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IN REPLY REFER TO:
RE 11-001

CITY AND COUNTY OF HONOLULU
MAYOR'S ADVISORY COMMITTEE ON LANDFILL SITE SELECTION
MAYOR'S CONFERENCE ROOM
MEETING NO. 4
THURSDAY, MARCH 31, 2011
9:00 A.M. - 12:00 P.M.

AGENDA

1. Welcome and Introduction

   Purpose: To finalize community criteria development and address elements to make criteria measurable.

   Outcome: A finalized list of community criteria and ideas on how each will be measured so that the consultant can prepare a draft for review and discussion at the next meeting.

2. Review of Mtg. No. 3

   - Report back on list of cost items for development of a landfill
   - Information on the Southern O'ahu Basal Aquifer
   - Definition of Community Criteria

3. Public Comments

4. Additional Sites Recommended by Committee

5. Discussion on Additional Criteria for Evaluation of Landfills

   - Finalization of criteria areas and discussion of language for each criterion

6. Discussion on Evaluation Process

   - How should criteria be quantified to make them measurable

7. Next Steps, Thank You, and Adjournment

EXHIBIT K30

Mayor's Advisory Committee on Landfill Site Selection
City and County of Honolulu

Information Package for Committee Meeting No. 4

March 31, 2011

This information package is for Meeting No. 4 and contains the following items for discussion:

1. Handout: 1-LF Cost Categories
2. Handout: 2-Southern O'ahu Basal Aquifer (EPA SOBA Information)
3. Handout: 3-City Statement on WGSL and Community Criteria
4. Handout: 4-Committee Information Regarding PBS Island Insights Aired Thursday, March 17, 2011
5. Handout: 5-Draft Language for Site Selection Criteria
6. Handout: 6-Siting Criteria Evaluation Examples (Data Sheet Examples)

EXHIBIT K30

Cost Categories for the Development of Landfills
PWCG 2011

The categories of cost that are customarily evaluated for the development of a landfill includes:

1. Cost of property for new landfill
2. Improvements to the highway or roads that will access the site
3. Construction of internal roadways
4. Landfill support facilities, such as the scalehouse, equipment yard or building(s) and office building
5. Erosion control facilities, such as siltation basins
6. Drainage control system
7. Landfill gas recovery system
8. Other site work and infrastructure, such as the septic system and landscaping
9. Water and fire systems
10. Landfill liner and LCRS (leachate collection and removal system).
11. Liner for final closure.
12. Post-closure costs.

Southern O'ahu Basal Aquifer
RMTC 2011

The following attached information was obtained from the EPA Website:

http://www.epa.gov/region9/water/groundwater/ssa.html

The attached documents describe the U. S. EPA's Sole Source Aquifer Program (1977) which is intended to protect groundwater aquifers from contamination by federally funded projects. On the Island of O'ahu, the EPA designation of the critical system is known as the Southern O'ahu Basal Aquifer or SOBA.

United States
Environmental
Protection Agency

Region 9 Ground Water
Office (WTR-9)

JUNE 2000

Sole Source Aquifer Designations in EPA, Region 9

The U.S. EPA's Sole Source Aquifer Program was established under Section 1424(e) of the U.S. Safe Drinking Water Act (SDWA.) Since 1977, it has been used by communities to help prevent contamination of groundwater from federally-funded projects. It has increased public awareness of the vulnerability of groundwater resources.

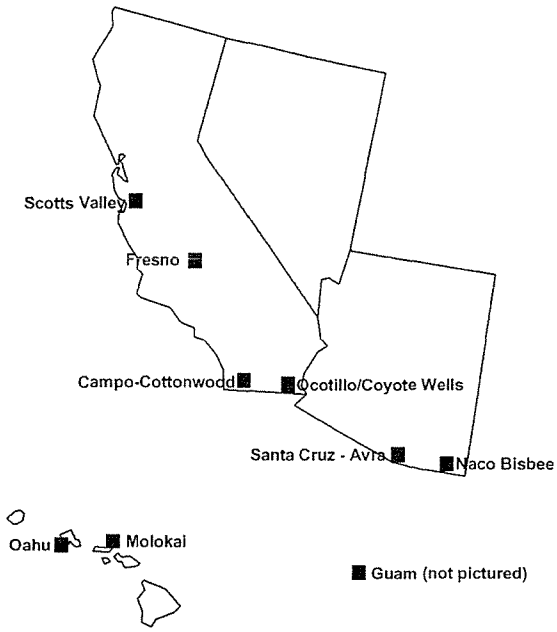
How did this program start? SDWA regulations implementing the sole source aquifer statute were first proposed in 1977 for the Edwards Underground Reservoir in San Antonio, Texas. These regulations guided U.S. EPA in the subsequent designation of 64 sole source aquifers across the United States.

What does the Sole Source Aquifer Program do? The Sole Source Aquifer program allows for EPA environmental review of any project which is financially assisted by federal grants or federal loan guarantees. These projects are evaluated to determine whether they have the potential to contaminate a sole source aquifer. If there is such a potential, the project should be modified to reduce or eliminate the risk, or federal financial support may be withdrawn. This doesn't mean that the Sole Source Aquifer program can delay or stop development of landfills, roads, publicly owned wastewater treatment works or other facilities. Nor can it impact any direct federal environmental regulatory or remedial programs, such as permit decisions.

The Sole Source Aquifer Program's review authority extends only to projects funded with **federal assistance** that are to be implemented in designated sole source aquifer areas. (For regulations applicable to new private development, you should consult with your local, county or state environmental health agency.)

Typical projects reviewed by the U.S. EPA include housing projects undertaken by Housing and Urban Development, and highway construction and expansion projects undertaken by the Federal Highway Administration. In 1991, the U.S. EPA reviewed 152 federal assistance projects totaling $571 million; of these projects, 25 had to be modified to prevent contamination of sole source aquifers. Modifications included the redesign of bridges and highways to prevent spills of hazardous materials.

How do you designate an aquifer as a "Sole Source" Aquifer? As the name implies, only a "sole source" aquifer can qualify for the program. To be a sole source, the aquifer must supply more than 50% of a community's drinking water. Any individual, corporation, association, or federal, state or local agency may petition the U.S. EPA for sole source aquifer designation, provided the petition includes sufficient hydrogeologic information. An outline describing how such petitions should be prepared is contained in The Sole Source Aquifer Designation Petitioner Guidance, copies of which are available at EPA Regional offices (see contact information below.)



What about Boundaries? Determination of sole source aquifer boundaries is a difficult aspect of the designation process since the "designated area includes the surface area above the aquifer and its recharge area." Thus, some sole source aquifers extend across state boundaries. The 10,000 square-mile Eastern Snake River Aquifer, for example, includes portions of Idaho, Nevada, Utah, and Wyoming.

In Region 9: nine sole source aquifers have been designated in the following areas as shown on the map: Upper Santa Cruz and Avra Basin Aquifer, covering parts of Pima, Pinal, and Santa Cruz Counties, Arizona; Naco-Bisbee Aquifer, Arizona; Ocotillo-Coyote Wells, Imperial County, California; Fresno Aquifer, California; Scotts Valley Aquifer, Santa Cruz County, California; Campo-Cottonwood Aquifer, San Diego County, California; Northern Guam Aquifer, Guam; Southern Oahu Aquifer, Hawaii; and Molokai Aquifer, Hawaii.

Region 9 SSA maps are on the web at www.epa.gov/safewater/ssanp.html. For more information about SSA designation and project reviews, please call David Albright, manager of the Ground Water Office, at (415) 972-3971 or email albright.david@epa.gov.

EXHIBIT K30

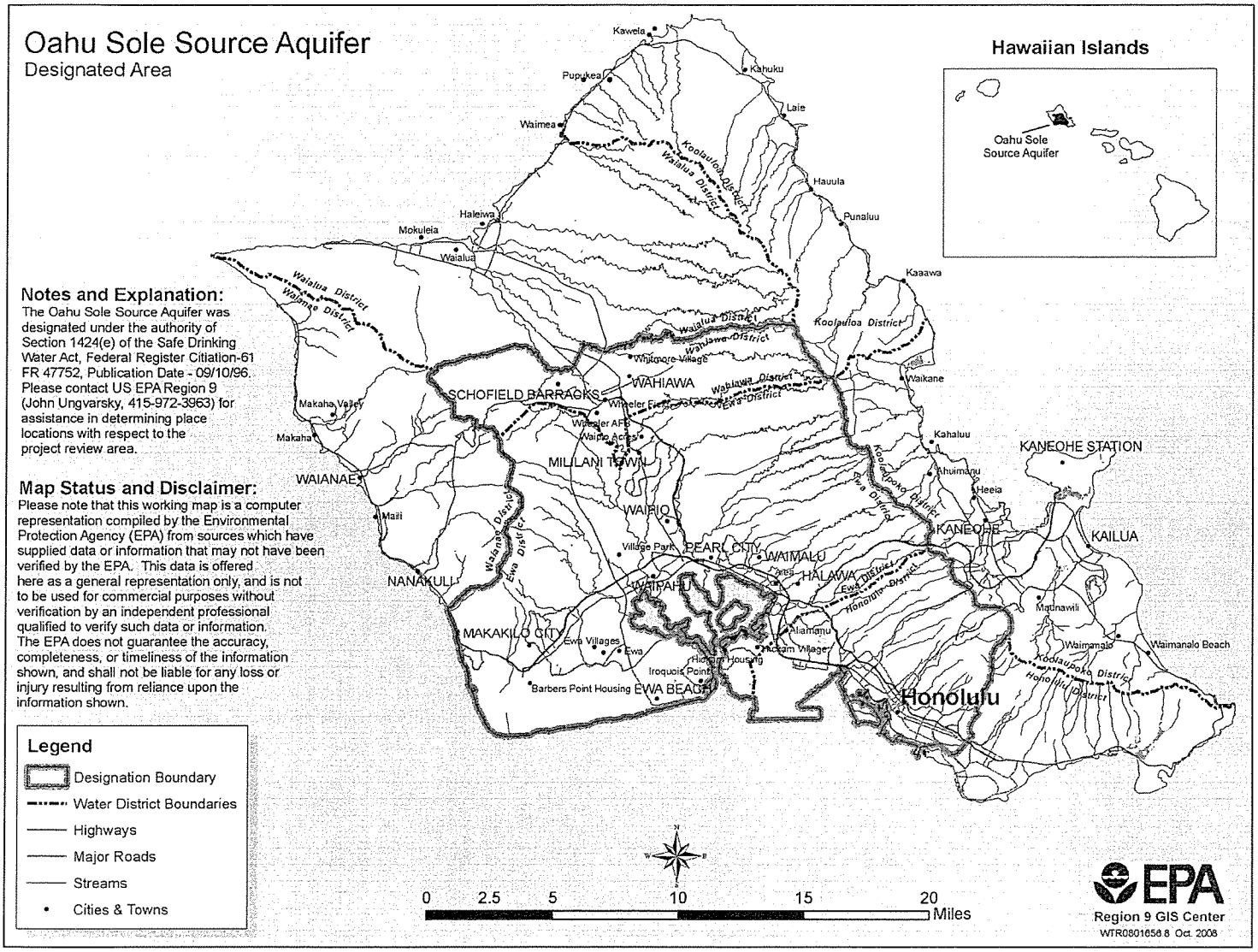

Oahu Sole Source Aquifer
Designated Area
Hawaiian Islands
Oahu Sole Source Aquifer
Notes and Explanation:
The Oahu Sole Source Aquifer was designated under the authority of Section 1424(e) of the Safe Drinking Water Act, Federal Register Citiation-61 FR 47752, Publication Date - 09/10/96. Please contact US EPA Region 9 (John Ungvarsky, 415-972-3963) for assistance in determining place locations with respect to the project review area.
Map Status and Disclaimer:
Please note that this working map is a computer representation compiled by the Environmental Protection Agency (EPA) from sources which have supplied data or information that may not have been verified by the EPA. This data is offered here as a general representation only, and is not to be used for commercial purposes without verification by an independent professional qualified to verify such data or information. The EPA does not guarantee the accuracy, completeness, or timeliness of the information shown, and shall not be liable for any loss or injury resulting from reliance upon the information shown.
Legend
Designation Boundary
Water District Boundaries
Highways
Major Roads
Streams
Cities & Towns
Kawela
Kahuku
Pupukea
Laie
Waimea
Hauula
Punaluu
Haleiwa
Mokuleia
Waialua
Kaaawa
Waialua District
Waianae District
Koolauloa District
Whitmore Village
WAHIAWA
Waikane
SCHOFIELD BARRACKS
Wheeler Field
Wheeler AFB
Waipio Acres
Makaha Valley
Makaha
Kahaluu
KANEOHE STATION
MILILANI TOWN
Ahuimanu
Heeia
WAIANAE
Maili
WAIPIO
KANEOHE
KAILUA
Village Park
PEARL CITY
WAIMALU
Aiea
HALAWA
NANAKULI
WAIPAHU
Ewa District
Honolulu District
Kaneohe District
Madnawili
MAKAKILO CITY
Ewa Villages
Ewa
Kalaimanu
Waimanalo
Waimanalo Beach
Hickam Housing
Hickam Village
Iroquois Point
Barbers Point Housing
EWA BEACH
Honolulu
Honolulu District
0 2.5 5 10 15 20
Miles
EPA
Region 9 GIS Center
WTR0801656.8 Oct. 2008

EXHIBIT K30

City Statement on
Waimānalo Gulch Sanitary Landfill and
Community Criteria

Mayor's Advisory Committee on Landfill Site Selection

March 31, 2011

Consideration of Waimānalo Gulch in This Process

The Waimānalo Gulch Sanitary Landfill (WGSL) will not be a part of the consideration of alternative landfill sites by this Committee. In response to several questions from Committee members, the rationale for it not being considered in this process are as follows:

- The City per the LUC Condition needs to identify the supplemental or subsequent site to the current WGSL site. Since Waimānalo Gulch can neither supplement nor replace itself it can not be considered in this process.
- The last committee assessed Waimānalo Gulch and scored it so its importance and placement as a site for the present and future was noted in the previous Committee's report.
- The City is pursuing the course of action it feels is appropriate regarding current and continued use of the WGSL site and as part of that process may at some point in the future apply the criteria that this Committee is developing to that site.
- Due to changes in technology, the addition of the third boiler at H-POWER, the city's high rate of success in recycling, and the need to look at C&D waste streams, much has changed since the previously identified sites were looked at, and these and any additional sites need to be re-evaluated for future use and that is what this Committee is charged to do.

Community Criteria Definition

These criteria are those that are not exclusionary such as RCRA-D. They may be issues that will be looked at in an EIS process but are deserving of identification here due to their importance to the communities of O'ahu. They are issues that should from a community perspective be looked at early. These issues may have more detailed information that will be developed through an EIS process but are still worthy of being used as a filter with the level of information currently available.

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Please contact our office at 842-1133 should problems occur with transmission or receipt of facsimile documents.

To:	Mayor's Advisory Committee on Landfill Site Selection	Sent By:	Brian Takeda Planning Project Coordinator 1-21717-00P
cc:	Janice Marsters, Ph.D.		
Date:	March 31, 2011	Subject:	Committee Information Re PBS Island Insights, Aired Thursday, March 17, 2011

Note: We assume that the mentioned items are stated correctly and that any future work or development will be based on these statements unless notified to the contrary within 7 days of the date shown on this document in writing.

Dear Committee Members:

Janice Marsters, Ph.D., has requested in her absence the dissemination of the following link to a PBS TV program regarding the expansion of Waimānalo Gulch and the future of waste disposal on O'ahu. The discussion group included Doug Chin, City Managing Director; Gary Gill, DOH, Deputy Director for the Environment; Bruce Anderson, Ph.D.; and Maeda Timson, Chair, Makakilo/Kapolei/Honokai Hale Neighborhood Board.

http://www.pbshawaii.org/indexee.php/site/vidpopdream/182/

Janice sends her regards and apologizes that she could not attend our fourth meeting.

Thank you,

Brian

EXHIBIT K30

Mayor's Advisory Committee
on Landfill Site Selection

Draft Language for Site Selection Criteria

March 31, 2011

City and County of Honolulu
Department of Environmental Services
Refuse Division

R. M. Towill Corporation
Pacific Waste Consulting Group
SMS Research

Table of Contents

COMMUNITY

1. Physical Effect on Adjacent Lands

Discharge of stormwater-borne waste or airborne material from landfill along a course or path makai of the site. See following criteria for types of measures.

2. Location Relative to Public Schools

Distance from the landfill site property line to a public school.

3. Location Relative to Health Care Facilities

Distance from the landfill site property line to the health care facility (clinic or hospital).

4. Location Relative to Public Parks

Distance from the landfill site property line to a public park.

5. Location Relative to Residential Concentrations and Hotels

Distance from landfill site property line to concentrations of residential units and hotels.

6. Location Relative to Visitor Attractions

Distance from landfill site property line to identified visitor attractions.

7. Effect on Established View Planes

Degree to which a landfill site falls within a view plane established by the City and County of Honolulu in the applicable Community Development Plan or Sustainable Community Plan.

8. Dust, Litter and Odor

Prevailing wind direction at a landfill site relative to location of residential concentrations, visitor attractions, and/or commercial facilities.

9. Effect on Local Traffic

Projected increase in vehicular traffic along roads within a given distance from a landfill site.

B. LEGAL

10. Zoning

The zoning of the landfill site permits construction and operation of a landfill on the property.

11. Ceded Land and Hawaiian Home Lands

The landfill site contains lands that are either designated ceded land or Hawaiian Home Lands.

12. Location Relative to Identified Environmental Justice Populations

The landfill site can be shown to have a disproportionate adverse effect on an identified Environmental Justice population (minority and/or low-income in relation to other landfill site areas).

C. INFRASTRUCTURE

13. Ingress and Egress to Landfill Site

The landfill site provides multiple existing or potential ingress and egress points for efficient operation and traffic circulation.

14. Location Relative to H-POWER

The distance the entrance to the landfill site is from H–POWER. [The H–POWER contract has cost adjustments for distances greater than 12 miles.]

15. Wear and Tear on Highways and Roadways

The landfill site will be reached by which *type* of road(s): interstate highway, state highway, county road, and non-designated road.

16. Effect on Roadway Usage

The existing and planned capacity of the road(s) needed to reach the landfill site is (are) adequate for projected landfill traffic.

17. Stormwater Control

Compares physical attributes of landfill sites that would promote stormwater control that is, prevent stormwater from running onto the working face of the landfill or discharging from the site. Physical attributes include slope (the most important element) and the type of soils.

D. ECONOMIC

18. Landfill Development, Operation and Closure Cost

Cost of site acquisition, site development and landfill operation, and closure based on the number of years of expected capacity for the landfill site.

19. Opportunity Cost

Lost economic benefit in situations where the owner of a potential landfill site possesses entitlements for an alternative land use.

20. Location Relative to Resource Recovery Facilities

Distance to existing recycling facilities and vendors to potential landfill sites.

21. Potential for Solid-Waste Related Land Uses

Acres of suitable land near potential landfill sites to accommodate businesses that would benefit from operating close to the landfill, e.g., metal and other material recyclers.

E. ENVIRONMENTAL

22. Location Relative to Wetlands

Distance from the perimeter of a landfill site from a wetland, as established by the U.S. Army Corps of Engineers. It also considers the relative value of established wetlands.

23. Location Relative to Listed Threatened or Endangered Species

Distance from the perimeter of a landfill site to an area with habitat for listed threatened or endangered plants or animals, as identified by the U.S. Fish & Wildlife Service.

24. Location Relative to Groundwater Resources

Location of landfill site relative to the O'ahu No-Pass Zone and Groundwater Protection Zone.

25. Location Relative to Flood Zone and/or Tsunami Evacuation Zone

Location of all or a portion of the landfill site within an identified flood plain or tsunami evacuation zone.

26. Location Relative to Natural Area Reserves

Distance from the perimeter of potential landfill sites to identified Natural Area Reserves.

27. Precipitation

Inches of annual rainfall at potential landfill sites.

28. Location vs. and Potential Discharge to Class "AA" Waters [1]

Distance of landfill sites from Class "AA" waters.

29. Surface Water

Distance of landfill sites from identified perennial streams.

30. Soils

Relative suitability of soil types for landfill use.

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[1] Class "AA" means waters that are to remain in their natural pristine state as nearly as possible with an absolute minimum of pollution or alteration of water quality from human caused source or actions.

31. Noise from Landfill Operations

Distance from landfill sites to sensitive noise receptors such as residential or resort development, health care facilities, and public schools.

F. CULTURAL

32. Archaeological and Cultural Resources

Distance to identified historic and/or archaeological sites listed or eligible for listing on the State Register of Historic Places or identified as a culturally significant site by the State Historic Preservation Division (SHPD).

G. LAND USE

33. Quality of Agricultural Lands

Distance from landfill sites to agricultural lands identified as valuable for agronomic purposes by the Agricultural Lands of Importance to Hawai'i (ALISH) or Land Study Bureau (LSB) classification systems.

H. OTHER

34. Post-Closure Reuse

Suitability of a landfill site for reuse after future closure. Reuse could include open space, public park, and/or non-residential structures that are not sensitive to ground settling.

35. Worst-Case Scenarios

Number of people with residences or in hotels or visitor facilities that are in the path of potential discharges of litter or stormwater from the site. The path of the discharge is the unimpeded path makai of the site.

Siting Criteria Evaluation Examples

PWCG 2011

3. Proximity to residential units and visitor attractions

The better site will be further from residential units and visitor attractions. The distance is calculated from the property line of the landfill to the residential units and visitor attractions.

The "site" is the landfill property.

Point Value	Measure (*for the purposes of this example we have made the following assumptions X = 0.25 miles and Y = 0.5 miles*)
1	The nearest residential unit or visitor attraction is located less than *0.25* miles from the landfill property line
2	The nearest residential unit or visitor attraction is located between *0.25* and *0.5* miles from the landfill property line
3	The nearest residential or unit visitor attraction is located more than *0.5* miles from the landfill property line

Point Value: 1

Source of the data on which the point value was determined:

Residences and Visitor attractions were identified using the HIS real property database and maps. Then distances between the site's boundaries and the apparent nearest residential unit and visitor attraction was calculated using the City and County Geographic Information Service (GIS) maps. See Appendix C.

How the point value of the criterion was determined:

Distances were measured from the nearest point on the boundary of the subject parcel and what appears to be the nearest edge of the landfill site, as described on maps provided by RM Towill and Pacific Waste Management.

Complications getting the data: None.

To assure consistency in using multiple maps, sites between which distances were measured were identified by TMK identifiers.

Complications calculating the point value: None

Distance from the property line to the nearest residential unit or visitor attraction:

875 feet or 0.16 miles

Type of facility that is closest:

Residential unit

9. Proximity to H-POWER

The cost of hauling the ash and residue will be greater if the site is further than 12 miles from H–POWER due to the terms of the H–POWER operating contract.

The cost of hauling is renegotiated with the operator of the H–POWER facility if greater than 12 miles. The distance of the site from H–POWER is used as the Measure for this criterion.

The distance of the sites from H–POWER will be listed in order from highest to lowest. The list is divided into three groups. The sites 12 miles or less from H–POWER will be in the third group (three points). The remainder of the sites will be divided into two groups with the most distant sites in the first group (one point) and the others in the second group (two points).

Point Value	Measure
1	The site is in the group that is the greatest distance from H–POWER
2	The site is in the group that is greater than 12 miles away from H–POWER but closer than the group of most distant sites
3	The site is in the group that is 12 miles or less from H–POWER.

Point Value: 3

Source of the data on which the point value was determined:

IDS for estimation of distances between points on Oahu; Rand McNally sectional maps for determination of routes to H-Power.

How the point value of the criterion was determined:

Comparing the distance in miles for this site to H–POWER .

Complications getting the data:

None

Complications calculating the point value:

None

A table is located in Appendix F that summarizes the calculation of haul distance for this site.

Group which includes the distance from H–POWER:

Further group ☐

Middle group ☐

Closest group ☒

Appendix C
Supporting Information for Criteria #3
Proximity to residential units and visitor attractions

Distance from the property line to the nearest residential unit: 875 feet

Address of residential unit: The data sheet will show the address(s)

Name of residential unit: N/A

Distance from the property line to the nearest visitor attraction: 1,139 feet

Address of visitor attraction: The data sheet will show the address(s)

Name of visitor attraction: The data sheet will show the names(s)

Appendix F
Supporting Information for Criteria #9
Proximity to H-POWER

No.	Site Name	Route
1	H	HPP→ Interstate Highway → First Route → Second Route → Third Route → Site Entrance
2	I	HPP→ Interstate Roadway → First Route → Second Route → Third Route → Fourth Route→Site Entrance
3	J	HPP→ Interstate Roadway → First Route →Second Route → Third Route →Fourth Route→Fifth Route→Site Entrance
4	K	HPP→ Interstate Roadway → First Route → Second Route → Third Route →Site Entrance
5	L	HPP→ Interstate Roadway → First Route → Second Route → Third Route → Fourth Route→ Site Entrance
6	M	HPP→ Interstate Roadway → First Route → Second Route → Third Route → Site Entrance
7	N	HPP→ Interstate Roadway → First Route → Second Route → Third Route → Site Entrance

Approximate Distance (miles) Traveled from H-POWER

No.	Site Name	HPP to Interstate Highway	First to Second Route	Second to Third Route	Third to Fourth Route	Fourth to Fifth Route	To Site Entrance	Total Miles
1	H	0.6	12	14.4	5		0.5	32.5
2	I	0.6	8	5	3	1	3.2	20.8
3	J	0.6	3.5	4	8	4	1	21.1
4	K	0.6	17	3.5	3		1.5	25.6
5	L	0.6	12	2	1	1	2.3	18.9
6	M	0.6	6	13	12		4.8	36.4
7	N	0.6	13	1	1		2	17.6

Point Assignment; Proximity of H-POWER to Site

No.	Site Name	Total Miles	Point Value
7	N	11.9	3
5	L	18.9	2
2	I	20.8	2
3	J	21.1	2
4	K	25.6	2
1	H	32.5	1
6	M	36.4	1