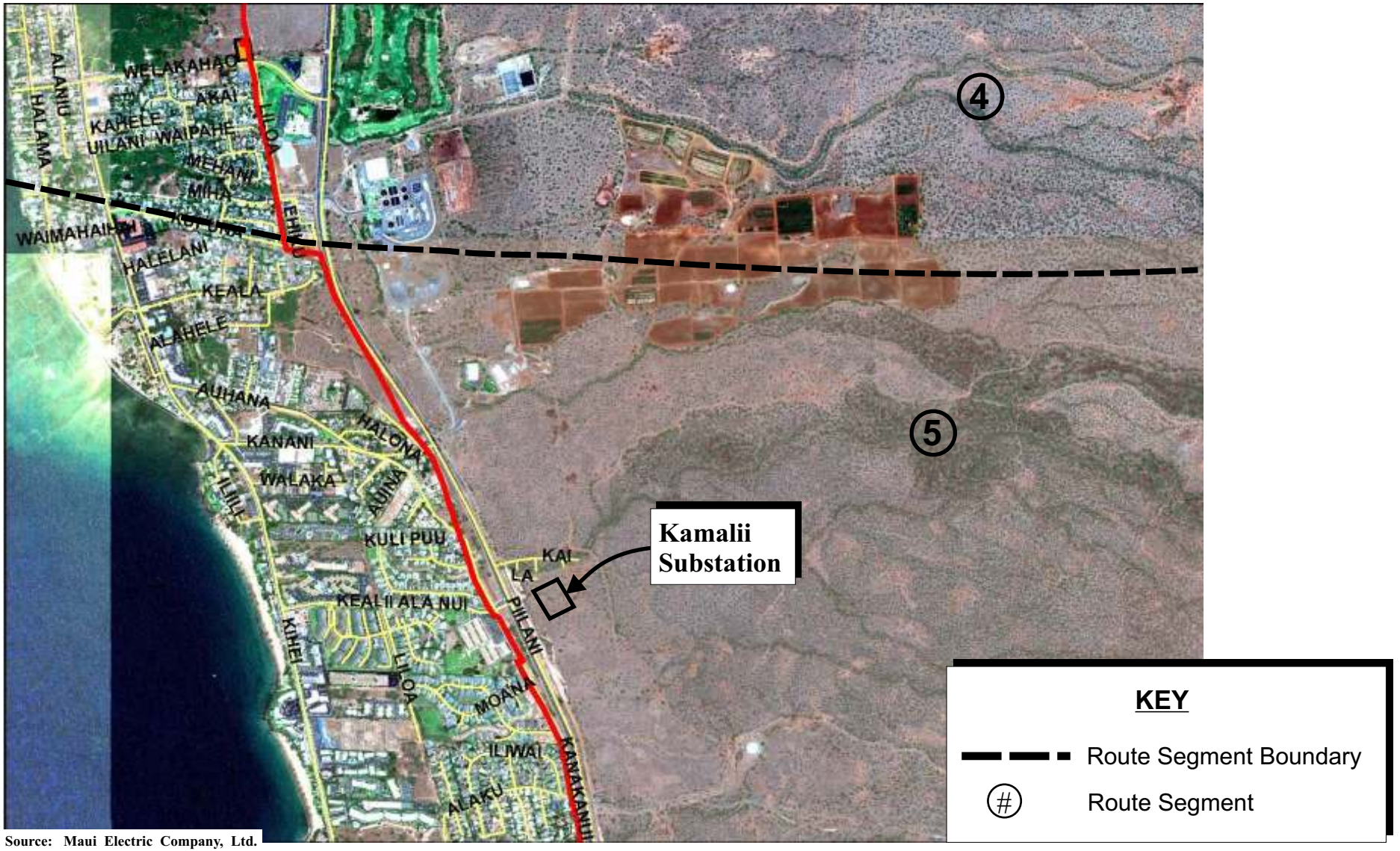

Source: Maui Electric Company, Ltd.

Figure 5

Route Development and Evaluation Study

Route Segment 5

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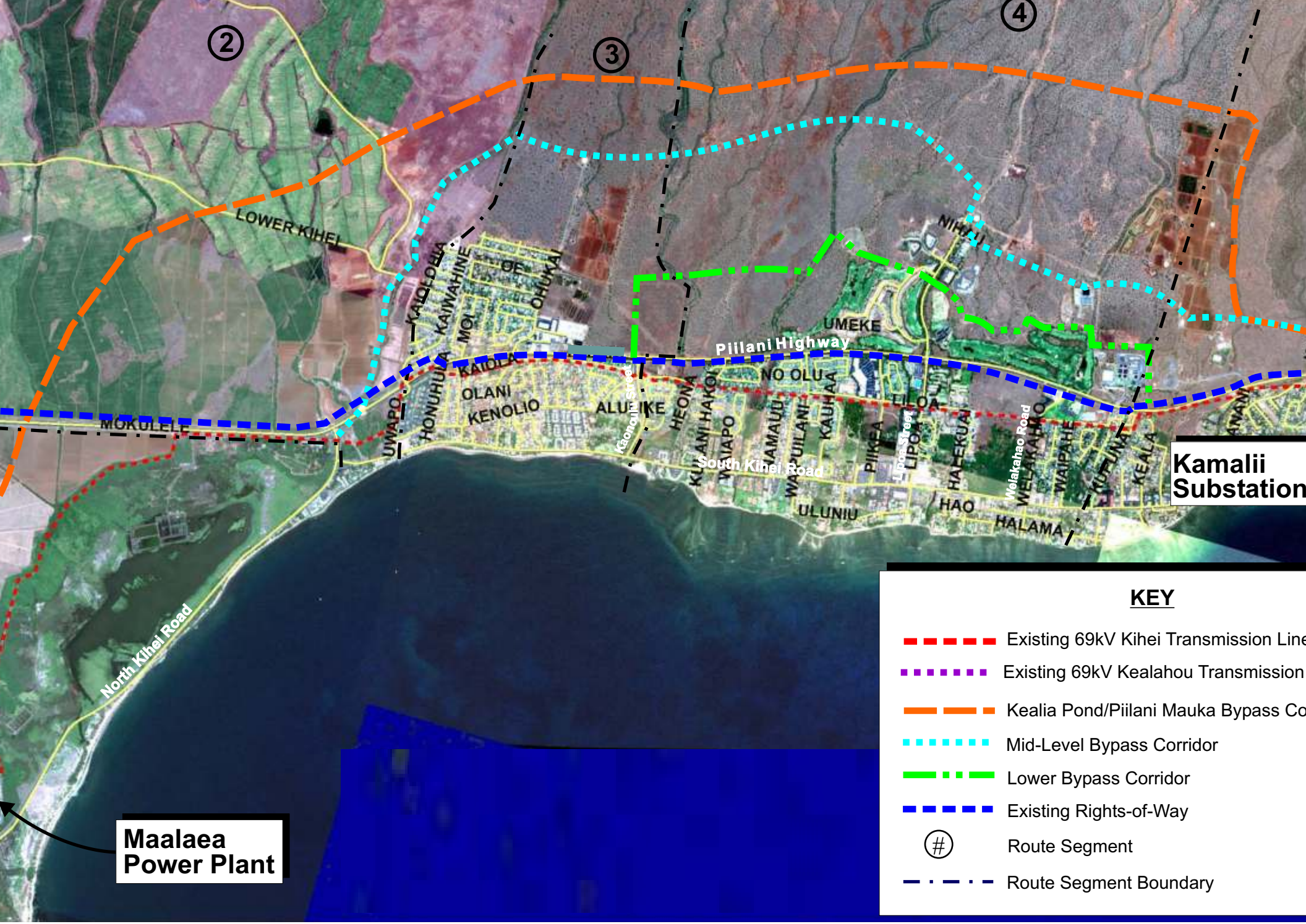

Kihei Route Development and Evaluation Study

Corridor Opportunities

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in-depth analysis, each corridor opportunity is accordingly divided into a series of segment opportunities. The final set of route alternatives will be discerned through an evaluation and analysis of the various segment opportunities.

NEXT STEPS

- Phase III: Evaluation of Alternatives
  Public Meeting – March 2010

- Phase IV: Dissemination of Results and Final Recommendation
  Public Meeting – July 2010

QUESTIONS OR COMMENTS?

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