



# **NEW KAUA‘I LANDFILL SITING STUDY REPORT**

**County of Kaua‘i**  
Department of Public Works  
Solid Waste Division  
4444 Rice Street, Room 275  
Lihu‘e, Kaua‘i, Hawai‘i

July 2012



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**Prepared for:**

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Department of Public Works  
Solid Waste Division  
4444 Rice Street, Room 275  
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## EXECUTIVE SUMMARY

This report summarizes previous site selection activities and re-evaluates the suitability and desirability of eight previously identified sites for development as the new municipal and solid waste landfill (MSWLF) for the County of Kaua'i ("the County"), Hawai'i. This report has been prepared to assist the County in identifying the proposed landfill site by distilling the many selection criteria to a core set of important criteria, including community-based priorities, environmental and cultural concerns, site life, cost, and other important considerations. This report enables the County to select the proposed landfill site, which is expected to become the preferred alternative in the upcoming Environmental Impact Statement (EIS).

**Background and History.** Currently, the County of Kaua'i has one operating MSWLF, the Kekaha Sanitary Landfill in the southwest part of the island, which is currently approaching its design capacity. The site selection process for a new MSWLF was initiated in 2000 when the County contracted environmental engineering consultant Earth Tech, Inc. of Honolulu, Hawai'i to prepare a Kaua'i MSWLF Siting Study. The study, in two reports published in 2001 and 2002, identified eight potential sites around the island that were considered suitable for siting a new MSWLF: Kalepa, Kekaha Mauka, Kipu, Koloa, Kumukumu, Pu'u O Papai, Ma'alo, and Umi. It evaluated, scored, and ranked these sites based on a set of 19 environmental, technical, and social/cultural criteria.

In 2007, the late Mayor Bryan Baptiste convened the County of Kaua'i Mayor's Advisory Committee on Landfill Site Selection (MACLS) to involve the community in developing siting selection criteria for a new MSWLF site for Kaua'i. The citizen's advisory committee met nine times during 2008–2009, and technical consultant R. M. Towill Corporation (RMTc) of Honolulu published the MACLS report in April 2009. The committee added to the existing criteria from the 2001/2002 siting study, established weighting (i.e., importance) factors for the 26 criteria they developed, and scored seven of the eight previously identified potential landfill sites by each of these criteria (one site, Kumukumu, was excluded due to neighboring-property development plans at the time). The 26 individual criterion scores for each site were then summed to produce a ranking of overall site suitability. A series of community meetings following publication of the MACLS report identified some community concerns with some of the methodologies used to rank the sites, and identified improvements that could be made.

Previous negotiations over the last twelve years to site the landfill at various sites have broken down, due primarily to landowner willingness related issues.

**Landfill Siting Study Report.** The County commissioned environmental engineering consultant AECOM Technical Services, Inc. (AECOM) of Honolulu (formerly Earth Tech, Inc.) to prepare the current New Landfill Siting Study, with assistance from RMTc. The study re-evaluates the suitability of the eight sites (Kumukumu is re-included following a change in the earlier development plans) using contemporary exclusionary criteria, generates preliminary engineering estimates and planning-level cost estimates, updates the MACLS results with a community criteria evaluation using improved scoring and ranking methodology, identifies other important decision factors for siting a new MSWLF, conducts an overall site comparison, and presents recommendations.

This report updates all previous data and performs additional analyses to allow the County to choose a proposed location for the new landfill. This report includes the following subsections.

**State Landfill Criteria Evaluation (SLCE).** The SLCE re-evaluated the locations of the eight previously identified potential County of Kaua'i MSWLF sites with respect to regulatory and other exclusionary criteria. Additionally, site reconnaissance was conducted at each of the eight potential sites to visually inspect for any other issues that could preclude or greatly affect the construction of a landfill or resource recovery park (RRP). No exclusion zones were mapped on any of the sites, and all sites could potentially house a co-located 80-acre RRP. Several sites may potentially house wetlands, which would have to be further investigated if the site were chosen as a proposed landfill site. If wetlands are identified, mitigation measures may be required.

**Preliminary Engineering Evaluation (PREE).** The PREE compares the eight previously identified potential MSWLF sites being considered for a new County landfill, provides conceptual site schematics, and provides planning-level estimates of the engineering potential of each site in terms of size, quantity, estimated useful lifetimes, and costs. The landfill with the longest estimated life is Ma'alo, followed by Kumukumu. The longest predicted site life of all sites (Ma'alo, 264 years) is an order of magnitude greater than the shortest predicted site life (Kalepa, 26 years). Given the difficulties in siting the new landfill over the past twelve years, and the years still required to site, analyze, plan, design, permit, build, and operate the new landfill, site life is a critical basis upon which the County may wish to choose a proposed site. Note that these estimated lifetimes are based on the current rates of waste landfilling, and the County is committed to developing a RRP, which may significantly extend the site lifetimes.

**Planning Level Cost Estimates.** The Planning Level Cost Estimates for each site consist of acquisition, development, and operation costs. All costs are presented in 2012 dollars. Once a site is chosen as the proposed landfill site, more detailed cost estimates will be developed in the Conceptual Design phase of this project, prior to completing the EIS. The largest sites are expected to be significantly less expensive over time for the County and all of its residents. The three least expensive sites overall, in order, are Ma'alo, Kumukumu, and Pu'u O Papai.

**Community Criteria Evaluation (CCE).** The CCE updates the community-based landfill site evaluation last summarized in the *Report of the Mayor's Advisory Committee on Landfill Site Selection, April 2009* (RMTC 2009). It ranks the potential landfill sites according to overall scores based on evaluation of the 26 siting criteria originally identified by the 2009 MACLS study. The CCE is based on the most recent raw data available, incorporates the results of the PREE, and modifies the scoring system developed in the MACLS to produce a more mathematically robust analysis, while preserving and bolstering the MACLS' relative weighting of criteria. One site not analyzed in the previous MACLS study (Kumukumu) was also analyzed. The top ranked sites under the CCE were Ma'alo, followed by Pu'u O Papa'i and Kekaha-Mauka.

**Other Important Decision Factors.** Other important decision factors were identified and analyzed for each site, including landowner willingness, high value agricultural sites, sustainability and proximity of the site to Kaua'i's waste generation centroid, as well as the implications of developing a co-located RRP. These factors can be evaluated in more detail once a proposed site is selected by the County for further treatment in the feasibility study, conceptual design, and EIS phases of this project.

**Overall Site Comparison and Recommendation.** All eight sites are technically and legally feasible sites for the County's new landfill, although no site is perfect. If any given site were chosen, the EIS process to come should identify any shortcomings for the site, which can then potentially be mitigated. All eight sites could potentially support a co-located or nearby RRP. The major pros and cons of each site are highlighted in this report, and further details are available. The County could reasonably decide which site to pursue based on several different criteria, or combinations of considerations.

The Ma'alo site is the longest-term solution for the County's waste disposal problem. The estimated site life of 264 years can potentially be extended even further with the operation of a RRP, making Ma'alo a near-permanent potential solution to the County's needs. As the last twelve years of trying to site a landfill show, the value of this near-permanent potential solution cannot be overstressed. The Ma'alo site is the *only* site identified that currently has a potentially willing landowner, it is the most economical site over the life of the landfill, it ranks very well in the CCE system, and it is centrally located (which will save costs and fuels, result in less waste-related traffic, and have positive sustainability effects).

**Next Steps in the Process.** Once the County selects the proposed site, site-specific engineering analyses and design will be performed for both the proposed MSWLF site and the accompanying RRP. Additionally, a detailed State of Hawai'i HRS Chapter 343 EIS will be conducted. This Siting Study Report documents and culminates the extensive evaluation of alternative potential landfill sites undertaken by the County over the last 12 years, in compliance with the Hawai'i Administrative Rules (HAR) §11-200-17(f), and will become part of the administrative record for the EIS.

Once the public-review process is complete and the EIS is approved, the land will need to be acquired or land use rights secured, and detailed engineering design, permitting, and other approvals will need to be obtained and completed before construction can begin. It may take an additional six years after completion of the EIS to acquire the land and design, permit, construct, and begin operating a new landfill.



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## ACRONYMS AND ABBREVIATIONS

|        |  |
|--------|--|
| §      | Section  |
| °F     | degree Fahrenheit  |
| BMP    | Best Management Practices  |
| CCE    | Community Criteria Evaluation                                    |
| CM/CQA | construction management/construction quality assurance           |
| cy     | cubic yard   |
| DOA    | Hawai'i Department of Agriculture                                |
| DoD    | Department of Defense  |
| DOW    | Department of Water, County of Kaua'i                            |
| DPW    | Department of Public Works, County of Kaua'i                     |
| EIS    | Environmental Impact Statement                                   |
| EJ     | Environmental Justice  |
| ft     | feet or foot   |
| GIS    | Geographic Information System                                    |
| H:V    | horizontal:vertical  |
| HAR    | Hawai'i Administrative Rules                                     |
| HCB    | Host Community Benefits  |
| HRS    | Hawai'i Revised Statute  |
| ISWMP  | Integrated Solid Waste Management Plan                           |
| KSLF   | Kekaha Sanitary Landfill   |
| lf     | linear feet  |
| LFG    | landfill gas   |
| LOW    | limit of waste   |
| LUC    | State of Hawai'i Land Use Commission                             |
| MACLS  | Mayor's Advisory Committee on Landfill Selection                 |
| msl    | mean sea level   |
| MSW    | municipal solid waste  |
| MSWLF  | municipal solid waste landfill                                   |
| NPDES  | National Pollutant Discharge Elimination System                  |
| PREE   | Preliminary Engineering Evaluation                               |
| RRP    | Resource Recovery Park   |
| SCS    | Soil Conservation Service  |
| SLCE   | State Landfill Criteria Evaluation                               |
| SWD    | County of Kaua'i Department of Public Works Solid Waste Division |
| U.S.   | United States  |
| USDA   | United States Department of Agriculture                          |
| USFWS  | United States Fish and Wildlife Service                          |
| WM     | Waste Management, Inc.   |



## **1.0 INTRODUCTION**

This report summarizes previous site selection activities and re-evaluates the suitability and desirability of eight previously-identified sites (Figure 1-1) for development as the new municipal and solid waste landfill (MSWLF) for the County of Kaua'i ("the County"), Hawai'i. Upon selection of the proposed landfill site, more detailed, site-specific engineering analyses and design will be performed for both the proposed landfill site and the accompanying Resource Recovery Park (RRP). Additionally, a detailed Hawai'i Revised Statutes (HRS) Chapter 343 Environmental Impact Statement (EIS) will be conducted. This Landfill Siting Study Report will provide the basis for, and become part of the administrative record of, the EIS.

### **1.1 ORGANIZATION OF THIS REPORT**

Section 1.0 describes the purpose of this study and the overall organization of this report.

Section 2.0 describes the history of the process of site selection for the new MSWLF for the County of Kaua'i, which began twelve years ago and culminates in this report.

Section 3.0 presents the 2011 State Landfill Criteria Evaluation (SLCE), which evaluates the suitability of eight potential landfill sites originally identified during previous siting studies (Earth Tech 2001, 2002). Using updated data from Federal, State, and County resources, the SLCE screens the potential landfill sites for major regulatory and other site-specific issues that could potentially render any of the sites ineligible, prohibitive, or otherwise undesirable.

Section 4.0 presents a Preliminary Engineering Evaluation (PREE), which consists of a conceptual engineering design and major engineering parameter evaluation for each of the eight potential landfill sites. It also provides data that was identified by the citizen's advisory committee report (RMTC 2009) as requiring further engineering clarification; these data were then used to refine the Community Criteria Evaluation (CCE) update of that 2009 report (see below).

Section 5.0 presents overall preliminary cost estimates for acquiring, developing, and operating each of the eight potential landfill sites, using data consolidated from the SLCE and PREE. Some of the cost estimates were input into the CCE (see below).

Section 6.0 presents the 2012 CCE, which applies weighting factors to the 26 site-selection criteria identified by an earlier citizen's advisory committee (RMTC 2009) to rank the eight potential MSWLF sites by factors identified as important to the community. The CCE updates the committee's earlier report with improved data and ranking methodology.

Section 7.0 identifies criteria not captured in the SLCE, PREE, and CCE studies, and highlights other important decision factors that provide valid and rational bases upon which to choose the proposed MSWLF site.

Section 8.0 summarizes the site rankings from the studies and for the other important decision factors, summarizes each site's major attributes, and assesses each site's strengths and weaknesses as a potential landfill site.



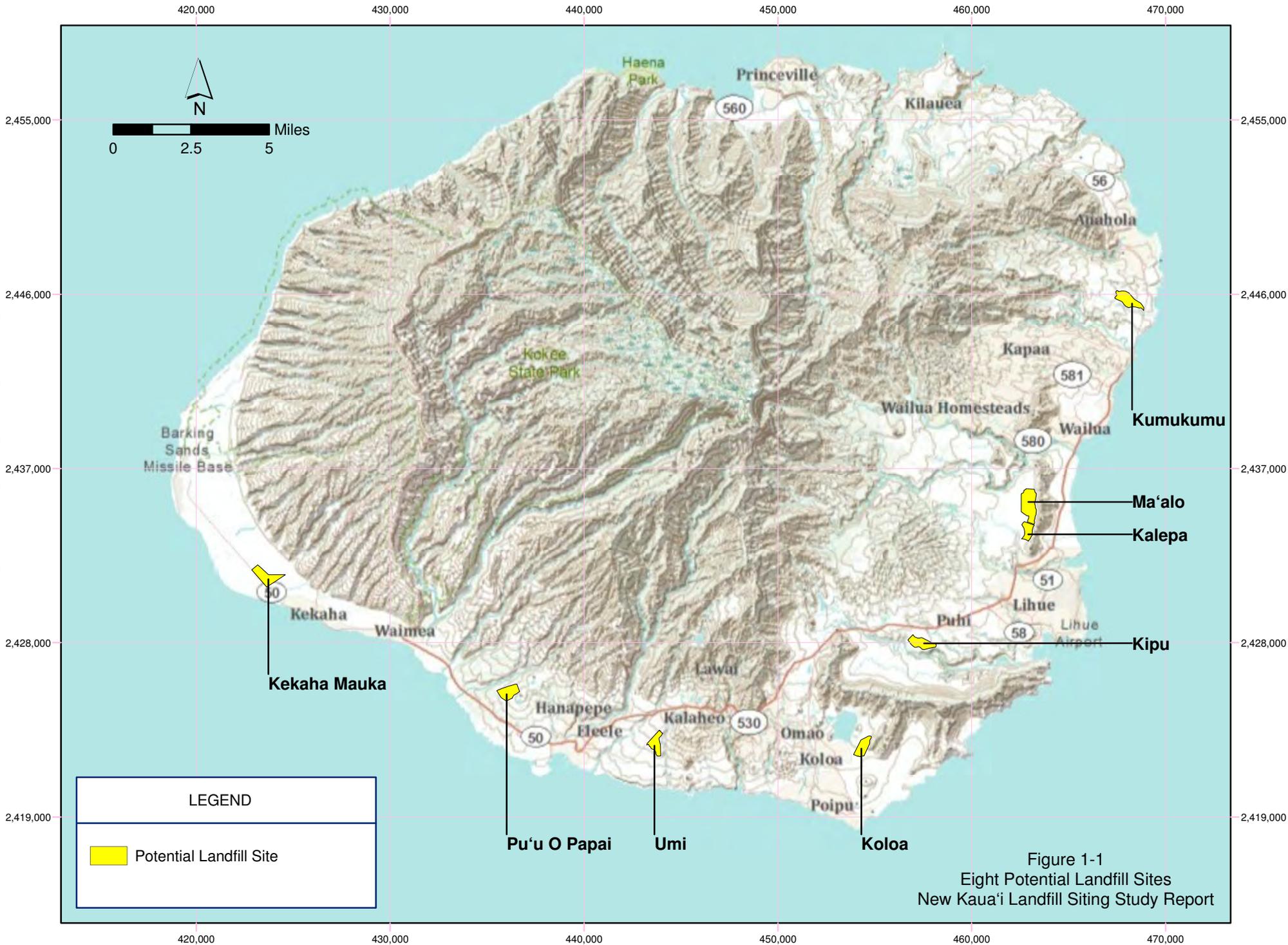


Figure 1-1  
Eight Potential Landfill Sites  
New Kauai Landfill Siting Study Report



## 2.0 HISTORY OF NEW KAUA'I LANDFILL SITE SELECTION

To accommodate solid waste generated by residents and visitors on Kaua'i, the County must develop a replacement facility for Kekaha Sanitary Landfill (KSLF) Phase II, which is projected to reach capacity by 2017. Selecting the appropriate site for a MSWLF is an island-wide issue, balancing environmental, technical, economic, and social impacts on the hosting community. The selection process has been ongoing since 2000, and once selected, permitted, and approved, construction requires several more years before the new landfill is ready to accept wastes. Therefore, it is crucial that the proposed site be screened, evaluated, and identified, and the Environmental Impact Statement process be initiated in a timely fashion.

### 2.1 EXISTING WASTE DISPOSAL SYSTEM

KSLF, located 2.5 miles northwest of the town of Kekaha in the southwest part of the island, is the County's sole operating MSWLF. It is owned by the County of Kaua'i, Department of Public Works (DPW), and operated under contract by Waste Management, Inc. (WM). According to data provided by the County's Department of Public Works Solid Waste Division (SWD), in recent years the KSLF has received approximately 75,000 tons of solid waste per year, although peak values in the past have been as high as 95,000 tons per year. Municipal solid waste (MSW) collected by the County from residential and commercial customers is compacted into open-top trailers at one of four County-operated transfer stations for transfer to KSLF, which also accepts solid waste from private haulers and the general public.

KSLF has been operated in two phases. Phase I reached capacity years sooner than anticipated due to a sharp increase in solid waste disposal following Hurricane Iniki in 1992. Phase II opened in 1993 and is approaching its design capacity. In 1998, the maximum height of the Phase II landfill was increased to 60 feet (ft) above mean sea level (msl). Since that time, the County has implemented a horizontal expansion ("Cell 1") and a vertical expansion to 85 ft msl. The County has recently begun designing and permitting an additional horizontal expansion, designated Cell 2, which is expected to extend the useful life of the Phase II landfill through 2017.

### 2.2 KAUA'I MSWLF SITING STUDIES 2001/2002

In 2000 the County commissioned a Kaua'i MSWLF siting study from environmental engineering consultant Earth Tech, Inc., of Honolulu, Hawai'i (now doing business as AECOM). The study, published in March 2001 as *Kaua'i Municipal Solid Waste Landfill Siting Study*, identified seven sites that might be able to accommodate Kaua'i's future solid waste landfill needs, meet relevant criteria, and comply with all regulatory requirements.

Shortly after the 2001 study was completed, a landowner in the Lihu'e area proposed a new site, Kalepa. Therefore, in 2002 the consultant evaluated the Kalepa site by the same methodology used in the 2001 study, and found that it similarly met the identified needs, criteria, and requirements. This study was published in June 2002 as *New Kaua'i MSWLF, Kalepa Site Evaluation*. Together, these two studies are referred to in this report as the 2001/2002 siting studies (Earth Tech 2001, 2002).

The 2001/2002 siting studies conducted an island-wide evaluation by excluding areas that cannot be feasibly used, are restricted by regulatory requirements, would be harmful to human health or the environment, or were otherwise undesirable. A geographic information system (GIS) was used to conduct this island-wide evaluation. Electronic information maps that graphically present exclusionary criteria were used to exclude certain areas deemed unsuitable for MSWLF development. The maps were downloaded from the Hawai'i State GIS Program Data web page (Department of Business, Economic Development, and Tourism, Office of Planning) in 2000.

The Hawai'i Administrative Rule (HAR) Section (§) 11-58.1-13 for MSWLF site analysis provided the primary set of landfill siting criteria used to develop the overlay analysis that identified areas where a

MSWLF should not be located. Additionally, other landfill siting criteria were also applied, as identified below (Table 2-1).

**Table 2-1: Landfill Siting Criteria**

| HAR §11-58.1-13 Criteria  | Other Criteria   |
|---|--|
| <ul style="list-style-type: none"> <li>• Areas within 10,000 ft of airport runways</li> <li>• Floodplains</li> <li>• Wetlands</li> <li>• Fault Areas</li> <li>• Seismic Impact Zones</li> <li>• Unstable Areas</li> <li>• Tsunami Inundation Areas</li> </ul> | <ul style="list-style-type: none"> <li>• Special management areas</li> <li>• Areas within 1,000 ft of shoreline</li> <li>• Federal government lands</li> <li>• Areas with undesirable topography, slope &gt;33.33 degrees</li> <li>• Areas within 1,000 ft of water wells</li> <li>• Areas within 300 ft of perennial streams</li> <li>• Areas within 1,000 ft of surface water</li> <li>• State conservation lands</li> <li>• Areas within 0.5 mile of urban lands</li> </ul> |

Eight sites were identified within the remaining suitable areas. The siting studies then evaluated and scored these sites based on the following environmental, technical, and social/cultural criteria (Table 2-2):

**Table 2-2: Environmental, Technical, and Social/Cultural Criteria**

| Environmental Criteria  | Technical Criteria   | Social/Cultural Criteria  |
|---|--|---|
| <ul style="list-style-type: none"> <li>• Aquifer status</li> <li>• Location of groundwater wells</li> <li>• Geologic/hydrogeologic conditions</li> <li>• Endangered species and sensitive ecological areas</li> <li>• Relative importance of agricultural land</li> </ul> | <ul style="list-style-type: none"> <li>• Site drainage</li> <li>• Availability of soil for daily cover</li> <li>• Precipitation</li> <li>• Topography</li> <li>• Site capacity</li> <li>• Availability of utilities</li> </ul> | <ul style="list-style-type: none"> <li>• Availability of land</li> <li>• Proximity to private residences</li> <li>• Potential impact to people as a result of the prevailing wind</li> <li>• Scenic views</li> <li>• Accessibility of site to a well-traveled road</li> <li>• Archaeological and historical significance of site</li> <li>• Traffic conditions</li> <li>• Waste transport distance</li> </ul> |

Each site was assigned a score for each criterion between 1 and 5, 1 being least suitable and 5 being most suitable. The score was then multiplied by a weighting factor assigned to each criterion. Totals for each site were then summed and ranked to produce the following sequence of suitability for the eight sites (Table 2-3):

**Table 2-3: Rank of Suitability**

| Rank | Site         | Total Points |
|------|--------------|--------------|
| 1st  | Kekaha Mauka | 420          |
| 2nd  | Kipu         | 396          |
| 3rd  | Kalepa       | 392          |
| 4th  | Kumukumu     | 377          |
| 5th  | Pu'u O Papai | 372          |
| 6th  | Ma'alo       | 351          |
| 7th  | Koloa        | 345          |
| 8th  | Umi          | 306          |

### 2.3 MAYOR'S ADVISORY COMMITTEE ON LANDFILL SITE SELECTION 2009

In 2007, the late Mayor Bryan Baptiste convened the County of Kaua'i Mayor's Advisory Committee on Landfill Site Selection (MACLS). This citizens advisory committee was tasked with developing new community-based criteria for selecting a new MSWLF site for Kaua'i, adding to the existing criteria from the 2001/2002 siting study, and weighting the criteria they had developed. The MACLS consisted of 15 appointed community representatives from each of the geographic areas of Kaua'i. The committee was assisted by the County Department of Public Works, technical consultant RMTC, and Resolutions Hawai'i as a neutral facilitator.

MACLS met nine times between May 2008 and April 2009. The committee developed 26 community criteria and weighted the criteria (by vote) according to perceived importance (Table 2-4).

**Table 2-4: Community Criteria**

| No. | Criterion  | Weighting Factor |
|-----|--|------------------|
| 13  | Location of site relative to the Underground Injection Control (UIC) Line              | 10               |
| 1   | Population density near site   | 9                |
| 20  | Cost of development  | 9                |
| 18  | Haul distance from major municipal solid waste generation areas                        | 9                |
| 26  | Landfill capacity or site life   | 8                |
| 10  | Consistency of the designation of the site for a landfill with the Kaua'i General Plan | 8                |
| 2   | Distance to nearest residence, school, hospital or non-compatible business             | 8                |
| 21  | Cost of operations   | 7                |
| 3   | Displacement of residences and/or businesses including agricultural businesses         | 7                |
| 4   | Archaeological and/or historical significance  | 7                |
| 5   | Cost of site acquisition   | 7                |
| 14  | Proximity to surface water   | 7                |
| 15  | Flora and fauna habitat  | 5                |
| 16  | Annual precipitation   | 5                |
| 7   | Site distance from major highway   | 4                |
| 8   | Schools or hospitals along access road   | 4                |
| 6   | Ceded or Hawaiian Homestead Land   | 3                |
| 25  | Proximity to parks and recreational facilities   | 3                |
| 9   | Residential units or developments along access road                                    | 2                |
| 12  | Consistency of the site with the existing State Land Use Designation                   | 2                |
| 19  | Adequacy of site drainage  | 2                |
| 22  | Availability of utilities  | 2                |
| 24  | Availability of existing access roadway from major highway or collector street         | 2                |
| 11  | Consistency of the site with the existing County land use zoning designation           | 1                |
| 17  | Prevailing wind direction relative to populated areas                                  | 1                |
| 23  | Access to fire protection  | 1                |

Working with the consultant to maximize objectivity, these criteria and the weighting factors were applied to seven of the eight sites identified by the 2001/2002 siting studies to rank them. One site, Kumukumu, was removed from the evaluation due to an anticipated subdivision development within a major portion of the site (which has not occurred, as of this writing).

Applying the site criteria and weighting factors produced the following MACLS ranking (Table 2-5):

**Table 2-5: MACLS Ranking**

| Rank | Site         | Unweighted Score | Weighted Score | Difference in Points from Next Highest Ranked Site |
|------|--------------|------------------|----------------|--|
| 1st  | Umi          | 63               | 334            | 8  |
| 2nd  | Kekaha Mauka | 62               | 326            | 31   |
| 3rd  | Koloa        | 56               | 295            | 7  |
| 4th  | Kipu         | 58               | 288            | 19   |
| 5th  | Pu'u O Papai | 53               | 269            | 4  |
| 6th  | Ma'alo       | 51               | 265            | 17   |
| 7th  | Kalepa       | 49               | 248            | –  |

In May 2009, the committee's technical consultant published the results in *Volume 1: Report of the Mayor's Advisory Committee on Landfill Site Selection (Volume 2: Site Data Sheets* was issued in March 2009) (RMTC 2009). The report noted the small difference in weighted scores separating the ranking for three pairs of sites: Umi and Kekaha Mauka, Koloa and Kipu, and Pu'u O Papai and Ma'alo.

The report also included as appendices two commissioned studies that were added to the committee's scope during the course of their meetings:

- A study on Environmental Justice (EJ) was performed by research consultant SMS of Honolulu to address the concern that minority or low-income populations are properly considered during the site selection process. Because no federal funds are expected to be used in the siting or development of the landfill, the County of Kaua'i is not mandated to adhere the EJ requirements of Executive Order 12898 (Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations), but the committee and the County agreed that EJ is an important issue and the spirit and intent of the order should be considered in the Kaua'i landfill siting process. The EJ report found that five of the seven proposed landfill sites qualified as EJ areas by minority classification and one by poverty classification as well, according to United States (U.S.) Census block group information. The report noted that minority classification in Hawaii may not have the same implications that it has on the mainland. If the selected landfill site is in an EJ area, the report recommended applying a rational process that includes surveying resident constituents and using the findings to identify mitigation measures that might be offered by the County to the affected community, if warranted.
- A study on Host Community Benefits (HCB) as it relates to the siting of landfills in the County of Kaua'i was performed by Pacific Waste Consulting Group of Sacramento, CA. The HCB study addresses the issue of compensation (e.g., direct payments, free or reduced disposal fees, special projects) provided to a community that is host to a regionally advantageous but locally unwanted public facility, such as a landfill. Hawaii is one of eight states currently using HCB. The study recommended forming a Community Advisory Committee from community representatives to provide insight into local opinions and insight regarding how to best address HCB.

## 2.4 COUNTY OF KAUA'I INTEGRATED SOLID WASTE MANAGEMENT PLAN 2009

In September 2009, consultant R. W. Beck updated the *County of Kaua'i Integrated Solid Waste Management Plan* (ISWMP) for the SWD (R. W. Beck 2009). The plan was previously updated in 1994. Section 11 of the 2009 plan proposes a four-stage site selection process as a facility siting

strategy: (1) establish a siting task force, (2) identify excluded sites and develop county-specific siting criteria, (3) define ranking criteria and rank available sites, and (4) select a proposed site. General principles that emphasize flexibility and a mediation process to resolve conflicts, disputes, and impasses are included in the strategy. This landfill siting project is being conducted in general accordance with the processes outlined in the ISWMP.

## **2.5 COMMUNITY CRITERIA EVALUATION 2012**

The 2012 CCE is included as Section 6.0 and Attachment B of this report. The 2012 CCE updates the 2009 MACLS report that ranked seven of the eight sites by community-based criteria, using the MACLS study's framework and general methodology, but with more accurate and current data (including data generated by the PREE and the Planning Level Cost Estimates included in this report), a revised scoring methodology, and some adjusted content of criteria to enable more precise measures. The CCE was prepared by AECOM and the same consultant that prepared the MACLS report, RMTc. The CCE evaluated all eight potential sites identified in the 2001/2002 siting studies, including Kumukumu (which was removed from consideration in the original MACLS report due to previous, unrealized residential development plans). The CCE methodology and results are presented in Section 6.0; the data sheets for each site for each of the 26 criteria are included as Attachment B.

## **2.6 CURRENT DOCUMENT: NEW KAUA'I LANDFILL SITING STUDY REPORT 2012**

This Siting Study Report presents technical, environmental, cultural, and social comparisons of the sites, including: a 2012 State Landfill Criteria Evaluation (SLCE; Section 3.0); a PREE (Section 4.0); planning level cost estimates (Section 5.0); the 2012 CCE results (Section 6.0); other critical decision factors (Section 7.0); and conclusions and recommendations (Section 8.0). The primary factors to be weighed in selecting the proposed landfill site include the CCE results, site life, costs, landowner willingness, sustainability, and agricultural value. Recommendations on identifying one or two proposed sites are presented, to allow the County to focus its investigations and the upcoming EIS process.

## **2.7 FUTURE STEPS**

The County of Kaua'i will choose a potential location, or locations, for the new MSWLF based in part on the results of this report. Upon selection of a proposed landfill site, more detailed, site-specific engineering analyses and design will be performed for both the proposed MSWLF site and the accompanying Resource Recovery Park. Additionally, a detailed State of Hawai'i HRS Chapter 343 EIS will be conducted for the proposed landfill site. The current New Kaua'i Landfill Siting Study Report documents and concludes the extensive evaluations of alternative potential landfill sites undertaken by the County over the last 12 years, in compliance with HAR §11-200-17(f), and will become part of the administrative record for the EIS.

Once the public-review process is complete and the EIS is approved, the site will need to be acquired or land use rights secured, and detailed engineering design, multiple permits, and other approvals will need to be obtained and completed before construction can begin. It may take an additional six years after completion of the EIS to design, permit, construct, and begin operating a new landfill.

