

**BEFORE THE ENVIRONMENTAL APPEALS BOARD UNITED
STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C.**

In re: **ENERGY ANSWERS ARECIBO, LLC**
ARECIBO PUERTO RICO
RENEWABLE ENERGY PROJECT

Permit No. 13 – 05

PETITION FOR REVIEW

By

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July 12, 2013

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INTRODUCTION

Pursuant to 40 C.F.R. § 124.19(a), Martha G. Quiñones Domínguez, petitions for review of the conditions of the Prevention of Significant Deterioration (PSD) Permit Number 13-05, issued by the United States Environmental Protection Agency, Region II (“Region”) for the construction of a new resource recovery facility. The permitted facility is owned by ENERGY ANSWER, LLC, (EA) and would be located at the former site of Global Fibers Paper Mill in Barrio Cambalache in Arecibo, Puerto Rico. The permit decision was issued by the Region is dated June 11, 2013.

In issuing the permit, the Region erred by: (1) modeling the dispersions of

contaminants utilizing meteorological data is not adequate for this purpose and does not identify the real effect of contaminants in the health and welfare of people who stay long time in the area of contaminant dispersion; (2) not including for people evaluation relevant information (analysis report of the files and other information submit by EA) create by EPA officials; and (3) not evaluating the effect of contaminants dispersion over protected ecosystem and species at relative short distance.

The effect of the Region's permit will be to allow the contaminants emitted by EA to reach people, protected ecosystems and species in concentrations that have not been evaluate adequately; this may produce harmful effects on them. The fault in real evaluation of contaminants effects, increase it by the cause of waivers approved by EPA officers.

These faults are inconsistent with the PSD permitting program.

STATEMENT OF FACTS AND BACKGROUND

The Region is authorized to administer the PSD permit program pursuant a delegation of authority by the Administrator of the United States Environmental Protection Agency ("EPA"). The Permit authorizes EA to construct and operate an incinerator facility to burn 2,106 tons refuse-derived fuel (RDF) of municipal solid waste "producing up to 77 MW of electricity". The incinerator plant would be located on an 80 acre parcel in Barrio Cambalache, city of Arecibo.

The PSD permit issued by the Region covers emissions of Nitrogen Oxides (NO_x), Carbon Oxide (CO), Ozone (as VOC), Acid gases (measured as SO₂ and HCl), particulate matter 2.5 micrometers and smaller (PM_{2.5}), and greenhouse gases. (Region II, Fact Sheet (June 20, 2012)). The plant will be located in a lead

nonattainment area.

The EPA received an application for a PSD permit for the Energy Answers facility to be constructed in Arecibo, Puerto Rico on February 8, 2011. On May 9, 2012, EPA issued a preliminary determination about the PSD permit. The hearings were realized on June 25, and August 25, 26 and 27 of 2012. The public comment period for the proposed permit closed on August 31, 2012. As mentioned, on June 11, 2013, a final permit was issued for EA facility.

THRESHOLD PROCEDURAL REQUIREMENTS

I, Martha G. Quiñones Domínguez, satisfy the threshold requirements for filing a petition for review under 40 C.F.R. Part 124.

I have standing to petition for review of the permit decision because I participated in the public comment period on the permit. See 40 C.F.R. § 124.19(a).

I spoke at the public hearing at the Lions Club of Puerto Rico. (Transcript, Hearing 3, August 25, 2012, 6 pm – 10 pm, 14-19, 67-72.)

ISSUES PRESENTED FOR REVIEW

I, Martha Quiñones Domínguez, respectfully request the Board review of the following issues:

- A. **The Region improperly allowed the applicant utilizes meteorological data not adequate for modeling the dispersions of contaminants.**

Recent meteorological data of Arecibo, near the site of the EA project, were available from other sources, including National Oceanographic and Atmospheric Administration (NOAA).

At the public hearing, Iván Elías (and others) mentioned that Cambalache 92-93 data used was inadequate for modeling contaminants dispersion because it was not

representative of Arecibo meteorological conditions.

Due to recent meteorological data of Arecibo was available at the time of the application, using Cambalache data – was twenty years old – must not be accepted by Board.

B. The Region does not include in the administrative record relevant information needed for people to participate in the public hearings.

An important part of the information that people use, Analysis report of the files and other information submit by EA create by EPA officials, does not form part of the administrative record. People could only evaluate EA documents, but could not evaluate what EPA officers do to evaluate EA documents.

Information about contaminants source in the entire site is also an important issue to evaluate by people in the public comment period. Lack in the site identification and its description, is part of the problem identifying all contaminants source of EA project.

C. A notable absence of the administrative record is the evaluation of importance effects of contaminants dispersion over protected ecosystems and species at relative short distance.

Bosque de Río Abajo and *Caño Tiburones* (*Natural Resource Reserved* by Puerto Rico government) are valuable ecological resources that will be affected by EA project.

Bosque de Río Abajo, is part of an *Endangered Species Program* of Fish and Wildlife Service (FWS) whose objective is to reproduce Puerto Rican parrots (*Amazona vittatas*), considered as one of the most endanger birds of the world.

(<http://www.fws.gov/endangered/map/state/PR.html>). But there is no reference of this issue in all the administrative record.

Caño Tiburones Wetland, the largest wetland of Puerto Rico, is part of the site of the project facility, which effects as part of site were not evaluated.

ARGUMENTS

A. The Region improperly allowed the applicant utilizes meteorological data not adequate for modeling the dispersions of contaminants.

The PSD program is establish to achieve Clean Air Act purpose, including the protection of public health and welfare from adverse effect from air pollution or from exposures to pollutants in other media, and to preserve, protect, and enhance the air quality in areas of special value. [Part C, Subpart I—CLEAN AIR § 7470. Congressional declaration of purpose]. To achieve this objective, PSD program prescribes the use of models as analytical tool to infer how the contaminant emitted by a stationary source, like EA project, will disperse, depending diverse factors like topography, wind velocity and direction, high of stack and characteristic emissions from the stack. For compliance with this objective, EA has to use meteorological data representative of Arecibo.

The data used by EA is an old data of twenty years old that does not represent the present meteorological characteristic of Arecibo. Change in atmospheric conditions cause by global warming may explain different between old data and recent one.

As other deponents stated, EA must search good data for the modeling process; this data is available in different source, including federal agencies. Data in NOAA web page (see Exhibit 1) was used to generate a wind rose of Arecibo for 2010, 2011 and 2012. Exhibit 2, shown the wind rose for 2010 generate by Iván Elías using data collected by NOAA in it meteorological station (Station AROP4 - 9757809 - Arecibo, PR). This station

is located at Arecibo Port facilities, about 2.6 km. from the stack of EA project.

The winds direction and velocity measures by Station AROP4 of NOAA if different from that utilize by EA in the modeling process (Exhibit 3: Cambalache 92-93 data; a copy of No. 12 - Air Quality Modeling including updated PM2.5 and PM10 (Oct2011), p.62). Comparing both data (Exhibit 2 and 3) will evident different in direction and velocity. The reality is that contaminants will disperse over the people of Arecibo living at distance of few kilometers, in a different way predicted by model using Cambalache data (Exhibit 3).

The use of not representative meteorological data dismissed the PSD objective to identify the concentration of contaminants that people and properties will be exposing. This causes fault in identifying the real effects of contaminants in the health and welfare of people who will stay long time in the area of contaminant dispersion. **Obtaining concentration of contaminants data as a result of modeling process of Cambalache 92-93 data is like obtaining garbage, “garbage in, garbage out”.**

In the administrative record of this project, there is no evidence that EA attempt one of the problem in the modeling process: needed to input for AERMET module of vertical and horizontal profile of turbulence when modeling complex terrain. This is in a condition needed to satisfy when modeling Arecibo complex terrain using AERMOD. [Appendix A.1 (b) of Appendix W of 40 C.F.R. 51].

B. The Region does not include in the administrative record relevant information needed by people to participate in the public hearing.

Site definition means “the land or water area where any “facility or activity” is physically located or conducted, including adjacent land used in connection with the facility or activity.”

[40 C.F.R. Part 124.2]. EA project include the deposit of ash in a site not identify yet (Material Separation Plan, p. 22 – document include in the depository of administrative record). Handling ash is a process part of the operation of EA project but there isn't any information in the administrative record that evaluate dispersion of contaminants of this process. This process may produce fugitive emissions of a stationary source and shall be include in the PSD permit process because these emissions belong to a municipal incinerator capable of charging more than 250 tons of refuse per day. [40 C.F.R. Part 52.21(b)(1)]. The site where finally EA deposit ash if part of the project site and they have to evaluate fugitive emissions of this location. In Puerto Rico, storms and hurricanes are events that frequently affect people; it has the power to disperse those ashes.

Also, the intake of water for cooling process is proposes to be located at Jariales Pump Station, connected to the stack area with pipes. This part of the project and fugitive emissions of it's operation has not been describe in any part of documents in administrative record.

Comments and discusión about this issues were not possible because EA never gives detail describing it.

Lacking information in the administrative record identifying effect on health and welfare of people by contaminants dispersed, limited information needed by people to participate in the evaluation process.

No matter the data used for modeling, none of the documents in the administrative record identify effect on health and welfare of people by contaminants dispersed, limiting information needed by people to make decision about participating in public hearing.

C. Evaluation of importance effect of contaminants dispersion over protected ecosystems and species at relative short distance is a notable absent of the administrative record.

There is no reference about Puerto Rican Parrot Recovery Program. It is part of FWS **Endangered Species Program** [<http://www.fws.gov/endangered/map/state/PR.html>], with the purpose to recover Puerto Rican endangered species: ***Puerto Rican Parrot***. **The main reason for it to be an endangered species is habitat loss.**

[http://www.fws.gov/southeast/prparrot/pdf/pr_parrot_qa.pdf]. The concern about Puerto Rican Parrot was mentioned by Iván Elías in public hearing (Transcript, Hearing 3, August 25, 2012, 6 pm – 10 pm, 14-19; p. 44 and 64).

EA project may affect one of the habitats that FWS is using to implement their Puerto Rican Parrot Recovery Program: Bosque de Río Abajo (or Río Abajo Forest). This habitat is about 10 kilometers from EA project, in one of the prevalence direction of wind (for location of Bosque de Río Abajo, see Exhibit 4; and for direction of wind, see Exhibit 2).

As mentioned, there is no reference about how contaminants emission will affect this federal program for the recovery of this endangered species.

Arecibo municipality, where EA project is proposed, has coastal area at the north and mountain area at the south; it is characterize by complex topography. When the effluents of the stack disperses in south- west (as it does a great percent of time as shown in Exhibit 2) it will reach a mountain barrel. This mountain increases its height at a very at short distance, overcoming the stack high, condition that characterizes the terrain as complex. [See elevation profile in Exhibit 5 and *complex terrain* mean in 40 C.F.R. Part 51, Appendix W (4.1)]. Board must not forget that areas subject to major topographic “influences experience

meteorological complexities that are extremely difficult to simulate” [40 C.F.R. Part 51, Appendix W (1)]. In complex terrain contaminants may concentrate more than predicted by models [40 C.F.R. Part 51, Appendix W (1)].

EA does not evaluate impacts on Puerto Rican Parrots Recovery program because the Screening Level Ecological Risk Assessment (SLERA) does not include Río Abajo Forest.

The other habitat affected by EA project is Caño Tiburones. As we mentioned earlier, it is a Natural Reserved protected by Puerto Rico government (see Exhibit 6), a compromise adopted as part of Coastal Zone Plan delegation to Puerto Rico. This, the largest wetland of Puerto Rico, is part of the site of EA project (see discussion about site in part B of Arguments). But none of the documents in the administrative record identify effects on health and welfare of species in Caño Tiburones and their habitats, that may produce contaminants dispersed; this situation reduce information availability, needed by people participating in public hearings.

CONCLUSION

I, respectfully urge the Board to review and remand the Energy Answers, LLC PSD permit to the Region.

Respectfully submitted on this July 12th, 2013



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STATEMENT OF COMPLIANCE

Pursuant to the Board's March 17, 2013, Order Governing Petitions for Review of Clean Air Act New Source Review Permits, this Petition compliance with the word limitation set by the Board. This Petition contains 2,749 words, based on the word count function in Microsoft Word.



Martha G. Quiñones Domínguez

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In re: **ENERGY ANSWERS ARECIBO, LLC**)
ARECIBO PUERTO RICO)
RENEWABLE ENERGY PROJECT)
)
Appeal No. _____)
)

CERTIFICATE OF SERVICE

I hereby certify that a copy of the foregoing Petition for Review was served, on this the 12th day of July, 2013, via email; and served by USPS Regular Mail; to the following:

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In Arecibo, Puerto Rico on July 12, 2013



Martha G. Quiñones Domínguez

LIST OF EXHIBITS

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Exhibit 1: Copy of web page of NOAA where can obtain meteorological data of Arecibo for 2010, 2011 and 2012. [http://www.ndbc.noaa.gov/station_history.php?station=arop4].

NDBC Station AROP4 Historical Data http://www.ndbc.noaa.gov/station_history.php?station=arop4



National Oceanic and Atmospheric Administration's

National Data Buoy Center

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RSS Feeds

Obs Web Widget

Email Access

Station Status

NDBC Maintenance

NDBC Platforms

Partner Platforms

Program Info

Find us on Facebook

NDBC on Facebook

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Mariners Weather Log

Observing Handbook No. 1

Science Education

NDBC Director

Storm Special! View the latest observations near [East Pacific TROPICAL DEPRESSION DALILA as of ADVISORY NUMBER 28 @ 200 PM PDT 8AT JUL 08 2013](#) and [East Pacific HURRICANE ERICK as of INTERMEDIATE ADVISORY NUMBER 10A @ 600 PM PDT 8AT JUL 08 2013](#).

See recent photos from NDBC weather buoy [42038](#) in the Gulf of Mexico, DART station [48410](#) in the Gulf of Alaska and the following TAO stations: [2N 86W](#), [0 86W](#), [2S 86W](#), [8N 110W](#), [6N 110W](#), [2N 110W](#), [0 110W](#)

Station AROP4 - 9757809 - Arecibo, PR

Station operated by [Puerto Rico Seismic Network](#)
18.480 N 88.702 W (18°28'48" N 88°42'7" W)

Historical data for station AROP4 available from NDBC include:

- [Quality controlled data for 2013 \(data descriptions\)](#)
 - Standard meteorological data: [Jan](#) [Feb](#) [Mar](#) [Apr](#) [May](#)
- [Historical data \(data descriptions\)](#)
 - Standard meteorological data: [2010](#) [2011](#) [2012](#)
- [Search historical meteorological data for observations that meet your threshold conditions](#)

Other Available Historical Data

For data before the dates listed above, go to the National Ocean Service's Meteorological Observations page for this station by clicking here:
http://tidesandcurrents.noaa.gov/data_menu.shtml?stn=8757808&type=Meteorological

Some data files have been compressed with the GNU [gzip](#) routine. If you do not have [gzip](#), you may retrieve [gzip sources and executables](#) from this server.

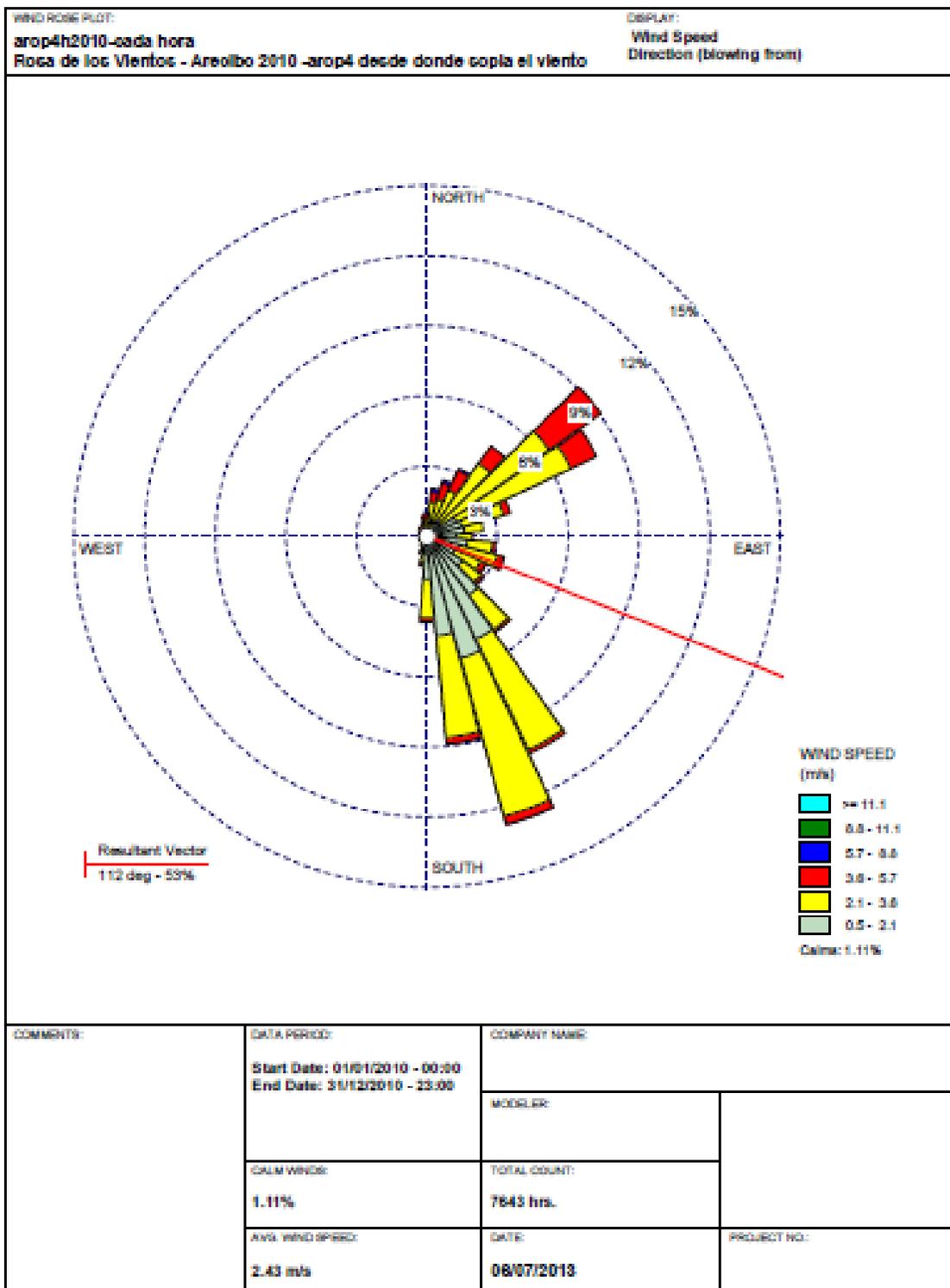
[View Station Page](#)
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07/07/2013 06:09 p.m.

Exhibit 2: Wind Rose of Arecibo from 2010 data collected by NOAA (Station AROP4 - 9757809 - Arecibo, PR) [Prepared by Iván Elías].



WRPLOT View - Lakes Environmental Software

Exhibit 3: Wind Rose of Arecibo from data obtained at Cambalache facility (92-93), (Copy of No. 12 - Air Quality Modeling including updated PM2.5 and PM10 (Oct2011), p.62).

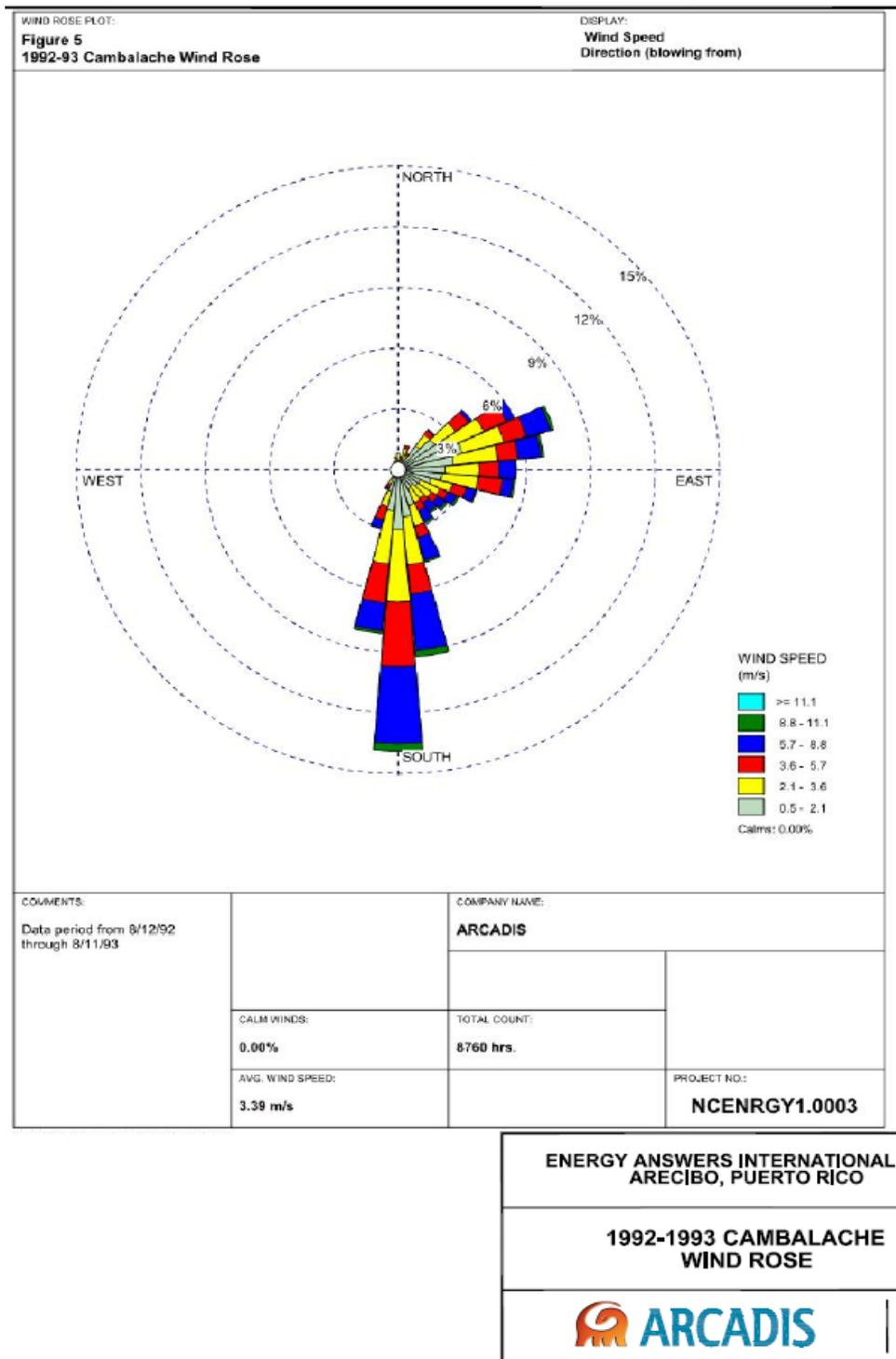


Exhibit 4: Location of Río Abajo Forest (from www.uprm.edu)

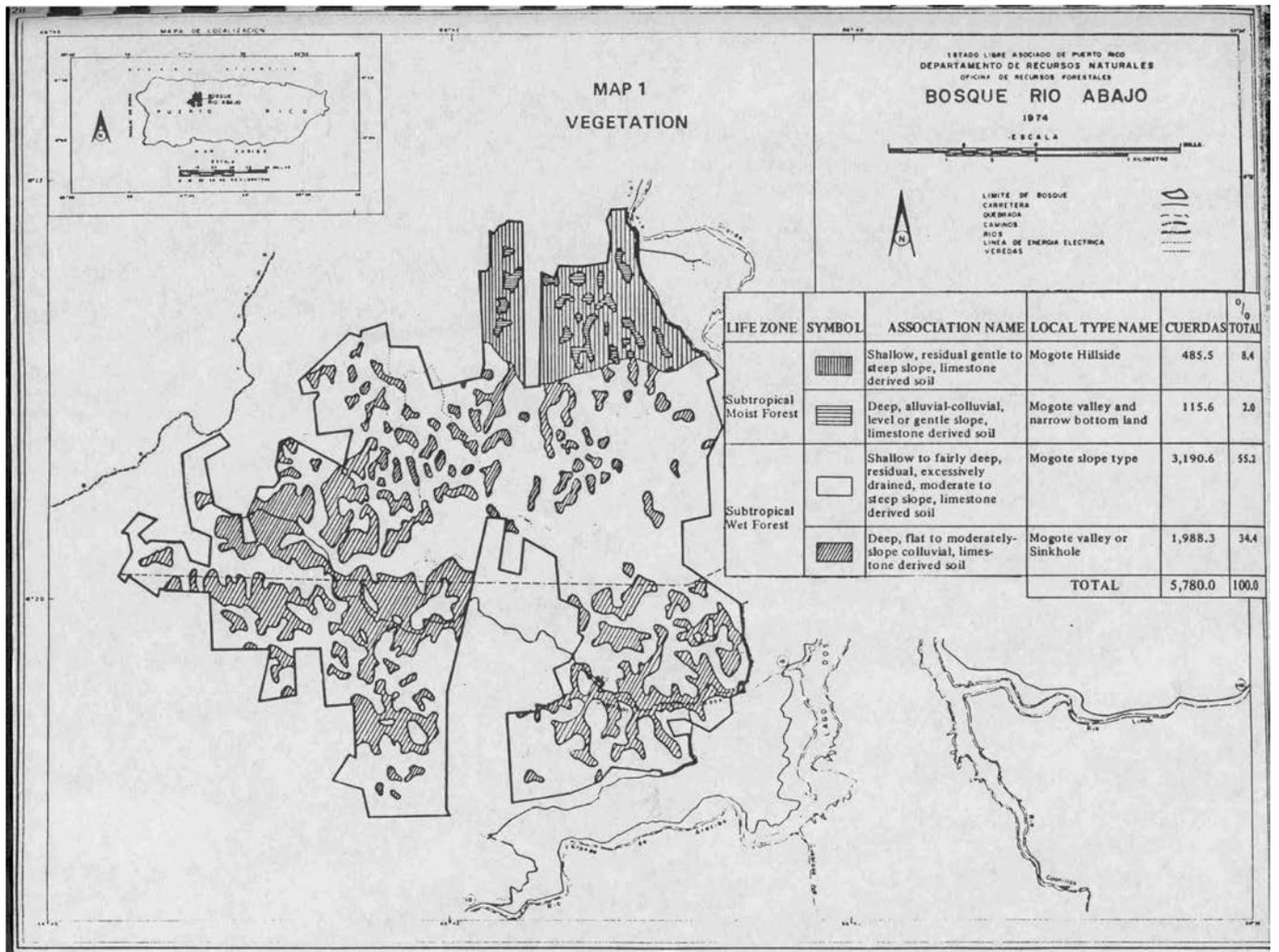
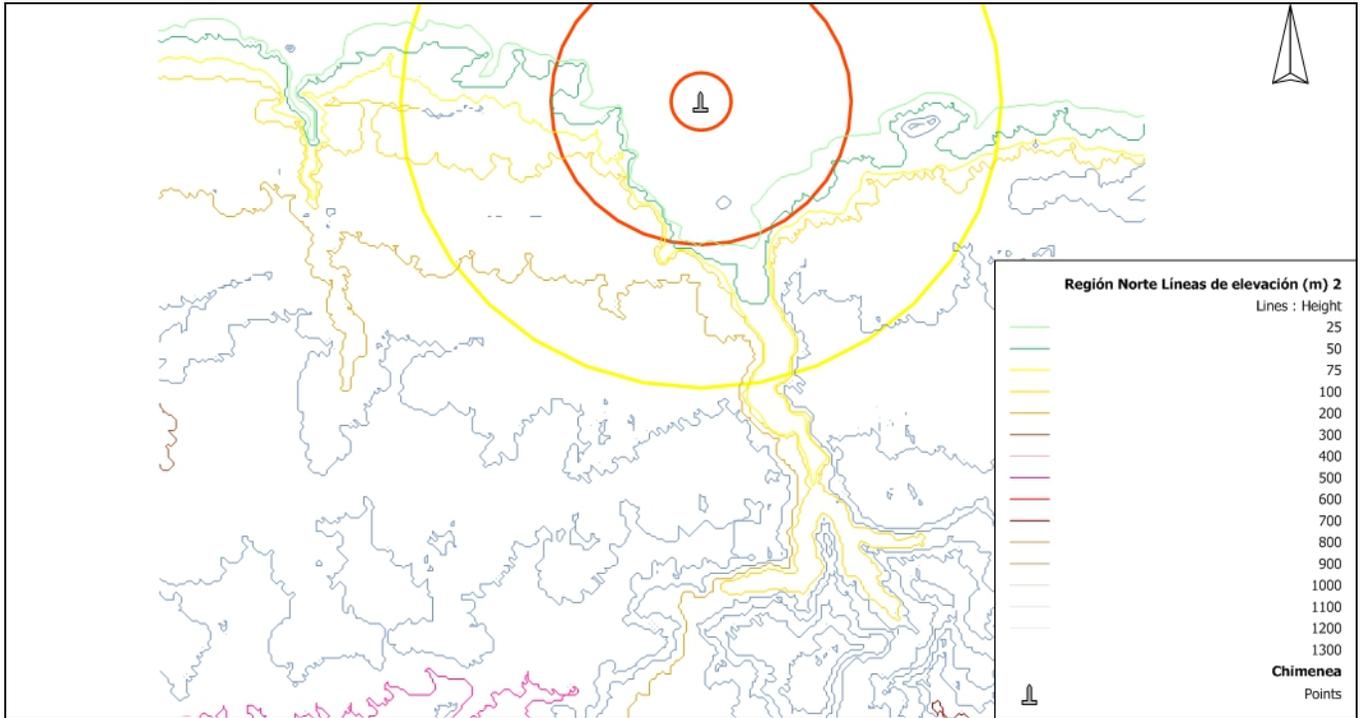


Exhibit 5: Arecibo terrain elevations





Estado Libre Asociado de Puerto Rico
Departamento de Recursos Naturales y Ambientales

HOJAS DE NUESTRO AMBIENTE



Abril 2007
P-015

Misión
Proteger, conservar y administrar los recursos naturales y ambientales del país de forma balanceada para garantizar a las próximas generaciones su disfrute y estimular una mejor calidad de vida.

Visión
Promover un ambiente sano y saludable a través de la promoción del uso sostenible de los recursos naturales, la ordenación de la gestión ambiental y la transformación de la cultura ambiental de los puertorriqueños hacia una de conservación, con la participación de todos los sectores de la sociedad para mejorar la calidad de vida.

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Para más información consulte la Biblioteca del DRNA
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RESERVA NATURAL CAÑO TIBURONES

La Reserva Natural Caño Tiburones fue designada el 16 octubre de 1998. Las 3,805 cuerdas que comprende esta Reserva y la zona de amortiguamiento compuesta por los terrenos que la bordean son parte de la extensión territorial del Caño Tiburones. No todo el Caño forma parte de la Reserva. Los criterios utilizados para la designación y delimitación de la Reserva fueron la flora, la fauna, la presencia y ubicación de especies críticas, los tipos de suelos, la hidrología, las formaciones geológicas, los usos existentes y la tenencia de los terrenos. Esta Reserva ubica en el Municipio de Arecibo.

Clima

La temperatura anual promedio es de 26.9° centígrados. La precipitación anual varía de entre 1,000 a 2,000 milímetros. El periodo de mayor precipitación comprende los meses de mayo y de septiembre a noviembre. El viento sopla mayormente del sur, sur-sudoeste y del noreste.

Geología

La mayor parte de los terrenos del Caño Tiburones comprendidos dentro de la Reserva son identificados en los mapas geológicos de los cuadrángulos de Arecibo y Barceloneta como pertenecientes a las unidades Qs y Qsp. Estas son depósitos de pantano consistentes en su mayoría de arcillas y limos con pequeñas cantidades de arena y un contenido variante de turba. Ambas unidades tienen grosor aproximado de 3 metros y yacen sobre la Roca Caliza Camuy (Toa).

Suelos

Los suelos son en su mayoría hídricos y orgánicos. Esto implica que dichos suelos son de permeabilidad lenta con drenaje pobre y exhiben propiedades ácidas, por lo que se encuentran permanentemente o estacionalmente inundados. El alto contenido de materia orgánica en estos suelos es el resultado de la descomposición de organismos, tanto de origen animal como vegetal.

Hidrología



Son varios los factores que determinan la condición de inundabilidad del Caño Tiburones. Estos son:

1. manantiales subterráneos de agua dulce que afloran mayormente en la parte sur,
2. varios manantiales salados que manan dentro del Caño en la parte norte,
3. Las aguas pluviales que se precipitan en el área y aquellas que llegan al caño por escorrentías.

El Caño Tiburones es uno de los humedales estuarinos más grandes de Puerto Rico. Cubre una extensión territorial aproximada de 7,000 cuerdas. Su valor ecológico lo hace un lugar único por su tamaño, así como por sus características hidrológicas, geológicas y biológicas. Una gran variedad de especies asociadas a estos sistemas utilizan el Caño Tiburones como su principal hábitat.

Por su valor ecológico único se incluyó en la lista de áreas recomendadas como Reservas Naturales a través del Programa de Manejo de la Zona Costanera de Puerto Rico y por que reúne cuatro de los cinco criterios necesarios se incluyó en la lista de Áreas con Prioridad de Conservación en Puerto Rico del Programa de Patrimonio Natural de Puerto Rico.