



IN REPLY REFER TO:

United States Department of the Interior

OFFICE OF THE SECRETARY
Office of Environmental Affairs
600 Harrison Street, Suite 515
San Francisco, California 94107-1376



November 25, 1991

MEMORANDUM

TO: Geothermal Working Group Members

FROM: Patricia S. Port, Regional Environmental Officer,
Dept. of the Interior, San Francisco

SUBJECT: Minutes of November 8, 1991 Meeting

Attached please find minutes from our last meeting.
Thanks to Lisa for taking them and sending them
to me so promptly

Kindly note the date of the next meeting.

Hope to see all of you in February, and may we have
some progress to report on all fronts.

Happy Holidays.

GEOTHERMAL WORKING GROUP MINUTES
NOVEMBER 8, 1991

MEMBERS PRESENT: Chip Demarest, U.S.F.W.S., Hugo Huntzinger, HAVO, NPS, Lynn Lee, OHA, Patricia Port, DOI, Dan Taylor, HAVO, Dave Wegner, DOI BR, GCES, Dick Wass, FWS.

Port opened the meeting discussing Department of Energy's progress on the environmental impact study. She recapped interest items stating Lloyd Lewis is the official contact person with the D.O.E. in Washington. We are invited as a cooperating agency to become involved in the E.I.S. We are here to bring up any issues of importance, to notify us of the state's involvement and brainstorm any items of concern.

Lloyd Lewis plans to involve all 3 bureaus plus the Corps of Engineers and National Marine Fisheries Service (DOC), and will be using the Oakridge Labs, a TN based-contract firm to write the EIS. They are being used instead of a local agency because Lewis feels they have advisory capacity and a background in NEPA compliance standards. There are no other co-lead agencies, so far.

Will the state tag on to this? Lewis has met with DBED, DLNR and the Office of State Planning. So far the understanding is that the State is interested as a co-lead. Governor Waihee's position may be forthcoming if he writes a letter of intent. Port stated there is a tremendous gap between what DOE is asking, and what the state wants. Need to work this out.

- 1) State Role needs to be worked out
- 2) Need Proposed Action for EIS

The proposal that was initiated years back was discussed; the grid, the wells, and the production cable as part of the EIS. Now that five federal cooperating agencies are looking at development of Memorandums of Understanding between the cooperating agencies and the DOE there will be three separate agreements under a DOI umbrella.

Pat asked Lewis when the scoping meetings were scheduled and his reply was the second week of December. However with items 1) and 2) (above) not in place it is questionable. The State disavows the proposal at this point and they don't want to see this covered in a formal statement on environmental impact. DOE doesn't want the State as a co-lead and this signifies a very poor start. It is the Governor's decision as to the role he wants the State to have and which State agency will represent him. We have lots of questions on the proposed action. Taylor stated that this always has been like this (he recapped back to 1983).

If the state is not going along with the proposed action what do they have in mind? Port will meet with Maurice Kaya this Wednesday. She doesn't know. The worst thing that can happen, stated Port, is that we complete the EIS in two phases and have to do it twice.

A suit has been filed in the State Courts, stated Port. She met with John Shupe - DOE, who does territorial liaison, energy and OTEC for DOE.

It was asked where the scoping meetings will take place. Port was surprised to hear they may not be held in Kona or Hilo and what about Maui? We don't know yet.

Bill Dement from Campbell Estates was unable to meet with us today and give us his input.

Dan shed some light on the cooperation with DLNR and working with Mike Buck, Honolulu. Mike was offended yesterday in a discussion on hunting and state/nene territory. Taylor stated there was a defensive/source of friction involved here. We discussed community animosity. We talked about Yvonne Weber and elements of community facilitation and the need for local involvement. Port talked about her concern on this and had asked Lewis to discuss this with Huntzinger. Apparently this discussion has not yet taken place.

Lynn Lee stated that she was "reluctant". Lewis' thrust is for everyone to go under the Office of State Planning, however Lee stated that OHA, as an advocacy agency, cannot do this. She feels OHA would be the voice of all native Hawaiian concerns and this doesn't look good.

Port spoke more on the needs for strong outreach, when she initially met with Lewis. Linda Coburn was recommended.

USFWS and NPS need to work with the Office of the Solicitor in San Francisco. We can write MOU's and work with Robin Kohn, San Francisco. Port will contact Ralph Mihan, Robin's boss. She also would like USFWS and NPS to call them.

Once the Solicitor structures a draft MOU we will have some protection and direction, otherwise we may not come to a consensus and breakdowns can occur. Dave Wegner will send a Native American Cooperative Agreement/MOU for us to model after. We need to look into transfers of funds covering the planning and writing of the EIS and it would be wise to let DOE know there may be a necessity to exchange funds at various points of the EIS.

The group listened to a story on Pohakuloa, where plant communities that were endangered were disrupted by a target range. Now the Army is subject to an EIS and we spoke about the millions of dollars involved in this. Carolyn Corn /botanist, was quoted as stating that less than 1% of Hawaii has been surveyed. Taylor felt this was certainly a misquote.

Taylor asked about Washington's involvement. Port answered she doesn't know. There's a need to talk to someone in Washington. It's important that we send copies of cooperating agreements to the Washington office.

We talked about the spaceport. Taylor and Lee talked about this environmental assessment and its beginning in November of 89. Taylor recapped the consultant firms used as subcontractors and noted that the EIS is still not out nor a master plan. EIS scoping meetings are forthcoming, (sees no chance for December). We discussed turtle nesting sites near Palima Point, and in the park, adjacent to the proposed launch pad.

We noted that as a bureau, we need to sit down and discuss issues pertaining to the threatened night flying shearwater and pelagic birds. The scope of the threat that a spaceport would bring with all of its bright lights to the Big Island (as one of the last dark areas) remains enormous.

We noted other contaminants and pollutants that threaten ecosystems and agreed that a letter from the bureaus to the Office of Space Technology, by Port, would be appropriate. Taylor will speak with Kheryn and Port will follow-up. We discussed HEPA and NEPA and Port asked the feelings on joint efforts by state and federal offices. Taylor reiterated that it is very important to keep Kheryn's office apprised as she is a primary advocate for the Park Service.

We can look forward to risk assessments prepared by the Hawaii Dept. of Health as they are looking at the hydrogen and radon contaminants regarding geothermal development.

The question as to whether the blowout caused any problems with native species this summer resulted in Taylor's reply that he was not aware of any ill effects. A note on the exotics growing along the roads in the geothermal sites - no corridor invasions of significance and strawberry guava is still growing quite heavily there. Campbell Estate's Bill Dement remains committed to keep development out of the intact forests.

Other federal cooperating agencies to become involved with geothermal may be the Counties of Hawaii and Maui. We discussed the county agency of Hawaii, noting it is very unusual to have counties involved in EISs and we agreed that our county is strong and particularly interested.

What do we need to do individually? Huntzinger appointed Taylor to become involved with the Solicitor in San Francisco on writing a cooperative agreement for the DOE on geothermal. Lynn Lee will work internally with OHA. She will send Port a copy of the new Hawaiian Rights Handbook and then it will be distributed to members on this committee. We talked about the DHHL and its history and focus that has changed since the 60's

Dick Wass spoke on petroleum use and referred to its "excess" and commentary in the letters to the Editor lately in the Tribune Herald. The point of tremendous amounts of waste was discussed. We discussed consumer advocate modes, pressures, manipulations and dollars. We talked about the utility companies and site economics and the movement to assess values to spiritual sites, i.e., Grand Canyon. The dollar amounts are finally being compared from ecosystem and species standpoints. This new comparability and environmental value is finally being recognized and compared to hydroelectric revenues.

Wegner agreed to send Lee some of the materials the Glen Canyon Environmental Studies (GCES) have developed on non-use values and how to value natural resources.

If OHA can write something to DOE it would be of great assistance in the economic evaluation. It is important to realize a "paper trail" and focus attention on the environmental impacts. It would be great if Huntzinger would telephone Lewis to try and work closely on this.

The next meeting is tentatively set for Friday, February 14, 1992 at 10AM in the Superintendent's Conference Room, Hawaii Volcanoes National Park, Big Island, Hawaii.

The Government is the Environment's Worst Enemy

by Fredric "Rick" Sutherland

Excerpts from a speech to the Department of Justice on June 27, 1991

I have been engaged in the practice of environmental law for over 20 years. During this time Congress has enacted numerous laws to protect natural resources and improve environmental quality. Because of these laws, and because of an enlightened citizenry willing to go to court to enforce them, millions of acres of public lands have been protected from inappropriate development, hundreds of thousands of wild creatures have been preserved, including many species threatened with extinction, and air and water quality have been dramatically improved.

Nevertheless, despite these successes, my primary emotion when recalling the past 20 years of environmental law is one of profound disappointment. This disappointment is due to the continuing failure of federal agencies and officials to do a better job of implementing and enforcing our environmental laws.

All the polls indicate that the American people are deeply concerned about the environment and, furthermore, that they are willing to pay to clean up the mess. What they are getting instead is bureaucratic lawlessness.

As a young public interest lawyer in Los Angeles, the first two cases I filed were against the federal government. One challenged the Federal Highway Administration's failure to prepare an environmental impact statement for a massive freeway project. The other contested the Environmental Protection Agency's failure to promulgate a clean air implementation plan for California.

We won those cases, but I was troubled by the federal government's reluctance to do what the law clearly required. I attributed this to the newness of the environmental laws. I was overly optimistic and perhaps a little naive. My experience during the past two decades has led me to conclude that the government is all too often the environment's worst enemy.

Agencies and officials charged with implementing and enforcing our environmental laws frequently fail to do so. They miss statutory deadlines, water down strict legal requirements or simply refuse to use their enforcement powers, even when faced with blatant violations of the law.

The dockets of the Sierra Club Legal De-

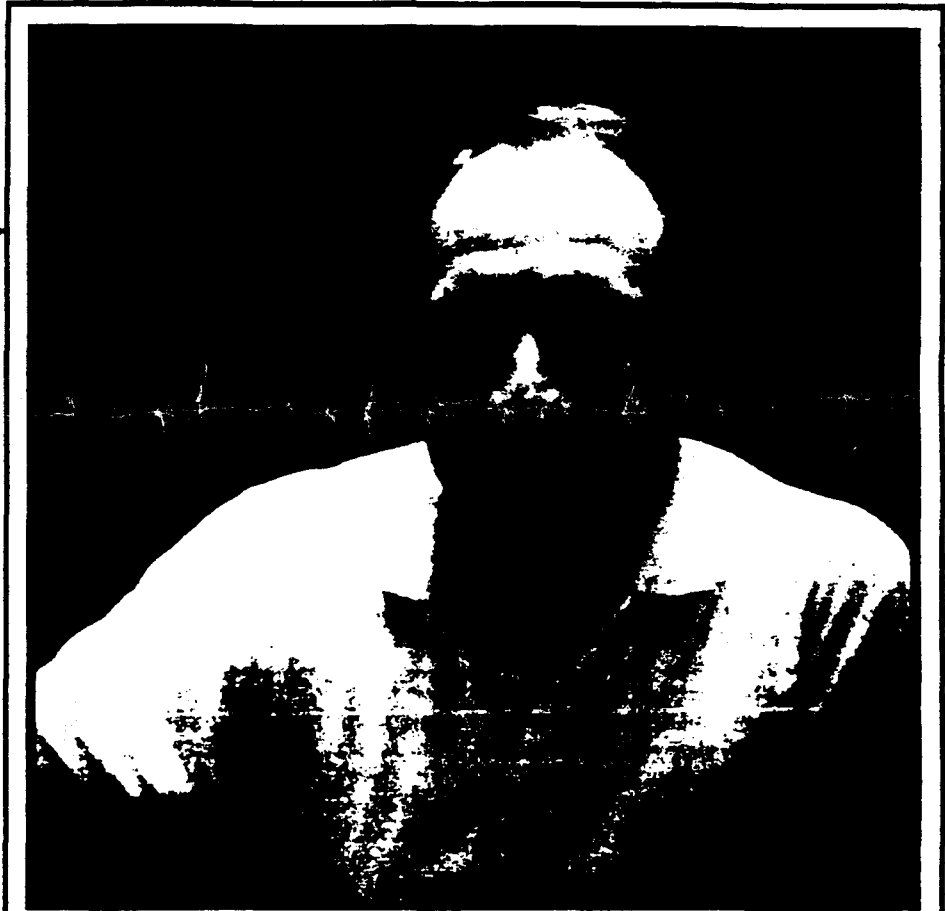


Photo by Tom Turner

Fredric P. "Rick" Sutherland, president of the Sierra Club Legal Defense Fund, died on July 14, 1991 in an automobile accident while traveling cross-country with his family. His talent, energy, knowledge and fellowship will be sorely missed. A memorial fund has been established. For information on how to make contributions, contact: Sierra Club Legal Defense Fund, Joanne Kliejunas, 180 Montgomery, Suite 1400, San Francisco, CA 94104; (415) 627-6700.

fense Fund, Natural Resources Defense Council, Environmental Defense Fund and the National Wildlife Federation are filled with lawsuits against the federal government. This is directly contrary to what we thought would be the case in the early 1970s. We assumed then that most of our litigation would be against industrial polluters and corporations engaged in extracting natural resources.

Scofflaw Agencies

The fact is that the scale of misbehavior by the government has increased dramatically in recent years. A few examples will illustrate this.

The Northern Spotted Owl. The Sierra Club Legal Defense Fund has been litigating for several years to protect the Pacific Northwest's remaining old growth forests

and the northern spotted owl that depends on them for its survival. In *Seattle Audubon Society v. Evans*, Judge Dwyer of the US District Court in Seattle found "a remarkable series of violations of the environmental laws" by the Forest Service and the Fish and Wildlife Service.

Judge Dwyer's opinion, quoted at length in the *Washington Post*, concluded: "More is involved here than a simple failure by an agency to comply with its governing statute. The most recent violation of... [the National Forest Management Act] exemplifies a deliberate and systematic refusal by the Forest Service and the... [Fish and Wildlife Service]... to comply with the laws protecting wildlife. This is not the doing of the scientists, foresters, rangers and others at the working levels of these agencies. It reflects decisions made by higher authorities in the executive branch of government."

(Continued on next page)

Endangered Species Act. The Endangered Species Act is among the strongest of our environmental statutes. Unfortunately, the federal agencies charged with implementing the law have done an abysmal job of doing so. Several thousand species have been awaiting listing by the Fish and Wildlife Service for up to 15 years. A number of these species have become extinct while awaiting formal listing, and the agency concedes that most of the remaining "candidate" species are imperiled and should be listed. It is simply inexcusable — and illegal — that it has not done so.

Pollution: Laws. Congress has enacted a number of laws to control pollution — the Clean Air Act and the Clean Water Act, for example. The Environmental Protection Agency has the primary responsibility for implementing these laws, and for complying with specific statutory deadlines established by Congress. Time after time the EPA has missed these deadlines.

Even a partial listing of these failures would take too much time. Suffice it to say that there have been hundreds during the past 20 years, and that many are continuing at the present time. Citizens have had to go to court scores of times to compel the EPA to act to control pollution. Without these suits, the deadlines mandated by Congress would simply have been ignored.

But even successful litigation does not always ensure compliance. Government officials sometimes go to extraordinary lengths to evade the law. It was necessary for Judge Orrick of the US District Court in San Francisco to issue a contempt citation against William Ruckelshaus in order to finally compel him to issue emission standards for airborne radionuclides. This was the first time an administrator of the EPA had ever been cited for contempt, and Judge Orrick called Ruckelshaus a "scofflaw."

Getting regulations out on time is only half the story. The other half is the content of the regulations: do they faithfully implement the letter and the spirit of the law? Many times they do not. During the past two decades, citizens have successfully challenged numerous regulations promulgated by the EPA. And, if the quality of the recently released proposals for operating permits under the Clean Air Act are any indication, the EPA will certainly face more such challenges in the future.

The Supreme Court's Role

I have also been dismayed by the Supreme Court's disturbing lack of interest in — and increasing hostility toward — environmental issues.

The National Environmental Policy Act (NEPA) is the most important of our environmental laws. NEPA declares that protection of the environment is the duty of all federal agencies. The law was imposed on unwilling agencies by a Congress fed up with bureaucratic indifference and inattention to environmental concerns.

Since the law was enacted in 1970, the Supreme Court has decided 12 NEPA cases. In all 12 of these cases, the Supreme Court has ruled against the statute's application or narrowed its scope. In every instance, the court reversed lower court decisions which interpreted NEPA more expansively or forcefully.

The consistency of the Supreme Court's antagonism to NEPA is astonishing. Nine of the court's decisions were unanimous and the other three garnered a total of only four dissenting votes. The plain fact is that NEPA has not had a friend on the Supreme Court since the retirement of the late William O. Douglas in 1975.

The Supreme Court has shown an increasing hostility toward environmental issues

The NEPA was intentionally written in broad, sweeping terms. Yet, what the Supreme Court has done in the majority of the NEPA cases is to base its opinion on a single phrase in the statute, treating it as if Congress had crafted it with the utmost precision. The court has not considered other language in the statute which might lead to a different result.

All this is done in the name of "plain meaning." But if there ever was a law that deserved more it is NEPA. Indeed, Congress intended more. NEPA directs that "to the fullest extent possible" the laws of the United States, including NEPA itself, should be administered in accordance with the environmental policies articulated at some length in the statute.

The NEPA cases are not the only mischief the Supreme Court has caused in environmental law. With only a few exceptions, the court has been unsympathetic to environmental concerns. It has intervened to put the brakes on the logical flow of decisions in the lower courts, and its opinions demonstrate that the court often doesn't seem to know what it is doing in the environmental area.

In light of the Supreme Court's attitude, it is not surprising that the lower federal courts have recently become less hospitable for those who utilize the judicial process to protect the environment.

A Daring Dream

The future presents incredible challenges for environmental law. Pollution and depletion of natural resources are occurring on a vast and historically unprecedented scale worldwide. In order to meet these challenges, we are going to need stronger and better environmental laws. And we are going to need a rededication to the rule of law by federal officials charged with implementing and enforcing them.

Edmund Muskie, one of the authors of the Clean Air Act, recently posed the following question: "Why in the face of... [overwhelming public support for the environment]... do presidents and their appointees fail to aggressively pursue the initiatives Congress has taken? Why are compromises with health standards, timetables, and emission controls the rule rather than the exception?" He suggested that it was because of "a lack of regulatory courage." If that is indeed the reason, we are also going to need new leaders with the necessary courage to do what the law requires.

I sometimes dream about what it would be like if our government officials took literally the command of the National Environmental Policy Act to implement all federal laws "to the fullest extent possible" to preserve the environment:

- We would have an EPA that issued pollution regulations on time and with the public's health and safety as a first priority.
- We would have a Fish and Wildlife Service that vigorously implemented the Endangered Species Act in order to save plants and animals from extinction.
- We would have a Forest Service that managed the national forests for watershed, recreation, wildlife and wilderness, rather than simply as tree farms.
- And we would have a Justice Department that aggressively enforced criminal and civil violations of environmental laws.

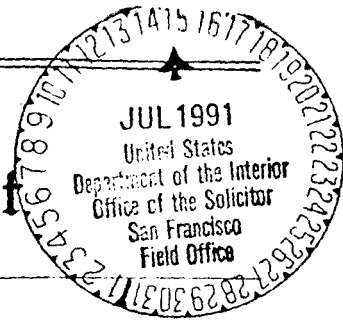
I also dare to dream of federal courts that seriously question government actions, rather than simply deferring to agency decisions; that abandon the ultra-literalism that turns judges into readers of dictionaries; that look to the purposes and policies of congressional mandates; and that dare to respond to "the felt necessities of our times."

Make no mistake about it, environmental problems are not going to go away. They are going to have to be dealt with for some time to come. And, increasingly, federal officials and the federal judiciary are going to be judged by how well they implement, enforce and interpret environmental laws enacted to address these problems.

United States District Court

DEPARTMENT OF JUSTICE
GENERAL LITIGATION

DISTRICT OF ^{Hawaii} 91 JUL -5 PM 3:27



BLUE OCEAN PRESERVATION SOCIETY,
etc., et al.

V.

JAMES D. WATKINS, etc.,

JUDGMENT IN A CIVIL CASE

CASE NUMBER: 90-00407 DAE

- ☐ **Jury Verdict.** This action came before the Court for a trial by jury. The issues have been tried and the jury has rendered its verdict.
- ☒ **Decision by Court.** This action came to ~~oral~~ hearing before the Court. The issues have been ~~heard~~ heard and a decision has been rendered.

IT IS ORDERED AND ADJUDGED

that Summary Judgment is entered in favor of Plaintiffs and against Defendant. IT IS FURTHER ORDERED that the government is to commence forthwith the preparation of an EIS in compliance with NEPA, so as to address the serious concerns raised regarding the environmental impact geothermal development as proposed may have upon the land and within the waters of the State of Hawaii. IT IS FURTHER ORDERED that the government is--i.e., all defendants are--permanently enjoined from any further participation in the Project other than the funding and work necessary for the preparation of the EIS itself until such EIS is complete.

cc: all counsel

FILED IN THE
UNITED STATES DISTRICT COURT
DISTRICT OF HAWAII

JUN 28 1991
2 o'clock and 30 min. P.M.
WALTER A. Y. H. CHINN, CLERK

JUN 28 1991

Date

Clerk

(By) Deputy Clerk

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UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF THE SECRETARY/OEPR

To: Geothermal Committee Members

From: Regional Environmental Officer, San Francisco
For your information

DEPARTMENT OF JUSTICE
GENERAL LITIGATION
JUL 1991
United States
Department of the Interior
Office of the Solicitor
San Francisco
Field Office

United States District Court

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DISTRICT OF Hawaii

BLUE OCEAN PRESERVATION SOCIETY,
etc., et al.

v.

JAMES D. WATKINS, etc.,

JUDGMENT IN A CIVIL CASE

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cc: all counsel

FILED IN THE
UNITED STATES DISTRICT COURT
DISTRICT OF HAWAII

JUN 28 1991
2 o'clock and 35 min. P.M.
WALTER A. Y. H. CHINN, CLERK

JUN 28 1991

Date

Clerk

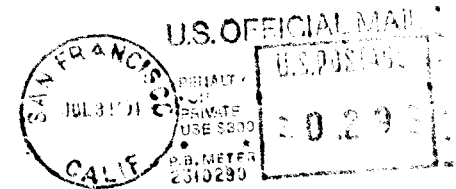
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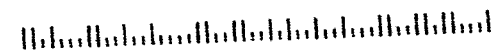
**UNITED STATES
DEPARTMENT OF THE INTERIOR**

Office of the Secretary
600 Harrison Street, Suite 515
San Francisco, CA 94107-1376

OFFICIAL BUSINESS
PENALTY FOR PRIVATE USE, \$300



Janet Swift
Board of Land and Natural Resources
State of HI-Geothermal Permit
Center
677 Ala Moana Blvd., Suite 509
Honolulu, HI 96813





IN REPLY REFER TO:

United States Department of the Interior

OFFICE OF THE SECRETARY
Office of Environmental Affairs
600 Harrison Street, Suite 515
San Francisco, California 94107-1376



REVISED 7/18/91

Minutes of the Geothermal Interagency Working Group

June 28, 1991

Hawaii Volcanoes National Park

Thank you all for attending this meeting. After a welcome from the Park Superintendent and introductions, we discussed Judge Ezra's order in the Blue Ocean Presentation Society geothermal case. He granted plaintiffs' motion for summary judgement and a permanent injunction and denied defendants' (DOE, et al.) motion to dismiss the case as moot. (see copy attached for those who did not receive it at the meeting.)

We discussed the decision requiring DOE to "... commence forthwith the preparation of an EIS in compliance with NEPA...". Chair mentioned having seen a copy of a letter from DBED to A/S DOE suggesting a joint Federal/State EIS. Since DBED has ERCE on contract preparing a geothermal master plan and the beginnings of a State EIS, this would make sense. DOE responded in a letter dated in May that they were taking the matter under advisement.

Janet Swift, DLNR, agreed to inquire as to which state agency would be the lead, and who the project manager would be. Chair agreed to inquire of DOE, Washington as to who the Federal project manager would be.

It was noted that state and county agencies would be interested and eligible to be cooperators, as would Federal agencies. In the DOI, USFWS, NPS and USGS would likely be cooperators. On the state side, Hawaii County, DLNR, OHA, and others would likely become cooperators. The Army Corps of Engineers and possibly EPA would be other possible cooperators.

Janet Swift and Jim Kauahikaua presented information on the Technical Advisory Committee to DLNR and DBED looking at updating an assessment of geothermal resources in Hawaii produced in 1984-85.

The Co-Chairs are Manabu Tagamori, Deputy Director, DLNR and Dr. Don Thomas of University of Hawaii, and includes members from USGS, UHI, the State. They have met thrice and had planned on six meetings this year. They are looking at Big Island but also at wells on Lanai which were warm at the bottom.

The Committee's findings will be made public but proprietary information used in its deliberations will not be released until 18 months after it is received, the time period required before its proprietary status is lifted.

Lynn Lee, OHA, expressed her agency's interest in having their concerns as a cooperator addressed upfront rather than ex post facto, as usual. OHA is interested in impacts of emissions on air quality across a broad spectrum. Water quantity and quality are of interest, as are native gathering rights and other socio-economic impacts, particularly to native Hawaiians.

We discussed map needs - maps with native Hawaiian lands as well as geothermal resources. Lynn, Jim and Mike Robinson agreed to look at the State's GIS system to see what information gaps can be filled. Office of State Planning is one office which may be able to fill these needs. Lynn agreed to follow up on this issue. John Ford, FWS Honolulu also chairs a GIS user's group.

Lynn also agreed to prepare a list of OHA's concerns that can accompany a request to the lead State agency for cooperator status on this EIS. Chair will advise working group members when we learn who the project managers are on State and Federal sides.

Nolan Hirai noted that DOH has monitored air quality data per its permit requirements which will be useful in preparing the EIS. NPS also has a visibility AQ monitor and some past data. Other NPS concerns besides air quality impacts include introduction of exotic species to the park, impacts to viewsheds and other direct and indirect impacts to park visitors and personnel.

FWS, which was not represented, also has concerns about impacts to endangered species of flora and fauna, specifically bird species and ferns among others. Chair will invite Chip Demarest to represent FWS in our working group.

Jim Kauahikaua also mentioned a \$10K grant being used for a regional hydrothermal resources study. Heretofore, specific wells or zones have been looked at but not the regionwide system. They are studying the system Kilauea-wide and hope to expand this pilot into a full 3 year program in 1992, Congress willing.

This is a unique geothermal system in the world. GS has staff in the Philippines studying eruptions, looking at explosive areas - 10% of the areas, while 90% are quiescent.

Jim also met Wednesday with the four experts appointed by the Governor to ascertain how and why the well on Big Island blew out. We do not know when their report will be available to the public.

There is no counterpart agency to USGS in the State. There is a geothermal coordinator, Dean Anderson. UHI is supposed to act as the state's geological agency but does not.

Our next meeting will be scheduled for October when the next RRT meeting will be held in Hawaii. By then we hope to know who all the players are on the EIS and to progress from there.

Action Items

- J. Swift - advised Chair that DBED will be lead on EIS and that Dean Anderson will be project manager, alerted Clipping Service; they sent free sample.
- L. Lee - look into map issues of concern to OHA and list concerns as cooperating agency for lead agency.
- M. Robinson - work on map issues to include relevant concerns.
- J. Kauahikaua - continue technical studies and map work.
- P. Port - alert working group members as to who in DOE and State are project managers for EIS.
 - work with DOE to move process forward.
 - work with GS, FWS, NPS as cooperators.
 - continue to coordinate with COE, EPA as potential cooperators.
 - set next meeting dates ASAP.
 - expand membership list as appropriate.
 - get out minutes timely.

cc: Jerry Cornell, COE
John Shupe, DOE/HI
Chip Demarest, FWS/HI
Jacqueline Wyland, EPA/SF
Vicki Tsuhako, EPA/SF
Norm Lovelace, EPA/SF

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF THE SECRETARY/OEPR

To: Janet Swift

From: Regional Environmental Officer, San Francisco
For your information

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CHAPTER 343 ENVIRONMENTAL IMPACT STATEMENTS

SECTION

- 343-1 FINDINGS AND PURPOSE
- 343-2 DEFINITIONS
- 343-3 PUBLIC RECORDS AND NOTICE
- 343-4 REPEALED
- 343-5 APPLICABILITY AND REQUIREMENTS
- 343-6 RULES
- 343-7 LIMITATION OF ACTIONS
- 343-8 SEVERABILITY

Note

Effect of 1983 amendments, see L 1983, c 140, §§11 to 14.

§343-1 Findings and purpose. The legislature finds that the quality of humanity's environment is critical to humanity's well being, that humanity's activities have broad and profound effects upon the interrelations of all components of the environment, and that an environmental review process will integrate the review of environmental concerns with existing planning processes of the State and counties and alert decision makers to significant environmental effects which may result from the implementation of certain actions. The legislature further finds that the process of reviewing environmental effects is desirable because environmental consciousness is enhanced, cooperation and coordination are encouraged, and public participation during the review process benefits all parties involved and society as a whole.

It is the purpose of this chapter to establish a system of environmental review which will ensure that environmental concerns are given appropriate consideration in decision making along with economic and technical considerations. [L 1979, c 197, §1(1); am L 1983, c 140, §4]

§343-2 Definitions. As used in this chapter unless the context otherwise requires:

"Acceptance" means a formal determination that the document required to be filed pursuant to section 343-5 fulfills the definition of an environmental impact statement, adequately describes identifiable environmental impacts, and satisfactorily responds to comments received during the review of the statement.

"Action" means any program or project to be initiated by any agency or applicant.

"Agency" means any department, office, board, or commission of the state or county government which is a part of the executive branch of that government.

"Applicant" means any person who, pursuant to statute, ordinance, or rule, officially requests approval for a proposed action.

"Approval" means a discretionary consent required from an agency prior to actual implementation of an action.

"Council" means the environmental council.

12/20/90

"Discretionary consent" means a consent, sanction, or recommendation from an agency for which judgment and free will may be exercised by the issuing agency, as distinguished from a ministerial consent.

"Environmental assessment" means a written evaluation to determine whether an action may have a significant effect.

"Environmental impact statement" or "statement" means an informational document prepared in compliance with the rules adopted under section 343-6 and which discloses the environmental effects of a proposed action, effects of a proposed action on the economic and social welfare of the community and State, effects of the economic activities arising out of the proposed action, measures proposed to minimize adverse effects, and alternatives to the action and their environmental effects.

The initial statement filed for public review shall be referred to as the draft statement and shall be distinguished from the final statement which is the document that has incorporated the public's comments and the responses to those comments. The final statement is the document that shall be evaluated for acceptability by the respective accepting authority.

"Helicopter facility" means any area of land or water which is used, or intended for use for the landing or takeoff of helicopters; and any appurtenant areas which are used, or intended for use for helicopter related activities or rights-of-way.

"Negative declaration" means a determination based on an environmental assessment that the subject action will not have a significant effect and, therefore, will not require the preparation of an environmental impact statement.

"Office" means the office of environmental quality control.

"Person" includes any individual, partnership, firm, association, trust, estate, private corporation, or other legal entity other than an agency.

"Significant effect" means the sum of effects on the quality of the environment, including actions that irrevocably commit a natural resource, curtail the range of beneficial uses of the environment, are contrary to the State environmental policies or long-term environmental goals as established by law or adversely affect the economic or social welfare. [L 1974, c 246, pt of §1; and am L 1979, c 197, §1(2); am L 1983, c 140, §5]

Revision Note

Numeric designations deleted.

Attorney General Opinions

"Action" includes a subdivision proposal. Att. Gen. Op. 75-14.

"Action" includes issuance of building permits. Att. Gen. Op. 75-15.

Case Notes

Sufficiency of an environmental impact statement. 59 H. 156, 577 P.2d 1116.

§343-3 Public records and notice. All statements and other documents prepared under this chapter shall be made available for inspection by the public during established office hours.

The office shall inform the public of notices filed by agencies of determinations that statements are required or not required, of the availability of statements for review and comments, and of the acceptance or nonacceptance of statements. The office shall inform the public by the publication of a periodic bulletin to be available to persons requesting this information. The bulletin shall be available through the office and public libraries. [L 1974, c 246, pt of §1; ren L 1979, c 197, §1(3); am L 1983, c 140, §6]

§343-4 REPEALED. L 1983, c 140, §7.

§343-5 Applicability and requirements. (a) Except as otherwise provided, an environmental assessment shall be required for actions which:

- (1) Propose the use of state or county lands or the use of state or county funds, other than funds to be used for feasibility or planning studies for possible future programs or projects which the agency has not approved, adopted, or funded, or funds to be used for the acquisition of unimproved real property; provided that the agency shall consider environmental factors and available alternatives in its feasibility or planning studies;
- (2) Propose any use within any land classified as conservation district by the state land use commission under chapter 205;
- (3) Propose any use within the shoreline area as defined in section 205A-41;
- (4) Propose any use within any historic site as designated in the National Register or Hawaii Register as provided for in the Historic Preservation Act of 1966, Public Law 89-665, or chapter 6E;
- (5) Propose any use within the Waikiki area of Oahu, the boundaries of which are delineated in the land use ordinance as amended, establishing the "Waikiki Special District";
- (6) Propose any amendments to existing county general plans where such amendment would result in designations other than agriculture, conservation, or preservation, except actions proposing any new county general plan or amendments to any existing county general plan initiated by a county;
- (7) Propose any reclassification of any land classified as conservation district by the state land use commission under chapter 205; and
- [(8)] Propose the construction of new, or the expansion or modification of existing helicopter facilities within the state which by way of their activities may affect any land classified as conservation district by the state land use commission under chapter 205; the shoreline area as defined in section 205A-41; or, any historic site as designated in the National Register or Hawaii Register as provided for in the Historic Preservation Act of 1966, Public Law 89-665, or chapter 6E; or, until the statewide historic places inventory is completed, any historic site found by a field reconnaissance of the area affected by the helicopter facility and which is under consideration for placement on the National Register or the Hawaii Register of Historic Places.

(b) Whenever an agency proposes an action in subsection (a), other feasibility or planning studies for possible future programs or projects which agency has not approved, adopted, or funded, or other than the use of state or county funds for the acquisition of unimproved real property, which is not a specific type of action declared exempt under section 343-6, that agency shall prepare an environmental assessment for such action at the earliest practicable time to determine whether an environmental impact statement shall be required. A statement shall be required if the agency finds that the proposed action may have a significant effect on the environment. The agency shall file notice of such determination with the office which, in turn, shall publish the agency determination for the public information pursuant to section 343-3. The draft and final statements, if required, shall be prepared by the agency and submitted to the office. The draft statement shall be made available for public review and comment through the office for a period of forty-five days. The office shall inform the public of the availability of the draft statement for public review and comments pursuant to section 343-3. The agency shall respond in writing to comments received during the review and prepare a final statement. The office, when requested by the agency, may make a recommendation as to the acceptability of the final statement. The final authority to require a final statement shall rest with:

- (1) The governor, or the governor's authorized representative, whenever an action proposes the use of state lands or the use of state funds, or whenever a state agency proposes an action within the category specified in subsection (a); or
- (2) The mayor, or the mayor's authorized representative, of the responsible county whenever an action proposes only the use of county lands or county funds.

Acceptance of a required final statement shall be a condition precedent to implementation of the proposed action. Upon acceptance or nonacceptance of a final statement, the governor or mayor, or the governor's or mayor's authorized representative, shall file notice of such determination with the office. The office, in turn, shall publish the determination of acceptance or nonacceptance pursuant to section 343-3.

(c) Whenever an applicant proposes an action specified by subsection (a) which requires approval of an agency, and which is not a specific type of action declared exempt under section 343-6, the agency receiving the request for approval shall prepare an environmental assessment of such proposed action at the earliest practicable time to determine whether an environmental impact statement shall be required. A statement shall be required if the agency finds that the proposed action may have a significant effect on the environment. The agency shall file notice of such determination with the office which, in turn, shall publish the agency determination for the public's information pursuant to section 343-3. The draft and final statements, if required, shall be prepared by the applicant, who shall file statements with the office. The draft statement shall be made available for public review and comments through the office for a period of forty-five days. The applicant shall inform the public of the availability of the draft statement for public review and comments pursuant to section 343-3. The applicant shall respond in writing

comments received during the review and prepare a final statement. The office, when requested by the applicant or agency, may make a recommendation as to the acceptability of the final statement. The authority to accept a final statement shall rest with the agency receiving the request for approval. Acceptance of a required final statement shall be a condition precedent to approval of the request and commencement of proposed action. Upon acceptance or nonacceptance of the final statement, the agency shall file notice of such determination with the office. The office, in turn, shall publish the determination of acceptance or nonacceptance of the final statement pursuant to section 343-3. The agency receiving the request, within thirty days of receipt of the final statement, shall notify the applicant and the office of the acceptance or nonacceptance of the final statement. The final statement shall be deemed to be accepted if the agency fails to accept or not accept the final statement within thirty days after receipt of the final statement; provided that the thirty-day period may be extended at the request of the applicant for a period not to exceed fifteen days.

In any acceptance or nonacceptance, the agency shall provide the applicant with the specific findings and reasons for its determination. An applicant, within sixty days after nonacceptance of a final statement by an agency, may appeal the nonacceptance to the environmental council, which, within thirty days of receipt of the appeal, shall notify the applicant of the council's determination. In any affirmation or reversal of an appealed nonacceptance, the council shall provide the applicant and agency with specific findings and reasons for its determination. The agency shall abide by the council's decision.

(d) Whenever an applicant simultaneously requests approval for a proposed action from two or more agencies and there is a question as to which agency has the responsibility of preparing the environmental assessment, the office, after consultation with the agencies involved, shall determine which agency shall prepare the assessment.

(e) In preparing an environmental assessment, an agency may consider and, where applicable and appropriate, incorporate by reference, in whole or in part, previous determinations of whether a statement is required and previously accepted statements. The council, by rules, shall establish criteria and procedures for the use of previous determinations and statements.

(f) Whenever an action is subject to both the National Environmental Policy Act of 1969 (Public Law 91-190) and the requirements of this chapter, the office and agencies shall cooperate with federal agencies to the fullest extent possible to reduce duplication between federal and state requirements. Such cooperation, to the fullest extent possible, shall include joint environmental impact statements with concurrent public review and processing at both levels of government. Where federal law has environmental impact statement requirements in addition to but not in conflict with this chapter, the office and agencies shall cooperate in fulfilling these requirements so that one document shall comply with all applicable laws.

(g) A statement that is accepted with respect to a particular action shall satisfy the requirements of this chapter and no other statement for that proposed action shall be required. [L 1974, c 246, pt of §1; am and ren L 1979, c 197, §1(5) and (6); am L 1980, c 22, §1; am L 1983, c 140, §8; am imp L 1984, c 90, §1]

Case Notes

Law contemplates consideration of secondary and nonphysical aspects of proposal, including socio-economic consequences. 63 H. 453, 629 P.2d 1134.

Requirements not applicable to project pending when law took effect unless agency requested statement. 63 H. 453, 629 P.2d 1134.

Construction and use of home and underground utilities near Paiko Lagoon wildlife sanctuary. 64 H. 27, 636 P.2d 158.

Environmental assessment required before land use commission can reclassify conservation land to other uses. 65 H. 133, 648 P.2d 702.

Hawaii Legal Reporter Citations

Decision on preparation of EIS. 79 HLR 790667.

Attorney General Opinions

Amendments to county development plans; when environmental assessments required. Att. Gen. O 85-30.

Applicable to housing developed under chapter 359G. Att. Gen. Op. 86-13.

§343-6 Rules. (a) After consultation with the affected agencies, the council shall adopt, amend, or repeal necessary rules for the purposes of this chapter in accordance with chapter 91 including, but not limited to, rules which shall:

- (1) Prescribe the contents of an environmental impact statement;
- (2) Prescribe the procedures whereby a group of proposed actions may be treated by a single statement;
- (3) Prescribe procedures for the preparation and contents of an environmental assessment;
- (4) Prescribe procedures for the submission, distribution, review, acceptance or nonacceptance, and withdrawal of a statement;
- (5) Prescribe procedures to appeal the nonacceptance of a statement to the environmental council;
- (6) Establish criteria to determine whether a statement is acceptable or not;
- (7) Establish procedures whereby specific types of actions, because they will probably have minimal or no significant effects on the environment, are declared exempt from the preparation of an assessment;
- (8) Prescribe procedures for informing the public of determinations that a statement is either required or not required, for informing the public of the availability of draft statements for review and comments, and for informing the public of the acceptance or nonacceptance of the final statement; and
- (9) Prescribe the contents of an environmental assessment.

(b) At least one public hearing shall be held in each county prior to the final adoption, amendment, or repeal of any rule. [L 1974, c 246, pt of §1; am and ren L 1979, c 197, §1(7); am L 1983, c 140, §9; am L 1986, c 186, §2; am L 1987, c 187, §3]

Case Notes

Court has no jurisdiction over actions initiated after time limit. 64 H 126, 637 P.2d 776.

§343-7 Limitation of actions. (a) Any judicial proceeding, the subject of which is the lack of assessment required under section 343-5, shall be initiated within one hundred twenty days of the agency's decision to carry out or approve the action, or, if a proposed action is undertaken without a formal determination by the agency that a statement is or is not required, a judicial proceeding shall be instituted within one hundred twenty days after the proposed action is started. The council or office, any agency responsible for approval of the action, or the applicant shall be adjudged an aggrieved party for the purposes of bringing judicial action under this subsection. Others, by court action, may be adjudged aggrieved.

(b) Any judicial proceeding, the subject of which is the determination that a statement is or is not required for a proposed action, shall be initiated within sixty days after the public has been informed of such determination pursuant to section 343-3. The council or the applicant shall be adjudged an aggrieved party for the purposes of bringing judicial action under this subsection. Others, by court action, may be adjudged aggrieved.

(c) Any judicial proceeding, the subject of which is the acceptance of an environmental impact statement required under section 343-5, shall be initiated within sixty days after the public has been informed pursuant to section 343-3 of the acceptance of such statement. The council shall be adjudged an aggrieved party for the purpose of bringing judicial action under this subsection. Affected agencies and persons who provided written comment to such statement during the designated review period shall be adjudged aggrieved parties for the purpose of bringing judicial action under this subsection; provided that the contestable issues shall be limited to issues identified and discussed in the written comment. [L 1974, c 246, pt of §1; am and ren L 1979, c 197, §1(8); am L 1983, c 140, §10]

§343-8 Severability. If any provision of this chapter or the application thereof to any person or circumstance is held invalid, such invalidity shall not affect other provisions or applications of this chapter which can be given effect without the invalid provision or application; and to this end, the provisions of this chapter are declared to be severable. [L 1974, c 246, pt of §1; ren L 1979, c 197, §1(9)]



STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
DIVISION OF WATER RESOURCE MANAGEMENT
P. O. BOX 373
HONOLULU, HAWAII 96809

WILLIAM W. PATY, CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES

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United States Department of the Interior

OFFICE OF THE SECRETARY
Office of Environmental Affairs
600 Harrison Street, Suite 515
San Francisco, California 94107-1376



Minutes of the Geothermal Interagency Working Group

June 28, 1991

Hawaii Volcanoes National Park

Thank you all for attending this meeting. After a welcome from the Park Superintendent and introductions, we discussed Judge Ezra's order in the Blue Ocean Presentation Society geothermal case. He granted plaintiffs' motion for summary judgement and a permanent injunction and denied defendants' (DOE, et al.) motion to dismiss the case as moot. (see copy attached for those who did not receive it at the meeting.)

We discussed the decision requiring DOE to "... commence forthwith the preparation of an EIS in compliance with NEPA...". Chair mentioned having seen a copy of a letter from DBED to A/S DOE suggesting a joint Federal/State EIS. Since DBED has ERCE on contract preparing a geothermal master plan and the beginnings of a State EIS, this would make sense. DOE responded in a letter dated in May that they were taking the matter under advisement.

Janet Swift, DLNR, agreed to inquire as to which state agency would be the lead, and who the project manager would be. Chair agreed to inquire of DOE, Washington as to who the Federal project manager would be.

It was noted that state and county agencies would be interested and eligible to be cooperators, as would Federal agencies. In the DOI, USFWS, NPS and USGS would likely be cooperators. On the state side, Hawaii County, DLNR, OHA, and others would likely become cooperators. The Army Corps of Engineers and possibly EPA would be other possible cooperators.

Janet Swift and Jim Kauahikaua presented information on the Technical Advisory Committee to DLNR and DBED looking at updating an assessment of geothermal resources in Hawaii produced in 1984-85.

Co-Chairs are Manabu Deputy Director, DLNR Dr. Don Thomas of UH, and
The ~~Chair is Manalui~~ Tagamori, ~~with the State~~ and includes members from USGS, UHI, the State. They have met thrice and had planned on six meetings this year. They are looking at Big Island but also at wells on Lanai which were warm at the bottom.

The Committee's findings will be made public but proprietary information used in its deliberations will not be released until 18 months after it is received, the time period required before its proprietary status is lifted.

Lynn Lee, OHA, expressed her agency's interest in having their concerns as a cooperator addressed upfront rather than ex post facto, as usual. OHA is interested in impacts of emissions on air quality across a broad spectrum. Water quantity and quality are of interest, as are native gathering rights and other socio-economic impacts, particularly to native Hawaiians.

We discussed map needs - maps with native Hawaiian lands as well as geothermal resources. Lynn, Jim and Mike Robinson agreed to look at the State's GIS system to see what information gaps can be filled. Office of State Planning is one office which may be able to fill these needs. Lynn agreed to follow up on this issue. John Ford, FWS Honolulu also chairs a GIS user's group.

Lynn also agreed to prepare a list of OHA's concerns that can accompany a request to the lead State agency for cooperator status on this EIS. Chair will advise working group members when we learn who the project managers are on State and Federal sides.

Nolan Hirai noted that DOH has monitored air quality data per its permit requirements which will be useful in preparing the EIS. NPS also has a visibility AQ monitor and some past data. Other NPS concerns besides air quality impacts include introduction of exotic species to the park, impacts to viewsheds and other direct and indirect impacts to park visitors and personnel.

FWS, which was not represented, also has concerns about impacts to endangered species of flora and fauna, specifically bird species and ferns among others. Chair will invite Chip Demarest to represent FWS in our working group.

Jim Kauahikaua also mentioned a \$10K grant being used for a regional hydrothermal resources study. Heretofore, specific wells or zones have been looked at but not the regionwide system. They are studying the system Kilauea-wide and hope to expand this pilot into a full 3 year program in 1992, Congress willing.

This is a unique geothermal system in the world. GS has staff in the Philippines studying eruptions, looking at explosive areas - 10% of the areas, while 90% are quiescent.

Jim also met Wednesday with the four experts appointed by the Governor to ascertain how and why the well on Big Island blew out. We do not know when their report will be available to the public.

There is no counterpart agency to USGS in the State. There is a geothermal coordinator, Dean Anderson. UHI is supposed to act as the state's geological agency but does not.

Our next meeting will be scheduled for October when the next RRT meeting will be held in Hawaii. By then we hope to know who all the players are on the EIS and to progress from there.

Action Items

- J. Swift - advise Chair which State agency will be lead on EIS and who will be project manager, send clips to Chair.
- L. Lee - look into map issues of concern to OHA and list concerns as cooperating agency for lead agency.
- M. Robinson - work on map issues to include relevant concerns.
- J. Kauahikaua - continue technical studies and map work.
- P. Port - alert working group members as to who in DOE and State are project managers for EIS.
- work with DOE to move process forward.
 - work with GS, FWS, NPS as cooperators.
 - continue to coordinate with COE, EPA as potential cooperators.
 - set next meeting dates ASAP.
 - expand membership list as appropriate.
 - get out minutes timely.

cc: Jerry Cornell, COE
John Shupe, DOE/HI
Chip Demarest, FWS/HI
Jacqueline Wyland, EPA/SF
Vicki Tsuhako, EPA/SF
Norm Lovelace, EPA/SF

Sign In Sheet

Lynn Lee

OHA

MIKE ROBINSON

RESOURCE MANAGEMENT

96

Hugo Hertzinger

Superintendent
H.V.N.P.

Janet C. Smith

DLNR

Nolan Hirai

SOH

Jim Koushikawa

USGS - HVO

PL Fox

744-4080

US DOWNS

St. Herman Meeting June 28, 1990

Linda Cuddihy

Hawaii Vol. Natl Park
Research Division



July 1, 1991

MEMORANDUM

TO: Manabu Tagomori

FROM: Janet Swift

SUBJECT: 6/28/91 Meeting with Pat Sanderson Port, Regional
Environmental Officer, U.S. Department of the Interior

An attendance list is attached. Health, DLNR and OHA were state agencies attending, U.S.G.S. and Interior were federal agencies attending, and one individual employed by a consulting firm but attending as a student was present.

Pat Port began the session by letting attendees know that as long as there is no intent to promote the geothermal project, representatives of the various agencies may discuss the project freely. She distributed copies of Judge Ezra's June 25, 1991 order and said that in her opinion the Department of Energy is not at all pleased to have to do the federal EIS. She suggested strongly that any agency or group wishing to have its concerns addressed in the federal EIS should be very explicit and get the information to the DOE in detail, and be sure to follow up on it, since if they are not made aware of concerns the chances are they will not address them. They are handling the EIS from Washington D.C. and will likely do the minimum possible to meet the requirement, in her opinion.

Pat said she regretted Bill DeMent of Campbell Estate was not able to attend since he had been very informative at the last session.

Ms. Port called on State agency representatives to give updates on their activities and concerns. I reported briefly and generally on my activities in working on other projects while the larger project is on hold, on special assignments such as evaluating the resource and serving as staff to the technical advisory committee. Lynn Lee spoke on OHA's concerns such as native gathering rights, social impacts, air quality concerns and others. She said that better maps would be useful, such as a map that would show ceded lands as well as geothermal areas. She commented that Hawaiian Homelands should be involved also if Hawaiian Homeland areas are involved.

There was some discussion on the need for a coordinated map project - each agency has its own maps but there is no one map with everything on it for overall planning purposes. It was pointed out that Office of State Planning has a geographical information system that may be set up to address this concern.

Ms. Port asked if OHA would be a "cooperator" agency in the federal EIS. Lynn said most likely since it would want its concerns to be addressed. She said she would get together a list of items for DOE to look at and request that OHA be a cooperator agency.

Pat Port requested that someone find out if DBED will be the lead agency from the State for the EIS and who would be the coordinator. She went on to explain that cooperator status usually is requested of the federal agency preparing the EIS.

Nolan Hirai of the State of Hawaii Department of Health reported on his aspect of health regulating. He said the department would most likely be involved in an EIS in a reviewing capacity. He said that Ormat has three air quality monitoring units and DOH has three.

The Parks service commented that it has an air quality monitor but its purpose is to monitor visibility. There are years of this kind of data available from the Park's east rift area.

The Parks staff concerns are that non-native species may impact the park area, that there may be an impact on view planes. They do not feel that steam vents will be affected such as at the Geysers. Staff did not feel that health of visitors would be a major concern, and views would likely not be a problem, but if the view shed is a major concern then that should be addressed in the EIS.

Dr. Jim Kauahikaua spoke about the activities of the technical advisory committee of which he is a member. He said the committee's work has a broad scope, the major part of which is a review of the geothermal subzones, another of which is review of the direction of the SOH program, how the money will be spent. He commented on the two warm water wells on Lanai and how the group will be looking at Lanai.

OHA expressed that if and when a policy committee is formed to guide the advisory committee it would like to be represented.

Jim mentioned that there will be a technical advisory committee meeting August 2, 1991 in Hilo.

Jim said there would be seed money for studying the hydrothermal aspects of Kilauea, the mechanics of the hydrothermal system. This will take three years and will address issues such as why 90% of eruptions are not explosive and only 10% are explosive even though they all pass through the groundwater system. Jim pointed out on a new map he brought with him two areas that indicate they were formed by explosive eruptions. One of these areas is Kapoho. He also mentioned that in attending a session on the recent blowout or kick he found out that the pressure of the steam was 300 pounds above hydrostatic which is not equalled anywhere in the world. This may indicate an area of explosive

eruption.

Pat Port asked if the U.S.G.S. would be a cooperator in the EIS. Jim replied that he thought that would be essential. Pat defined the term cooperator. A "cooperator" is any federal or state agency or other governments who have specific interest, knowledge, permit authorization, land or resource interest in the project. In Hawaii the counties should be cooperators. Pat guessed that the U.S. Department of Energy, preparing the EIS from Washington D.C. may not think of them.

There followed a discussion on inviting the developers to the next meeting. Jim mentioned Bill Teplow, field manager for PGV.

Pat asked about a new technology she has read about - a heat exchange process. She said that the EIS could address a preferred alternative, a no action alternative, or a new technology alternative. The heat exchange process may be looked at as an alternative process. Mike Robinson pointed out that this doesn't look like a feasible technology since it doesn't produce enough power.

The meeting closed at about noon. Pat said the next meeting would be some time in late October.

NOTE: The Judge Ezra order is attached for your information. According to a telephone conversation with Jerry Lesperance, Bill Tam has been working very closely on this matter.

Susan Lee

OHA

MIKE ROBINSON

RESOURCE MANAGEMENT

Hugo Hertzinger

Superintendent
H.V.N.P.

Jack C. Smith

DLNR

Nolan Hirai

DOT

Tim Kauhikana

USGS-HVO

PS Port

744-4090

US DOC 52

Stockholm Meeting June 28, 1991

Linda Cuddihy

Hawaii Vol. Natl Park
Research Division



**UNITED STATES
DEPARTMENT OF THE INTERIOR**

**OFFICE OF THE SECRETARY
Office of Environmental Affairs
600 Harrison Street, Suite 515
San Francisco, California 94107-1376**

D R A F T A G E N D A

Geothermal Projects Meeting

JUNE 28, 1991

**Hawaii Volcanoes National Park
Conference Room**

10:00 a.m.	Welcome/Introductions	P. Port
10:15 a.m.	Updates from State Agencies/ Consultants	
11:00 a.m.	Campbell Estates Update	B. DeMent
11:15 a.m.	Updates from Federal Agencies	
12:15 p.m.	LUNCH	
1:15 p.m.	Blue Ocean Preservation Society v. James D. Watkins, etc. Discussion	All
2:00 p.m.	Adjourn	



UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF THE SECRETARY
Office of Environmental Affairs
Box 36098 - 450 Golden Gate Avenue
San Francisco, California 94102
(415) 556-8200

January 23, 1991

MEMORANDUM

TO: Geothermal Interagency Working Group

FROM: Patricia Sanderson Port
Regional Environmental Officer, San Francisco

SUBJECT: Agenda/Materials for Geothermal Meeting
February 12, 1991 at Hawaii Volcanoes NP

Enclosed please find a draft agenda for our session. Also please find a copy of the Court's Order wherein it granted the Plaintiffs' Motion for Partial Summary Judgment, and denied the Government's Motion on the Blue Ocean v. James Watkins case. I am providing it to you ahead of time so we can discuss it from our various perspectives.

If there are additional agenda items you would like to see discussed, kindly call my office ASAP. Thanks to those who suggested items, and to those who agreed to make presentations.

See you Tuesday the 12th.

Enclosures

- recommendation (draft) to board to continue to support Mx with comments
- exchanged land was ceded land -
- trustees involved in protests as individuals -
- OHA has 1984

DRAFT AGENDA

policy supportive of alt. energy -

Geothermal Projects Meeting

FEBRUARY 12, 1991

10% to OHA of royalties Hawaii Volcanoes National Park
Conference Room

~~but~~ ~~their~~ regardless of ceded land or not

• oppose exchange of ceded land

• ^{interested in} ahupua'a rights
• Harm Huns
etc.

• stayed away from Religion

10:00 a.m. Welcome/Introductions

P. Port

10:15 a.m. Overview/Purpose of Meeting

P. Port

• well pads + road 15-20 acres developed, rest is accessible to Hawaiian 27,000
10:25 a.m. Updates from State Agencies/
Consultants
access never denied

11:30 a.m. Campbell Estates Update

B. DeMent

12:00 noon

LUNCH • process being worked on now to let
people on land - usual process is signature
on a waiver

1:30 p.m. Updates from Federal Agencies

2:30 p.m. Blue Ocean Preservation Society
v. James D. Watkins, etc
Discussion

All

3:30 p.m. Other items

4:00 p.m. Adjourn

Dr. Fred Stone + Holly involved in burial cases

new address

600 Harrison St. #515
San Fran 94107

Mar 1

(415) 744 4090

484 FTS

rules
cons. appl.
cons. forms + procedure at 227
Campbell
27 600
bms

possible • diene plant in Puna
• cool at Kaimihai
• cool at Campbell land Park

- interest in forest good because
makes for better management

True still no local office

- monitoring wells for geologic point of view -
microseismicity

3-5 years

U.S. Geological Survey, nationwide geothermal program
Bob Christianson, Mono Park

Send copies to Bill DeMent

2 suits - Pele Defense re swap state court

EIS suit federal court next week

Blue Ocean trial date to June 25, 1991

After June 25, 1991 trial

INVITEE LIST FOR GEOTHERMAL MEETING FOR FEBRUARY 12, 1991:

✓ Janet Swift
Board of Land and Natural Resources
State of HI-Geothermal Permit Center
677 Ala Moana Blvd., Suite 509
Honolulu, HI 96813

Mike Robinson
811 Kaumana Street
Hilo, HI 96720

✓ Hugo Huntzinger
Hawaii Volcanoes NP
P.O. Box 52
Hawaii Volcanoes NP, HI 96718-0052

Jim Jacobi
U.S. Fish and Wildlife Service
Hawaii National Park
Hawaii 96718

✓ Dan Taylor
Hawaii Volcanoes NP
P.O. Box 52
Hawaii Volcanoes NP, HI 96718-0052

✓ Jim Kauahaikaua
U.S. Geological Survey
Hawaii National Park
Hawaii 96718^R

Frank A. Kingery
ERC (Env. and Energy Services, Co.)
900 Fort Street Mall, Suite 1550
Honolulu, HI 96813

Richard C. Wass
Hakalau Forest NWR
154 Waiianuenue Street. Room 219
Hilo, HI HI 96850

Gerald O. Lesperance
State of Hawaii
Dept. of Business and Economic
Development - Geothermal Proj.
Office
130 Merchant St., Suite 1060
Honolulu, HI 96813

William Meyer
U.S. Geological Survey
677 Ala Moana Blvd., Suite 415
Honolulu, HI 96850

Maurice H. Kaya, P.E.
Energy Program Administrator
State of Hawaii
335 Merchant St., Room 108
Honolulu, HI 96813

Bill Ewart
U.S. Geological Survey
677 Ala Moana Blvd., Suite 415
Honolulu, HI 96850

Roger A. Ulveling
State of Hawaii
Dept. of Business and Economic
Development - Energy Div.
335 Merchant St., Room 110
Honolulu, HI 96813

✓ Bill DeMent, Geothermal
Administrator
Campbell Estate
P.O. Box 1051
Hilo, HI 96720

Mark Ingoglia, Office of E&ER
Hawaii State Department of Health
5 Waterfront Plaza
500 Ala Moana Boulevard, Suite 250
Honolulu, HI 96813

✓ Dave Wegner
Glen Canyon Environmental Studies
P. O. Box 1811
Flagstaff, AZ 86002

Dr. John Lewin
Hawaii State Department of Health
5 Waterfront Plaza
500 Ala Moana Boulevard, Suite 250
Honolulu, HI 96813

✓ Lynn Lee
State of Hawaii
Office of Hawaiian Affairs
1600 Kapiolani Blvd., Ste 1500
Honolulu, HI 96814



United States Department of the Interior

NATIONAL PARK SERVICE
HAWAII VOLCANOES NATIONAL PARK
HAWAII 96718

IN REPLY REFER TO:

SIGN-IN

	<u>NAME</u>	<u>February 12, 1991</u>	<u>PHONE NO.</u>
1.	AS Port	DOI	
2.	Lynn Lee	CHN	50
3.	James E. Hix	DLNR	52
4.	Jim Kaula	USGS	90
5.	DAVE WEGNER		7
6.	Bill Dement	Campbell	Honolulu
7.	DAN TAYLOR	(Hawaii Volcano)	Hilo
8.			96
9.			
10.			
11.			
12.			
14.			
15.			
16.			
17.			
18.			
19.			
20.			

GENERAL

RETURN LOCATION

RENTAL AGREEMENT

CREDIT CARD/DIRECT BILL NO./P.O. NO./EXP. DATE

103.13 193 68

REPLACEMENT

ORIGINAL

COMMIT

PERMIT ☐OWNING
LOC

N15

ARRIVAL DATE/METHOD/TIME/MP/CAR TYPE/C.A. OR U/RETURN DATE

02/10/91 1300 LCAR

VEHICLE
NO.

1675 LYAR

CLASS

RENTER

JANET SWIFT

LICENSE
NO.

H4T380 HI

RESIDENCE

PO BOX 705

D.O.B. RAPID ACTION NO.

MAKE/
MODEL

MAX PAYLOAD

CN CONTL4

CITY/STATE/ZIP

KHAHWA HI

96730

MLS
IN

5058

TIME
IN

02/13/91 1427

PHONE

[REDACTED] 4

08/20/45

MLS
OUT

5850

TIME
OUT

02/10/91 1354

LICENSE NO./EXP. DATE/STATE

08/20/91 HI

MLS
DRVN

200

RENTAL
TIME

5MLNLRP

RENTAL
TIME

WK=7DAY MIN

COMPANY

FEZ# 0607039601

MIN/MAX
RENTAL

DY

5939

DY

3300

9900

COMPANY PHONE NO./CORPORATE RATE NO.

HR

2300

HR

1200

LOCAL CONTACT/PHONE NO.

KMC

MILEAGE
ALLOWANCE

MI

10

P3

9900

ADDITIONAL DRIVER/D.O.B.

NONE

LICENSE NO./EXP. DATE/STATE

PREPAID VOUCHER
OR COUPON VALUE

REMARKS

(3)DY SPECIAL, +25YRS, MJCC

UNLIMITED MILEAGE,
WEEKEND SPECIAL, AND
VACATION SPECIAL
RATES DO NOT APPLY
IF VEHICLE IS RETURNED
TO A LOCATION OTHER
THAN THE RENTING
LOCATION. DISCOUNT
RATES ONLY FOR SPECI-
FIED PERIOD.RATES DO NOT INCLUDE FUEL
DAILY RATE IS BASED
ON 24 HOUR DAYTOTAL
TIME/MILEAGE 9900DISCOUNT
TOTAL

NONE RETURN LOC. CHARGE

I AGREE TO RETURN THIS VEHICLE ON OR BEFORE THE INDICATED DUE BACK DATE TO THE SAME LOCATION AT WHICH IT WAS RENTED OR TO THE BUDGET OFFICE SPECIFIED IN THE BOX BELOW. A DROP CHARGE MAY APPLY IF VEHICLE IS RETURNED TO OTHER THAN RENTING LOCATION.

DUE BACK

AUTHORIZED RETURN

02/13/91 1 TORR HIL BASEYARD

RENTER'S INIT.

X

I have read and understand the damage waiver disclosure notice or information contained in the rental agreement and that restrictions or conditions apply.

Signature of Renter

LOSS DAMAGE WAIVER (LDW) - Renter initials below to accept or decline the optional LDW at the rate shown for each day or fraction thereof. If Renter declines LDW, Renter will be responsible for the FULL VALUE (or other amount written below) of any loss of or damage to the vehicle, regardless of fault, except as provided in Paragraph 7 on the reverse side. If Renter accepts LDW, Renter will not be responsible for such loss or damage. EXCEPT AS PROVIDED IN PARAGRAPH 8 ON THE REVERSE SIDE, LDW IS NOT INSURANCE.

AMOUNT OTHER
THAN FULL VALUE

If offered, renter initials to accept or decline at the rate shown: LDW for loss damage waiver, PAI for personal accident insurance, PEC for personal effects coverage, CGO for cargo insurance, and SLI for supplemental liability insurance. Renter also acknowledges at the time of rental, that he/she understands the conditions and limitations of each coverage.

LDW 12.99/DY DECLINES

90.93/WK

SLI 4.95/DY DECLINES

PAI 3.00/DY DECLINES

21.00/WK

PEC 1.25/DY DECLINES

8.75/WK

RENTAL AGREEMENT NO.

BILLING TYPE/AMOUNT

103.13

LESS DEPOSIT

NET DUE RENTER

SUB
TOTAL

10313

NET
DUE

10313

I HAVE READ, UNDERSTAND AND AGREE TO BE BOUND BY THE TERMS AND CONDITIONS ON BOTH SIDES OF THIS AGREEMENT. THIS RENTAL IS TO BE CHARGED ON A CREDIT CARD. MY SIGNATURE BELOW WILL BE CONSIDERED TO HAVE BEEN MADE ON THE APPLICABLE CREDIT CARD VOUCHER AND I GIVE BUDGET PERMISSION TO FILL OUT AND SIGN THE VOUCHER ON MY BEHALF. (SEE NO. 120 ON REVERSE SIDE)

IF I USE MY SEARS CHARGE FOR THIS PURCHASE (SUBJECT TO CREDIT APPROVAL BY SEARS), MY SEARS CHARGE ACCOUNT AGREEMENT IS INCORPORATED HEREIN BY REFERENCE FOR THE CREDIT SALE PRICE CONSISTING OF THE CASH PRICE PLUS THE FINANCE CHARGE.

X RENTER'S SIGNATURE

PREPARED BY

CLOSED BY

CONTRACT CLOSED SUBJECT TO FINAL AUDIT

FORM # TX-114-3 (6/89)

ORIGINAL

ADDITIONAL TERMS OF RENTAL

- The Renter agrees to all terms on both sides of this Agreement.
- 1) **VEHICLE:** The Vehicle, which includes tires, tools, equipment, accessories and Vehicle documents, does not belong to Renter, but is delivered to Renter for rental purposes only and is in good operating condition. **THERE IS NO WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, AS TO THE MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE OF ANY VEHICLE COVERED BY THIS AGREEMENT.**
 - 2) **VEHICLE RETURN:** Renter will return the Vehicle in the same good operating condition to the place and on the due back date specified, or sooner upon demand.
 - 3) **REPOSSESSION OF VEHICLE:** The Vehicle may be repossessed, at Renter's cost and without notice if it is not returned on the due back date, is illegally parked, used in violation of law or of this Agreement, appears to be abandoned, or if Renter gave false or misleading information at time of rental.
 - 4) **AUTHORIZED DRIVERS:** In addition to Renter, the Vehicle may be driven only with renting location's permission by any Additional Driver who is named on the face of this Agreement, by a licensed driver who is a member of Renter's immediate family and permanently resides in Renter's household (including Renter's spouse) and who is twenty-one (21) or over; or by a licensed driver who is a business partner or fellow employee of Renter and is twenty-one (21) or over, where such driving is incidental to business duties; or by anyone else who is designated as an authorized driver by applicable law. These are the only "Authorized Drivers" who may drive the Vehicle.
 - 5) **USE RESTRICTIONS: Vehicle will not be used or operated by anyone:**
 - A. Who intentionally or as a result of willful or wanton misconduct damages the Vehicle.
 - B. While intoxicated or under the influence of any drugs.
 - C. While engaged in any speed contest or training activity.
 - D. Who obtains the Vehicle with fraudulent or false information.
 - E. While committing or involved in a crime that could be charged as a felony.
 - F. To carry persons or property for hire or to push or tow anything.
 - G. Who is an unauthorized driver.
 - H. Outside the continental United States, without the specific authorization of the renting location.
 - I. On other than regularly maintained roadways, (Truck Only)
 - J. Fails to report theft, vandalism or any accident to the renting location and police authority within 24 hours; or
 - K. Allows another person, including any Authorized Driver, to come into possession of the Vehicle, or the keys to the Vehicle, and the Vehicle is not returned on the due back date.
 - L. To carry hazardous or explosive substances, (Truck Only) or
 - M. To transport a weight which is in excess of the maximum payload capacity for the Vehicle (Truck Only)
 - N. Who does not know how to drive a stick shift vehicle (If Vehicle has a stick shift transmission—Truck Only)
 - O. In or through the structure of any underpass or other object where there is insufficient clearance, whether of height or width, (Truck Only)
 - P. Who causes damage to the freight box resulting from inadequately secured cargo, (Truck Only)
 - 6) **LIABILITY INSURANCE:** IF THERE IS NO VIOLATION OF ANY OF THE USE RESTRICTIONS IN PARAGRAPH 5 ABOVE, Renter and any Authorized Driver shall, while operating the Vehicle, be provided with liability coverage in accordance with the standard provisions of a Basic Automobile Liability Insurance Policy or in accordance with the requirements of a qualified self-insurer instead of such coverage, for protection against liability for causing bodily injury (including death) and property damage with one of the following applicable coverage limits:
 - coverage imposed by the state financial responsibility law where this rental transaction takes place; OR
 - coverage limit of \$100,000 for each person, but not more than \$300,000 for each occurrence, and property damage limits of up to \$25,000 for each occurrence if a Renter, at time of rental, possessed valid Budget CorpRate or Sears Checklist Charge Card credentials, and such rental is charged at a valid Budget CorpRate or Sears Checklist Charge rate.
 - (If S.L.I. is offered and accepted, a higher limit of liability insurance will be provided as described in the applicable brochure.)
 - A. All coverages automatically conform to the basic requirements of any "No-Fault" law which may be applicable. RENTER WAIVES UNINSURED AND UNDERINSURED MOTORIST, SUPPLEMENTAL NO-FAULT AND OTHER OPTIONAL COVERAGES.
 - B. If any coverages herein cannot be excluded or waived, Renter agrees that such coverages shall be automatically reduced to the minimum requirements of the applicable financial responsibility law and that such coverages shall be excess to any other applicable insurance.
 - C. Renter agrees to cooperate fully in the investigation and defense of and to deliver to the renting location every document relating to any accident, claim or lawsuit.
 - D. Renter will defend and indemnify the renting location, Budget and Sears from all loss, liability and expense in excess of the coverages available under the terms of this Agreement.
 - 7) **ACCIDENTAL FIRE/ACTS OF NATURE:** Renter is not responsible for any loss of or damage to the Vehicle due to accidental fire or acts of nature.
 - 8) **LOSS OF OR DAMAGE TO VEHICLE:** If Renter declines LDW, Renter is responsible for the FULL VALUE (or other amount written on reverse side) of any loss of or damage to the Vehicle, including loss of use and any related costs and expenses. If Renter accepts LDW, but violates a use restriction provided in Paragraph 5 above, LDW is voided and Renter will be responsible for loss of or damage to the Vehicle as if Renter declined LDW.
 - 9) **LOSS DAMAGE WAIVER:** If Renter declines the optional LDW, offered at an additional charge of **\$9.99** (or other amount written on the reverse side) for each day or fraction thereof (annualized rate of \$_____). Renter will be responsible for the full value (or other amount written on the reverse side) of any loss of or damage to the Vehicle resulting from theft, vandalism and collision, regardless of fault, except as provided in Paragraph 7 above. If Renter accepts LDW, Renter will not be responsible for such loss or damage except as provided in Paragraph 8 above. LDW is not insurance. Renter's own insurance may cover all or part of such loss or damage. Renter should check with his insurer to determine the amount of coverage provided for personal injury and loss of or damage to the Vehicle due to theft, vandalism or collision damage.
 - 10) **DAMAGED VEHICLE:** Renter will not use the Vehicle if it is damaged or in need of repair and will be responsible for all damage to the Vehicle resulting from such use.
 - 11) **PARKING VIOLATIONS:** Renter will pay for all parking violation fines and penalties plus all costs incurred in the event Renter fails to make such payments. Renter agrees that in connection with any claimed violations, any information relating to Renter may be submitted to governmental authorities.
 - 12) **PAYMENT:**
 - A. Renter will pay on demand all charges due under this Agreement.
 - B. All charges are subject to final audit, and if an error is found, either party shall promptly pay or credit the other, as appropriate, to correct the error.
 - C. If Renter has indicated that someone else or that some company will pay for charges due under this Agreement and payment is not made, Renter will pay upon demand.
 - D. Renter consents to the reservation of credit, by a credit card issuer, up to the amount of the estimated charges due under this Agreement and authorizes the renting location to process a credit card voucher, if applicable, in Renter's name, for all charges due under this Agreement.
 - E. Renter will pay interest at the highest rate permitted by law on any past due charges and will also pay any collection costs, including reasonable attorney's fees, if all charges are not paid when due.
 - 13) **RENTER RESPONSIBILITY FOR PROPERTY:** Renter is solely responsible for any property left or stored in the Vehicle, shuttle bus, or anywhere at the renting location, no matter who received, stored or handled the property.
 - 14) **FAILURE TO RETURN VEHICLE:** If Renter fails to return the Vehicle on the due back date or within 24 hours following a written or oral demand to Renter (which demand, if in writing, shall be considered delivered forty-eight (48) hours after the mailing of a certified letter addressed to the residence or business address of Renter as shown on the reverse side), Renter will be deemed to be in unlawful possession of the Vehicle and to have authorized the issuance of a warrant for the arrest of Renter or any person possessing the Vehicle.
 - 15) **VEHICLE REPAIRS:** Renter will not permit any repair to or replacement of any part on the Vehicle without the prior consent of the renting location and Renter agrees to pay for all such unauthorized repairs and parts.
 - 16) **MISCELLANEOUS:**
 - A. Renter will pay all costs including reasonable attorneys fees and court costs incurred by the renting location, Budget and Sears, and will defend and indemnify these parties from all claims, demands and lawsuits resulting from:
 - 1) the issuance of a warrant for the arrest of Renter or any person operating the Vehicle; and
 - 2) any action by the renting location, including self-help, used to get the Vehicle back or otherwise enforce the terms of this Agreement; and
 - 3) any action against the renting location, Budget or Sears resulting from Renter's breach of this Agreement.
 - B. The renting location, Budget and Sears shall have no liability for any indirect, special or consequential damages arising in connection with the furnishing, performance or use of the Vehicle or for any claim based upon the failure to honor a vehicle reservation requested by Renter.
 - C. Renter shall not be considered the agent or employee of the renting location, Budget or Sears for any purpose whatsoever.
 - D. It is a violation to tamper with hubometer or speedometer. Customer is liable for all van/box body damage exterior and interior. Customer is responsible for fuel, weight, and road use permits, (Truck Only).
 - E. Renter agrees to everything stated on both sides of this Agreement, which is the entire Agreement between the parties. Renter agrees that this Agreement can only be changed in writing and if signed or initialed by both the renting location and Renter.

Budget
car and
truck rental

C 1502277

SEARS

Car & Truck
Rental

HILO BASEYARD OFFICE

(808) 935-6878

BENEFICIARY FIELD		96720	
RETURN LOCATION		RENTAL AGREEMENT	
ITORR HILO BASEYARD		[REDACTED]	
CREDIT CARD/DIRECT BILL NO./P.O. NO./EXP. DATE		REPLACEMENT ORIGINAL	
[REDACTED] 103.13 193 63		COMMIT PERMIT ☐ OWNING LOC HON16	
ARRIVAL DATE/METHOD/TIME/MP/CAR TYPE/C.A. OR U/RETURN DATE		VEHICLE NO. 20675 LXAR CLASS	
02/10/91 1300 LCAR		LICENSE NO. HMT388 HI	
RENTER JANET SWIFT		MAKE/MODEL LN CONTL4	
RESIDENCE D.O.B. RAPID ACTION NO.		TIME IN 02/13/91 1427	
PO BOX 705		TIME OUT 02/10/91 1354	
CITY/STATE/ZIP KAAWA HI 96730		WK=7DAY MIN	
PHONE [REDACTED] 08/20/45		WK=7DAY MIN	
LICENSE NO./EXP. DATE/STATE [REDACTED] 08/20/91 HI		RENTAL TIME 3	
COMPANY RE-2# 00027039601		RENTAL TIME 3	
COMPANY PHONE NO./CORPORATE RATE NO.		MIN/MAX RENTAL DY 8999	
LOCAL CONTACT/PHONE NO. KMC		HR 2300	
ADDITIONAL DRIVER/D.O.B. NONE		MILEAGE ALLOWANCE MI 10	
LICENSE NO./EXP. DATE/STATE [REDACTED]		P3 9900	
REMARKS (3)DY SPECIAL, +25YRS, MJCC		PREPAID VOUCHER OR COUPON VALUE	
I AGREE TO RETURN THIS VEHICLE ON OR BEFORE THE INDICATED DUE BACK DATE TO THE SAME LOCATION AT WHICH IT WAS RENTED OR TO THE BUDGET OFFICE SPECIFIED IN THE BOX BELOW. A DROP CHARGE MAY APPLY IF VEHICLE IS RETURNED TO OTHER THAN RENTING LOCATION.		UNLIMITED MILEAGE, WEEKEND SPECIAL, AND VACATION SPECIAL RATES DO NOT APPLY IF VEHICLE IS RETURNED TO A LOCATION OTHER THAN THE RENTING LOCATION. DISCOUNT RATES ONLY FOR SPECIFIED PERIOD.	
DUE BACK 02/13/91 AUTHORIZED RETURN ITORR HILO BASEYARD RENTER'S INIT. X		TOTAL TIME/MILEAGE 9900	
I have read and understand the damage waiver disclosure notice or information contained in the rental agreement and that restrictions or conditions apply.		RATES DO NOT INCLUDE FUEL DAILY RATE IS BASED ON 24 HOUR DAY	
Signature of Renter		DISCOUNT TOTAL	
LOSS DAMAGE WAIVER (LDW) - Renter initials below to accept or decline the optional LDW at the rate shown for each day or fraction thereof. If Renter declines LDW, Renter will be responsible for the FULL VALUE (or other amount written below) of any loss of or damage to the vehicle, regardless of fault, except as provided in Paragraph 7 on the reverse side. If Renter accepts LDW, Renter will not be responsible for such loss or damage, EXCEPT AS PROVIDED IN PARAGRAPH 8 ON THE REVERSE SIDE. LDW IS NOT INSURANCE.		NONE RETURN LOC. CHARGE	
AMOUNT OTHER THAN FULL VALUE		TAX @ 4.17% ON 99.00	
If offered, renter initials to accept or decline at the rate shown: LDW for loss damage waiver, PAI for personal accident insurance, PEC for personal effects coverage, CGO for cargo insurance, and SLI for supplemental liability insurance. Renter also acknowledges at the time of rental, that he/she understands the conditions and limitations of each coverage.		413	
LDW 12.99/DY DECLINES 90.93/WK			
SLI 4.95/DY DECLINES			
PAI 3.00/DY DECLINES 21.00/WK			
PEC 1.25/DY DECLINES 8.75/WK			
I HAVE READ, UNDERSTAND AND AGREE TO BE BOUND BY THE TERMS AND CONDITIONS ON BOTH SIDES OF THIS AGREEMENT. IF THIS RENTAL IS TO BE CHARGED ON A CREDIT CARD, MY SIGNATURE BELOW WILL BE CONSIDERED TO HAVE BEEN MADE ON THE APPLICABLE CREDIT CARD VOUCHER AND I GIVE BUDGET PERMISSION TO FILL OUT AND SIGN THE VOUCHER ON MY BEHALF. (SEE NO. 12D ON REVERSE SIDE)		IF RENTER RETURNS THE VEHICLE WITH LESS FUEL THAN WHEN RENTED A REFUELING CHARGE WILL APPLY	
IF I USE MY SEARS CHARGE FOR THIS PURCHASE (SUBJECT TO CREDIT APPROVAL BY SEARS), MY SEARS CHARGE ACCOUNT AGREEMENT IS INCORPORATED HEREIN BY REFERENCE FOR THE CREDIT SALE PRICE CONSISTING OF THE CASH PRICE PLUS THE FINANCE CHARGE.		RENTAL AGREEMENT NO.	
RENTER'S SIGNATURE [Signature]		SUB TOTAL 10313	
BILLED BY 332		BILLING TYPE/AMOUNT 103.13	
CLOSED BY 17235		LESS DEPOSIT	
		NET DUE RENTER	
		NET DUE 10313	

I HAVE READ, UNDERSTAND AND AGREE TO BE BOUND BY THE TERMS AND CONDITIONS ON BOTH SIDES OF THIS AGREEMENT. IF THIS RENTAL IS TO BE CHARGED ON A CREDIT CARD, MY SIGNATURE BELOW WILL BE CONSIDERED TO HAVE BEEN MADE ON THE APPLICABLE CREDIT CARD VOUCHER AND I GIVE BUDGET PERMISSION TO FILL OUT AND SIGN THE VOUCHER ON MY BEHALF. (SEE NO. 12D ON REVERSE SIDE)

IF I USE MY SEARS CHARGE FOR THIS PURCHASE (SUBJECT TO CREDIT APPROVAL BY SEARS), MY SEARS CHARGE ACCOUNT AGREEMENT IS INCORPORATED HEREIN BY REFERENCE FOR THE CREDIT SALE PRICE CONSISTING OF THE CASH PRICE PLUS THE FINANCE CHARGE.

(X) RENTER'S SIGNATURE

CLOSED BY

CONTRACT CLOSED SUBJECT TO FINAL AUDIT

FORM # TY 114 2/8/90

Ted Meeko

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF HAWAII

FILED IN THE
UNITED STATES DISTRICT COURT
DISTRICT OF HAWAII

BLUE OCEAN PRESERVATION SOCIETY,)
a Hawaii non-profit corporation;)
SIERRA CLUB, a California non-)
profit corporation; and)
GREENPEACE FOUNDATION, a Hawaii)
non-profit corporation,)

Plaintiffs,)

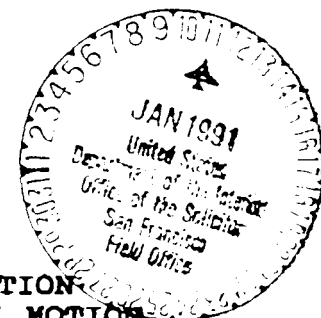
v.)

JAMES D. WATKINS, Secretary)
Department of Energy; et al.,)

Defendants.)

Cv. No. 90-00407 DAE

JAN 08 1991
at 1 o'clock and 4 min. PM
WALTER A.Y.H. CHINN, CLERK
K



ORDER DENYING DEFENDANT UNITED STATES' MOTION
FOR SUMMARY JUDGMENT AND GRANTING PLAINTIFFS' MOTION
FOR PARTIAL SUMMARY JUDGMENT

I. Introduction

This is an action brought by three environmental groups ("Plaintiffs") seeking to compel the federal government to prepare an Environmental Impact Statement ("EIS") covering the development of geothermal energy on the Island of Hawaii (the "Big Island") before proceeding further with that development. Defendant federal departments and agencies (collectively the "Government") have moved for summary judgment on the grounds that Plaintiffs' claim is not ripe, and that this court therefore lacks subject matter jurisdiction. Plaintiffs have filed a cross-motion for partial summary judgment on the issue of whether the geothermal project

constitutes "major federal action" within the meaning of 42 U.S.C. § 4332(2)(C). This motion presents a major question for resolution in this action.

II. Factual Background

A. The 4-Phase Hawaii Geothermal Project

In 1978, in order to encourage the commercial development of geothermal energy, the State of Hawaii, with the cooperation of Congress and the Department of Energy, began the Hawaii Geothermal Project (the "Project"). It was envisioned that the Project would be carried out in four stages: (1) the Hawaii Geothermal Resource Assessment Program ("Phase I"), (2) the Hawaii Deep Water Cable Program ("Phase II"), (3) the Hawaii Geothermal Resource Verification and Characterization Program ("Phase III"), and (4) Construction of the Commercial Hawaii Geothermal Project ("Phase IV"). The Project was intended to provide large quantities of electric power,¹ generated by geothermal energy plants on the side of the Big Island's Kilauea volcano, and transported to the islands of Maui and Oahu via underwater and overland cable. The early phases were to be carried out primarily with public funds to remove the uncertainty and risk, and thereby encourage private investors to undertake the ultimate Project development (Phase IV).

Phase I was jointly funded by the State of Hawaii and the U.S. Department of Energy ("DOE"), with the federal government

¹ The Project clearly contemplates the provision of 500 megawatts of power (enough to meet half the power needs of the State of Hawaii). It is not clear from the record, however, whether this specific amount was projected from the beginning, or whether it was determined using the data gathered in Phase I.

contributing \$10.7 million, 80% of the total funding. It resulted in the drilling of one geothermal well and the establishment of a small 2.5 megawatt demonstration plant (recently closed down) in the Puna district on the Big Island. Phase I provided important data on the geothermal resource base and has now been completed.

Phase II, the Deep Water Cable Program, was a study of the feasibility of transmitting electricity via a submarine cable system from the Big Island to Maui and Oahu. The federal government provided over \$24 million (83% of total cost) for the research, design, construction and routing of an undersea cable. This included not only generic cable development research, but also site-specific route surveys between the islands as well as actual test-laying of cable on site. At-sea tests have been finished and this phase is essentially completed.

In conjunction with these first two phases of the Project, the Hawaii legislature has enacted a series of laws designed to further the Project, which it terms a "federal/state partnership effort." See the 1988 Act, discussed infra at Section II.B. These include laws granting favorable excise tax treatment to sellers of geothermal energy (1978-Act No. 135), designating geothermal subzones for development purposes (1983-Act No. 296), and granting agency authority to set geothermal royalty rates (1985-Act No. 138).

Phase III has now begun, with Congress having already appropriated \$5 million of federal funds toward it. It involves the drilling of 25 commercial scale exploration wells throughout

the Kilauea East Rift Zone to "verify" the geothermal resource. As a preliminary matter in this phase, two slim-bore scientific observation holes have, at state (not federal) expense, already been drilled. Completion of Phase III will clear the way and set forces in motion for the private construction of the full-scale 500 megawatt project, which is Phase IV.²

B. The Geothermal and Cable System Development Permitting Act of 1988

In 1988, to further accelerate and facilitate the Project, the Hawaii legislature enacted the "Geothermal and Cable System Development Permitting Act" (the "1988 Act"), codified at H.R.S. §§ 196D-1, et seq. The 1988 Act is designed primarily to streamline the approval and permit process.

The 1988 Act defined the Project in terms of its ultimate goal (Phase IV), and specifically recognized the interdependence of its two fundamental components:

(7) The fundamental interrelationship between the development of geothermal resources and a cable system and the magnitude of the cost to undertake each of these developments clearly indicate that neither will be undertaken without the firm assurance that the other also will be undertaken in a synchronized and coordinated manner to enable both developments in substance to be completed concurrently

² Hawaii Governor John Waihee, in his formal request for federal funding for Phase III, characterized that phase as follows:

Mr. Chairman, we are not asking for funding for just another study of renewable energy technology. Our proposal is for a resource verification program which will lead immediately to a full-scale private development of 500 megawatts of geothermal power.

Letter to J. Bennett Johnston, Chairman of Subcommittee on Energy and Water Development, June 19, 1989, p. 2.

H.R.S. § 196D-2 (emphasis added).

In addition, the 1988 Act established the Interagency Group, a body with representatives from each agency deemed to have jurisdiction or permitting authority over some aspect of the Project. Under the statute, eight state agencies were represented and eight federal agencies (all of whom are named defendants) were invited to join the group. All eight accepted the invitation, and seven sent representatives to some or all of the meetings of the Interagency Group.³

The Interagency Group's mission is to consolidate and streamline the permitting process for the Project. The purpose is to overcome the daunting array of federal, state and local permits and processes that have discouraged potential commercial developers. The Group has compiled a master list of necessary permits, and it is expected that it will be involved in establishing a timetable for regulatory review, conducting necessary hearings, and consolidating governmental activities.

C. The Extent of Federal Involvement in the Project

In addition to the contribution of federal funds, and the arguably significant role various federal agencies and officials have played as part of the Interagency Group, the federal

³ The federal members of the Interagency Group are the U.S. Army Corps of Engineers, U.S. Pacific Fleet, U.S. Coast Guard, U.S. Geological Survey, U.S. Fish and Wildlife Service, National Marine Fisheries Service, National Park Service, and Environmental Protection Agency ("EPA"). The EPA has been unable to provide a representative because of a staffing shortage in its Honolulu office. It has, nonetheless, requested to be kept on board in a non-attending capacity and to be kept apprised of matters of interest to the Interagency Group.

government has been involved in the Project in a number of other ways.

As early as 1978, DOE contracted with a private consultant for a "Direct Use Overview for Hawaii and Total Use Scenario for Puna (HI)."⁴ The purpose of the resulting report is stated in its Summary:

As a means of accelerating the environmentally acceptable use of geothermal resources in the State of Hawaii, this report presents an overview of the potential for direct utilization (non-electric) in the state and a scenario for development to the year 2020 of the most promising prospect--Puna, on the Big Island of Hawaii.

This document, commissioned by DOE, sets forth a series of recommendations for the development of geothermal energy in the Puna district. It has provided groundwork and guidance for much of the Project.

DOE has provided planning and financial assistance in a number of actions aimed at driving commercial geothermal development forward, independent of its participation in the phases of the Project itself. Plaintiffs have submitted a list of 21 DOE-sponsored reports, funded by DOE contracts, that deal specifically with geothermal energy development in Hawaii. In addition, when the state passed legislation for the designation of resource subzones, DOE provided most of the funding for the necessary geothermal resource assessment and impact analysis.

More recently, Patricia Port, Regional Environmental Officer

⁴ The report bearing this title was prepared for DOE by Science Application, Inc., La Jolla, California, under Contract ET-78-C-03-1529, on January 12, 1979.

for the U.S. Department of Interior conducted two meetings in October 1989 and June 1990 with state officers and the National Park Service, the Fish and Wildlife Service, and the U.S. Geological Survey. These meetings monitored progress on the Hawaii Geothermal Project Master Plan, and were designed to share information on agency concerns so the Master Plan could be adjusted to mitigate such concerns and facilitate expeditious implementation. A third such meeting was scheduled for December 1990.

Additionally, it appears that every federal agency named as a defendant in this action will have some role in permitting the Project when it reaches Phase IV.

The Government's role in the Project has not gone unacknowledged. As already noted, in the 1988 Act, the Hawaii legislature described the Project as a "federal/state partnership." This "partnership" characterization of the Project has been echoed a number of times in various contexts.

The 1990 Proposal to Congress for funding for Phase III utilized the heading: "HAWAII GEOTHERMAL PROJECT: A Federal-State-Private Partnership Leading Toward Commercialization." That Proposal explained that "[a] government-private-partnership is . . . necessary to prove the resource and allow private commercial development to go forward."

In May 1990 U.S. Senator Daniel Inouye sent a letter to one of his colleagues regarding the 1990 Proposal in which he stated that the total funding of Phase III would "be divided equally between

the private sector and a State and Federal government partnership." (Emphasis added.)

In January 1990, DOE held a hearing in Honolulu on "National Energy Strategies." At this meeting, the Director of Hawaii's Department of Business and Economic Development ("DBED") confirmed its request to DOE of \$15 million (spread over three years in \$5 million increments) for Phase III. The Director stated: "This is an excellent example of government money, state and federal, being used in a good way: as seed money to prepare the way for the private sector to do the project with reduced risk." At this hearing, the state made a specific plea for DOE's continued support of and participation in the Project.

This "continuation" theme is also reflected in the record. Governor Waihee, in letters to the House and Senate Appropriation Committees, requested "continuation of the federal assistance for the Hawaii geothermal research and development project through the funding of [Phase III]." Similarly, the 1989 and 1990 Proposals ask that "the Federal government continue its support of the Hawaii Geothermal Project by joining the State and private developers in financing [Phase III]."

III. Summary Judgment Standards

Summary judgment is proper when there is no genuine issue of material fact and the moving party is entitled to judgment as a matter of law. Fed. R. Civ. P. 56(c); Retail Clerks Union, Local 648 v. Hub Pharmacy, Inc., 707 F.2d 1030 (9th Cir. 1983). In

ruling on a motion for summary judgment, this court views the facts and inferences in the light most favorable to the non-moving party. Id.

The moving party has the initial burden of "identifying for the court those portions of the materials on file in the case that it believes demonstrate the absence of any genuine issue of material fact." T.W. Elec. Serv., Inc. v. Pacific Elec. Contractors Ass'n, 809 F.2d 626, 630 (9th Cir. 1987) (citing Celotex Corp. v. Catrett, 477 U.S. 317, 323 (1986)). If the moving party meets its burden, then the opposing party may not defeat a motion for summary judgment in the absence of any significant probative evidence tending to support his legal theory. Commodity Futures Trading Comm'n v. Savage, 611 F.2d 270, 282 (9th Cir. 1979). The opposing party cannot stand on its pleadings, nor can it simply assert that it will be able to discredit the movant's evidence at trial. See T.W. Elec., 809 F.2d at 630.

There is no genuine issue of fact if the opposing party fails to offer evidence sufficient to establish the existence of an element essential to that party's case. Celotex, 477 U.S. at 322. There is also no issue of fact if on the record as a whole, a rational trier of fact could not find in favor of the non-moving party. Taylor v. List, 880 F.2d 1040, 1045 (9th Cir. 1989).

IV. Statutory Background--The National Environmental Policy Act ("NEPA")

Section 102(2)(C) of NEPA requires federal agencies to prepare and file an EIS before undertaking "major federal action

significantly affecting the quality of the human environment." 42 U.S.C. § 4332(2)(C). In Baltimore Gas & Electric v. Natural Resources Defense Council, 462 U.S. 87, 97 (1982) the U.S. Supreme Court identified the twin aims of NEPA: (1) it obligates the agency "to consider every significant aspect of the environmental impact of a proposed action;" and (2) "it ensures that the agency will inform the public that it has considered such environmental concerns in its decisionmaking process." (quoting Vermont Yankee Nuclear Power Corp. v. Natural Resources Defense Council, Inc., 435 U.S. 519, 553 (1978)). NEPA does not indicate the weight that should be given such environmental concerns. It requires "only that the agency take a 'hard look' at the environmental consequences before taking a major action." Baltimore Gas, 463 U.S. at 97.

This case raises issues concerning what prompts or triggers NEPA obligations, what is the proper scope of the EIS, and, most importantly at this stage in the proceedings, when an EIS is required and when can it be compelled by legal action.

V. The Government's Summary Judgment Motion

The Government has moved for summary judgment on the grounds that the court lacks subject matter jurisdiction. Specifically, the Government contends that the suit to compel an EIS is moot with respect to Phases I and II since those are completed actions, and that it is unripe with respect to Phases III and IV because no specific proposal has been advanced for either of them.

A fundamental issue on the Government's ripeness argument is whether the Project can and/or should be treated as a single project for NEPA purposes. The Government's ripeness arguments presuppose that the Project is nothing but four separate, independent projects, each subject to a separate NEPA analysis. Plaintiffs' entire lawsuit, in contrast, presupposes that the several phases of the Project should be aggregated and that an EIS should issue for the Project as a whole.

The characterization of the Project is critical to this court's inquiry because the Government's contention that Plaintiffs' suit for an EIS is moot with respect to Phases I and II and unripe with respect to Phases III and IV makes sense only if the four phases are properly treated as separate actions under NEPA. If, as Plaintiffs contend, they are merely components of one "major federal action," Plaintiffs' suit to compel an EIS for that action is neither moot nor unripe. It would not be moot since so much of the Project remains to be done, and it would not be unripe since the Project has already been partially implemented.⁵

The court finds that there is insufficient evidence in the record to support a finding, at summary judgment, that the Project is and always was a single, integrated, action with a solitary purpose: the construction of a 500 megawatt geothermal plant in Puna. It is difficult to glean from the evidence presented just how clearly and specifically the latter phases were defined at the

⁵ See discussion of the "proposal" requirement infra at Section V.C.1.

time Phase I was proposed and implemented in 1978. Accordingly, there remain issues of fact as to whether the Project was and is, in actuality, a single project with a single goal, or whether it began as mere background research projects that did not ripen into a proposal for a full-scale geothermal energy plant until sometime later. This issue cannot, therefore, be resolved by summary judgment.

Even accepting the Government's contention that the four separate phases of the Project are distinct actions, however, the court nonetheless finds that the Government is not entitled to summary judgment. The reasoning is set forth below.

A. The Four Phases As "Connected Actions"

Even if the four phases of the Project are considered separate actions triggering separate NEPA obligations, those four actions (or phases) are sufficiently "connected" to require that they all be evaluated in a single EIS.

The regulation that governs the scope of EISs specifically provides for the consideration of:

- (1) Connected actions, which means that they are closely related and therefore should be discussed in the same impact statement. Actions are connected if they:
 - (i) Automatically trigger other actions which may require environmental impact statements.
 - (ii) Cannot or will not proceed unless other actions are taken previously or simultaneously.
 - (iii) Are interdependent parts of a larger action and depend on the larger action for their justification.

40 CFR § 1508.25(a).

Although the three subsections are connected by neither "and" nor "or," it appears that they should be read in the disjunctive

rather than the conjunctive. They are separated by periods, suggesting that each or any of the three criteria should be sufficient, standing alone, to make the actions "connected." The case law interpretations of the regulation have been consistent with this, having treated the separate subsections as sufficient conditions, not necessary conditions. Hudson River Sloop Clearwater v. Dept. of Navy, 836 F.2d 760, 763 (2d Cir. 1988) (noting that "[o]nly subdivisions (ii) and (iii) are at issue here," and then proceeding to analyze the applicability of those subdivisions); Town of Huntington v. Marsh, 859 F.2d 1134, 1142 (2d Cir. 1988) (finding the actions to be connected based solely on the satisfaction of subdivision (iii)) (citing Save the Yaak Committee v. Block, 840 F.2d 714, 719 (9th Cir. 1988)).

In this case, subsection (i) clearly does not apply, subsection (ii)'s applicability is arguable, and subsection (iii) appears to contemplate these facts precisely. The latter two provisions will be discussed in turn.

1. Connected Actions Under Subsection (ii)

Actions are connected if they:

....

(ii) *Cannot or will not proceed unless other actions are taken previously or simultaneously.*

40 CFR § 1508.25(a)(1).

Under subsection (ii), it seems clear that Phase IV could never proceed unless Phases I-III were undertaken previously. Thus, subsection (ii) arguably applies. The Second Circuit has suggested, however, that the proper inquiry under (ii) is not whether the more remote action can proceed absent the more

immediate action, but rather whether the more immediate action can proceed absent the remote action.⁶

In Hudson River Sloop Clearwater v. Dept. of Navy, 836 F.2d 760 (2d Cir. 1988), conservation groups sued to stop development of a Navy battleship homeport until the Navy filed an EIS that also considered the accompanying proposal for the construction of housing to serve the homeport. The court observed:

With respect to subdivision (ii), the district court concluded that the actions in this case are connected because the "construction of the family housing will not proceed unless the operational aspects of the homeport are built." We deem the issue presented, however, to be whether the converse is true. In other words, will the operational aspects of the homeport proceed without the construction of family housing?

836 F.2d at 763. Concluding that the homeport would proceed whether or not the housing project could be approved, the court ruled that, under subsection (ii), the two actions were not connected.⁷

Following the Second Circuit, the issue is not whether Phase IV could go forward without Phases I-III, but rather whether the earlier Phases could go forward without Phase IV ever being

⁶ In this case, the immediate action is Phase III, the action currently being proposed. The more remote action is Phase IV. It is a different question to ask whether implementation of Phase III is a necessary precondition for Phase IV than to ask whether implementation of Phase IV is a necessary precondition for Phase III.

⁷ Hudson River Sloop cites Thomas v. Peterson, 753 F.2d 754, 758-59 (9th Cir. 1985) as an application of subsection (ii), observing that it found connectedness where both actions are necessary preconditions to the other. This court believes Thomas is better characterized as an application of subsection (iii), discussed infra.

implemented. When characterized this way, it seems clear that the answer is yes. Indeed, Phases I and II have already been completed without any guarantee that Phase IV will ultimately be implemented. Moreover, the actual language of subsection (ii) suggests that it has no applicability when the more remote action follows the more immediate action:

Actions are connected if they:

(ii) Cannot or will not proceed unless other actions are taken previously or simultaneously.

40 CFR § 1508.25(a)(1) (emphasis added). Under this characterization, the various phases would not be "connected actions" under subsection (ii).

It is clear, however, that the two major components of the Project, the cable construction and the geothermal power plant construction, are necessary to each other. The 1988 Act stated:

(7) The fundamental interrelationship between the development of geothermal resources and a cable system and the magnitude of the cost to undertake each of these developments clearly indicate that neither will be undertaken without the firm assurance that the other also will be undertaken in a synchronized and coordinated manner to enable both developments in substance to be completed concurrently

H.R.S. § 196D-2 (emphasis added). In a sense, therefore, the work related to either of those components "will not proceed" unless there is development of the other component. This argument, somewhat strained under the language of subsection (ii), is more squarely advanced as an application of subsection (iii), infra.

2. Connected Actions Under Subsection (iii)

Actions are connected if they:

....

(iii) Are interdependent parts of a larger action
and depend on the larger action for their justification.

40 CFR § 1508.25(a)(1).

This provision describes the facts before the court accurately. Phases I-III appear to have been conceived for the sole purpose of bringing about Phase IV, and depend on Phase IV and each other for their justification.

Although the Ninth Circuit has never explicitly relied on subsection (iii) in finding actions to be connected for NEPA purposes, it has repeatedly applied a virtually identical standard. It has, for example, specifically defined the interdependence that must exist between the various phases of a larger project if they are to be deemed connected:

The dependency is such that it would be irrational, or at least unwise, to undertake the first phase if subsequent phases were not also undertaken.

Save the Yaak Committee v. Block, 840 F.2d 714, 719-20 (9th Cir. 1988) (quoting Trout Unlimited v. Morton, 509 F.2d 1276, 1285 (9th Cir. 1974)). The standard has been alternatively stated (as applied to a highway project) as follows:

[T]he environmental impacts of a single highway segment may be evaluated separately from those of the rest of the highway only if the segment has "independent utility."

Thomas v. Peterson, 753 F.2d 754, 759 (9th Cir. 1985) (summarizing the holding of Daly v. Volpe, 514 F.2d 1106, 1110 (9th Cir. 1974)); see also Fritiofson v. Alexander, 772 F.2d 1225, 1242 (5th Cir. 1985) ("'Connected actions' are defined in a manner consistent with

the criteria recognized in the independent-utility cases.").

The Ninth Circuit elaborated on the application of this "independent utility" test in Thomas v. Peterson, 753 F.2d at 759-60:

In the light of Trout Unlimited, the phrase "independent utility" means utility such that the agency might reasonably consider constructing only the segment in question.

In Thomas, there were two proposals: one for timber harvesting and sales, and another for construction of a road into the area to be harvested. The Ninth Circuit ruled that because the harvesting could not be done without construction of the road, and because the road did not have any significant utility other than to facilitate the harvesting, NEPA required a single EIS covering both the road and the timber sales. Id.; see also Morgan v. Walter, 728 F.Supp. 1483, 1493 (D. Idaho 1989) (David A. Ezra, District Judge) (Proposed diversion of river and proposed fish propagation facility are "connected actions" because "the fish propagation facility could not exist absent a diversion" and because the diversion was proposed for the purpose of facilitating fish propagation.).

On the facts before this court, Phases I-III do not possess any real independent utility. If Phase IV were not a possibility,

* The Second Circuit has affirmatively acknowledged that this "independent utility" test is merely an application of subsection (iii). See e.g. Town of Huntington v. Marsh, 859 F.2d 1134, 1141-42 (2d Cir. 1988) ("The proper test to determine relatedness under 40 CFR §1508.25(a)(1)(iii) is whether the project has independent utility."); Hudson River Sloop Clearwater v. Dept. of Navy, 836 F.2d 760, 764 (2d Cir. 1988) ("[S]ubdivision (iii) has been determined to mirror a line of cases which hold that the proper test for interdependence is one of independent utility.").

it would clearly be "irrational, or at least unwise" to proceed with Phases I-III. Trout Unlimited, 509 F.2d at 1285. The Government could not "reasonably consider" going ahead with the deep water cable research and construction if there were no geothermal energy development to utilize the cable. Thomas, 753 F.2d at 760. Neither would the geothermal energy be developed if there were no cable project to convey the power generated. See the 1988 Act, H.R.S. § 196D-2. The facts of Thomas--timber project and access road--are analogous. Most significantly, there is no "independent utility" to the drilling of 25 commercial size wells to "verify" a geothermal resource (Phase III); that action is "irrational" absent imminent construction of a geothermal power plant (Phase IV).

Accordingly, even if the Project is properly characterized as four separate phases, the court would hold that those four phases are "connected actions" under NEPA regulations, and should be the subject of a single EIS.⁹

B. Mootness

Even though the actions are connected, Phases I and II have already been completed. Any attempt to have those actions considered in a comprehensive EIS is, therefore, moot.¹⁰

⁹ Given the mootness of Phases I and II, see infra Section V.B, this finding of connectedness is effective only as to the remaining actions, Phases III and IV.

¹⁰ Phase I was the subject of an environmental assessment (EA) under NEPA, the adequacy of which was challenged in Puna Speaks v. Edwards, 554 F.Supp. 117 (D. Haw. 1982) (finding the EA to comply with the statute, and refusing to compel an EIS). In order to compel an EIS considering all four phases, Plaintiffs should have

As discussed above in Section IV, NEPA's function is to assure that adequate information is provided at the decision-making stage on a proposed action.

[T]he basic function of an EIS is to serve as a forward-looking instrument to assist in evaluating "proposals" for major federal action

National Wildlife Fed. v. Appalachian Reg. Commission, 677 F.2d 883, 889 (D.C.Cir. 1981) (quoting Aersten v. Landrieu, 637 F.2d 12, 19 (1st Cir. 1980) (citing Kleppe v. Sierra Club, 427 U.S. 390, 406 n.20 (1975))) (emphasis supplied by the Appalachian court).

Where the decision has already been made and carried out, and the action taken cannot be undone, there is absolutely no function or role for an EIS. Any suit to compel an EIS at that point is, perforce, moot. Sierra Club v. Penfold, 857 F.2d 1307, 1317-18 (9th Cir. 1988) (suit challenging mining operations; the suit for an EIS is moot because "no adequate remedy exists [A] completed mining project cannot be moved," distinguishing Columbia Basin Land Protection Assoc. v. Schlesinger, 643 F.2d 585, 591 n.1 (9th Cir. 1981) (suit over placement of power lines is not moot since the court could order that the power line be moved)); see also Friends of the Earth, Inc. v. Bergland, 576 F.2d 1377, 1378-79 (9th Cir. 1978) (claim is moot because the challenged mining project ended before the appeal was heard); Ogunquit Village Corp. v. Davis, 553 F.2d 243, 246-47 (1st Cir. 1977) (courts cannot

challenged the adequacy of the EA for Phase I, arguing that the remaining three phases were "connected actions." Plaintiffs in this case were not parties to the Puna Speaks action, and it does not appear from the opinion that any "connected action" argument was raised at that time.

provide post-completion relief under NEPA).

Thus, whatever EIS might ultimately be ordered if Plaintiffs are successful in this suit can be directed only toward the remaining work to be done.

[W]hen a NEPA challenge is leveled against some subsequent phase of a continuing federal action, the EIS obligation attaching at the latter point is realistically qualified by the elements of the program already in place. This limitation simply confines NEPA's mandatory decisionmaking input to programs posing options that may still freely be chosen.

Appalachian, 677 F.2d at 890. The actions taken in Phases I and II are complete and cannot be made the subject of any EIS; rather their effects should be incorporated into the background "data base" for assessment of the phases still at issue. See Coalition on Sensible Transp., Inc. v. Dole, 826 F.2d 60, 70 (D.C.Cir. 1987).

C. Ripeness

As to the remaining phases, the Government contends that there is no proposal yet before it, and that the suit to compel an EIS is therefore unripe. Coupled with this contention is the Government's promise that the appropriate environmental assessment will be done for Phase III before that project is undertaken. These alternative, if somewhat inconsistent, arguments will be considered in turn.

1. The Proposal Requirement--Triggering the NEPA Duty

It is now well settled that an EIS cannot be required unless and until a "proposal" is made. Kleppe v. Sierra Club, 427 U.S. 390 (1975). In Kleppe, the Department of Interior was involved in leasing government property to be mined, and the Sierra Club sought

to compel an EIS for the entire region then being leased. The Court of Appeals found that the Department "contemplated" a regionwide plan or program, even though its only activity had been the entering of individual leases, and ordered that an EIS be prepared. The Supreme Court reversed, saying that the statute does not require an EIS until an agency makes a report or recommendation on a proposal. Whether or not regionwide action was contemplated, there was no proposal for such regionwide action, and the EIS could not be compelled. See also Aberdeen & Rockfish R. Co. v. SCRAP, 422 U.S. 289, 320 (1974) ("[T]he time at which the agency must prepare the final [environmental impact] 'statement' is the time at which it makes a recommendation or report on a proposal for federal action.") (emphasis in original); B.R.S. Land Investors v. United States, 596 F.2d 353, 355 (9th Cir. 1979) (utility applied for federal approval for high-tower power lines over federal land; although there had been "preliminary discussions" on the application, there was no federal action sufficient to trigger NEPA).

Despite its attempt to establish a bright-line test, the Kleppe decision does not dictate a clear conclusion in this case. One commentator has observed:

The Supreme Court's decision in Kleppe leaves many questions unanswered. The Court stated that NEPA requires a "precise" decision on whether an agency has "proposed" an action, but it did not define "proposal."

. . . .

Mandelker, NEPA Law & Lit. § 8:13 (1990). Indeed this fact pattern does not seem to fit within the parameters contemplated by Kleppe

or by any other reported decision.

In the more typical scenario, a federal agency considers a private proposal, then issues a report or recommendation on it before the proposed action is taken. Kleppe and its progeny clearly establish that the EIS must be completed at the time such report or recommendation is made. If Congressional action is required, the proposal, the report or recommendation, and the EIS all go to Congress for consideration.

In this case, however, the proposal was submitted directly to Congress, and DOE did not issue a report or recommendation on it. DOE's failure to issue such a report or recommendation has already frustrated to some degree NEPA's purposes in that Congress acted on the proposal without being advised or informed of its potential environmental impact. The Government now argues that it may use the appropriated funds to contract for the work comprising Phase III before it can be compelled to look at the environmental consequences of that action.

This approach appears to be in conflict with NEPA's clear intent, as interpreted by the accompanying regulations:

The [environmental impact] statement shall be prepared early enough so that it can serve practically as an important contribution to the decisionmaking process and will not be used to rationalize or justify decisions already made.

40 CFR § 1502.5. The Ninth Circuit has joined in this refrain, stressing that "[t]he purpose of an EIS is to apprise decisionmakers of the disruptive environmental effects that may flow from their decisions at a time when they 'retain[] a maximum

range of options." Conner v. Burford, 848 F.2d 1441, 1446 (9th Cir. 1988) (quoting Sierra Club v. Peterson, 717 F.2d 1409, 1414 (D.C.Cir. 1983)) (emphasis added), cert. denied sub nom. Sun Exploration and Production Co. v. Lujan, 489 U.S. 1012 (1989). In any case, the statement "must be prepared before any irreversible and irretrievable commitment of resources." Conner v. Burford, 848 F.2d at 1446. The Ninth Circuit has further warned that "delay in preparing an EIS may make all parties less flexible. After major investment of both time and money, it is likely that more environmental harm will be tolerated." Environmental Defense Fund v. Andrus, 596 F.2d 848, 853 (9th Cir. 1979).

The decision to commit \$5 million of federal funds to Phase III of the Project has already been made. It may be, therefore, that some kind of NEPA compliance--an environmental assessment or EIS--may in fact already be due. Nonetheless, the U.S. Supreme Court requires a "proposal."

Although Kleppe fails to define "proposal", the regulations provide some assistance in this regard:

"Proposal" exists at that stage in the development of an action when an agency subject to the Act has a goal and is actively preparing to make a decision on one or more alternative means of accomplishing that goal and the effects can be meaningfully evaluated. . . . A proposal may exist in fact as well as by agency declaration that one exists.

40 CFR § 1508.23. This definition is plainly geared toward a more general, functional interpretation of the term, not the literal interpretation urged by the Government.

In this case, the agency, DOE, clearly "has a goal" of

implementing Phase III, and it is apparent that its ultimate goal is to see Phase IV through. There is evidence that the Department of Interior shares this goal. If DOE is, as it suggests, soliciting or drawing up contracts to perform the work, it "is actively preparing to make a decision on one or more means of accomplishing that goal." The fact that DOE has not set forth any written "proposal" is immaterial because "a proposal may exist in fact as well as by agency declaration." Id.

The fact that Congress has already appropriated \$5 million for Phase III clearly establishes that some kind of proposal has been made. In National Wildlife Fed. v. Coston, 773 F.2d 1513 (9th Cir. 1985), the Ninth Circuit addressed the significance of appropriations in triggering NEPA obligations. The court held that while the appropriations themselves are not major federal action, Id. at 1518, they are the "fund[ing of] actions already proposed." Id. at 1518 (quoting Andrus v. Sierra Club, 442 U.S. 347, 362 (1979)) (emphasis added). Because NEPA already applies to, and an EIS duty has already arisen for, the proposed action for which the appropriation is made, any EIS requirement for the appropriation itself would be redundant. Id.

Based on this analysis, the \$5 million appropriation was made to fund the "already proposed" federal action herein characterized as Phase III. Because a proposal must be deemed to have been made to secure the appropriation, the suit to compel an EIS appears to be, under this approach, clearly ripe. Moreover, because the money has been appropriated, the Government is clearly in the decision-

making mode--that in which an EIS is required--deciding precisely how the money will be disbursed and/or how the action will be carried out. There is no risk that the EIS will ultimately prove unnecessary. See Kleppa, 427 U.S. at 406 (because many "contemplated" projects do not ever ripen into "proposals," EISs for such contemplated projects would be unnecessary wastes of resources). This is a case in which a proposal "exist[s] in fact," whether or not it has ever been formally advanced as such. 40 CFR § 1508.23.

Further, there are additional grounds for finding a "proposal" here. Congress was not acting in a vacuum. It appropriated the money for Phase III in response to an extensive and detailed "Proposal to Establish the Hawaii Geothermal Resource Verification and Characterization Program," prepared by the Hawaii Department of Business and Economic Development, and submitted to Congress by the State of Hawaii in March 1990 (the "Hawaii Proposal"). In light of DOE's significant role in the greater Project, this is clearly a "proposal" sufficient to trigger NEPA obligations.

The Government cannot argue that this was simply a private proposal which it may yet dismiss without any need for an EIS. See Daingerfield Island Protective Society v. Andrus, 458 F.Supp. 961, 963 (D.D.C. 1978) (rejecting plaintiff's contention that "the Government, prior to accepting or rejecting a private proposal submitted to it, must have prepared an EIS."). Under the "state/federal partnership" characterization the Project has received, the state's proposal might even be deemed DOE's proposal

as well. And even if the Hawaii Proposal could be properly termed a "private proposal," the proposal has been accepted by act of Congress, and has now been served into DOE's court with that formal federal imprimatur.

Now that the proposal is before DOE, NEPA requires that work begin on the prescribed environmental assessments. Under the regulations, such work must begin immediately:

An agency shall commence preparation of an environmental impact statement as close as possible to the time the agency is developing or is presented with a proposal.

40 CFR § 1502.5

To rule that a proposal on which Congress has already acted is not ripe for NEPA purposes, i.e., does not trigger NEPA obligations, would elevate form over substance. A proposal exists since "an agency subject to the Act has a goal and is actively preparing to make a decision on one or more alternative means of accomplishing that goal." 40 CFR § 1508.23. Moreover that proposal has been given Congressional blessing. The time appears to be ripe for preparation of an EIS.

A separate question remains, however, of whether the time is ripe for an action to compel an EIS.

2. Ripeness of an Action to Compel NEPA Compliance

At the hearing, the Government stressed that federal agencies are entitled to a presumption of regularity, and promised that DOE would take steps to comply with NEPA. Government counsel cited the Declaration of John E. Mock, Director of DOE's Geothermal Division:

DOE is currently preparing a statement of work for a contract to implement the congressional language cited above. As yet, DOE has not contracted with the State for the verification or characterization work to be performed by the State. Prior to any verification or characterization work being undertaken with these funds, DOE will prepare or have prepared for its evaluation under NEPA the appropriate environmental analysis.

Mock Declaration, ¶7.

There is a certain inconsistency in the Government's position, however. In its briefs, and as discussed supra, the Government has argued that no proposal has been submitted to DOE, and that no duty to perform an Environmental Assessment accrues until there is both a proposal submitted and a report or recommendation from the agency on that proposal. Government counsel promised that if and when some "triggering" event occurs (e.g., a permit application), the applicable agency will not take action (approve the permit) without first jumping through the necessary NEPA hoops.

Aside from the issue of when NEPA obligations are first triggered is the issue of when an agency's compliance (or noncompliance) with NEPA may be challenged and/or enjoined. By arguing that DOE should be given a chance to comply with NEPA and that the agency is already "in the process" of such review, the Government implicitly admits that NEPA obligations have been triggered. The Government's argument then focuses on the contention that its compliance cannot be challenged or enjoined until the time has come for that compliance to be complete. The Government's position is apparently that no injunction can be sought or issued until the money is transferred or contracts are entered. Until that time, the Government asserts that it is

entitled to a "presumption of regularity."

Plaintiffs contend, on the other hand, that there is nothing left for DOE to do in this situation except hand the money over to Hawaii's DBED, and even this transfer is not in DOE's discretion. They argue that because no further federal approvals are necessary before the \$5 million is used to commence work on Phase III, there is no date certain by which NEPA compliance must be complete and at which review of such compliance would be any riper than it already is.

a. The Presumption of Regularity

The best articulation of the relevant law on an agency's "presumption of regularity" comes from Conner v. Burford, 848 F.2d 1441 (9th Cir 1988). Conner was a challenge to the sale of oil/gas leases in vast areas of national forest. The suit was based on the government's failure to prepare an EIS as required by NEPA before selling the leases. The court found that the leases contained "no surface occupancy" ("NSO") stipulations prohibiting any surface-disturbing activity, and therefore did not have significant environmental consequences. It concluded that an EIS for such leases could be required only upon the

[m]odification or removal of an NSO stipulation . . . ,
which . . . would constitute an irretrievable commitment
of resources requiring the preparation of an EIS.

Conner, 848 F.2d at 1447-48. The court refused to anticipate such alteration of NSO stipulations:

We cannot assume that government agencies will not comply with their NEPA obligations in later stages of development. Cf. Citizens to Preserve Overton Park v. Volpe, 401 U.S. 402, 415 (1971) (agency action entitled

to presumption of regularity).

Id. at 1448.¹¹

Conner relied on Sierra Club v. PERC, 754 F.2d 1506 (9th Cir. 1985), in which a "preliminary permit" for a hydroelectric project had been issued without conducting an EIS. The court in Sierra Club ruled that because the preliminary permit did not authorize any activity on federal land, but functioned simply to maintain the applicant's priority of application for a license, no EIS could be required. Id. at 1509. The court observed that "[p]etitioners can only enter federal land and conduct ground-breaking activities after obtaining Forest Service and BLM special use permits." Id. Because the court found that action affecting the environment could not take place until the permits were issued, the requirements of NEPA could be fully met by conducting the EIS at that later stage.

b. Where the Agency Denies Any Duty

In this case, however, the Government has argued that there is/was no proposal before DOE, and there is/was, therefore, nothing for DOE to act on. As discussed above, Government counsel suggested that NEPA obligations would be triggered if a permit were

¹¹ The Overton Park case was a challenge to the Secretary of Transportation's approval of a highway through a state park. In finding that the plaintiffs had submitted insufficient evidence that the Secretary had exceeded his authority in giving such approval, the U.S. Supreme Court observed:

Certainly, the Secretary's decision is entitled to a presumption of regularity. But that presumption is not to shield his action from a thorough, probing, in-depth review.

401 U.S. at 415 (citations omitted). The Court also noted that the Secretary's decision could be overturned if "arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law." Id. at 416 (quoting 5 U.S.C. § 706(2)(A)).

applied for, but refused to speculate as to what, if any, permits might be necessary before work on Phase III begins.

Where the agency is arguing that it has no obligation to do anything under NEPA, the court cannot presume that the agency is, at the same time, carrying out the environmental assessments that NEPA requires. Any such "presumption of regularity" is waived or at least vitiated by the Government's contention that it has no NEPA duty whatsoever.

The inquiry does not end here, however, because the Government does not rely solely on its denial of duty argument.

c. The Point at Which NEPA Compliance May Be Reviewed, Challenged, or Compelled

The Government has also argued that "DOE is currently preparing a statement of work for a contract to implement the congressional language" and that "the appropriate environmental analysis" will be done before any work on Phase III is undertaken with federal funds. Mock Declaration, ¶7. As noted earlier, this argument essentially concedes that NEPA obligations have been triggered, and the issue shifts to the question of when the obligation which presently exists can be compelled.

The "presumption of regularity" suggests that this court should assume that DOE will fully comply with its NEPA obligations, and should not interfere until the time has come for such compliance to be complete. At that point, the court can evaluate the adequacy of the compliance, and compel any actions required by law that have been overlooked. The Government suggests that such a time will not be reached in this case until contracts are entered

for the performance of the work contemplated by Phase III.

Even if DOE has a role in contracting for the work in Phase III, however, this suit will not necessarily be unripe. The Ninth Circuit has held that when the agency is committed to implementing a project, a suit to compel NEPA compliance need not be delayed until the contracting stage. In Environmental Defense Fund v. Andrus, 596 F.2d 848 (9th Cir. 1979), the Department of Interior announced a program for marketing reservoir water for industrial uses. The court ruled that the Plaintiffs need not await the entering of actual contracts:

Here the Secretary of Interior has no intention of abandoning plans for marketing industrial water and is prepared to execute water option contracts. NEPA does not permit delay in assessing the environmental impact of the marketing plan.

Id. at 852.¹² Here, given the \$5 million appropriation already made for Phase III, as well as the previous undertaking and completion of Phases I and II, the evidence may show that the Secretary of Energy similarly "has no intention of abandoning plans" to implement that Phase. In such a scenario, under Andrus, NEPA will not permit further delay, regardless of whether DOE will later be entering into contracts. See also Lathan v. Volpe, 455 F.2d 1111, 1121 (9th Cir. 1971) ("If defendants' contention were accepted--that no environmental impact statement is required until the final approval stage--then it could well be too late to adjust

¹² It is noteworthy that the Ninth Circuit also recognized that each water option contract required a separate EIS. The court held that such "EIS[s] must be prepared prior to execution of an option contract." Andrus, 596 F.2d at 852 (emphasis added).

the formulated plans so as to minimize adverse environmental effects.")

There is some question, however, as to the role DOE will play in contracting for the Phase III work. The Congressional action does not authorize DOE to "contract" for that work. It simply provides the \$5 million to the State DBED:

The Committee recommendation also includes \$5,000,000 for the State of Hawaii through its [D]epartment of [B]usiness and [E]conomic [D]evelopment to continue the Hawaii geothermal resource verification and characterization projects to help reduce the State's dependency on fossil fuels. The State of Hawaii has assured the Committee that this cost-shared assessment will be conducted consistent with the State's outstanding effort to protect and preserve its unique natural resources.

Conference Report 101-889, Oct. 16, 1990 to accompany HR 5019. This language suggests, and Plaintiffs argue, that Congress did not envision a contracting role for DOE. Rather, it provided the money to DBED based on assurances from the state about how the money would be used, apparently leaving the contracting in the state's hands and discretion.

If this is the case, these facts are distinguishable from Conner and Sierra Club, both of which anticipated a specific future event, a future federal decision whether to permit the environment-threatening project to go forward. The action already taken in this case, Congressional appropriation of \$5 million for the express purpose of implementing the "already proposed" Phase III, may actually be sufficient for work to begin. Neither party has identified any kind of further approval that will be needed before

the work on Phase III may commence.¹³

If there is no further federal approval required, if there is no substantial and significant decision-making role left for DOE before committing itself to implementing Phase III, the suit to compel NEPA compliance is as ripe as it will ever be. Conner and Sierra Club do not control to defeat ripeness unless there is a future point, clearly identified, at which NEPA compliance must be complete and can be reviewed, challenged or compelled. Andrus controls to establish ripeness if that future point is the mere implementation of a project or program already embraced and adopted.

This gives rise to a material issue of fact. The court needs more information on DOE's level of commitment to the implementation of Phase III, as well as the precise role that DOE expects to play, will play, and/or must play in the disbursement of the \$5 million. If, as the conference report language suggests, DOE has little or no discretion, but must transfer the money directly to DBED, then the time is ripe to consider the adequacy of DOE's NEPA compliance. If, on the other hand, the disbursement of the funds is subject to DOE contracting, and DOE will have to prepare proposed contracts on which it will make recommendations, exercising a discretionary, decision-making role, an action to compel an EIS may be ripe only at that later time.

¹³ The Government has suggested that further permits might be required, and has argued that it is at such a juncture that an EIS could be compelled. But when Government counsel was asked by this court what permits will be required or applied for, he insisted, "I have no idea."

The presence of these material issues of fact preclude summary judgment as requested by the Government at this stage. Resolution of the issue presented will require further factual findings at trial.

VI. Major Federal Action--Plaintiffs' Motion for Partial Summary Judgment

The issue is raised in Plaintiffs' Cross-Motion whether the participation of the Government in the Project, as outlined above, constitutes "major federal action" as a matter of law. Plaintiffs have moved for summary judgment on this issue, reserving the remaining two issues for trial.¹⁴

A. The Regulations

The applicable regulations define "major federal action" to include, inter alia, "new and continuous activities, including projects or programs entirely or partly financed, assisted, conducted, regulated, or approved by federal agencies" 40 CFR § 1508.18(a).

The Government has attempted to de-emphasize the participation of the various defendant agencies in the Project (stressing that the more significant involvement of such agencies will not come until Phase IV), and both parties have argued the significance, or insignificance, of the Interagency Group. The Government relies on Almond Hill School v. U.S. Dept. of Agriculture, 768 F.2d 1030 (9th

¹⁴ The issues which would remain for trial are (1) whether such action "significantly affect[s] the quality of the human environment," and (2) what is the appropriate remedy.

Cir. 1985) to argue that such limited participation of federal employees has not been sufficient to turn this local project into major federal action. In Almond Hill, California undertook a beetle eradication project, and put three federal government officials on the project's eight-member board of advisors. Although their salaries were paid with federal funds, these officials did not have a decision-making role. The Ninth Circuit found that the payment of salaries was not a significant enough commitment of federal funds to make the eradication project a "major federal action." 768 F.2d at 1039.

The Government argues that the tangential involvement of salaried federal officials in this case is similarly insufficient to make the Project a federal action. The Government is straining at a gnat but swallowing a camel.¹⁵ In addressing the issue of the role of federal officials in the Project, the Government overlooks the near \$40 million in federal funds directly contributed to the Project. Almond Hill is easily distinguished because in that case, as the court emphasized, "no federal funds [were] sought by the state or spent on the state's beetle eradication project." Id.

There is no dispute as to the degree of the Government's financial participation in the Project. The use of federal funds, especially in such amounts and to such a degree (over 80% of total funding) is enough standing alone to render the Project "major federal action." See, e.g., State of Alaska v. Andrus, 591 F.2d 537, 540 (9th Cir. 1979) ("Most courts agree that significant

¹⁵ See Matthew 23:23-24 (KJV).

federal funding turns what would otherwise be a local project into a major federal action."); Homeowners Emergency Life Prot. Committee v. Lynn, 541 P.2d 814 (9th Cir. 1974) ("Inasmuch as the grant of federal funds unquestionably moves the activity in issue to the point of a federal-city partnership, the project is now a major federal action.").

No matter whether the Project is considered as a single multi-faceted program or segmented into four separate and independent projects, there can be little question that it is major federal activity. Indeed, each of the first three phases independently has received sufficient federal financial funding to qualify as a major federal action: Phase I received \$10.7 million; Phase II received \$24 million; and Phase III has already received \$5 million with two more installments of \$5 million each likely to come. Although it is not apparent from the record how much, if any, federal money will be utilized in Phase IV, it is clear from the list compiled by the Interagency Group that the federal government will be heavily involved in a permitting role at that stage.¹⁶ Therefore, even if federal financing at that stage is not significant, Phase IV will nonetheless qualify as major federal action because it is a "project[] [or] program[] entirely or partly . . . regulated, or approved by federal agencies." 40 CFR § 1508.18(a).

¹⁶ In fact, the Government defends Plaintiffs' Cross-Motion by arguing that most of the defendant federal agencies are not yet involved and will not become involved until the Project reaches the permitting stage in Phase IV. In so arguing, the Government acknowledges the important role numerous federal agencies will have in Phase IV.

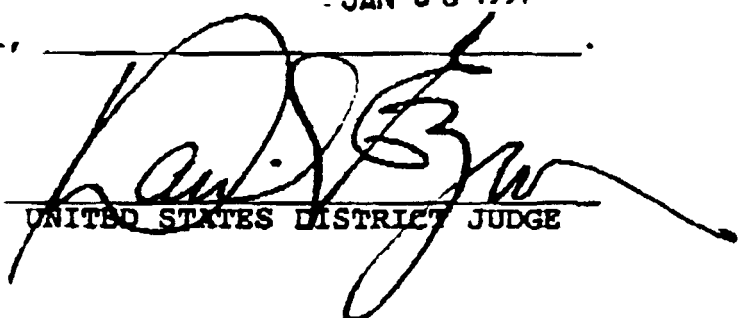
The enormous commitment of federal resources to the Project easily establishes it as major federal action. These facts are not in dispute, and no facts are alleged which, if proven, could make it otherwise. Further, in addition to the substantial financial commitment to this Project, the court has outlined above the Government's additional substantial involvement and participation at every stage of the Project's history. See Section II.C. supra. Plaintiffs are entitled to partial summary judgment declaring the Government's involvement in the Project to be major federal action.

VII. Conclusion

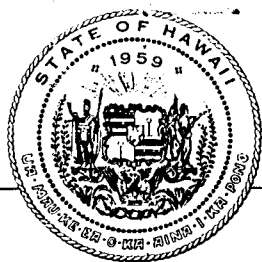
Whereas material issues of fact remain regarding (1) the Government's, specifically DOE's, commitment to implementation of Phase III, and (2) DOE's role with respect to the \$5 million appropriation, the Government's motion for summary judgment is DENIED. As the Government's involvement in the Project constitutes major federal action for purposes of NEPA, Plaintiffs' motion for partial summary judgment is GRANTED.

- JAN 08 1991

DATED: Honolulu, Hawaii,


UNITED STATES DISTRICT JUDGE

BLUE OCEAN PRESERVATION SOCIETY, SIERRA CLUB, AND GREEPEACE FOUNDATION V. WATKINS, ET AL.; CIVIL NO. 90-00407 DAE; ORDER DENYING DEFENDANTS' MOTION FOR SUMMARY JUDGMENT AND GRANTING PLAINTIFFS' MOTION FOR PARTIAL SUMMARY JUDGMENT



DEPARTMENT OF BUSINESS AND ECONOMIC DEVELOPMENT

ENERGY DIVISION, 335 MERCHANT ST., RM. 110, HONOLULU, HAWAII 96813 FAX: (808) 531-5243

JOHN WAIHEE
GOVERNOR

ROGER A. ULVELING
DIRECTOR

BARBARA KIM STANTON
DEPUTY DIRECTOR

LESLIE S. MATSUBARA
DEPUTY DIRECTOR

July 23, 1990

Ms. Patricia S. Port
Regional Environmental Officer,
San Francisco
U.S. Department of the Interior
P.O. Box 36098
450 Golden Gate Avenue
San Francisco, California 94102

Dear Ms. Port:

Thank you for your July 11, 1990 memorandum with minutes of the June 14, 1990, Geothermal Interagency Meeting at Hawaii Volcanoes National Park. Attached are corrections to those minutes.

We have been pleased to meet with you and the local DOI agencies to explain issues relating to geothermal development and a future interisland transmission system. We also welcome DOI input to the Geothermal/Interisland Cable Master Development Plan.

However, we are concerned that these meetings are starting to address permit, monitoring and enforcement issues. These issues are the responsibility of the Department of Land and Natural Resources as prescribed by the Geothermal and Cable System Development Permitting Act of 1988 and the Hawaii Administrative Rules, Chapter 185, "Rules of Practice and Procedure for Geothermal and Cable System Development Permitting" (issued by DLNR). This act and administrative rules established the Interagency Group of federal, state and county agencies for the permitting (including monitoring) functions for the geothermal/cable project.

Therefore, we ask that you deal with Chairman William Paty of DLNR in setting up future meetings with state officials during which permitting and monitoring for the geothermal/cable project will be discussed.

Ms. Patricia S. Port

Page 2

July 18, 1990

The staff of the Department of Business, Economic Development & Tourism will still be pleased to meet with local representatives of federal agencies to discuss technical and planning aspects of the project.

Sincerely,

A handwritten signature in dark ink, appearing to read "Maurice H. Kaya", with a long horizontal flourish extending to the right.

MAURICE H. KAYA
Energy Program Administrator

MHK/GOL:dt:611

Attachments



UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF THE SECRETARY
Office of Environmental Affairs
Box 36098 - 450 Golden Gate Avenue
San Francisco, California 94102
(415) 556-8200

July 11, 1990

MEMORANDUM

TO: Geothermal Interagency Meeting Attendees

FROM: Patricia Sanderson Port
Regional Environmental Officer, San Francisco

SUBJECT: Notes from Meeting at Hawaii Volcanoes NP
on Geothermal June 14, 1990

Attached please find extensive meeting notes from this very interesting session. Thanks to Lisa for their thoroughness. The RRT meeting in American Samoa around which I was planning our next meeting at Hawaii Volcanoes has been set for the last week in November. Since the week preceeding that is Thanksgiving, I would like to be in Hawaii the first week in December.

I'd like to schedule a meeting with all of us on Friday, December 7, 1990 at 9:30 a.m. If this is not good date for you, please let me or Twyla know A.S.A.P. We could arrange it for Thursday if that day is better. I will confirm the date in October.

Thanks to you all for attending. If your notes or recollection differ from the enclosed, please advise. Any questions, please call at (415) 556-8200 or FTS: 556-8200.

Attachment

Minutes

Geothermal Interagency Meeting

June 14, 1990

Hawaii Volcanoes National Park

Present: Patricia S. Port, Reg. Env. Officer, Department of the Interior
Jerry Lesperance, State DBED Geothermal Project Office
Dan Taylor, Resources Management Division Chief, HAVO
Jim Kauahikaua, U.S.G.S., Hawaii Volcano
Mike Robinson, DBED, Hilo, HI
Hugo Huntzinger, Superintendent, HAVO
Bill DeMent, Campbell Estate
Frank Kingery, ERC Environmental and Energy Services Co.
Dick Wass, U.S.F.W.S.
David Wegner, G.C.E.S.
Jim Jacobi, U.S.F.W.S.

Port and Huntzinger welcomed the group. Participants from several agencies introduced themselves and stated their interests/positions regarding geothermal power. Our last meeting was 8 months ago.

Jim Jacobi, U.S.F.W.S., since 1971 specializes in endangered research studies including rare plant surveys and endangered forest birds. Dick Wass, Refuge Manager for the Hakalau Reserve deals with forest birds and endangered species. Frank Kingery, ERC Environmental Energy and Services Co. is doing the Geothermal Master Plan, with completion expected in 1992.

Bill DeMent, Campbell Estate is working with True Geothermal in its project's survey needs communicating issues to the county and state. Dave Wegner, DOI, is interested in the scientific exploration and environmental issues. Hugo Huntzinger, HAVO, represents the DOI's interest in environmental impacts, Mike Robinson, ~~DBED~~, is a former federal employee with ~~USFWS~~ and along with his studies at UH Manoa, his interests relate to planning and evaluation of the impacts of geothermal power.

Jim Kauahikaua, U.S.G.S., specializes in physical, day-to-day monitoring of the lava flows on Kilauea's rift zones.

Dan Taylor, Resources Management Chief, HAVO, expressed concerns in the past as geothermal development impacted the park directly due to its location adjacent to the park boundary. However, our position has changed to a cooperative rather than antagonistic demeanor as the geothermal sites have moved.

Jerry Lesperance is with the State of Hawaii Geothermal Project Office.

Bill Meyer, USGS, Oahu is a resource for information.

Lesperance spoke on the geothermal projects ~~as they were initiated~~ in 1983. Along with the Energy Division, the economic development of geothermal is one energy resource we are tackling. The state sees geothermal as the best prospect for energy as Hawaii significantly depends on petroleum for electricity; 98% Honolulu, and 90% for the entire state.

Today's field trip to Puna's geothermal plant sites was outlined by Lesperance. Plans to visit the former HGPA Power Plant and other sites would last until 4:15 p.m. Information on other sites in Hilo which are not drilling, hard hats not being necessary and the clearance completion for today's trip lead to Lesperance's update of the geothermal project.

Geothermal sub zones and assessment include environmental, social, present and proposed land use, hazard problems of the geology resources in the area. This geologic study took place 1984-85 and since then public information meetings and ~~public harassment~~ have resulted. The four sub zones include 3 geothermal sites on the East Rift Zone of Kilauea: 1 in the forest, 1 down slope and 1 in Leilani estates. These zones are privately owned.

Kilauea middle east zone is True Mid Pacific: 9,000 acres. Abutting this is Kamaili zones which is Campbell/Bishop estate lands: ~~67,000~~ 6,000 acres. The third is in the Pahoa area and includes 6,000 acres.

Lesperance explained that few major land owners were impacted by geothermal wells. It's been small private owners who have been impacted. He explained that the Big Island is a high temperature resource.

Jacobi asked about subzoning particulars. Lesperance replied that the Board of Land and Natural Resources oversees these.

A map showing the subzones was passed out.

Geothermal planning permits are required for different types of zone areas: agriculture, urban, rural and conservation. The

*harassment
if any, started
1987.*

exposed owners

usefulness??
power, its productivity and issues of propriety ensued. Discussion on regulatory committees and analysis, ~~uselessness~~ or viability of drilling sites to determine their permeability took place. Fresh water drilling and hydrology were discussed. Kauahikaua from U.S.G.S. discussed knowledge in hydrology and stated that he felt not enough studies have been done. Air quality, ground water quality and technique matters are not being addressed as seriously as they should. The university is studying and drilling for purposes of scientific observation and education.

The question was raised on whether the university works with U.S.G.S. William Meyer spoke on logs and temperature pressures, geologic parameters and water samples. The scope of megawatts, limits on geothermal power and the fact of these wells being very site specific, was discussed.

Pat
County and state agencies have been allowed to participate in the regulatory guideline setting. William W. ~~Petter~~, DLNR, is ~~from the~~ *the* ~~coordinating office in Honolulu, Gold-Bond-Building.~~

me
~~Coordinating~~
Puna Geothermal Development Co. is doing 100 mega watt project, as approved.

Environmental assessments have been done on the cable. ~~Entire FONSI's are completed for 500 megawatts of geothermal development~~ *the* and cable work.

Company reported that
The original geothermal power plan to cable energy to Oahu from the Big Island has changed. Big Island residents' needs will be planned and emphasis on cable costs, corridor planning, etc. will focus on energy centers like Kona, Kamuela, and Hilo. A definition of engineering and Helco's systems' plans will be forthcoming. We need to consider the five to twenty year projections and plans and the load/demand.

Kilauea Energy Partners will build from the plans. Once the planning is done we have to go to the public on criteria for selecting the corridor which will provide the energy to the demand centers. However we have to design the systems before we go out to the public.

The existing infrastructure is not adequate. We are examining ways of providing ~~300 kilowatts across the corridors through cables.~~ We hope to use existing corridors. Helco currently projects a 200 megawatt power plant for turn of the century needs. These fossil fuel power plants are very expensive. Broad concepts have to be decided upon by Helco, developers, and the ERC.

~~We feel there will be mass migration to the Big Island as is already recognizable. Phenomenal growth is expected.~~

Jacobi recognizes the importance of processes involved in issuing permits and coordination with the Master Development Plan. A broader master plan and more reliable systems may help determine the stability and dependability of geothermal drilling. Kingery stated that the geothermal facility will always be subject to volcanic hazards and seismic hazards subjecting developers to risk and this Master Plan will evolve.

Jacobi expressed discouragement in the slow development of the Master Development Plan. Kingery stated that the Master Plan draft will be ready for review tentatively in March of 1991, ready for project review in December 1991 and to the public early 1992. Jacobi further stated that the development and its relationship to socio/economic and native biology should be addressed. One way to work closely with DLNR is to work closely with Eric Tanaka, DLNR.

More discussion on agency involvement and protocol resulted in the review team determination that city, state and federal participation is essential. Kingery suggested an advisory committee for future projects. An advisory committee may be helpful to True Mid Pacific and Campbell as they continue geothermal development.

Jacobi stated that there is confusion as to what everybody within the network of planners is doing. What is being done by whom? Details of studies were discussed by Lesperance.

In conclusion, issued permits must meet existing standards. Parameters evolve however, and a Master Plan is essential. Federal agencies have not been involved in planning and Lesperance would like to see more interaction and involvement. True Mid Pacific's development plan is 25 megawatts maximum. There's a lot of defacto uncertainty; 100 megawatts already granted and we don't know the wealth of the geothermal resource. Therefore, more scientific drilling of holes by University of Hawaii is expected in the near future. He sees no problem with the Federal agencies invited as participants to aid in better coordination of issues like forest impact, etc. to the media. *encouraged*

The question was raised to the state as to who would have the final recommendation on the Master Plan. *Kingery* Robinson answered that issues will be data comparisons and on-going consensus. Briefing and scientific observations will be brought forth for the public to interact with. Knowledge based on biological impact is still limited on noise and bird studies. This is why interagency participation, EPA involvement, and frameworks need to be established.

Lesperance, whose branch office location is at ~~the Hilo Lagoon Center, 2nd Floor, 101 Aupuni St., Hilo, HI~~, invited all of the participating agencies to peruse his many one-of-a-kind cable and geothermal documents. *130 documents*

A limited amount of documents can be viewed at the Hawaii Geology Extension Library 2nd Floor, 101, Aupuni St. Hilo.

Taylor, HAVO, stated that it is high time that the managers like the National Park, meet with key people on issues of geothermal. The agencies, together, will come up with planning criteria that will address these issues. Taylor is sure that Jacobi and DeMent, and others, will appreciate the opportunity to become more involved.

Kingery showed maps on corridors, cables and sensitive habitat areas. He has draft maps which cover volcanic hazards, seismic activity and vegetation. Port asked whether the federal agencies have been asked to participate in these. Kingery responded "yes" but that sometimes it is difficult to reach the right person when contacting us for input and objective answers. Kauahikaua is the correct contact person at U.S.G.S. Kingery stated that these maps will be ready in August for public presentation. Accuracy and technical details must be correct before this geothermal map is presented to the public. Agency feedback is welcome. Our informational base should be as flawless as possible since the feedback from the public does generate controversy and can reflect on reputations.

The new information provided by Kingery that geothermal power plans have changed to serve the Big Island along with the importance of county involvement concluded the discussion on geothermal planning. Department of the Interior has representation from U.S.F.W.S., U.S.G.S., and NPS and that's Pat Port's interest in conducting these meetings. It now looks like December.

Port stated that a set of meeting notes from today will be available to them by July 4, 1990. The next interagency meeting will probably be in November.

Meeting was adjourned and the group adjourned to relocate to Pahoa High School to venture out to a few of the geothermal sites.

Thanks to Lisa for such thorough and timely notes!



UNITED STATES
DEPARTMENT OF THE INTERIOR
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Office of Environmental Affairs
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(415) 556-8200

December 21, 1990

MEMORANDUM

TO: Geothermal Interagency Working Group

FROM: Patricia Sanderson Port
Regional Environmental Officer, San Francisco

SUBJECT: Next Meeting

We have agreed to hold our next working group meeting at the Hawaii Volcanoes National Park Conference Room on Tuesday, February 12, 1991, starting at 10:00 a.m.

I would appreciate your sending me any agenda items you would like to cover (or hear covered) by Wednesday, January 16, 1991. If there are any places you feel this group could profitably visit on a field trip, please advise.

Wishing you all a joyous holiday season and a wonderful New Year!

Attachment: List of Invitees

List of Invitees to the Geothermal Interagency Meeting on 2/12/91

✓ Janet Swift

Board of Land and Natural Resources
State of HI-Geothermal Permit Center
677 Ala Moana Blvd., Suite 509
Honolulu, HI 96813

Jim Jacobi

U.S. Fish and Wildlife Service
Hawaii National Park
Hawaii 96718

✓ Hugo Huntzinger

Hawaii Volcanoes NP
P.O. Box 52
Hawaii Volcanoes NP, HI 96718-0052

✓ Jim Kauahaikaua

U.S. Geological Survey
Hawaii National Park
Hawaii 96718^R

✓ Dan Taylor

Hawaii Volcanoes NP
P.O. Box 52
Hawaii Volcanoes NP, HI 96718-0052

Richard C. Wass

Hakalau Forest NWR
154 Waianuenue Street. Room 219
Hilo, HI HI 96850

Frank A. Kingery

ERC (Env. and Energy Services, Co.)
900 Fort Street Mall, Suite 1550
Honolulu, HI 96813

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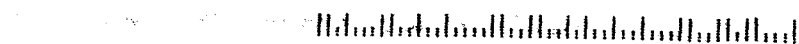
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Thinking Green

In Japan, Environment Means an Opportunity For New Technologies

Firms Offer Grand Schemes To Suck Carbon From Air And Make Deserts Bloom

An Alternative to Sacrifice?

By JACOB M. SCHLESINGER

Staff Reporter of THE WALL STREET JOURNAL
OSAKA, Japan — Cradling a plastic globe marked up like a war map, Yukinori Kuwano explains the latest Japanese plan for world conquest.

Instead of pins or flags, the Sanyo Electric Co. executive labels the strategic points with tiny solar panels. And the connecting lines aren't battle paths but superconducting wires that could zip electricity from Nevada to New York, from Australia home to Japan.

A half-century ago, Mr. Kuwano notes, his country waged a disastrous imperial

The View From Rio

As the Earth Summit convenes, environmental predictions are sure to be abundant and contradictory. History offers little guidance, leaving scientists to rely on mathematical models fed to supercomputers. Stories on page B1.

war partly to lock up fuel supplies. Now he sees Japan helping peacefully supply all the world's energy with something called Genesis, the Global Energy Network Equipped with Solar Cells and International Superconductor Grids.

"This is a very realistic idea," insists Mr. Kuwano, Sanyo's head of research and development. He figures the solar panels and their surroundings would require "a very, very small area," only about 12% of the world's desert space, by the mid-21st century. The cost of 20 quadrillion yen (\$150 trillion) is hefty, he says, but worth it because there would be no pollution.

Salvation Through Science

So goes environmentalism Japan-style. Here, fear of global warming isn't a crisis, it's an opportunity for the ultimate industrial policy. The Earth Summit opening in Brazil today is expected to bring a fractious debate about ecology vs. economy trade-offs. But Japan sees it as a chance to offer a compromise vision, pushing as a model its own history of combining healthy growth with tough pollution controls — and perhaps promoting Japanese-designed equipment to help other countries do the same.

Japan's distinct green movement is, characteristically, an apolitical, to business-bureaucracy coalition with a faith that technology can solve anything. Nonprofit environmental activism is relatively anemic in Japan, but a number of Japanese corporations have drafted grandiose save-the-Earth plans like Sanyo's. The Ministry of International Trade and Industry (MITI) has crafted a detailed 100-year blueprint on how to eliminate the world's pollutants, and is planning a gleaming new Research Institute of Innovative Technology for the Earth (RITE) near Kyoto.

A RITE brochure boldly proclaims its mission: "While the world's environment has undergone great change during the 200 years since the industrial revolution, Japan intends to restore that environment over the next decades."

The Carbon Eaters

Many Americans, frustrated with the emotional debate and paralysis that dogs their own environmental policy, view that confident, long-term consensus approach with marvel. Some fear a Japanese competitive edge in yet another key commercial sector. Take, for example, the idea of "carbon fixation" — actively wiping out excess carbon dioxide in the air rather than simply trying to curb discharges. "In the U.S., it's just the beginning of even talking about that," says Frank Press, president of the National Academy of Sciences, who recently joined RITE's advisory board. "In Japan, they're announcing research programs."

Several such public and private efforts are under way. One RITE approach: breeding a new species of super-algae and bacteria that could "photosynthesize" the carbon emissions into new fuels, as well as proteins, fats, and carbohydrates.

But critics charge that Japan's eco-tech crusade is the untenable cop-out of a country with little socio-political check on its powerful industries. Japan's much-ballyhooed progress in pollution and energy efficiency ended in the mid-1980s and now appears to be slipping; new technology is the main alternative to corporate sacrifice.

Japan's Record

Those techno-fixes can go to extremes. Later this year, for example, Japan will launch the ecological high-wire act of shipping up to 30 metric tons of highly radioactive plutonium thousands of miles from Europe by sea over the next 20 years. That's part of an intricate scheme to replace polluting fossil fuels with a specialized nuclear energy. But plutonium — abandoned by most other countries for non-weapons use as too dangerous — could be far more destructive than the fossil fuels being replaced if it leaked or fell into terrorist hands.

"Japan is weakest on issues that squarely confront value questions" such as giving up some economic benefits to protect endangered species, contends Alan S. Miller, executive director of the University

Please Turn to Page A10, Column 4

Planning for a Better Environment

By FRED L. SMITH JR.

For 20 years, environmental policy has been dominated by the "market failure" paradigm, the belief that environmental problems are caused by the failure of the market to provide the right signals. This paradigm is at the center of Frances Cairncross's "Costing the Earth: The Challenges for Government, the Opportunities for Business" (Harvard Business School Press, 341 pages, \$24.95). Ms. Cairncross, environment editor for The Economist, seeks an accounting system that will replicate in the ecological sphere what markets do so well in the economic sphere.

"Bad government policies," she writes, "may make even more of a mess of the environment than the unfettered market." In particular, subsidizing key industries such as agriculture, forestry and energy restricts conservation-oriented electricity pricing, destabilizes property rights and creates uncertainties that shorten private planning horizons.

Still, Ms. Cairncross's view remains that government must expand — doing less of what it has been doing, more of what it has not. Since markets fail, "environmental policy inevitably [must be] interventionist," she argues. But how ecological central planning is to succeed when economic central planning has been a disaster is an issue she unfortunately doesn't address very persuasively.

The book is divided into two sections: The first half deals with the "political economy of environmental mismanagement"; the second with how the business community might take advantage of the opportunities created by the Green Revolution. Private property receives considerable attention in the first half, as a means of linking economic concerns with ecological values. Indeed, at times, Ms. Cairncross

recognizes that a creative program of expanding property rights to environmental resources might reduce the "market failure" problem. Resources integrated into the market system, she notes, are managed on a sustained basis, while politically controlled resources are at risk. She cites Zimbabwe's successful extension of elephant ownership rights to the local

Bookshelf

"Costing the Earth"

by Frances Cairncross

tribes. And in her discussion of deforestation, she rightly notes that: "Poorly defined ownership adds to the pressures for clearance."

Privatization is not easily applicable to all environmental resources, but it can be applied far more widely than it has been to date. Instead, Ms. Cairncross's recommendations are generally of the "good government" and "responsible citizenry" variety. The government should adjust prices to reflect environmental costs, eliminate perverse subsidies, create a stable regulatory regime; responsible environmental groups should stop posturing and begin offering positive, productive solutions. Why either group should find such stances in their interests is obscure. Environmental agencies gain power only when problems seem critical; to resolve such problems threatens their *raison d'être*.

On the legitimacy of the current environmental agenda, Ms. Cairncross seems of two minds. At times, she is highly critical of the emotional alarmism so characteristic of the environmental movement, suggesting that "Artificial pesticides and fertilizers between them have saved from starvation many more lives than they have cost through misuse," that recycling should not be viewed as an end in itself,

and even that global warming might not endanger civilization. Yet elsewhere she strikes a strident green tone, arguing that technology threatens the environment, that "true environmentalists" should consume less, that growth inevitably implies greater pollution and that "Using energy probably causes more environmental damage . . . than any peaceful human activity (except perhaps reproduction)."

The energy chapter is perhaps the least market-oriented chapter in the book. When high prices encouraged reduced energy and material use, she favored the marketplace; yet, when energy prices declined, encouraging increased energy usage, she was offended. She would eliminate subsidies that encourage excessive development, and she favors government interventions that would reduce energy use. Ms. Cairncross sees few risks in such policies: "Conserving energy," she states, "never caused a Chernobyl." In fact, mandatory automotive fuel efficiency standards, by forcing people into smaller, less safe cars, have increased highway fatalities by more than 2,000 per year. That the risks of energy use may be much less than the risks of reduced energy consumption — a point recognized by Ms. Cairncross for agricultural chemicals — is ignored here.

Environmentalists, she very correctly notes, have the power to do great harm to companies. She proposes that business address these concerns, and even outgreen the greens. How this might be done she leaves unclear. Business seeks to stabilize the rules, but if irrational and changing perceptions determine environmental policies, then how can business make rational decisions?

Mr. Smith is president of the Competitive Enterprise Institute in Washington, D.C., and co-editor of "Environmental Politics: Public Costs, Private Rewards" (Praeger).

Thinking Green: In Japan, Environment Becomes Technological Challenge and Business Opportunity

Continued From First Page

of Maryland's Center for Global Change, who studies Japanese environmental technologies. Many of Japan's projects, such as the carbon-fixation work, are "sure losers," he argues. "This all fits well with the Japanese ideal that if you can find a technical fix and just pay a little more, then nothing would have to change."

Indeed, Japan's postwar environmental record is largely one of unfettered commerce running roughshod over nature, yielding only when creating a serious threat to its people or its economy. Japan's tough pollution clampdown came after some of the world's most notorious industrial-poisoning disasters killed or maimed thousands of Japanese. Its stellar energy efficiency came after the oil shocks threatened to derail the industrial world's most oil-import-dependent economy. Japan is terrible, environmentalists assert, on matters that don't immediately jeopardize its citizens or its companies, such as preserving rain forests. Only international opposition has recently forced some change.

Japan was also late responding to the wave of environmental concern leading to the Brazil summit. The government boasts that a Japanese scientist discovered the hole in the Earth's protective ozone layer, in 1982. Yet Japan initially refused to ratify the 1985 Vienna Convention on global warming and ozone depletion.

Eventually, however, the wheels of Japan Inc. started to turn. MITI in 1990 drew up "New Earth 21," a five-plank program that would lead to "restoration of the green planet" by the year 2100. That, of course, would require new technology. So the ministry created RITE, believed to be the world's first commercial environmental technology institute. MITI has also concluded that, for such fixes to be truly effective, other nations would also have to use that know-how. So the ministry has also set up the International Center for Environmental Technology Transfer.

With a budget of 6.2 billion yen this year and a sprawling research park set to open next year, RITE is modeled after the government-industry consortia that made Japan world-competitive in semiconductors and computers. It is currently targeting seven fields, ranging from the practical, like developing biodegradable plastics and new heat-pump refrigerants, to the pie-in-the-sky, like the carbon-digesting algae or "massive cultivation technologies" for hydrogen-producing microorganisms.

Each project is broken down into sub-projects with targets for progress by 1999. Each has up to 16 companies participating, led by giants such as Hitachi Ltd., Meiji Milk Products Co. and Ishikawajima-Harima Heavy Industries Ltd. The groups are open to foreign participants, but so far only two have joined: a Du Pont-Mitsui

joint venture, and Eniricerche S.p.A. of Italy.

Rival Japanese ministries are pushing their own programs. The Construction Ministry wants to build 20 model "earth friendly homes" over the next two years. The Agriculture Ministry is trying to create plants with less need for chemical fertilizers.

Separately, seven ministries, as well as top executives from Tokyo Electric Power Co., Nissan Motor Co. and Toshiba Corp., announced in 1990 that "we, as the crew of the Spaceship Earth, have established the 'Global Infrastructure Fund Research Foundation Japan' in order to help realize a forthcoming global village and to carry out study projects concerning the improvements of global-scale infrastructures much needed to create a better living environment and sphere." The group last month set up a conference in Turkey that discussed environmental rehabilitation for the Aral Sea region.

Corporate Japan has also acted on its own. Keidanren, Japan's powerful business federation, urged companies last year to incorporate environmental protection into business planning. At a Global Environmental Technology Expo in Yokohama last fall, more than 70 Japanese companies displayed products, ranging from "state-of-the-art refuse technologies" to scooters powered by rechargeable batteries. Sumitomo Metal Industries Ltd. says "thinking green" has helped identify new business opportunities like chemical-free disposable wet towels for diners. Japanese companies already have a lead in innovative energy sources such as fuel cells, which create electricity through chemical reaction instead of combustion.

Another popular theme is use of sewage sludge. The city of Yokohama, working with steelmaker NKK Corp., is working on converting sludge to paper, flower pots and other goods. Mitsubishi Corp. has agreed to help Fujimi Ceramic Co. promote sludge bricks.

Japan's giant builders are among the more creative. Tokyu Construction Co. is developing plans for what it calls HEART (Heritable Ecologic Area and Track Project), a million-resident city in which underground vacuum-pressured tubes would cart garbage from homes to a spaceship-shaped tower. There waste would be sorted, with some of it converted to fertilizer and lifted to a "plant factory" producing fruits and vegetables. Processed water from the sewage would drain underground to a "fish-cultivating facility."

Shimizu Corp., meanwhile, wants to build a waste storage pit in Tokyo Bay in a tent shaped like a whale. Heat from waste incineration would power the accompanying "Aqua Amusement Land." And Japan's lack of deserts hasn't deterred research into how to green up the earth's barren patches; a consortium that includes Obayashi Corp. has built an artificial

desert, with heat and humidity controls, for the study.

The Japanese government says it is also looking beyond technology solutions. The Environment Agency last year called for a change in values and life styles to an "environment-friendly culture." But critics contend that Japan, the world's second-biggest economy and most active overseas investor, is relying on Buck Rodgers schemes for most of its environmental planning.

That could be serious because, as Japan gets more affluent, its environmental record gets worse. It is true, as the Japanese delegation will repeatedly remind delegates at the Earth Summit, that Japan emits less than half the carbon dioxide per capita as the U.S., emits less sulfur oxide and nitrogen oxide than the other industrialized nations and recycles a higher percentage of its paper (as of the late 1980s, the most recent data from the Organization for Economic Cooperation and Development).

But it's also true, according to a new Environment Agency report, that Japan's carbon dioxide emissions have grown about 4% annually since 1987 after holding flat for years before. Greenpeace reported last year that Japan's energy efficiency has stagnated since 1987, after improving drastically in the previous 14 years. Nitrogen oxide pollution, largely from diesel-powered vehicles, has grown sharply in recent years; on some days a thick black cloud hangs over Tokyo. While Japan's factories remain relatively clean and efficient, Japanese families are driving more as auto makers sell them bigger cars.

Curbing those trends would be difficult. Japanese auto makers are discouraging tougher emissions controls. In a Gallup survey of 22 countries released in May, only 31% of Japanese said they would be willing to pay higher prices to protect the environment, compared with 65% in the U.S. MITI is cool to the environmental tax backed by the European Community, arguing that technological innovations are preferable.

Japanese government officials frequently point out that they pledged two years ago to stabilize carbon dioxide emissions over the next decade, something the U.S. refuses to commit to. But Japan's plan relies heavily on some dubious assumptions, such as that Japan can massively boost nuclear energy despite public opposition. Most of the 498.4 billion yen earmarked by the government for "global environmental issues" this year goes to nuclear energy development.

Japan's new environmental consciousness, said Greenpeace official Jeremy Leggett last year, is both good news and bad news: "The good news is they're putting a lot of money into research. The bad news is that they're putting a disproportionate amount into science fiction."



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May 27, 1992

Memorandum

To: Geothermal Working Group Members

From: Patricia S. Port

Re: Executive Summary of Minutes

Attached please find a copy of the Minutes for our meeting on Big Island earlier this month. I will advise when our next meeting date will be. If you have any suggestions or comments, please ring me up.

Thanks to all for attending and to Dan Taylor for the arrangements of the meeting room and our tour of geothermal facilities.

Executive Summary of Minutes
Geothermal Working Group Meeting

May 15, 1992

The group met at 10:00 o'clock May 15, 1992 in the Superintendent's conference room at Hawaii Volcanoes National Park. Attendance list attached.

We began with reports from the State members. Maurice Kaya gave detailed presentaion as to where the state is with regards to the EIS, its cooperator status, its reopening of the Master Plan with Ogden Associates, and the status of the hydrogen sulfide rules. These are expected to be promulgated this summer. Dean Nakano will be working with the cooperators' group on the EIS.

Janet Swift discussed DLNR's evaluations of the existing operations. These are presently shut down per court order. Her office is looking to implement the findings of the expert panel brought in after the last blowout. Making regulations more flexible may inhibit public review, and they are taking a close look at having both flexibility and public scrutiny.

Lynn Lee had nothing new to report from OHA. We need a tutorial from Lynn about the status of Hawaiian home lands, trust lands, and ceded lands, both for geothermal issues and from my perspective working with the Army on Pohakuloa.

Dave Farrel and Jacqueline Wyland from EPA Region IX described the field trips Dan Taylor, NPS had conducted the previous day to the two geothermal sites on Big Island. They asked for some clarification of points. This led to a general discussion of the status of drilling and generation, and the magnitude of the project the state would like to see analyzed in the EIS.

Jim Kauahikaua indicated that there are some constrictions imposed on GS's work due to the EIS. I suggested that he give me a call next week if he is still having difficulties. DOE is working on getting the Scoping meeting transcripts together and their MOU's with cooperators negotiated and signed. We are not likely to have a Cooperators' meeting until August or September.

Steve Todd addressed us very briefly about the Spaceport EIS. Little progress has been made but a meeting was recently held which may clear up the roadblocks. As cooperators, we may be able to have a report at our next meeting. We expressed concern that the timetable for the EIS is not viable and that as cooperators we need to be consulted.

Did not set a date for the next meeting but it is likely to be early August.

May 27, 1992

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Press Release --- May 15, 1992

Gas Emissions from Kilauea Volcano and from Geothermal Wells

Volcanoes around the world emit a variety of gases in different proportions, with the main components invariably being carbon dioxide, water, and sulfur dioxide. Minor components include, but are not limited to, hydrogen gas, carbon monoxide, hydrochloric acid, hydrofluoric acid, methane, and hydrogen sulfide. The gases that are of primary interest in relation to volcanic gas emissions and geothermal development are sulfur dioxide and hydrogen sulfide (the gas with the rotten egg odor). The naturally emitted gases originate from the magma stored inside the volcano and are released and degassed during both storage and eruption. By studying the types and quantities of emitted gases, we can estimate the volume of magma stored and erupted and the physical conditions within the magmatic storage system inside the volcano. The degassing of magma is an important process which controls many of the characteristics of eruptions, particularly the explosivity of the eruption.

Estimates of the natural gas emissions from Kilauea Volcano are based on data collected from fumaroles and eruption plumes by scientists working at the Hawaiian Volcano Observatory under the Volcano Hazards Program of the U.S. Geological Survey, Department of the Interior. When Kilauea is vigorously erupting, these natural emissions are about 3,700,000 pounds (or 1850 tons) per day of sulfur dioxide and roughly 60,000 pounds to no more than 120,000 pounds per day of hydrogen sulfide. When the volcano is not erupting, the emissions decrease dramatically to between 400,000 and 700,000 pounds per day of sulfur dioxide and roughly 4,000 pounds to no more than 12,000 pounds per day of hydrogen sulfide, both emitted predominantly from the summit.

The estimate for hydrogen sulfide emission has a high level of uncertainty because the estimate is derived from the measured sulfur dioxide emission rate and the ratio of hydrogen sulfide to sulfur dioxide in gases collected during eruptions and from fumaroles, rather than being a directly measured amount. Hydrogen sulfide is difficult to measure in sampled gases because it oxidizes after collection to other sulfur compounds.

Because hydrogen sulfide emitted naturally by Kilauea is oxidized (combined with oxygen) and hydrated (combined with water) within about 18 hours in the atmosphere, hydrogen sulfide is rarely detected, even near the summit. Vog, or volcanic fog, contains essentially no hydrogen sulfide or sulfur dioxide - - they have each reacted in the atmosphere to form sulfate aerosols, such as sulfuric acid and ammonium sulfate. The volcanoes emit

these compounds in only small quantities; they mainly form by complex reactions in the atmosphere of the emitted sulfur gases.

The estimates of hydrogen sulfide emissions from a properly abated geothermal plant, based on operational plants at The Geysers and at Coso in California, range from 40 pounds to perhaps 100 pounds per day for a 25-megawatt plant. The current development plans for Hawaii, however, call for reinjection of all the fluids and gases, so the emissions would be expected to be less than for these California installations.

Proper regulatory oversight should reduce the chances for large unabated emissions to near zero. For example, due to increasingly strict regulation at The Geysers geothermal field in California (the largest geothermal field in the world), the total hydrogen sulfide emissions decreased between 1976 and 1988 from about 45,600 pounds per day to less than 4,800 pounds per day even though the electric power capacity increased from 500 to nearly 2,000 megawatts. The more recent emission rate is equivalent to 60 pounds of hydrogen sulfide per 25 megawatts of production, well within the estimated range for a properly abated plant.

In the event of completely unabated emission of geothermal gases, caused, for example, by failure of equipment at the plant or to natural disruption by an earthquake, the rate of hydrogen sulfide emissions can be estimated from data provided to State of Hawaii regulatory agencies. For example, the HGP-A well in Puna, which produces about 2.5 megawatts, would emit hydrogen sulfide at a rate of about 1,000 pounds per day, until controlled (based on the measured flow rate of 45,000 pounds of steam per hour and a concentration of hydrogen sulfide of slightly less than 0.1 weight percent). Each well has different potential emissions because each well has a different flow rate and probably has slightly different concentration of hydrogen sulfide. For example, the uncontrolled venting at the KS-8 well emitted an estimated 2,500 to 4,300 pounds per day of hydrogen sulfide based on an estimated steam flow of 150,000 to 200,000 pounds per hour and an estimated hydrogen sulfide concentration of 0.07-0.09 weight percent (this concentration was not measured at the KS-8 well, but is assumed to be similar to the measured concentrations for the nearby KS-3 and HGP-A wells).

In summary, the current eruption at Kilauea produces thousands of times more hydrogen sulfide than a properly abated 25-megawatt geothermal plant. When Kilauea is not in eruption, it produces between 30 and 100 times as much hydrogen sulfide as a properly abated 25-megawatt plant.

by HIGA, scientists claim

□ Hydrogen sulfide comparison was no measure of safety

Scientists reacted strongly to what one called the Hawaii Island Geothermal Alliance's "misuse" of information published in the Hawaiian Volcano Observatory's Volcano Watch column over the weekend.

David Clague, HVO's scientist-in-charge and author of Volcano Watch, said his report on hydrogen sulfide levels never said geothermal development would be safe in a residential area, or that there is no health or safety danger to Puna residents from geothermal drilling.

Meanwhile, the American Lung Association's Jim Morrow described Clague's column as "a good scientific piece comparing emissions from geothermal wells and volcanoes" and that he did not take it to mean that Clague was trying to address the possible health effects associated with public exposure to hydrogen sulfide.

In the Volcano Watch that ran in Sunday's Tribune-Herald, Clague said the current eruption at Kilauea is producing between 60,000 and 120,000 pounds of the egg-smelling hydrogen sulfide per day. In contrast, a

"properly abated" 25-megawatt plant in California produces between 40 and 100 pounds a day.

Clague noted, however, that the column referred only to the amount of hydrogen sulfide coming from Kilauea, measured in pounds per hour, and made no reference to parts per billion measurements beyond the actual eruption vents.

HIGA executive director Bill Cook said Saturday that Clague's report "supports our position that a geothermal well properly managed will not disrupt the health, safety and environment of the community."

Today Cook backed off his earlier statement. "It isn't our intent to mislead anyone," he said.

Cook said he's not sure what the controversy is about, and that he understands that hydrogen sulfide levels are a function of time and distance. "If we erred, we want to get that corrected as soon as possible, invite them to speak to our board and get the record straight; I don't know if we got carried away but I intend to find out."

HIGA and other supporters of geothermal development have used similar HVO data on hydrogen sulfide emissions in the past to suggest emissions inhaled by Volcanoes National Park visitors and geothermal residents should show the same ill effects.



DAVID CLAGUE
...HVO Scientist in Charge

Cook said he viewed Clague's comments, the first public statement from an HVO scientist on the geothermal issue, as confirmation of pro-geothermal's stance.

Not so, Clague said, noting that signs at the national park warning of hazards from volcanic fumes are not worded strongly enough. The park, he said, is "a dangerous place."

Meanwhile, the Lung Association's Morrow said "emissions alone cannot tell you what hu-

See EMISSIONS,
Page 10

EMISSIONS: Scientist says info 'misused'

From Page 1

man exposure is or what health effects may occur. You must also look at how close people live to the source, which way the prevailing winds blow, and then evaluate exposure."

Morrow said so far as he knows, volcanic emissions are usually carried away from the lower Puna area where geothermal development is taking place. "Air quality in Puna is almost pristine with little or no H₂S," he said.

"Because of the northeast

trade winds, the volcano, despite its large emissions, is almost irrelevant in its effect on Puna air quality," he said. "On the other hand, if you live close to a venting or leaking geothermal well, it can have a much greater effect on the air you breathe."

Morrow, the association's environmental health director, last month testified in favor of the state's proposed ambient standards for hydrogen sulfide emissions.

That proposal, which is currently being mulled by the

Health Department, calls for an "alert" level of 25 parts per billion, a warning level of 100 parts per billion and an evacuation level at 1,000 parts per billion.

HIGA and other geothermal supporters testified that those levels are too strict for geothermal and other industries and cited Occupational Safety and Health Administration standards for workers of much higher allowable levels.

Morrow took issue with HIGA on that point too, pointing

out that those standards were signed for healthy, 40-hour week workers.

"OSHA standards were not intended to protect the sensitive members of the public; the elderly, the very young, and people with existing heart and disease," he said. He noted that public health standards issued by the Environmental Protection Administration are ways more stringent than OSHA figures because "they must protect public health."

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Kilauea Volcano Meeting
 HVO
 May 15, 1992

Islanders 'being sold short' on geo

By Andrew Levin
Viewpoint

72B Herald
5/17/92, p. 8

Increasingly over the last few months, I have been aware that the people of the Big Island are being sold short with regards to geothermal development. The actions I have taken on the geothermal issue during this legislative session reflect two strong beliefs I have regarding the role of government. First and foremost, government has a responsibility to protect the health and safety of the people. Second, this can best be accomplished by generating a relationship of faith and trust. I believe that so far we in government have failed the people of the Big Island on both counts in the way that decisions affecting geothermal development have been made.

Let me talk for a minute about my concerns with regard to health and safety. As I see it, it is government's job to ensure that adequate safeguards are in place to protect the health and safety of the community. There are two primary issues here which I feel have not been dealt with to my satisfaction: emergency response in case of another accident and health consequences from emissions. The developer submitted a worse case scenario in the event of a major blowout which would require possible evacuation of a 4-mile radius (that includes Pahoa School) and an alert area which would extend beyond Keaau Town (15 miles away). Civil Defense Administrator Harry Kim and others have repeatedly brought this to the attention of county and state officials. I do not believe we have addressed this issue adequately enough for me to feel that as a public official we have satisfied our responsibility to protect the public safety. One of the greatest concerns of the community residents is that there has not been a thorough hazard analysis and risk assessment.

Next, there is the area of safeguarding public health. It appears from where I sit that we have not completed that job yet either. Dr. Sam Ruben, a medical doctor and chief officer for the Department of Health on the Big Island, has certified that there is in fact a health impact as a result of geothermal drilling. Again, it is government's job to impose conditions on the developers which would prevent or minimize health impacts. I believe that we need to pull together the best experts we can find, folks like Wilson Goddard (a geothermal consultant from California), people at the Department of Health, and members of the community who have spent many, many hours researching the effects of drilling. We should not circumvent them, nor ignore their recommendations. Neither should we overrule the Supreme Court decision mandating that the Department of Health hold public hearings on the establishment of permits for hydrogen sulfide levels.

Once conditions of public health and safety have been met, I will feel more comfortable (although still skeptical) about the implementation of geothermal development on the Big Island. My enthusiasm is dampened because I believe that the people of the Big Island have high expectations about how life is going to be different after

Well, I am afraid people are going to be disappointed on both counts. It is virtually certain that no matter how well the geothermal plants are developed, electricity bills will not be reduced for the consumer. Second, although the argument has been made that the amount of crude oil needed in our state will decrease, PRI refutes this. The oil used to generate electricity is a by-product of the refining process performed on Oahu which produces airline and motor vehicle fuel. The residual oil from that process is used to generate electricity. So, in fact, what might happen is that we will have to ship the residual oil back out, actually increasing our chances of oil spills rather than decreasing them. Even if that proves not to be necessary, it is pretty clear that oil shipments into Hawaii will not decrease.

What we do get from geothermal is a diversified source of energy. Electricity on the Big Island will not be as subject to an oil embargo. In addition, we get some new jobs; how many is not clear, but in an area where jobs are scarce and people often have to travel great distances to work, it might help. But, I reiterate, it must be done safely or it should not be done at all.

The fact that geothermal energy is successfully used in other parts of the world does not necessarily mean that it will work for us. Our conditions are different, our wells are hotter, under greater pressure and are more toxic than other places where geothermal energy has been developed. So we must proceed in a step-by-step cautious manner.

I will continue to play the role I have so far, that of a mediator, encouraging dialogue, and being the watchdog for my constituents. It is my intention to continue to push the state, federal and private medical community to evaluate the situation and establish a real picture of the health impacts involved. I also want to get the state and county to accept the recommendations of Harry Kim and William Goddard so that we can better ensure that people are protected.

In general, it is my goal to try to get the government to be responsive enough so that the community feels it is being listened to and not ignored. I would hope that the rest of the folks on the island would understand how scary it would be to have this development going on in their neighborhood, not knowing its full implications and not able to trust government to be objective and protective. Proponents of geothermal claim overwhelming support among Big Island residents. I expect that this is true, and so my cautious approach is not and cannot be construed to be for political benefit. Rather, I will defend the rights of my constituents to be heard, even if it is a minority voice. I want people to be able to work within the system rather than protest against it. And when the complaints they are voicing, even if they are in the minority, are legitimate concerns about health and safety, then I expect government to protect them. Is that not what democracy is all about? Would any of us accept an America or a Hawaii that stands for less?

Hawaii Tribune-Herald

Volcano report helps geo cause

A report by the chief scientist at Hawaiian Volcano Observatory on Kilauea Volcano's emission of hydrogen sulfide will go a long way to help the cause for geothermal development on the Big Island.

In his weekly column, on Page 10, David Clague wrote:

- "The current eruption at Kilauea produces thousands of times more hydrogen sulfide than a properly abated 25-megawatt geothermal plant.

- "When Kilauea is not in eruption, it produces between 30 and 100 times as much hydrogen sulfide as a properly abated 25-megawatt geothermal plant."

When all fluids and gases are reinjected into the ground, as Puna Geothermal Venture plans to do, Clague said the emission of the toxic gas from the wells will be far less than what is being detected at the geothermal wells at Geysers and Coso in California.

We hope Clague's report will help to dispel the fears of exposure to hydrogen sulfide from the PGV or True/Mid-Pacific wells. Opponents to the geothermal development now would have a weaker justification if they continue to cite hydrogen sulfide as a reason for opposing the two geothermal projects.

As a result of Clague's disclosure, some physicians who have been suspicious of geothermal emissions as the culprits causing health problems to their patients should take another look at their diagnoses. Perhaps, the eruption of Kilauea, not the emissions from the wells, should bear the primary blame.

Clague's report also should be helpful to the state health officials who are trying to set a standard on the emission of hydrogen sulfide.

But can Clague's report help quiet down the geothermal debate? It should. But, sadly, it can't. No single report is able to bridge the wide gulf between the pros and cons overnight.

Geothermal rally a show of force

It must have been a heartening occasion for the organizers of the pro-geothermal development rally on Wednesday. Five thousand people flocked to the pau hana party where free hot dogs, beer, soda pop and band music added a thick festive mood to a gathering staged for the most divisive issue on the Big Island in two decades.

As polls and election results showed, the majority of the Big Islanders has been supporting geothermal development as an alternative and independent energy source. It did not come as a surprise to us to see the large turnout at Wednesday's rally, even though a few people who had little sympathy for geothermal development went to the party only for the festivities.

However, the rally could have truly been a celebration of energy independence had our leaders been more sure-footed and clear-minded on the geothermal issue. They should bear the major responsibility for not getting geothermal on line on time. Without the ruling by the state Supreme Court, for example, our health officials may be still sitting on their hands and doing nothing about setting a uniform standard on the emission of hydrogen sulfide from geothermal wells. Their inaction has caused an unnecessary delay in getting the Puna Geothermal Venture on line.

Wednesday's gathering, besides being a protest to counter anti-geothermal rallies, should be viewed as a show of force in support of a reliable and independent energy source on the Big Island. Government officials have too often been the problem blocking the attainment of energy independence. The message: time is running out for them, if they don't get with it right now.



IN REPLY REFER TO:

United States Department of the Interior

OFFICE OF THE SECRETARY
Office of Environmental Affairs
600 Harrison Street, Suite 515
San Francisco, California 94107-1376



Memorandum

To: Geothermal Working Group

From: Patricia S. Port, REO, San Francisco

This is a reminder that our next meeting is scheduled in the Superintendent's office at HI Volcanoes National Park at 9 o'clock, a.m. on Friday May 15, 1992.

We will be discussing the latest information on the Geothermal issues in the morning. If anyone comes to address us on the Spaceport issues, we will entertain that topic after lunch.

My understanding is that there may be little progress on this project, and no report will be available.

Looking forward to seeing you all there.

0 3-11-92

"Part Part"

10-17-91
File #17

A Discussion of Issues
Related to the Proposed Spaceport

by the
Office of Space Industry

February 7, 1992

Role of the State (1)

The State has developed a concept of what the spaceport might look like. This includes identifying types of rockets and facilities. This is called the Project Description.

Using this Project Description the State is studying the environmental effects of building a spaceport in Ka'u. This is called the Environmental Impact Statement (EIS).

If the EIS shows that the spaceport could be built and operated safely and if other studies show that it would benefit the people of Hawaii then the State would help private industry to develop the Spaceport.

The State would not build or operate the Spaceport.

Role of the State (2)

To help a private developer the State could:

Improve roads and bridges between Hilo and the spaceport.

Work with the developer to obtain the permits necessary to build and operate the spaceport.

Acquire control of the land necessary for the spaceport. Purchase or lease land where the facilities would be located on the spaceport.

If the spaceport is built the State could play an oversight role to ensure safe operation of the launch facility in compliance with restrictions and limitations associated with permits and environmental mitigation measures.

Who would build and operate the spaceport?

If it is built the spaceport will be built and operated by a private company. It will not be built or operated by the State, the military, or NASA.

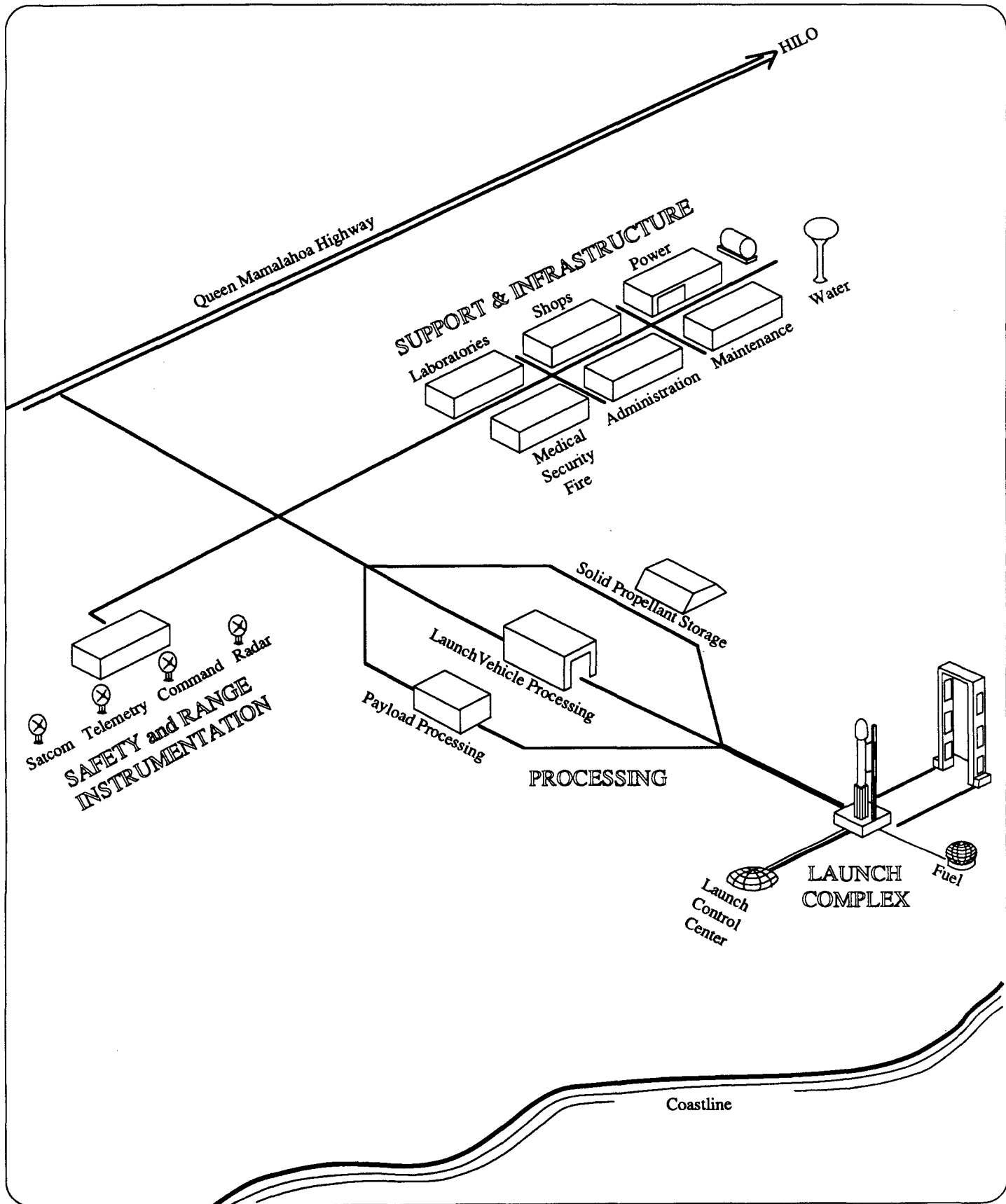
The spaceport would be a commercial rocket launching facility. It would only be built by private industry if there is a big enough market.

What kind of satellites would be launched from the spaceport?

The spaceport would launch commercial and scientific satellites - it would not launch weapons of destruction.

Hawaii Commercial Spaceport (1)

- Four launch pads (at full build-out).
 - 1 for sounding rockets
 - 1 for small orbital launches
 - 2 for medium sized orbital launches
- Sounding rockets and orbital class rockets like Atlas, Delta and Scout.
- About 16 orbital launches a year.
- Facilities to build and checkout rockets before they are launched.
- Satellite processing facilities.
- Range safety system to ensure rockets do not endanger people or property.
Radar, telemetry, telescopes, computers, command control, meteorology, communications
- Support Facilities
Offices, workshops, photo lab, cafeteria, clinic, garage, security, fire protection, warehouses, power station, water supply, sewage treatment, maintenance shops



Hawaii Commercial Spaceport (2)

There could be about 325 permanent employees at the spaceport.

What kinds of jobs would be available at the spaceport?

- **Engineers** - Electrical, Mechanical, Civil, Industrial
- **Technicians** - To operate and maintain radar, telemetry, optics, computers, displays, communications equipment.
- **Programmers** - To develop and maintain computer programs used to control instruments and analyze instrument and rocket performance.
- **Administrative Services** - related to contracts, employee benefits, legal issues, and project management.
- **Support Services** - Security, Fire Protection, Medical Personnel, Equipment Operators, Truck Drivers, Custodians, Purchasing and Supply Agents, Financial Analysts and Accountants, Maintenance Workers, Clerical Support, Secretaries, Food Services

Environmental Impact Statement (EIS)

The EIS is a document which tells the effects of the Spaceport Project on people and the environment.

The EIS will recommend ways to mitigate the impacts (lessen the effects) of the Spaceport.

The EIS will not decide if the project should be done - all it does is tell what the effects of the Spaceport would be.

The EIS field studies are nearly complete.

The draft EIS will be finished late spring or early summer. At that time people can read the EIS and comment on it.

The final EIS will address any additional issues raised by people when they read the draft EIS. The final EIS will be sent to the Governor for his acceptance.

Some EIS Studies (1)

- Terrestrial Ecology
 - Flora
 - Fauna
- Marine Ecology
 - Turtles
 - Mammals
 - Fish
 - Anchialine Ponds
- Natural Hazards
 - Geology
 - Volcanic Activity
- Water Resources and Drainage
- Air Quality
 - Rocket Exhaust
 - Industrial Emissions
- Transportation
 - Rocket Stages
 - Propellants
 - Traffic

Some EIS Studies (2)

- Noise
 - Rocket Flight
 - Industrial Sources
- Analysis of Potential Accidents
 - Propellant Spills
 - Debris
- Archaeology
 - Oral History
 - Field Work
- Observatories
 - Light
 - Rocket Exhaust
 - Radio Interference
- Visual Impacts
- Shoreline Access
- Public Health and Safety
- Energy

Some EIS Studies (3)

- Land and Ocean Use
 - Agriculture
 - Fishing
 - Recreation
- Economic/Fiscal
- Lifestyle/Community Issues
- Housing
- Public Services/Facilities

MEMO

DEPARTMENT OF LAND AND NATURAL RESOURCES
STATE OF HAWAII

TO	Janet Swift	DIVISION	DOWALD
FROM	Darlene Ko <i>Darlene Ko</i>	DATE	May 24, 1991
SUBJECT	Geothermal Projects Meeting		

MESSAGE:

Janet, you are confirmed on Aloha Airlines:

Hon. - Hilo-Dep: 6/28/91, Flt no. #404 07:00a - 7:41a

Hilo - Hon-Arrv: 6/28/91, Flt no. #355 01:30p - 2:11p

Car Rental: Thrifty Car Rental

Conformation: Lynne on 5/24/91



**UNITED STATES
DEPARTMENT OF THE INTERIOR**

OFFICE OF THE SECRETARY
Office of Environmental Affairs
600 Harrison Street, Suite 515
San Francisco, California 94107-1376

May 21, 1991

MEMORANDUM

TO: Geothermal Interagency Working Group

FROM: Patricia Sanderson Port
Regional Environmental Officer, San Francisco

SUBJECT: Draft Agenda for June 28, 1991 Meeting

Enclosed is the draft agenda for our upcoming meeting on June 28, 1991 starting at 10:00 a.m. in the Hawaii Volcanoes National Park conference room.

I've also enclosed some articles of interest.

Look forward to seeing you in June.

Enclosures



**UNITED STATES
DEPARTMENT OF THE INTERIOR**

**OFFICE OF THE SECRETARY
Office of Environmental Affairs
600 Harrison Street, Suite 515
San Francisco, California 94107-1376**

D R A F T A G E N D A

Geothermal Projects Meeting

JUNE 28, 1991

**Hawaii Volcanoes National Park
Conference Room**

10:00 a.m.	Welcome/Introductions	P. Port
10:15 a.m.	Updates from State Agencies/ Consultants	
11:00 a.m.	Campbell Estates Update	B. DeMent
11:15 a.m.	Updates from Federal Agencies	
12:15 p.m.	LUNCH	
1:15 p.m.	Blue Ocean Preservation Society v. James D. Watkins, etc. Discussion	All
2:00 p.m.	Adjourn	

July 1, 1991

MEMORANDUM

TO: Manabu Tagomori

FROM: Janet Swift 

SUBJECT: 6/28/91 Meeting with Pat Sanderson Port, Regional
Environmental Officer, U.S. Department of the Interior

An attendance list is attached. Health, DLNR and OHA were state agencies attending, U.S.G.S. and Interior were federal agencies attending, and one individual employed by a consulting firm but attending as a student was present.

Pat Port began the session by letting attendees know that as long as there is no intent to promote the geothermal project, representatives of the various agencies may discuss the project freely. She distributed copies of Judge Ezra's June 25, 1991 order and said that in her opinion the Department of Energy is not at all pleased to have to do the federal EIS. She suggested strongly that any agency or group wishing to have its concerns addressed in the federal EIS should be very explicit and get the information to the DOE in detail, and be sure to follow up on it, since if they are not made aware of concerns the chances are they will not address them. They are handling the EIS from Washington D.C. and will likely do the minimum possible to meet the requirement, in her opinion.

Pat said she regretted Bill DeMent of Campbell Estate was not able to attend since he had been very informative at the last session.

Ms. Port called on State agency representatives to give updates on their activities and concerns. I reported briefly and generally on my activities in working on other projects while the larger project is on hold, on special assignments such as evaluating the resource and serving as staff to the technical advisory committee. Lynn Lee spoke on OHA's concerns such as native gathering rights, social impacts, air quality concerns and others. She said that better maps would be useful, such as a map that would show ceded lands as well as geothermal areas. She commented that Hawaiian Homelands should be involved also if Hawaiian Homeland areas are involved.

There was some discussion on the need for a coordinated map project - each agency has its own maps but there is no one map with everything on it for overall planning purposes. It was pointed out that Office of State Planning has a geographical information system that may be set up to address this concern.

Ms. Port asked if OHA would be a "cooperator" agency in the federal EIS. Lynn said most likely since it would want its concerns to be addressed. She said she would get together a list of items for DOE to look at and request that OHA be a cooperator agency.

Pat Port requested that someone find out if DBED will be the lead agency from the State for the EIS and who would be the coordinator. She went on to explain that cooperator status usually is requested of the federal agency preparing the EIS.

Nolan Hirai of the State of Hawaii Department of Health reported on his aspect of health regulating. He said the department would most likely be involved in an EIS in a reviewing capacity. He said that Ormat has three air quality monitoring units and DOH has three.

The Parks service commented that it has an air quality monitor but its purpose is to monitor visibility. There are years of this kind of data available from the Park's east rift area.

The Parks staff concerns are that non-native species may impact the park area, that there may be an impact on view planes. They do not feel that steam vents will be affected such as at the Geysers. Staff did not feel that health of visitors would be a major concern, and views would likely not be a problem, but if the view shed is a major concern then that should be addressed in the EIS.

Dr. Jim Kauahikaua spoke about the activities of the technical advisory committee of which he is a member. He said the committee's work has a broad scope, the major part of which is a review of the geothermal subzones, another of which is review of the direction of the SOH program, how the money will be spent. He commented on the two warm water wells on Lanai and how the group will be looking at Lanai.

OHA expressed that if and when a policy committee is formed to guide the advisory committee it would like to be represented.

Jim mentioned that there will be a technical advisory committee meeting August 2, 1991 in Hilo.

Jim said there would be seed money for studying the hydrothermal aspects of Kilauea, the mechanics of the hydrothermal system. This will take three years and will address issues such as why 90% of eruptions are not explosive and only 10% are explosive even though they all pass through the groundwater system. Jim pointed out on a new map he brought with him two areas that indicate they were formed by explosive eruptions. One of these areas is Kapoho. He also mentioned that in attending a session on the recent blowout or kick he found out that the pressure of the steam was 300 pounds above hydrostatic which is not equalled anywhere in the world. This may indicate an area of explosive

eruption.

Pat Port asked if the U.S.G.S. would be a cooperator in the EIS. Jim replied that he thought that would be essential. Pat defined the term cooperator. A "cooperator" is any federal or state agency or other governments who have specific interest, knowledge, permit authorization, land or resource interest in the project. In Hawaii the counties should be cooperators. Pat guessed that the U.S. Department of Energy, preparing the EIS from Washington D.C. may not think of them.

There followed a discussion on inviting the developers to the next meeting. Jim mentioned Bill Teplow, field manager for PGV.

Pat asked about a new technology she has read about - a heat exchange process. She said that the EIS could address a preferred alternative, a no action alternative, or a new technology alternative. The heat exchange process may be looked at as an alternative process. Mike Robinson pointed out that this doesn't look like a feasible technology since it doesn't produce enough power.

The meeting closed at about noon. Pat said the next meeting would be some time in late October.

NOTE: The Judge Ezra order is attached for your information. According to a telephone conversation with Jerry Lesperance, Bill Tam has been working very closely on this matter.

Lynn Lee

OHA

386-3777

MIKE ROBINSON

RESOURCE MANAGEMENT

Nygo Hertzinger

Superintendent
H.V.N.P.

Janet C. Luft

DLNR

Nolan Hirai

DOH

Tim Kauhikana

USGS-HVO

PS Port

744-4090

US DOL SZ

Stochastic Meeting June 28, 1991

Linda Cuddihy

Hawaii Vol. Natl Park
Research Division

9



IN REPLY REFER TO:

United States Department of the Interior

OFFICE OF THE SECRETARY
Office of Environmental Affairs
600 Harrison Street, Suite 515
San Francisco, California 94107-1376



October 25, 1991

MEMORANDUM

TO: Geothermal Working Group
FROM: Patricia S. Port
Regional Environmental Officer, San Francisco
SUBJECT: Meeting Agenda

Attached is a tentative agenda for our meeting November 8, 1991 at 10 a.m. at Hawaii Volcanoes National Park.

Looking forward to seeing you there.

Attachment

D R A F T A G E N D A

Geothermal Projects Meeting

November 8, 1991

**Hawaii Volcanoes National Park
Superintendent's Conference Room**

10:00 a.m.	Welcome/Introductions	P. Port
10:15 a.m.	DOE EIS Issues	
10:45 a.m.	State Issues/Campbell Estates Update	
11:15 a.m.	NPS Issues	
11:30 a.m.	FWS Issues	
11:45 a.m.	USGS Issues	
12:00 p.m.	Lunch	

Puna geo firm hopes to set Christmas aglow

By Hugh Clark

Advertiser Big Island Bureau

HILO, Hawaii — Puna Geothermal Venture, on the defensive since June 12 when one of its development wells at Kapoho blew out, is looking forward to Christmas.

By that date, say Puna Geothermal officials, they can finally open their \$100 million geothermal power plant and deliver power at the time of year that produces what vice president Maurice Richard calls "the peaks of peaks" in electrical demand on the Big Island.

Brownouts and blackouts are expected to become a regular part of life on the power-starved Big Island at that time.

But Richard is not so much aiming at making a nice Christmas for Big Islanders as he is getting his company's project back on line.

He spoke in the wake of Friday's announcement by a state and county task force that spells out strict operating and environmental conditions for resuming the alternative energy project.

Richard said he has no quarrel with the conclusions by the state and county, saying the two levels of government "did a very effective job; they need to be complimented."

Meanwhile, he said his company is responding to the multiple conditions for resuming work.



NEIGHBOR ISLAND NEWS

They were at work on many of those jobs before the report was released, he added.

He said Puna Geothermal wants to get back to drilling as quickly as possible — at least on a limited basis — so the firm can complete well KS-3 and also the well that blew out, KS-8. The venture's main partner, OESI Power Corp of Nevada — previously known as Ormat, and its bankers — are more than anxious to get on Hawaii Electric Light Co.'s lines and get some money back from their long-term investment.

But most anxious and demanding of all, says Richard, is Warren Lee, the new HELCO president.

Lee wants the 25 megawatts of power contracted by the utility from Puna Geothermal three years ago, and it wants it NOW, Richard said.

Whether HELCO and Puna Geothermal will wind up in court over the delays is an open

question.

Puna Geothermal is invoking the "force majeure" or "act of God" provision of their contract, saying what has happened since it won approval for the project more than two years ago has been outside its control.

HELCO testimony at a Public Utilities Commission hearing in Hilo last month indicated that the utility intended to impose penalties if Puna Geothermal failed to come on line this month — which Richard confirmed yesterday it cannot.

Under the best of circumstances, with no more technical problems and without further regulatory hurdles, Richard hopes to be feeding power to HELCO by Christmas Day.

First, he has to get the construction firms involved in building the plant at Pohoiki back at the job site after they were abruptly sent away last July under Mayor Lorraine Inouye's emergency stop work order.

Then, the team of experts trying to comply with stiffened state and county standards has to be reassembled.

That won't happen until next week after the Geothermal Resources Council, an international organization of geothermal interests, concludes its annual meeting in Nevada.

Don't replace oil

Editor:

Cars won't run on geothermal energy — they need gasoline. Airplanes won't fly on geothermal either, only on jet fuel. Our gasoline and jet fuel are made from crude oil in two Honolulu refineries that must import enough crude to make our cars go and planes fly.

The inescapable by-product of this refining process is fuel oil. It is a residue that would have to be shipped out of the state if it is not used by our electric power plants. And there is so much of it that it provides for 90 percent of the electricity that we use in our homes.

The remaining 10 percent is now imported but that can easily be prevented by power-saving devices and policies if the state and the power companies wise up, as is presently done in many places on the mainland.

Geothermal energy production stinks, is dangerous and totally unnecessary except maybe for the companies involved that want to line their pockets by ripping us off with some untested technologies and insufficiently qualified personnel that cut corners with detrimental results.

Wake up, dreamers, unless you are willing to give up your car and use of airplanes as well as the visitor industry which is vital to the economy. Replacing oil import with geothermal is nothing but a useless utopian conversation piece — at least for the next 30 years.

Then why does the governor keep pushing for geothermal? It would seem that he has been ill-advised by money hungry business interests. It is really that simple.

The best thing for us consumers to do is save a little on our energy consumption and let the county and state people know that we don't want to suffer from geothermal vultures. And if they want to be re-elected they better listen to us.

Henry Ross
Kapaau

Group urges geothermal drilling go-ahead

By Hugh Clark

Advertiser Big Island Bureau

HILO, Hawaii — The Hawaii Island Geothermal Alliance issued a weekend statement asking the state and county to allow geothermal well drilling to resume as quickly as possible.

The state and county on Friday revealed a Geothermal Management Plan that could delay the resumption of drilling until sometime in 1992.

Unless it is able to drill the additional wells to finish its \$100 million electricity produc-

tion plant at Pohoiki, developer Puna Geothermal Venture will be unable to meet its contract to provide 25 megawatts of power to Hawaii Electric Light Co.

Wayne Blyth, chairman of the business and labor alliance, said, "Hawaii Island desperately needs additional generating

capacity ... Unless we allow geothermal energy development to move ahead quickly, HELCO will be forced to proceed with coal-fired and/or oil-fired power plants."

He said his group, which claims to represent about 45,000 persons, is urging the state and county to work with

Puna Geothermal Venture to revise the emergency response plan and meet stiffened development standards so that changes and drilling can occur simultaneously.

The activity was halted after a June 12 blowout of a well known as Kapoho State-8, a short distance from the plant.



UNITED STATES
DEPARTMENT OF THE INTERIOR

OFFICE OF THE SECRETARY
Office of Environmental Affairs
600 Harrison Street, Suite 515
San Francisco, California 94107-1376

March 11, 1991

MEMORANDUM

TO: Geothermal Interagency Working Group

FROM: Patricia Sanderson Port
Regional Environmental Officer, San Francisco

SUBJECT: Minutes of the February 12, 1991 Meeting

Attached is an Executive Summary of the Minutes Lisa took at our meeting. If you will mark your calendars for June 28, 1991, let's plan to meet then at Hawaii Volcanoes NP, starting at 10:00 a.m.

If there is anywhere we could profitably go for a field trip, please advise. I am hopeful Frank Kingery and Gerald Lesperance can join us for an update on their planning efforts.

Thanks to you all who attended and contributed.

Attachment



**UNITED STATES
DEPARTMENT OF THE INTERIOR**

OFFICE OF THE SECRETARY
Office of Environmental Affairs
600 Harrison Street, Suite 515
San Francisco, California 94107-1376

Executive Summary

Minutes

**Geothermal Interagency Meeting
February 12, 1991
Hawaii Volcanoes National Park**

This is a summary of verbatim notes taken by Lisa Edie at Hawaii Volcanoes National Park. In attendance were Bill DeMent, Jim Kauahikaua, Lynn Lee, Janet Swift, Dan Taylor and David Wegner. Pat Port chaired.

Since we had a small group, we went around the table informally and had presentations and discussion from the point of view of each agency represented. Janet Swift, Department of Land and Natural Resources, HI works on consolidating permitting procedures. Her staff has gone on to existing programming on regulatory matters since the large scale project has not yet materialized.

Most of our meeting keyed on Bill DeMent's presentation. Bill is with Campbell Estates and recapped for us the situation. Nine thousand acres (of 28,600 acres) of the estates are sub-zoned geothermal. Bill works with the developer in a joint venture between True and Mid Pacific, WY. The agreement has been in place for some time. They are working on their first 25 megawatt venture and after necessary approvals will explore four other wells from the same pad. If steam is reached these holes will be of value to HGPS. They are seeking permits for up to 100MW of energy and will continue to explore up to 12 different drill sites, 6-8k' deep with 7k average.

They are looking for cracks and lineages to bring in water. When they hit cracks they will open up the well to develop as much as possible. They are seeking approval from the county and will be ready to go.

February 14, a series of individual laws suits comes before the courts in a state hearing by individuals hoping to restrain drilling. As this summary is prepared, we have word that Pele Defense Fund v. Paty has been dismissed. Jim Kauahikaua, who mentioned that he may be deposed for the trial was deposed, as was Jack Lockwood of USGS.

I am advised that the federal suit, on which I reported, has been postponed until June 25, and that date was recently confirmed to me by DOJ, notwithstanding press coverage indicating Sen. Inouye was to ask DOE to do NEPA compliance.

Discussion covered a number of points, including where the next pad will be (along the road), how large (3 acres), and cultural issues. Lynn Lee, OHA, Bill DeMent and Dan Taylor discussed at length cultural issues and surveys, the land exchange which OHA does not favor, and the efficacy of restoring rainforests (low).

One benefit of these geothermal meetings has been education for all participants and stimulus of the adjacent land managers to meet and talk about regionally managing their resources. Public information was also commented upon, as is the desirability of dealing with rational opponents. These issues evoke much emotion on all sides.

We discussed HELCO power poles in Puna (Ormat's) and the possibility Ormat and Campbell may use the same corridor for above ground poles. Fossil and diesel fuel were discussed. Kawaihae is the site for 200MW coal energy plant. One on Oahu is currently being built in Campbell Industrial Park, Waianae. We all had questions about it. Any NEPA compliance? Is the fuel source rainforests in Indonesia? No one has heard much about it. What about air quality?

We also discussed mutual natural resources; plants, goats (none found at Campbell so far) pigs, weeds, endemic species, etc.

This was Lynn Lee's first meeting and she helped educate us on OHA and we filled her in on details of the 1985 land swap and we will likely get together in the future to look at some of the sites.

Jim Kauahaikaua USGS has been working for the last 8 months, taking initiative on geothermal issues, assessing localities for scientific interest in the hydrothermal system. He is heading up the study, mapping components using aerial photos. DeMent said Campbell will assist. We hope to hear more about Jim's studies at our next meeting.

We decided to hold our next meeting after the trial on June 25. We will meet again that week even if the suit (Blue Ocean Preservation Society et al vs. DOE) is dismissed as the state suits were.

At the close of the meeting we clarified the purpose of our getting together periodically to discuss technical and resource issues.

My perception is that three Department of the Interior bureaus are deeply involved (USGS, FWS, NPS) in both technical and resource issues and these gatherings are a way for the state staff to brief us on their plans (we hope to see Gerry Lesperance and Frank Kingery at our next meeting) and for the FWS and NPS staff to advise on natural resources concerns for both the planners and the operators. Only through open discussion with each other can we become aware of concerns and work together to resolve them. We discussed a wide range of other topics, including the State HGPA Geothermal Plant cleanup, to at least a landscaped stage if not as a restored forest (impossible). I was very pleased that we were all very open and cooperative with one another, sharing information and agreeing to meet in smaller groups later to work on specific issues.

My thanks to Lisa for exhaustive minutes and to all participants for making this information sharing pleasant and productive. Please mark your calendars for our next meeting on Friday June 28, 1991 at Hawaii Volcanoes. Thanks to Park staff for making this very nice facility available for us.

If I have left out crucial information in this summary, please give me a call at (415) 744-4090 for FTS: 484-4090.

Geothermal plant explosion events still unclear

By GORDON Y.K. PANG
West Hawaii Today

HILO — Puna residents and Puna Geothermal Venture representatives are giving conflicting reports of an accidental steam and hot water explosion at a drill site Thursday afternoon which left one man hospitalized.

Leilani Estates resident Robert Petricci, an anti-geothermal activist, said he was viewing the PGV project when the incident occurred at the wellpad 2,000 feet away. "It sounded like a bomb or an explosion," he said.

Kelly Pommerenk, who lives approximately 4,000 feet from the well, said she was working in her yard when "I heard an explosion — it sounded like a jet taking off."

Terry Crowson, PGV drilling superintendent, told Mayor Lorraine Inouye and reporters after the incident that he had heard no unusual sounds from his location near the base of the rig and he did not realize an explosion had occurred until he noticed water, then steam shooting out of the well.

Zvi Reiss, director of projects

for PGV parent company Ormat Energy Systems, said Friday he was not surprised by the conflicting reports. Workers at the site, he said, "are used to noise (given) the environment they're working with."

Ormat officials on Thursday also told officials and reporters that the steam and water did not reach above the 110-foot drill rig.

Petricci said he saw "steam pouring out of control" and forming a cloud of "gray particulate stuff" 100 feet wide. The cloud rose high above the rig and began heading toward Leilani Estates. Petricci, on Friday, released photos of what appeared to be a black cloud rising over the rig.

Reiss said Thursday night that PGV air quality monitoring equipment on the borders of plant property showed "no

traces whatsoever" of hydrogen sulfide gas, considered harmful in extremely large doses.

State deputy health director Bruce Anderson said a health department monitor at Leilani Estates recorded 10 parts per billion after the incident, about 10 times higher than what showed just prior. Anderson said while detectable, the quantity of gas was not harmful. (PGV officials said that at the base of the rig, hydrogen sulfide

levels were about 20 to 30 parts per million immediately after the incident.)

Petricci also accused PGV of having a malfunctioning alarm system which did not go off when the incident occurred.

Reiss confirmed Friday that an alarm system was in place and, based on information from those on-site, did not go off. He said PGV is concerned about the alarm malfunction and that the

company was in the process of determining whether "the conditions did not activate it or if there was something wrong with the alarm."

Reiss stressed that the system is in place not because of any government requirement, but "internally for safety reasons."

Geo myth

Editor:

The myth is, "If one percent of the forest... will be affected by geothermal development needs to be laid to rest. Wao Kele O Puna has about 27,000 acres, 500 megawatts (MW) of geothermal will directly destroy a minimum of 1,500-2,500 acres. That's 5-10 percent if all went perfectly, and we've learned that geothermal in Hawaii has been quite imperfect. Add in secondary effects on the forest and the percentage game becomes meaningless. It is shameful for the state to promote such myths as a "one percent sacrifice" when it is recklessly gambling with Hawaii's biological heritage; the stakes are forever.

Here's how our dear state government has lied to us on this point. The 300- to 500-acre figure the state likes to quote refers to the first 100 MW only. There can be no 100 MW without the whole 500 MW — the Big Island can't use it and the cable requires megabucks. And, there are not 60,000 relevant acres of Puna forest which the state uses for figuring. The 27,000 acres of lowland Wao Kele are biologically unique, and the state must be counting the lava wasteland for which they traded our forest to get this figure.

What happens when you periodically kill all the birds in the surrounding area with poison gas releases? And drive them away with constant noise? And what if the forest is bird-pollinated? And what if it's the last forest of its kind in the world? Of course, these are just secondary effects, not even reflected in the acres-cleared figures. We can't discuss these, because then it becomes clear that we are destroying the entire native Hawaiian forest and not just some percent, as though it were an acceptable sacrifice.

Words like extinction and biological diversity can also be quantified and made to seem less personal. But to whom else goes the responsibility for the murder of entire species and ecosystems, but to those humans who promoted it, and those who allowed it to happen? Extinctions are forever and believing government propaganda does not release one from this higher responsibility to the earth and our children.

Anne Wheelock
Kurtistown

"Pat Pat"



UNITED STATES
DEPARTMENT OF THE INTERIOR

OFFICE OF THE SECRETARY
Office of Environmental Affairs
600 Harrison Street, Suite 515
San Francisco, California 94107-1376

Cabin 4
File 418

January 21, 1992

MEMORANDUM

TO: Geothermal Working Group Members
FROM: Patricia S. Port, REO San Francisco
RE: Upcoming Meeting, February 7, 1992

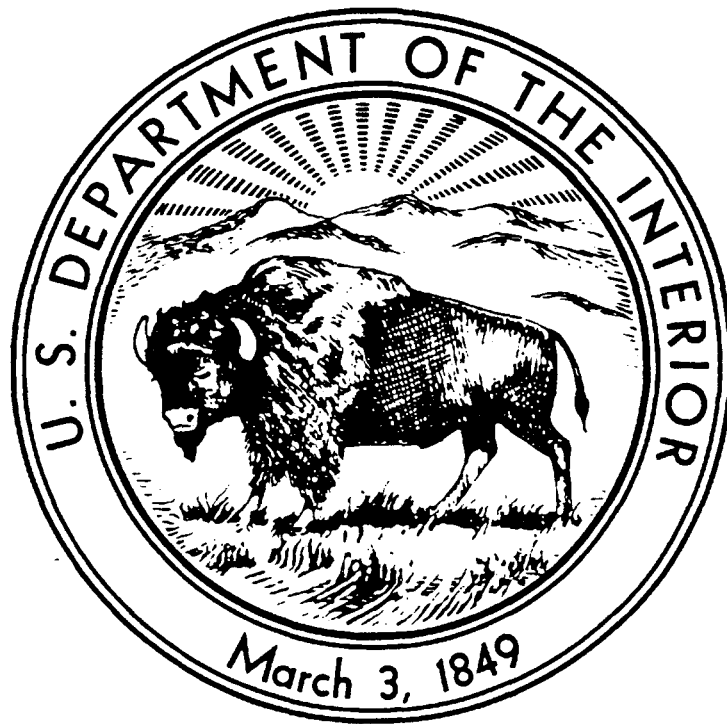
This is to alert you to the fact that we expect to have a speaker on the Spaceport proposed for Big Island address our group. We plan to finish our meeting before noon on Friday, and to take box lunches on a field trip of the sites.

Kindly call Dan Taylor, Hawaii Volcanoes National Park, at 808/967-8226 no later than Tuesday, February 4, 1992, and let him know if you will need a box lunch, and how many.

Looking forward to seeing you all there for a very interesting meeting.

like "Pat Port"

U.S. DEPARTMENT OF THE INTERIOR



OFFICE OF ENVIRONMENTAL AFFAIRS

MISSIONS AND FUNCTIONS

Missions

The Office oversees the Department's compliance with environmental statutes, manages environmental matters that affect multiple bureaus within the Department, provides independent environmental and technical advice to the Assistant Secretary, Policy, Management and Budget and to the Secretary, manages the Department's natural resource trust and response programs for natural and technological incidents, and administers the natural resource damage assessment program and regulations. These missions are met nationwide through Headquarters and Regional Offices.

Principal Functions

Principal functions of the Office in support of these missions include:

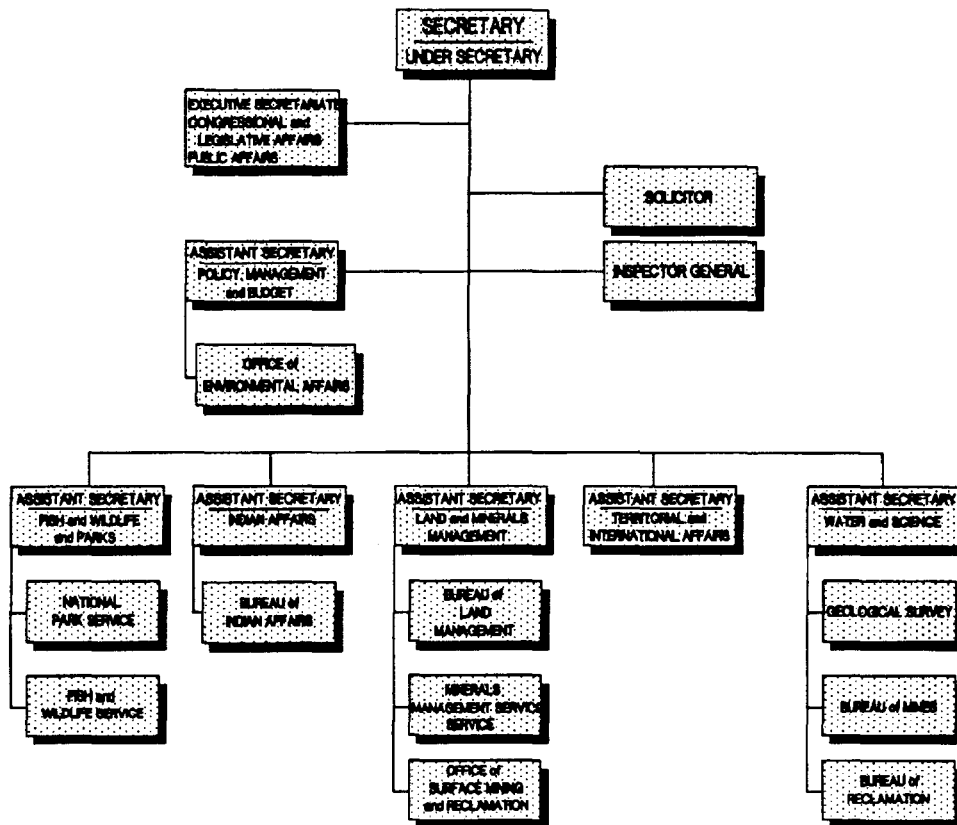
1. National Environmental Policy Act Compliance - The Act and regulations of the Council on Environmental Quality affect almost everything Interior does and specifically require environmental impact statements for major Interior actions having significant environmental effects. The Office assures this compliance through review and approval of environmental documents and environmental compliance consultation with bureaus.
2. Natural Resource Damage Assessment - The Office oversees and provides guidance on the Department's responsibilities as a natural resources trustee under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA, Superfund) and various oil spill liability statutes.

3. Emergency Response - The Office manages the Department's responses to incidents affecting natural resources and lands and facilities of the Department during and following oil spills, hazardous materials releases, radiological emergencies, and natural catastrophes. This includes removal and remedial actions at hazardous materials sites under Superfund and representation of the Department on the National and Regional Response Teams.
4. Non-Interior Project Proposals - The Office manages the Department's technical and policy reviews of the environmental and natural resource aspects of non-Interior projects and proposals. The Office insures that the Department and its bureaus have programs and procedures to accomplish this review work.
5. Non-Interior Regulations - The Office manages the Department's review of non-Interior regulations affecting the Department's landholdings, natural resources, environmental interests, and pollution control activities.
6. Other Environmental Compliance - The Office oversees Departmental compliance with Federal, State, and local environmental laws, directives, and requirements for pollution control.
7. Staff Support to Secretary - The Office provides the only technologically-based staff in the Office of the Secretary that advises the Secretary, the Assistant Secretary - Policy, Management and Budget, and other top Departmental officials about policies, programs, and individual actions affecting natural resources and environmental quality.

ORGANIZATION

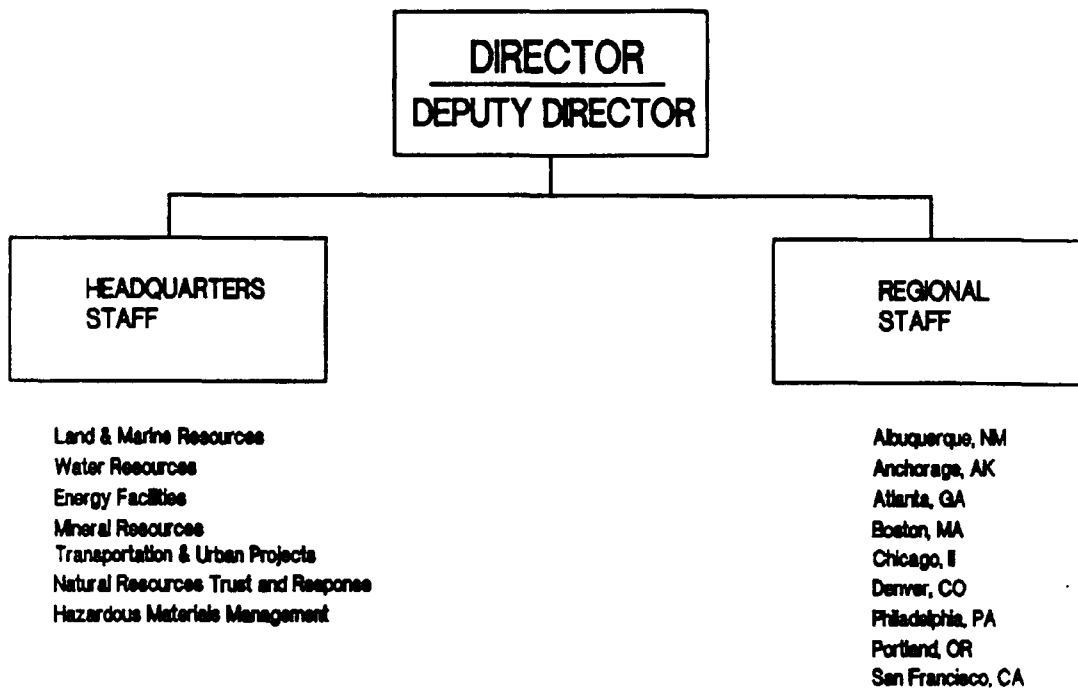
The Office of Environmental Affairs within the Department of the Interior is headed by a Director who supervises all functions of the Office. The Departmental organization chart below illustrates the location of the Office within the Department.

DEPARTMENT OF THE INTERIOR



A Deputy Director reports to the Director and assists the Director in all aspects of the Office's activities. The headquarters office is organized into seven divisions to carry out the Office's responsibilities. The organization chart illustrated below displays the internal relationships within the Office.

OFFICE OF ENVIRONMENTAL AFFAIRS



A regional staff housed in nine regional cities carries out the responsibilities of the Office throughout the Nation. Each regional office is headed by a Regional Environmental Officer who reports to the Director. Locations of the regional offices are illustrated below. Their addresses and phone numbers are found under "Further Information." Each regional office is responsible for all environmental areas found under "Headquarters Divisions" and serves as a Departmental coordinator and an independent source of information and analysis to the Office of the Secretary.

OFFICE OF ENVIRONMENTAL AFFAIRS

REGIONAL BOUNDARIES



HEADQUARTERS DIVISIONS

The Office of Environmental Affairs is staffed with scientists, engineers, and related technically-based analysts whose backgrounds and experience reflect the Department's missions and programs in natural resources management and environmental compliance. The several divisions and their areas of expertise are summarized as follows:

Land and Marine Resources

- Land use (general, rural, military)
- Public land management
- Land resources (agriculture, forestry, grazing, recreation, wilderness)
- Terrestrial ecology
- Endangered species
- Pesticides
- Marine resources (OCS leasing, ocean dumping, ocean mining, coastal zone, marine sanctuaries)
- Marine ecology

Water Resources

- Water resource projects (dams, canals, navigation, water supply, flood control, wastewater treatment, irrigation, harbors)
- Aquatic ecology
- Fisheries
- Wetlands and floodplains
- Hydroelectric energy
- Watershed protection
- Floods and hurricanes
- Drinking water regulations

Energy Facilities

Facilities (nuclear, fossil fuel, transmission lines,
pipelines, refineries, synthetic fuel)
Energy research and development
Energy conservation
Wind and solar
Radiation and nuclear waste management
Air quality
Noise
Toxic substances
Occupational health
Nuclear accidents

Mineral Resources

Mining (leasing, research and development, mining and
reclamation, mills and mill tailings)
Onshore oil and gas
Geothermal resources
In-situ mineral development
Strategic petroleum reserve
Underground injection
Groundwater contamination
Earthquakes

Transportation and Urban Projects

Transportation (highways, airports, railroads, bridges,
mass transit, airspaces)
Urban (land use, development projects, housing,
recreation)
Historic preservation
Archeological and cultural resources
Mobile air pollution

Natural Resources Trust and Response

- Superfund activities
- Damage assessment regulations
- Oil spills
- Hazardous materials releases
- Preliminary natural resource surveys
- Trust resources

Hazardous Materials Management

- Departmental compliance with Superfund and the Resource Conservation and Recovery Act
- Prioritization, tracking, and reporting on bureau sites
- Federal facility pollution abatement
- Site cleanup recommendations
- Remedial action technical assistance

FURTHER INFORMATION

HEADQUARTERS

Office of Environmental Affairs (OEA)
Room 2340
U.S. Department of the Interior
1849 C Street, NW
Washington, DC 20240

Director/Deputy Director	(202) 208-3891
Land and Marine Resources	(202) 208-7116
Water Resources	(202) 208-5464
Energy Facilities	(202) 208-6128
Mineral Resources	(202) 208-6661
Transportation/Urban Projects	(202) 208-7564
Natural Resources Trust and Response	(202) 208-3811/3301
Hazardous Materials Management	(202) 208-7877

REGIONS

BOSTON
O'Neill Federal Building
Room 1022
10 Causeway Street
Boston, MA 02222

(617) 565-6856

PHILADELPHIA
Custom House, Room 217
200 Chestnut Street
Philadelphia, PA 19106

(215) 597-5378

ATLANTA
Russell Federal Building
Room 306
75 Spring Street, S.W.
Atlanta, GA 30303

(404) 331-4524

CHICAGO
John Kluczynski Building
230 South Dearborn Street
Chicago, IL 60604

(312) 353-6612

ALBUQUERQUE
Post Office Box 649
Albuquerque, NM 87103

(505) 766-3565

DENVER
P.O. Box 25007 (D-108)
Denver Federal Center
Denver, CO 80225-0007

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SAN FRANCISCO
600 Harison Street
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San Francisco, CA 94107

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PORTLAND
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ANCHORAGE
1689 C Street, Room 119
Anchorage, AK 99501-5126

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2/27/92 Global Population Control Urged

Scientists say overcrowding will cause irreparable harm to environment

By Ramon G. McLeod
Chronicle Staff Writer

Claiming that the "future of our planet is in the balance," scientists from the United States and Britain said last night that without "rapid stabilization of world population" humankind can expect the "irreversible degradation" of Earth's environment to worsen.

The statement, which is the first to be jointly issued by the U.S. National Academy of Sciences and the Royal Society of London, said that worldwide population growth of nearly 100 million people annually is the core reason for the destruction of forests, global warming and the "unparalleled" pace at which species are becoming extinct.

The strongly worded statement surprised major U.S. population-control advocates. They noted that the national academy has shied away from linking worsening environmental conditions to population growth because that also means tackling controversial subjects such as birth control and abortion.

"It's about time they found their backbone," said Sharon Camp, vice-president of the Population Crisis Committee, based in Washington, D.C.

"They are finally saying publicly what most Americans believe: Trees don't cause pollution, people do."

Dr. James Wyngaarden, for-

eign secretary for the U.S. academy, said "the long-term consequences of inaction on population growth issues can no longer be ignored."

No Technological Solutions

He said that the two academies wanted to make it clear that technology alone cannot be expected to solve environmental problems that are essentially caused by the presence of too many people.

He also said the two scientific bodies believed that something

'They are finally saying: Trees don't cause pollution, people do.'

— SHARON CAMP
POPULATION CRISIS COMMITTEE

needed to be said because an anti-birth control political climate in the United States is slowing research on new contraceptive techniques.

The two prestigious groups called for "effective family planning," adding that birth control programs should be combined with "economic and social development in the lesser developed countries," which they said would "help stabilize fertility rates at lower levels and reduce stresses to the global environment."

One of the most highly publicized environmental stresses in re-

cent years has been the destruction of rain forests.

Camp said this destruction is directly related to the need for firewood and farmland in fast-growing nations. She said it is not coincidental that deforestation is occurring in places like Zaire and Brazil, where the population will double in less than 40 years.

Problems in U.S.

But these same kinds of effects can be seen close to home as well, said Diane Sherman, a spokeswoman for Zero Population Growth.

"Florida's population is growing about as fast as Zaire's," she said. "And what's happening? The Everglades are being destroyed for more homes; it's being deforested faster than Brazil."

The statement noted that although population is growing most slowly in industrialized nations like the United States, population growth in these nations contributes mightily to environmental degradation.

For example, Camp noted that the 2.7 million babies born in the United States this year with access to the products of an industrial society will cause an additional 47 million tons of "greenhouse" gases like carbon dioxide to be added to the atmosphere. By comparison, the 17 million babies born in India in 1992 will account for only about 27 million tons of greenhouse gases.





FISHERMEN'S



QUICK REFERENCE GUIDE

SEABIRD PROTECTION

Why Protect Seabirds ?

Seabirds are an important part of the marine environment.

Seabirds generally feed on bait fish and are not competing with sport fishermen.

Some seabirds are ENDANGERED or THREATENED; of particular concern in California are the

CALIFORNIA BROWN PELICAN

CALIFORNIA LEAST TERN

MARBLED MURRELET

Seabirds, especially young pelicans, are particularly susceptible to being hooked or entangled by fishing line.

How YOU Can Protect Seabirds?

Don't let seabirds grab your bait, watch your bait all the time, and look carefully before you cast and retrieve your line.

If fishing from a boat, don't begin chumming if seabirds are nearby.

Don't leave fishing lines unattended or reeled up with bait dangling from the hook.

Don't foul your line around telephone or electric wires; dangling hooks are a hazard to seabirds.

Don't throw fishing line into the water; even small amounts can tangle a bird (throwing plastic into the ocean is illegal).

Avoid roosting and nesting areas - disturbing birds may cause them to ABANDON their nest.

Note: West Anacapa Island is the major Brown Pelican nesting colony in California and has a NESTING AREA CLOSURE (JAN 1 - OCT 31) that extends offshore to a depth of 120 feet on the north (landward) shore.





If YOU Hook a Bird

Don't Cut or break the Line; it could be lethal to the bird, due to entanglement and starvation.

Get ASSISTANCE - Seabirds can be very DANGEROUS; PECKING AT YOUR FACE AND EYES IS A COMMON DEFENSE.

- STEP 1 Bring the bird in slowly and gently. Don't lift the bird by the line and use a dip net if available. If you are on a pier walk the line to shore, or use a hoop net positioned under the bird to lift it.
- STEP 2 Get control of bird's BILL before taking it from the net. Cover its head and eyes with a cloth to calm it (do not obstruct breathing), and keep the wings folded in their normal closed position.
- STEP 3 Always maintain control of the bird's head and body.
- STEP 4 Remove hook & ALL line - NEVER pull the hook directly out; cut off the barb first. Then release bird carefully.
- STEP 5 Call the local Game Warden if the bird is seriously injured or deeply hooked. While waiting, cut the line and keep the bird restrained.

If YOU See Harassment of Seabirds



Explain why birds should not be harassed. If the offender continues to harass the bird after your warning, call the local Game Warden or 1 (800) 952-5400 - TOLL FREE for the California Dept. of Fish & Game - CalTIP.

DO NOT TRY TO CAPTURE INJURED BIRDS;
call the appropriate resource agency for help.

IT IS BETTER TO AVOID HOOKING SEABIRDS THAN TO HAVE TO RESCUE ONE

This card is a courtesy of your resource agencies
California Department of Fish and Game
U.S. Fish and Wildlife Service
National Park Service
National Marine Fisheries Service

planner on how geothermal fits is separate from regulatory planning which is DLNR. Health effects come under the Dept. of Health. The fact DBED began this and the decision is yet to come as far as the state's cooperators, brought us to the significance of OHA. Are they considered a cooperator? Dr. Lewis may have left them out when he sent out MOU's to each bureau. The scope is huge and Port will work with Lewis on this. She encouraged Lynn Lewis (no relation) with OHA and contact DOE with her questions.

One thing troubling is that the state project description was forced on the D.O.E. by the court and parallels with one from the state during the evolution which received quite a bit of recognition - and now DBED's view is different. DBED would like to try to get a more accurate current description, i.e., 25 wells, full-sized., 100-150-500 megawatts. They are not even sure when they can get this out of the wells. Kaya stated we are led to believe pockets exist in zones but are not aware of problems which could be more restrictive. The ultimate build-out is dependent on development of the resource. We still have an open question retransporting energy off-island. Geothermal development needs to progress in a very structured and phased way for satisfaction of Big Island need first, and second, we hope it will be possible to supply power statewide. It is an open question.

All of the cooperators should sit down with the D.O.E. at this critical juncture. All of the other agencies here need to consider alternatives for a proposed action. Port will call Lewis to coordinate the group so that they can get together to work out the NEPA process. She will try to schedule a date and bring together the group. Is OHA going to seek a cooperator agreement? OHA needs to be very clear on this.

Port closed the meeting stating that this is the first spaceport and geothermal meeting. Is it useful for us to meet on spaceport and geothermal issues at the same time? Taylor suggested spaceport as an appendage. Huntzinger stated that it seems the information regarding the spaceport comes out of Washington. It seems they oversee this project and we receive briefings every so often. The conclusion was that we include both topics, but keep geothermal as the primary concern when we meet again in May, 1992.

the Interior standpoint there have been many times when an EIS comes for review and it should have been examined by staff during the process. She encouraged the state to tap into these bureau resources. She expressed surprise that an EIS is hoped for this June. She suggested tracking gaps and holes now, so we don't find out to our dismay in September or October that something was left out. The more up front we are the better. OCST, Dept. of Transportation, Dept. of the Interior, and bureaus in Honolulu and the Big Island should sit down and consult soon. She also specifically recommended that the FWS' Endangered Species staff be contacted before the EIS gets too much further along.

Spaceport team replied that at this point there has not been an application filed. The writing of the proposed project description is at the "intent" stage and we are still in the draft process, stated DBED representatives. There are nuances between the state and federal and it is in the range of examination by the state right now. It sounds like a master plan with a parallel EIS. There's no permit application yet. It is not at the federal stage yet and there has been no NEPA action. The closest terminology for it now is a "programmatic EIS" and it is very broad. Once specifics are arrived at a supplemental will come forward. Depending on the site chosen, OHA may become involved.

The question was raised as to how many land owners are in the area of the two proposed sites. Dement answered that there may be a couple of hundred. He doesn't think there is any federal land involved. Taylor stated that tracts #27 and #28 are proposed future acquisitions by Hawaii Volcanoes National Park.

Safety zones, buffer zones and range of closures during launch were discussed. The buffer zone is generally a 2.9 mile area. It was stated that there are possibly 3,000 acres of Hawaii homelands of which we don't know the type of zoning as there is no infrastructure.

Chip Demarest, Resources Contaminants Assessment Specialist, FWS (808) 541-2749, was suggested as an excellent resource.

Maurice Kaya introduced Dean Nakano, both from DBED. Nakano recently became the Geothermal Resource Manager. He was previously a geothermal resource manager with DLNR.

Kaya spoke on the EIS efforts and the master plan for geothermal. It began one year ago. Judge Ezra wants a Federal EIS. The State is still on hold. D.O.E. intends to schedule scoping meetings - maybe March. State's role is to provide logistics support and play a programmatic role as a manager. There's been a co-lead question. A letter from the D.O.E. was received by the Governor offering the state the position as cooperator. Kaya stated that more internal assistance as a lead cooperator is necessary before they can go ahead. State efforts are on hold now. Baseline data gathering has been done. He stated that we need to formalize all pending resolutions of these EIS issues. DBED's role as overall

- . Marine ecology, turtles, mammals, fish
- . Natural hazards
- . Water resources
- . Air quality

Concerns

- . Noise
- . Archaeology, oral history and field work
- . Mauna Kea observatories, light, exhaust
- . Visual impacts
- . Shoreline access
- . Public health and safety
- . Land and ocean
 - . economics
 - . lifestyles
 - . housing
 - . public services

Two sites are being considered as possible spaceport locations: Palima Point and Kahili Hale - both have the necessary land size to accommodate.

They expect to have the draft of the EIS completed by June 1992.

Taylor requested that our concerns be addressed before the draft goes public. We discussed EIS team structure and group coordinators, etc. It is necessary to look at the human health risks and ecological matters.

D. Flagg spoke on models used in assessing the EIS. ACTA, Vandenburg Air Force Base, is one group doing a model plume study of hot and cold spills. They are also looking at toxicology and cancer potentials. DBED is working on impacts to ground waters, air quality in and around Kona looking at vog and launch pollutants and problems associated with them.

Taylor mentioned that an informal arrangement with regional players to prevent fragmentation of Hawaiian lands should occur and we're hoping that this team will join in with the Puna Forest Management group so that an understanding can be applied as we "carve up the land." He stated that EIS studies, details and problem solving are important as we go.

Flagg stated that spaceports are open space versus more intrusive types of industry. Five percent of 12,000 acres will be used.

The mechanism for communication has begun.

Port mentioned that it is very important for agencies to be involved as a writing team is established. Bureaus can be instrumental in assuring that the EIS is the best it can be. Federal and state input by U.S.F.W.S., U.S.G.S, and N.P.S. is extremely helpful in flora and fauna insights. She finds that from

train stuck and was abandoned. Significance: surprised such a high percentage of steam. Higher the steam, the better the resource. Taylor stated that one of the nice things about this management is the promotion of a forest management group - adhoc committee. Dement outlined the areas comprising the forest management group and clarified the district on the HAVO map/board. The idea behind this group was to bring together owners of land tracts where forest and natural reserves exist. This is a huge chunk of land and the purpose of the group is to look at the entire ecosystem and projects which affect vegetation management. There have been three meetings here. We are trying to keep boundary areas compatible. Managers want to see gradient of land uses and Taylor stated that at least (geothermal) is at the urban end of the land area. So as a group, DLNR, Division of Forestry, True, Mid Pacific, HAVO and USFWS, Bishop and Campbell Estates, together meet over concern for the land.

Role of the State of Hawaii/Conceptual Project Description - Spaceport.

Private industry will build the site, not the State, U.S. or foreign sponsorship will be open for bidding. This will be determined after the EIS is completed. The role of the State will be to help with the acquisition of land and to oversee the building and operation plans of whomever; however their role will be as overseer and not builder or operator.

Full-Build out

- . 4 launch pads
- . 1 for small sounding
- . 1 for orbital
- . 2 for medium sized

- . Sounding rockets
- . 16 orbital class launches per year.
- . Facilities to build and check out rockets before launch
- . Satellite processing facility
- . Range safety system to ensure rockets do not endanger people, property.
- . Support facility - offices workshops, lab, cafeteria.

They are looking at 12 - 15 thousand acres. Showed us a map/type of facility.

Full-Build out

- . 325 permanent employees to operate the facility.
- . Few higher paid engineers, technicians, programmers, administrator.
- . Feel that 70% of the jobs can be filled from local sources.

Environmental importance was noted. They're not only concerned that this launch site is one of the best in terms of location and weather, there are concerns for:

- . Terrestrial ecology, flora and fauna.



IN REPLY REFER TO:

United States Department of the Interior

OFFICE OF THE SECRETARY
Office of Environmental Affairs
600 Harrison Street, Suite 515
San Francisco, California 94107-1376



Geothermal/Spaceport Meeting February 7, 1992

Members Present: Bill Dement - Campbell Estates
Karen Evans - U.S.F.W.S., Oahu
Dick Flagg- DBED, OSI,
Hugo Huntzinger - Hawaii Volcanoes National Park
Jim Jacobi - U.S.F.W.S., Volcano
Maurice Kaya - DBED Energy Division
George Krasnick, GK & Associates, Oahu
Lynn Lee - OHA, Oahu
Bill Meyer, U.S.G.S.
Ken Munechika - DBED-OSI
Dean Nakano - DBED, OSI
Pat Port - Regional Environmental Officer, D.O.I, San Francisco,
Janet Swift - Dept. of Land & Natural Resources, Oahu
Dan Taylor - Chief of Resources Management, Hawaii Volcanoes
National Park
Dick Wass - U.S.F.W.S., Hilo

H. Huntzinger welcomed the group as host of the Spaceport and Geothermal Interagency meeting chaired by Regional Environmental Officer, P. Port. D. Taylor noted that some of the group would arrive late and they would also have to leave early, thus "spaceport" was to be first on the agenda. The field trip was to take most of the day and the plan was to break at 11 a.m. to visit to the proposed Palima Point spaceport area. Before DBED staff arrived introductions and insights from U.S.G.S. on geothermal took place.

From the Survey's perspective no actions from U.S.G.S. have been taking place under the court order has required constraints. Resources will be assessed, but down hole assessment equipment is constrained from any use. Lloyd Lewis, DOE has been successful in providing existing data to Oakridge Laboratory staff who will write an assessment soon. Mr. Lewis is expected in Hawaii for scoping sessions in March 1992.

The spaceport team still had not arrived thus B. Dement briefed the group on geothermal. He spoke in detail on True Mid Pacific's status. Dement has asked for the results of drilling on True's operation however, and Swift agreed, they are subject to confidentiality and have up to one year before the information becomes public (it is due soon). Five holes have been drilled. Four produced steam. The test revealed 49,000 pounds of steam per hour. This result came from a limited flow test on a 2 megawatt flow test. They expected more, stated Dement. One hole drill



IN REPLY REFER TO:

United States Department of the Interior

OFFICE OF THE SECRETARY
Office of Environmental Affairs
600 Harrison Street, Suite 515
San Francisco, California 94107-1376



Memorandum

To: Geothermal Working Group Members
From: Patricia Sanderson Port, REO
Re: Minutes from February Meeting

Attached please find minutes from the last meeting on Big Island. Mahalo to Lisa for taking them and transcription.

Our next meeting is scheduled for the Superintendent's Office at HI Volcanoes NP on Big Island for 10:00 a.m. **Friday, May 15, 1992.** We will invite the Spaceport staff to brief us in the afternoon if they have anything they would like to report.

If you have any questions or corrections to these minutes, kindly contact me at 415/744-4090.

See you in May.