

FOR PUBLICATION IN WEST'S HAWAII REPORTS AND PACIFIC REPORTER

IN THE INTERMEDIATE COURT OF APPEALS
OF THE STATE OF HAWAII

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'OHANA PALE KE AO; KOHANAIKI 'OHANA; GMO-FREE HAWAII,; and
SIERRA CLUB, HAWAII CHAPTER, Plaintiffs-Appellees, v.
BOARD OF AGRICULTURE, STATE OF HAWAII,
Defendant-Appellant

NO. 27855

APPEAL FROM THE CIRCUIT COURT OF THE THIRD CIRCUIT
(Civ. No. 05-1-0144K)

MAY 21, 2008

WATANABE, PRESIDING J., FOLEY, AND NAKAMURA,

K. HAMAKADO
SERIAL APPELLATE COURTS
STATE OF HAWAII

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FILED

OPINION OF THE COURT BY WATANABE, PRESIDING J.

The Board of Agriculture¹ (the Board) of the State of Hawaii (the State) appeals from: (1) the judgment entered by the Circuit Court of the Third Circuit² (the circuit court) on March 3, 2006 in favor of 'Ohana Pale Ke Ao; Kohanaiki 'Ohana; GMO-Free Hawaii; and Sierra Club, Hawaii Chapter (Plaintiffs); and (2) the order granting Plaintiffs' motion for summary judgment and denying the Board's motion to dismiss or for summary judgment entered on December 16, 2005.

This appeal presents two issues: (1) whether the Board was required to comply with the Hawaii Environmental Policy Act

¹ Pursuant to HRS § 26-16 (Supp. 2007), the Board heads the State Department of Agriculture.

² The Honorable Elizabeth Strance presided.

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(HEPA), Hawaii Revised Statutes (HRS) chapter 343, before approving a permit to import genetically engineered (GE) algae for production in a facility on state lands; and if so, (2) whether two prior environmental impact statements (EISs) prepared for the state lands where production of the GE algae is planned satisfied the Board's HEPA obligations.³

We affirm.

BACKGROUND

A.

Since 1995, Mera Pharmaceuticals (Mera), a marine biotechnology firm, has been a tenant at the Natural Energy Laboratory of Hawai'i (NELH),⁴ a research and technology park⁵ on

³ The Board also contends that "the circuit court erred by characterizing the activity under the permit as 'mass production' of [GE] algae" and in concluding that the mass production of GE algae "constitutes new circumstances which may constitute a different environment impact not previously addressed thereby necessitating supplementation of the existing EIS pursuant to [Hawaii Administrative Rules] §§ 11-200-26 through 11-200-27." In light of our disposition of this appeal, it is unnecessary for us to address this contention.

⁴ The Hawai'i Legislature established the NELH pursuant to Act 236, 1974 Haw. Sess. L., at 691-93, and provided that the NELH would be "located on the parcel of state-owned land makai of the Keahole airport on the island of Hawaii" and "under the direction and management of a consortium which may consist of, but is not necessarily limited to, the Department of Land and Natural Resources, the County of Hawaii, the University of Hawaii, and such foundations and enterprises as shall be willing to provide funds, facilities or research for said laboratory."

Following the passage of Act 236, a consortium of representatives of different government entities provided direction and management for the NELH, and in 1979, the legislature enacted Act 213, 1979 Haw. Sess. L., at 439-41, which formally established the NELH, its managing board, and a special fund for its operations. Act 213, which was subsequently codified as HRS chapter 227, provided that the NELH

shall manage and operate an outdoor research facility on a parcel of state-owned land at [Keāhole] Point on the island of Hawaii. The outdoor research facility shall provide a site for research, development, and demonstration of natural energy resources and for other compatible scientific and technological investigations. For the purposes of such activities, the outdoor research facility shall include the land at [Keāhole] Point, the waters offshore, and the

(continued...)

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land owned by the State in Keāhole, north of Kailua-Kona, on the island of Hawai'i. The NELH has been the subject of two prior EISs,⁶ one in 1976 and the other in 1985. The 1976 EIS primarily

⁴(...continued)

structures constructed or erected thereon or therein, as determined to be required by the managing board of the [NELH].

1979 Haw. Sess. L., Act 213 at 440.

Pursuant to Act 224, 1990 Haw. Sess. L., at 474-80, the legislature consolidated the management of the NELH and the adjoining Hawai'i ocean science and technology (HOST) park to attract commercialization projects in concert with NELH activity. HRS chapter 227 was repealed and chapter 227D was added, which established the Natural Energy Laboratory of Hawaii Authority (NELHA) to manage both NELH and HOST. HRS § 227D-2 (1993).

⁵ Pursuant to HRS § 227D-1 (1993):

"Research and technology park" means a tract of real property determined by the board [of directors of NELHA] as being suitable for use as building sites for projects engaged in research, development, demonstration, processing, or manufacturing activities or retail or commercial enterprises utilizing or in support of the utilization of natural resources or geothermal energy. This includes, but is not limited to, research, commercialization, training, education, technical analyses, pilot plant, or prototype product development, and may include the installation of improvements to tracts incidental to the use of real property as a research and technology park, such as water, sewer, sewage and waste disposal, and drainage facilities, sufficient to adequately service projects in the research and technology park, and provision of incidental transportation facilities, power distribution facilities, and communication facilities.

⁶ Currently and at all times relevant to this case, an "environmental impact statement" is defined as

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 welfare, social welfare, and cultural practices 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

(continued...)

addressed the environmental impacts of the NELH support facilities and did not discuss future buildings that might be constructed or future projects that might be conducted at the NELH site. The 1985 EIS included recommendations for potential aquaculture projects at the NELH that included the cultivation of algae.

Pursuant to an application to the State Department of Agriculture (DOA) dated October 29, 2004 and supplemented on April 7, 2005, Mera requested a permit to import into Hawai'i test-tube cultures of eight GE strains of the *Chlamydomonas reinhardtii* 137c+ alga (Cr137+ algae or algae) for large-scale production in outdoor photobioreactors⁷ at Mera's research and production facility at the NELH. Mera's application noted that the purpose for importing the algae was to "determine the capacity of *Chlamydomonas* to produce high value metabolites (antibodies) for therapeutic applications." The application also explained:

The strains that we intent [sic] to import have been transformed to express human monoclonal antibody proteins in their chloroplast (no nuclear transformation). All the strains are derived from the parental strain identified as strain 137c (mating type +) maintained in culture at the *Chlamydomonas* Genetics Center at Duke University. For example, one of the strains (identified as Hsv8) has the capacity to express a full-length immunoglobulin-A molecule against a variant of the Herpes simplex virus.

Chlamydomonas reinhardtii is a fresh water microalga belonging to the Chlorophyceae. It is unicellular and

⁶(...continued)

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.

HRS § 343-2 (Supp. 2007).

⁷ A photobioreactor is "[a]ny closed system where algae can be cultured using light as an energy source." Record on Appeal, volume 2, at 361. The outdoor photobioreactors consisted of "a network of solid PVC and clear plastic tubes of up to 15" diameter" that were "completely sealed from the environment." *Id.* at 392 (emphasis removed).

biflagellated (it can swim). *Chlamydomonas*' mode of nutrition is autotrophic. Therefore, it requires light and dissolved salts in water. The organism is maintained in culture collections at between 8 and 18° C. Its optimal temperature for growth has not been determined. Although it grows well in liquid culture and brackish environments it can also survive in damp soils. Strains of *Chlamydomonas* have been isolated even from snowfields. We are not aware of any biogeographical studies specific to this organism. However, natural specimens that have been used to establish cell lines at algal collections have been collected from damp soils, fresh water, brackish water, sea water and snow fields (mountains and in Antarctica). The strains that we intend to use are derived from a fresh water strain.

In principle, *Chlamydomonas* could be dispersed along with contaminated water or wet soils. We do not believe that this is a concern at our facility in Kailua-Kona as we are surrounded by hot lava fields where open fresh water bodies are non-existent.

Mera's application was submitted to the DOA pursuant to HRS chapter 150A (1993 & Supp. 2007), entitled "Plant and Non-Domestic Animal Quarantine and Microorganism Import," and Hawaii Administrative Rules (HAR) title 4, subtitle 6, chapter 71A, entitled "Microorganism Import Rules," the latter of which was adopted by the Board pursuant to HRS § 150A-9 (1993).⁸

HRS § 150A-6 (Supp. 2007)⁹ provides that no person

⁸ HRS § 150A-9, entitled "Rules and regulations[,]" states: "The department [of agriculture] shall have the authority to carry out and effectuate the purposes of this chapter by rules and regulations."

⁹ HRS § 150A-6 currently provides, as it did during the proceedings below, in relevant part, as follows:

Soil, plants, animals, etc., importation or possession prohibited. No person shall transport, receive for transport, or cause to be transported to the State, for the purpose of debarkation or entry thereinto, any of the following:

. . . .

- (3) Any . . . microorganism in any stage of development that is detrimental or potentially harmful to agriculture, horticulture, animal or public health, or natural resources, including native biota, or has an adverse effect on the environment as determined by the board[.]

shall import into the State any microorganism that "is detrimental or potentially harmful to agriculture, horticulture, animal or public health, or natural resources, including native biota, or has an adverse effect on the environment as determined by the board[.]" Pursuant to HRS § 150A-6.3 (Supp. 2007),¹⁰ the Board is required to maintain both a list of nonrestricted microorganisms allowed into the State without a permit and a list of restricted microorganisms that require a permit for import. The Board's List of Restricted Microorganisms (Part B), which includes microorganisms classified as "moderate risk" and is incorporated as part of HAR § 4-71A-22, includes all species in the *Chlamydomonas* genus. Therefore, Mera was required to obtain a permit to import and use the eight strains of the Cr137+ algae in Hawai'i.

B.

Under the Board's Microorganism Import Rules, the Chief of the Plant Quarantine Branch (PQB) for the Department of

¹⁰ HRS § 150A-6.3 (Supp. 2007) requires currently, as it did during the proceedings below, in relevant part, as follows:

Microorganism import. (a) The board shall maintain:

- (1) A list of nonrestricted microorganisms allowed entry into the State without a permit;
- (2) A list of restricted microorganisms that require a permit for import into the State and possession[.]

. . . .

(b) Import of a microorganism on the restricted list of microorganisms shall be by permit issued pursuant to rules and subject to conditions established by rules; provided that, if the department in its discretion determines that import of a microorganism on the restricted list or the microorganism's proposed use presents a high risk to agriculture, horticulture, the environment, or animal or public health, the import request shall be subject to advisory committee review and board approval, including a determination that the importer is able to comply with conditions established by the board, before a permit may be issued.

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Agriculture (PQB Chief) is authorized, under certain circumstances, to approve an application for an import permit without submitting the application to the Board. See HAR §§ 4-71A-5(b) (2001) and 4-71A-22(c) (2001). For instance, pursuant to HAR § 4-71A-22(c) (3),¹¹ the PQB Chief is authorized to approve import permits for the "[c]ultivation of algal . . . species in a closed or semi-closed system such as a photobioreactor." However, if the PQB Chief determines that the import of a strain of a restricted microorganism is likely to increase the level of the microorganism's risk to above a moderate risk, a permit approved by the Board is required. Id.

¹¹ HAR § 4-71A-22(c) provides, in relevant part:

List of restricted microorganisms Part B. . . .

. . . .

(c) The introduction into Hawaii and possession of a microorganism on the list of restricted microorganisms, Part B, may be allowed by permit approved by the chief [of the Plant Quarantine Branch] for the following purposes

. . . .

(3) Cultivation of algal, cyanobacterial and photosynthetic bacterial species in a closed or semi-closed system such as a photobioreactor.

(d) The introduction into Hawaii and possession of a microorganism on the list of restricted microorganisms, Part B, for purposes other than those described in subsection (c) will require a permit approved by the board pursuant to sections 4-71A-4 and 4-71-7.

(e) If the chief determines that import of a strain of microorganism on the list of restricted microorganisms, Part B, is likely to increase the level of risk above that of a moderate risk microorganism as defined in section 4-71A-2, the request to import will require a permit approved by the board [of agriculture] pursuant to sections 4-71A-4 and 4-71A-7.

(f) A permit issued under this section is subject to permit conditions as provided in subchapter 3.

Id. (emphases added).

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For permit applications that require Board action, HAR § 4-71A-7 (2001), entitled "Processing permit applications requiring board action[,]" specifies that the application shall be initially sent to "members of the appropriate advisory subcommittee(s) for review." HAR § 4-71A-7(b). The subcommittee's comments and recommendations are then sent to the Advisory Committee on Plants and Animals (Advisory Committee) established pursuant to HRS § 150A-10 (1993)¹² for review. HAR § 4-71A-7(c). The Advisory Committee then compiles its own comments, recommendations, and/or votes on the permit application, and this information, together with any subcommittee comments and recommendations and the PQB Chief's recommendation, is submitted to the Board. HAR § 4-71A-7(d).

In this case, Dr. Neil Reimer, the PQB Chief, initially reviewed Mera's application and determined that the GE strains of algae that Mera sought to import posed an "above moderate risk," based on the following factors: "(1) comments from two advisory subcommittee consultants; (2) uncertainty as to whether the

¹² HRS § 150A-10 (1993) provides, in relevant part, as follows:

There shall be an advisory committee on plants and animals composed of the chairperson of the board [of agriculture] or the chairperson's representative who shall be chairperson of the committee, the chairperson of the board of land and natural resources, the director of the office of environmental quality control, the director of department of health or their designees, and five other members, with expertise in plants, animals, or microorganisms, and who, by virtue of their vocation or avocation, also are thoroughly conversant with modern ecological principles and the variety of problems involved in the adequate protection of our natural resources. The latter five members shall be chosen by the chairperson. The committee shall advise and assist the department in developing or revising laws and regulations to carry out and effectuate the purposes of this chapter and in advising the department in problems relating to the introduction, confinement, or release of plants, animals, and microorganisms.

The chairperson may create ad hoc or permanent subcommittees, as needed.

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[GE Cr137+] algae was subject to federal regulatory authority; (3) PQB's lack of regulatory experience with algae strains genetically engineered to produce therapeutic molecules; and (4) the fact that it was proposed for large scale [sic] and in an outdoor system." The PQB Chief further explained that "[a]s the first request of its kind, Mera's import request raised issues that [he] felt deserved to be explored and examined through the advisory review process and that process would also provide opportunity for public input." As a result, Mera's permit application required Board action and was subject to the HAR § 4-71A-7 process, including review by advisory subcommittees and the Advisory Committee.

On May 4, 2005, the Advisory Committee reviewed Mera's application and recommended conditional approval by the Board.

The Board held public meetings on May 24 and June 28, 2005 to consider Mera's application. At both meetings, community groups and individuals voiced concerns about the importation, storage, and production of the GE strains of algae. The majority of these groups and individuals urged the Board to comply with the environmental review process set forth in the HEPA, which requires, at minimum, an environmental assessment (EA) before acting on the application. An EA is "a written evaluation to determine whether an action may have a significant effect." HRS § 343-2 (Supp. 2007). "Significant effect" is defined in HRS § 343-2 as

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's environmental policies or long-term environmental goals as established by law, or adversely affect the economic welfare, social welfare, or cultural practices of the community and State.

At the June 28, 2005 meeting, the PQB Chief, in response to questions posed by Board members, indicated that

based on the information made available during the advisory review process, he "came to realize that, with appropriate restrictions and safeguards, the risk of this alga escaping from Mera's facility and establishing in the environment is minimal." Additionally, he informed the Board that "Mera's containment facility, equipment, and protocols are sufficient to minimize the risk of escape and the environment around Mera's facility is hostile to growth of freshwater alga like [Cr137+]." The PQB Chief also told the Board that

(a) if zero risk was the standard for allowing import, nothing could be imported into the State, not even naturally occurring microorganisms; (b) if these algae escaped from Mera's facility, it does not appear to be a human health issue; and (c) it is possible that these algae could escape from Mera's facility and establish as an invasive species in the environment if an unusual chain of events occurred, such as a hurricane blowing the algae into a stream.

The Board subsequently approved Mera's application without conducting any environmental review under HEPA.

C.

On August 2, 2005, Plaintiffs filed a complaint for declaratory judgment and injunctive relief, alleging that the Board had violated HEPA when it approved Mera's permit application without conducting, at minimum, an EA. On September 12, 2005, Plaintiffs moved for summary judgment, asking the circuit court to "rule as a matter of law that HEPA requires, at minimum, that the [Board] undertake the process of preparing an EA before approving this . . . algae project." On September 22, 2005, the Board filed a motion to dismiss or for summary judgment in its favor.

On December 16, 2005, the circuit court entered an order granting Plaintiffs' motion for summary judgment and denying the Board's motion to dismiss or for summary judgment. The circuit court concluded that Mera's application for an import permit proposed an "action" on state lands that was covered by

HEPA and accordingly required preparation of an EA. Conclusions of Law (COL) H, J, and K. The circuit court also concluded that the prior EISs "do not cover the mass production of various [GE] strains of biopharmaceutical or biopharm algae." COL M. Finally, the circuit court concluded that the "mass production of algae using [GE] algae constitutes new circumstances which may constitute a different environmental impact not previously addressed thereby necessitating supplementation of the existing EIS pursuant to [HAR] §§ 11-200-26 through 11-200-27." COL N.

Final judgment in Plaintiffs' favor and against the Board was entered on March 3, 2006, and this appeal followed.]

DISCUSSION

A. The Board Was Required to Comply with HEPA.

The Board contends that it was not required to conduct a HEPA environmental review before approving Mera's permit application because: (1) HRS chapter 150A establishes a comprehensive and exclusive process for the issuance of permits for importing microorganisms and vests in the Board the sole authority to regulate the import of microorganisms; (2) the Board exhaustively followed the HRS chapter 150A process and undertook a detailed review of Mera's permit application that included the essential components of the HEPA review process; (3) the Board received substantial input from experts, staff members, and members of the public before acting on Mera's application; and (4) the Board thoroughly considered and discussed the risks posed by Mera's importation of the algae and imposed stringent conditions on Mera to minimize any risk.

Whether the Board was required to comply with HEPA is a question of law involving statutory interpretation. The Hawai'i Supreme Court has stated that

statutory construction is guided by established rules:

First, the fundamental starting point for statutory interpretation is the language of the statute itself.

Second, where the statutory language is plain and unambiguous, our sole duty is to give effect to its plain and obvious meaning. Third, implicit in the task of statutory construction is our foremost obligation to ascertain and give effect to the intention of the legislature, which is to be obtained primarily from the language contained in the statute itself. Fourth, when there is doubt, doubleness of meaning, or indistinctiveness or uncertainty of an expression used in a statute, an ambiguity exists.

In the event of ambiguity in a statute, the meaning of ambiguous words may be sought by examining the context, with which the ambiguous words, phrases, and sentences may be compared, in order to ascertain their true meaning. Moreover, the courts may resort to extrinsic aids in determining legislative intent, such as legislative history, or the reason and spirit of the law.

Del Monte Fresh Produce (Hawaii), Inc. v. International Longshore & Warehouse Union, Local 142, 112 Hawai'i 489, 499, 146 P.3d 1066, 1076 (2006) (citations and internal quotation marks omitted). We examine HEPA according to the foregoing principles of statutory construction.

1.

The substantive portion of HEPA at issue in this case is HRS § 343-5 (Supp. 2007),¹³ which states, in relevant part:

Applicability and requirements. (a) Except as otherwise provided, an environmental assessment shall be required for actions that:

- (1) Propose the use of state or county lands or the use of state or county funds . . .

. . . .

(c) Whenever an applicant proposes an action specified by subsection (a) that requires approval of an agency and that is not a specific type of action declared exempt under section 343-6, the agency initially receiving and agreeing to process the request for approval shall prepare an environmental assessment of the proposed action at the earliest practicable time to determine whether an environmental impact statement shall be required. The final approving agency for the request for approval is not required to be the accepting authority.

¹³ The quoted text of HRS § 343-5(a)(1) and (c) has not changed since the underlying lawsuit was filed.

(Emphases added.) The foregoing statute unequivocally requires preparation of an EA for any "action" that proposes the use of state land. "Action" is defined as "any program or project to be initiated by any agency or applicant." HRS § 343-2 (Supp. 2007).¹⁴ Pursuant to HRS § 343-2, an "agency" is "any department, office, board, or commission of the state or county government which is a part of the executive branch of that government." "Applicant" is defined as "any person who, pursuant to statute, ordinance, or rule, officially requests approval for a proposed action." HRS § 343-2. The Board is clearly an "agency" and Mera is clearly an "applicant" for purposes of HEPA.

The Board contends that because Mera's application sought permission only to import and use the algae at Mera's already existing facilities, the application did not propose any action that involved the use of state or county lands or the use of state or county funds that triggered environmental review. The Board does not dispute, however, that Mera's existing facilities are located at the NELH, which is on state lands. Additionally, it is clear from the record that Mera intends to keep and grow the imported algae at the NELH site to "demonstrate the feasibility of scaling up their cultures to a capacity of several hundred liters." This demonstration project thus constitutes an action that proposes the use of state land. While HRS chapter 150A and the Board's Microorganism Import Rules may vest the Board with exclusive authority to approve Mera's proposal to import and grow the GE algae at NELH, HRS § 343-5 plainly and unambiguously required preparation of an EA before the Board could approve Mera's application.

¹⁴ There has been no change in the definition of "action" since this lawsuit was filed.

2.

Although we need not consider it, given the plain language of HRS § 343-5, we note that the legislative history of HEPA also supports our conclusion. The legislature's intent in enacting HEPA is expressed in HRS § 343-1 (1993), which states:

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.

(Emphases added.)

The foregoing language makes clear that in enacting HEPA, the legislature sought to monitor human activity that poses a threat to the quality of the environment, upon which we depend for our collective well-being. Through this statute, the legislature established a specific environmental review process¹⁵

¹⁵ The Hawai'i Supreme Court recently described the HEPA's environmental review process in Sierra Club v. Department of Transp., 115 Hawai'i 299, 307-08, 167 P.3d 292, 300-01 (2007), as follows:

When no exemption applies and one of the triggers of HRS § 343-5(a) is met, environmental review begins with the development of a draft EA. An EA, defined in HRS § 343-2, is an informational document prepared by either the agency proposing an action or a private applicant, which is used to evaluate the possible environmental effects of a proposed action. It must give a detailed description of the proposed action or project and evaluate direct, indirect, and cumulative impacts, as well as consider alternatives to the

(continued...)

which was to be "integrated" with existing governmental procedures through "cooperation," "coordination," and "public participation." The legislature sought to give environmental concerns due consideration amidst the economic and technical goals of the State.

Thus, contrary to the Board's assertions, the requirements of HRS chapter 343 were intended to supplement decision-making by agencies involved in a permitting process.

3.

The Board insists that the legislature intended HRS chapter 150A, due to its comprehensiveness, to be the "exclusive" mechanism for importing microorganisms such as the Cr137+ algae. However, there is no provision in either HRS chapter 150A or chapter 343 that expressly exempts the Board from complying with HEPA when it acts on an application for a permit to import microorganisms.

The general rule is that when a plainly irreconcilable

¹⁵(...continued)

proposed project and describe any measures proposed to minimize potential impacts. Once completed, the public has thirty days to review and comment on a draft EA. After the draft EA is finalized and public comments responded to, the agency proposing or approving the action reviews the final EA to determine if any "significant" environmental impacts are anticipated. If the agency determines that there will be no significant environmental impact, it issues a finding of no significant impact (FONSI), allowing the project to proceed without further study, although a FONSI determination may be challenged. However, if the agency determines that an action may have a significant impact, a more detailed EIS must be prepared. EIS preparation begins with a notice and comment period to define the scope of the draft EIS. Following this, the EIS is prepared in draft form by the proposing agency or applicant and becomes finalized after review by [the] public and government agencies and a period for public comment and response. The final EIS must then be accepted, by the Governor or Mayor for agency actions, and by the approving agency for applicant actions. Once the EIS is accepted, the action may be implemented.

(Citations omitted.)

conflict arises between a general and specific statute covering the same subject matter, the general statute must yield. In re Doe, 109 Hawai'i 399, 409, 126 P.3d 1086, 1096 (2006).

"However, where the statutes simply overlap in their application, effect will be given to both if possible, as repeal by implication is disfavored." Id. (quoting Chock v. Government Employees Ins. Co., 103 Hawai'i 263, 269, 81 P.3d 1178, 1184 (2003)).

While HRS chapters 150A and 343 may overlap in their application and purpose, they do not conflict and both can be given effect. Accordingly, the Board was required to comply with HEPA and prepare, at minimum, an EA before acting on Mera's application for an import permit.

B. The Prior EISs Did Not Encompass the Approval of Mera's Permit.

The Board next argues that the circuit court erroneously concluded that the approval of Mera's permit was not covered by two prior EISs conducted for the NELH. The Board points out that the 1985 EIS specifically "recognized that the NELHA facilities would be used for production of algae and microalgae for research and commercial application, including pharmaceuticals." Therefore, the Board contends, the importation of the GE algae is merely a continued activity which has been addressed by the EISs. The only difference, argues the Board, is the specific microorganism at issue.

Our review of the EISs in question indicates otherwise. The 1976 EIS was prepared for Phase I of the NELH project, which involved the construction of the support facilities and infrastructure needed to begin development of the NELH. The Summary at the beginning of this EIS states in part:

The NELH is being planned as the site of a number of research projects for the development of alternate energy systems. The physical characteristics of the site are

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uniquely suited for several significant State and Federal energy programs. The success of these programs is of potentially high significance in the intensive, long-term development of energy source alternatives to fossil fuels.

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Phase I of the NELH development is the construction of essential site improvement and support facilities for future research projects. These include a 2-mile, 2-lane access road to the site from the Queen Kaahumanu Highway and corridors for water, sewage, electricity and telecommunications. Future energy project developments at the NELH site are conceptually planned but are not presently funded.

.

The purpose of this [EIS] is to identify and evaluate the potential environmental impacts of the NELH Phase I support facilities which are to be funded by the State and developed in accordance with the NELH Master Plan. It also includes brief descriptions of the more likely future energy programs to be undertaken at [Keāhole].

The presence of the NELH support facilities and the natural attributes of [Keāhole] Point will tend to attract and stimulate alternate energy research projects at the site. This is in accordance with the NELH objectives, so in itself the facility's growth is not an adverse impact. . . . Future projects are at present conceptual and the impact of each project cannot be completely defined at this time. Appendix A of this EIS provides a discussion of the proposed future projects and some of their potential environmental impacts. An EIS will be prepared, when required, prior to initiation of a proposed future research project to determine the impacts to the site and its surroundings.

(Emphases added.)

Thus, the focus of the 1976 EIS was the construction of support facilities and infrastructure needed to begin development of the NELH, a research and technology park that would provide space and facilities for the incubation of energy research and development projects. At the time the 1976 EIS was prepared for the Research Corporation of the University of Hawai'i (RCUH), it was unknown which entities would become tenants of the park and which research and development projects would be conducted at the site. This uncertainty is reflected in the RCUH's responses to comments received about the draft EIS that are included in the

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1976 EIS. For example, in a letter to Dr. Richard E. Marland, Director of the State Office of Environmental Quality Control, RCUH's Project Administrator addressed Dr. Marland's comments partly as follows:

1. At this time, the future energy research projects to be conducted at the NELH are only conceptual. Because the scope and type of the future projects depend so heavily upon the results of the basic research and federal funding, it would be futile to attempt to evaluate specific impacts at this time. The descriptions of the future projects and associated impacts in Appendix A of the EIS are general, but are based upon all the presently available information. It is for the above reasons that we have adopted the phased approach to the Environmental Impact Statements. The Phase I NELH development is the subject of this EIS but the concepts for future NELH projects are also included, to the extent of our present knowledge. Future projects of significance will each require an EIS.

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8. At the time the EIS was filed, it was believed that there were no unresolved issues, and that any such issues would be generated during the public review period. In reviewing the response letters to date, there appear to be two unresolved issues, and these have been included in the appropriate chapter of the EIS. . . . [T]he remaining unresolved issues are:

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- b. Scope of the EIS - There have been some questions, primarily from the Office of Environmental Quality Control, concerning the scope of the EIS. The main question is the extent to which the EIS for the NELH Phase I facilities should describe the impact of future projects. It is not believed possible at this time to define environmental impacts of projects that are still conceptual. The approach of the NELH is to undertake an EIS for each major project at the site, at the time when enough information is available to allow the EIS to be developed. This approach has been supported in a review letter (October 8, 1976) from the Environmental Center of the University of Hawaii.

(Emphases added.) The October 8, 1976 review letter from the Environmental Center of the University of Hawai'i that is

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referred to in the above response expresses the futility of analyzing the potential impact of future projects that were yet unknown:

Impacts of the potential actions whose utility and feasibility may be disclosed by the research are very great. A requirement that such secondary impacts be analyzed as secondary impacts of the research before the research is undertaken would, however, be futile, unless the nature of the potential actions is fairly certain in advance. In many cases research is necessary to determine what environmental impacts will stem from the potential actions, and it would be absurd to require a statement on such impacts before the research required to determine them can be undertaken. In general, then, the concerns of an EIS system in relation to research relate to its primary environmental impacts, those that will result from the research undertaking itself.

Significant primary environmental impacts are unlikely in the case of most research projects, particularly those undertaken in the office or laboratory. Field projects, however, may have significant impacts, and in some cases very important impacts, and this is particularly true in the case of "pilot projects" or "demonstration projects" in which in nature and scale the research approaches those of final actions. For such projects even the secondary impacts of the research itself (as distinct from the impacts of subsequent action) may be significant. Hence it is appropriate that environmental impact system statement requirements apply to such projects.

It appears from the NELH Phase I EIS that the establishment of the NELH consists of the designation of a site and the construction of some facilities for the future conduct of field research that may involve a variety of scales but is expected to include some that will be of "pilot" or "demonstration" scale. Because the nature of the actual field research to be undertaken is somewhat problematical at the moment, it is appropriate that the environmental assessment needs be met in stages, and that the Phase I EIS relate to the combination of:

- 1) The environmental impacts of the support facilities to be provided in Phase I construction (as covered in the text of the current EIS);
- 2) The general nature of the probable impacts of the major kinds of research that are likely to be undertaken at the site (as is covered in the appendix); and
- 3) A plan for subsequent environmental assessment and EIS preparation as necessary prior to the undertaking of any of the actual research or the construction of the special facilities for this research, as the actual research plans are developed (as described in the Summary).

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(Emphases added.)

The 1985 EIS was prepared for the High Technology Development Corporation (HTDC) in connection with the development plan for the HOST Park and the expansion of the NELH. The Summary to this EIS states, in relevant part:

A 547-acre parcel of state-owned land at [Keāhole, Hawai'i], was selected for the ocean-related "high-tech" park because of the unique features which the site offers. These include: nutrient-rich, pathogen-free, cold ocean water pumped from depths of 2,000 feet below sea level and greater which are located relatively near shore; high year-round solar radiation with little cloud cover; semi-tropical temperatures and a near hurricane-free environment; and good access, with Keahole Airport adjacent to the site.

One of the most important considerations in siting HOST Park on the [Keāhole] parcel was the close proximity of the 322-acre Natural Energy Laboratory of Hawaii (NELH). NELH was established to manage and operate an outdoor research facility at [Keāhole] Point for research, development and demonstration of natural energy resources.

Research at NELH has proven the value of the pure cold ocean water in the production of mariculture products such as abalone and microalgae. Recent changes in the NELH enabling legislation authorize development, demonstration and commercialization of energy related projects. It is anticipated that this commercial development will take the form of demonstration modules to test the feasibility of various production processes. NELH will act as an "incubator" for projects as they grow from the research stage to large scale production. The adjacent HOST Park will provide the required space for projects transitioning from demonstration to full scale commercial activities.

Because the actual tenants who will locate at HOST Park and at NELH are still unknown, alternative scenarios were constructed to illustrate the extremes of "what might happen" if development progresses in certain directions.

(Emphases added.)

The 1985 EIS included preliminary recommendations for potential aquaculture projects at the NELH/HOST parks, among them, algal culture. This portion of the EIS began as follows:

The following sections present various types of aquatic life that would be potential aquaculture candidates for the NELH and HOST Park facilities. This summary is intended to be a preliminary recommendation of various organisms presently cultured in the U.S. and/or other parts of the world. Prior to attempting commercial production or R and D development,

much more detailed technological and economic investigation is advised.

ALGAL CULTURE

The culture of various types of micro- and macro-algae is the most attractive type of aquaculture for a facility producing large quantities of nutrient rich water. Algae provides an opportunity to produce significant quantities of food for human consumption; food items for the culture of mollusks, larval crustaceans, and finfish; industrial colloids and agers; and pharmaceuticals.

The micro-algae are single celled organisms which utilize the energy of the sun, available nutrients, and carbon dioxide to build proteins, fatty acids, and carbohydrates. Many of these products are necessary for the growth and survival of filter feeders (mollusks), larval crustaceans, and finfish. The production of micro-algae, like diatoms of phytoplankton, can be performed in either raceway, tank or pond culture operations, any of which are feasible at NELH or HOST Park.

(Emphases added.) There is no discussion in the 1985 EIS regarding the production of micro-algae in photobioreactors. There is also no discussion about the potential environmental impacts of large-scale production of micro-algae in raceways, tanks, or ponds, which the EIS mentions are feasible operations at NELH or HOST parks. Additionally, due to the uncertainty as to which tenants would ultimately locate to the parks, any discussion of potential impacts of future micro-algal projects was necessarily general.

The two EISs, which were prepared more than three and two decades ago, respectively, confirm that the NELH and HOST parks were still conceptual or in their infancy stages when the EISs were prepared. It is clear from the EISs that as the nature and details of individual projects to be conducted at either park became known, further HEPA review was expected.

Therefore, the record does not support the Board's contention that Mera's intended use of the NELH facilities for production of GE algae was covered by the prior EISs.

CONCLUSION

Based upon the foregoing analysis, we affirm the judgment and order appealed by the Board.

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