

**Factual Record**  
Aquanova Submission  
(SEM-98-006)

**Prepared in Accordance with Article 15  
of the North American Agreement on  
Environmental Cooperation**



## TABLE OF CONTENTS

1. Executive Summary . . . . .	7
2. Introduction . . . . .	10
3. The Environmental Law in Question. . . . .	12
4. Summary of the Submission and the Response . . . . .	21
5. Summary of Other Relevant Factual Information. . . . .	27
5.1 Process Used to Gather Information . . . . .	27
5.2 Timeline . . . . .	28
5.3 Environmental Impact Authorization Process and Related Authorizations . . . . .	33
5.3.1 Phase I of the Granjas Aquanova — Boca Cegada Project . . . . .	35
5.3.2 Phases II and III of the Granjas Aquanova — Boca Cegada Project . . . . .	39
5.3.3 Ocean Discharge Canal for the Granjas Aquanova — Boca Cegada Project . . . . .	40
5.4 Aquanova’s Water-Related Authorizations . . . . .	47
5.5 Aquanova’s Fisheries-Related Authorizations . . . . .	51
5.6 Description of the Area in which Aquanova Operates. . . . .	52
5.6.1 Background and Introduction . . . . .	52

5.6.2	Description of the San Blas Estuarine and Mangrove Zone . . . . .	58
5.6.3	Status of La Cegada, Los Olotes, La Tronconuda, La Diabla and La Atascosa Creeks . . . . .	62
6.	Facts Presented by the Secretariat in Relation to the Matters Raised in the Submission . . . . .	67
6.1	Environmental Impact-Related Enforcement with Respect to Aquanova . . . . .	68
6.2	Water-Related Environmental Law Enforcement with Respect to Aquanova . . . . .	70
6.3	Fisheries-Related Environmental Law Enforcement with Respect to Aquanova . . . . .	71
6.4	Enforcement of Law Governing Environmental Offenses with Respect to Aquanova . . . . .	73
6.5	Summary of Acts of Environmental Authority with Respect to Aquanova and Consequences of Filing of Submission SEM-98-006 . . . . .	74
6.6	Current Factual Status of Aquanova and the Surrounding Area . . . . .	75
7.	Closing Note . . . . .	78

### List of Appendices

1)	Council Resolution 01-09, Instruction to the Secretariat of the Commission for Environmental Cooperation Regarding the Assertion that Mexico is Failing to Effectively Enforce provisions of its General Law on Ecological Balance and Environmental Protection, the Forestry Law, Mexican Official Standards NOM-062-ECOL-1994 and NOM-059-ECOL-1994, the Law of National Waters and its Regulations, the Fisheries Law and its Regulations and the Federal Criminal Code with Respect to the Activities of Granjas Aquanova (SEM-98-006). . . . .	79
2)	Overall Plan to Develop a Factual Record with Regard to Submission SEM-98-006 . . . . .	83

---

3) Process for Gathering Information for the Preparation of the Factual Record on Submission SEM-98-006 (Examples of relevant information). . . . .	91
4) Information Requests to Mexican Authorities and List of Recipient Authorities. . . . .	99
5) Information Requests to NGOs, JPAC and other Parties to the NAAEC. . . . .	111
6) Information Gathered for the Development of the Factual Record on Submission SEM-98-006 (Aquanova). . . . .	121
7) Information to be gathered / developed by the Secretariat directly and through independent experts . . . . .	143
8) Species Listed in NOM-059-ECOL-1994, found in the Aquanova Area . . . . .	147
9) Summary of Actions by Mexican Authorities with Respect to Granjas Aquanova . . . . .	151

**Attachments**

Attachment 1 Council Resolution 03-06 – Instruction to the Secretariat of the Commission for Environmental Cooperation to make public the Factual Record for Submission SEM 98-006 (Aquanova) . . . . .	161
---	-----



## 1. Executive Summary

Articles 14 and 15 of the *North American Agreement on Environmental Cooperation* (NAAEC) establish the process regarding citizen submissions and the development of factual records relating to the effective enforcement of environmental law. The Secretariat of the Commission for Environmental Cooperation (CEC) of North America administers this process.

On 20 October 1998, the Secretariat of the CEC received a submission from Grupo Ecológico “Manglar,” A.C. (Grupo Manglar) in accordance with Article 14 of the NAAEC. The Submission asserts that Mexico is failing to effectively enforce its environmental law with respect to a shrimp farm operated by Granjas Aquanova, S.A. de C.V. (Aquanova) that has caused serious harm to wetlands, water quality, fisheries, and the habitat of protected species in the state of Nayarit, Mexico.

On 16 November 2001, the Council of the CEC voted unanimously to instruct the Secretariat to develop a factual record on the alleged failure to effectively enforce various provisions of the General Law on Ecological Balance and Environmental Protection (*Ley General del Equilibrio Ecológico y la Protección al Ambiente*—LGEEPA), the Forestry Law (*Ley Forestal*—LF), Mexican Official Standards NOM-062-ECOL-1994<sup>1</sup> and NOM-059-ECOL-1994,<sup>2</sup> the National Waters Law (*Ley de Aguas Nacionales*—LAN) and its Regulations (RLAN), the Fisheries Law (*Ley de Pesca*—LP) and its Regulations (RLP), and the Federal Criminal Code (*Código Penal Federal*—CPF), in connection with the activities of the shrimp farming company Granjas Aquanova, S.A. de C.V. in Boca Cegada, San Blas, Nayarit (Aquanova) that are referred to by Submission SEM-98-006, filed by Grupo Manglar.

- 
1. Establishing specifications to mitigate the adverse effects on biodiversity of land use changes from forestry to agriculture.
  2. Determining endangered, threatened, and rare species and subspecies of terrestrial and aquatic wildlife and those subject to special protection, and establishing specifications for their protection.

Since 1995, Aqunova operates in the estuarine zone of San Blas and produces approximately 1,500 tons of shrimp annually. The region harbors a wealth of natural ecosystems, including mangrove forests -a complex component of wetland ecosystems that have great ecological and economic importance. Aqunova was built in an area of at least 1,300 ha, previously occupied mostly by lowland forest, but also by mangroves, approximately 100 hectares of which were either cleared to build the facility or destroyed by changes to water flow caused by Aqunova. The region has also been subject to other significant environmental impacts in the last three decades.

In the development of this factual record, the Secretariat considered publicly available information, information provided by Mexico, Aqunova, Grupo Manglar, and other interested parties, and technical information developed by the Secretariat through independent experts. In this factual record, the Secretariat presents the facts relevant to whether Mexico is failing to effectively enforce various provisions relating to environmental impact, water, fisheries, and environmental offenses, without aiming to reach any conclusions of law on this question.

With this focus, the information presented by the Secretariat in this factual record reveals that, in fact, Aqunova (1) obtained prior authorization for the Aqunova-Boca Cegada shrimp farm, authorization to introduce blue shrimp strain SPR-43, and a concession for semi-intensive culture and commercial use of two shrimp species; (2) changed forest land use without authorization, destroying 42 ha of mangrove forest, uprooting 250 coconut palms and filling wetlands, and without taking actions to salvage flora and fauna as applicable, in violation of the environmental impact law and the conditions of the project authorization; (3) initiated wastewater discharge two years prior to applying for the corresponding authorization from the National Water Commission (*Comisión Nacional del Agua*—CNA); (4) caused severe harm to 50 ha of mangrove forest in Los Olotes and La Diabla creeks through the (authorized) obstruction of Los Olotes creek, and built corrective hydraulic structures and took reforestation actions as a result of an agreement with the environmental authorities for purposes of restoration; and (5) took part in an effort of cooperation among the various sectors of society in San Blas, which made it possible to overcome an initially hostile situation regarding impacts of its operations. While discussed in detail, the focus of the factual record is not the actions taken by Aqunova, but the enforcement actions taken by Mexico in connection with these.



In 1995 and 1996, Aquanova obtained environmental impact authorizations from the National Institute of Ecology (*Instituto Nacional de Ecología*—INE) for the various phases of the shrimp-farming project. These authorizations were subject to multiple conditions whose principal aim was to prevent the destruction of species with protected status (including various mangrove species) and their habitat, and to preserve water quality in the estuarine zone.

Between 19 April 1995 and 20 June 2002, the Federal Attorney for Environmental Protection (*Procuraduría Federal de Protección al Ambiente*—Profepa) conducted a total of 13 inspection visits of Aquanova.

During the first phase of the project, in response to a citizen complaint, Profepa detected violations of the conditions of the project authorization, fined Aquanova P\$100,000.00, and ordered corrective measures. Following the appeal for review filed by Aquanova and the amendments to the conditions of the environmental impact authorization approved by INE, Profepa rescinded the corrective measures order and reduced the fine to P\$29,095.00. Also during this phase of the project, Profepa found that Aquanova had failed to obtain a land use change authorization prior to clearing 15.9 ha, and fined Aquanova P\$48,800.00.

In the second phase of the project, in response to a citizen complaint, Profepa detected the death of 50 ha of mangroves due to the obstruction (authorized by INE) of Los Olotes creek in order to build the facility's ocean discharge canal. Profepa and Aquanova signed an administrative agreement that terminated the enforcement proceeding initiated following the citizen complaint, and created a committee of experts, which determined that Aquanova was partially responsible for the harm suffered by the mangroves in Los Olotes and La Diabla creeks. As a result of the experts' report, Aquanova built hydraulic structures and initiated a Mangrove Restoration Program in these creeks in 1999.

Aquanova takes water from La Cegada creek for the facility's ponds. Water use and discharge began in 1996. This water use does not require a concession since the waters in question are marine waters. On 6 November 1998, the CNA granted Aquanova a concession to discharge a wastewater volume of 950,000,000 m<sup>3</sup>/year. Aquanova measures the volume of water extracted and discharged by readings on the corresponding pumps, and conducts water quality analysis through an independent laboratory and its own laboratory. It does not have a wastewater treatment system because, according to its own water quality monitoring, it does not exceed the maximum contaminant limits set

out in the applicable Mexican Official Standard. The CNA conducted an inspection visit on 2 May 2001, on which it detected no irregularities. However, the visit did not include water measurement and analysis.

In regard to fisheries, Grupo Manglar asserts that viral diseases occur in the production of the shrimp species introduced by Aquanova. From March 1999 to November 2001, Aquanova conducted sanitary testing on the shrimp strains imported for culture. The tests showed that the tested shrimp were free of white spot syndrome virus (WSSV), yellowhead virus (YHV), and Taura syndrome virus (TSV).

In response to a denunciation by Grupo Manglar, in September 1998 Mexico initiated a criminal investigation of the unauthorized destruction of mangroves and draining of wetlands by Aquanova for the offense defined in CPF Article 416 paragraph II. On 16 March 2000, the Office of the Attorney General of the Republic determined that criminal prosecution against Aquanova should not proceed because an authorization had been granted for Aquanova's project.

In the opinion of the experts who studied the case, the restoration actions taken by Aquanova in the area of Los Olotes and La Diabla have had positive effects. However, the recovery of the area depends on these efforts being maintained, and in large measure, on restoring the water flow obstructed by the dike built on El Rey inlet prior to the establishment of Aquanova in 1974-75.

## **2. Introduction**

Under Articles 14 and 15 of the NAAEC, the Secretariat may consider a submission from any nongovernmental organization or person asserting that a Party to the NAAEC is failing to effectively enforce its environmental law, if the Secretariat finds that the Submission meets the criteria of Article 14(1). Where the Secretariat determines that these criteria are met, it shall then determine whether the Submission warrants requesting a response from the Party named in the Submission, by considering the criteria enumerated in Article 14(2). Where, in light of the Party's response, the Secretariat finds that the Submission warrants the development of a factual record, it shall so inform the Council and provide its reasons. The Council may then, by a vote of two-thirds of its members, instruct the Secretariat to prepare a factual record in accordance with Article 15.

On 20 October 1998, the Secretariat of the CEC received a submission from Grupo Manglar in accordance with Article 14 of the NAAEC.

The Submission asserts that Mexico is failing to effectively enforce its environmental law with respect to a shrimp farm operated by Aquanova that has caused serious harm to wetlands, water quality, fisheries, and the habitat of protected species in the state of Nayarit, Mexico.

On 17 March 1999, the Secretariat determined that the Submission met the criteria of NAAEC Article 14(1) and, considering the criteria in Article 14(2), requested a response from the Party. Mexico submitted its response on 15 June 1999.

Having reviewed the Submission in light of the Response, the Secretariat notified Council on 4 August 2000 that some of the contentions in the Submission warranted the development of a factual record; specifically, those relating to the enforcement of Articles 28, 117, 118, 119, 121, 123, 129, 130, 168 and 182 of the LGEEPA; Articles 12 and 19 bis 11 of the LF; Mexican Official Standards NOM-062-ECOL-1994 *Establishing specifications to mitigate the adverse effects on biodiversity of land use changes from forestry to agriculture* (NOM-062) and NOM-059-ECOL-1994 *Determining endangered, threatened, and rare species and subspecies of terrestrial and aquatic wildlife and those subject to special protection and establishing specifications for their protection* (NOM-059); Articles 4, 9, 86 paragraph III, 88, 92 and 119 paragraphs I, II, and VIII of the LAN; Articles 134, 135, 137 and 153 of the RLAN; Articles 3 paragraph VIII and 24 paragraph XXIV of the LP; Articles 44, 48, and 50 of the RLP; and Articles 416 paragraphs I and II, 418, and 420 paragraph V of the CPF.

On 16 November 2001, Council resolved unanimously to instruct the Secretariat to develop a factual record in this case. Council instructed the Secretariat “to prepare a factual record in accordance with Article 15 of the NAAEC and the *Guidelines for Submissions on Enforcement Matters under Articles 14 and 15 of the North American Agreement on Environmental Cooperation* [the Guidelines] for the assertions set forth in Submission SEM-98-006 that Mexico is failing to effectively enforce provisions of its General Law on Ecological Balance and Environmental Protection, the Forestry Law, Mexican Official Standards NOM-062-ECOL-1994 and NOM-059-ECOL-1994, the Law of National Waters and its Regulations, the Fisheries Law and its Regulations and the Federal Criminal Code, provided that the adequacy of the penalties imposed in accordance with the legislation is not reviewed.”

In this regard, the Secretariat compiled information on the enforcement of the aforementioned environmental law provisions with respect to Aquanova; in particular, information on alleged violations by Aquanova of the provisions of the LGEEPA, NOM-062, the LF, the LAN,

the RLAN, the LP, the RLP and the CPF cited in the Submission; the enforcement of these provisions by Mexico with respect to Aqvanova, and the effectiveness of that enforcement. Pursuant to section 12.1 of the Guidelines, this factual record includes a summary of the Submission, a summary of the Party's Response, the relevant factual information, and the facts presented by the Secretariat with respect to the matters raised in the Submission.

### 3. The Environmental Law in Question

This factual record relates to the assertion that Mexico is failing to effectively enforce the LGEEPA, the LF, NOM-062, NOM-059, the LAN, the RLAN, the LP, the RLP, and the CPF as regards the activities of Aqvanova in San Blas, Nayarit, Mexico. The provisions relevant to this factual record are cited verbatim in this section, in the version of each that is applicable to the matters in question, following a brief introduction of each.

The LGEEPA is the principal instrument of environmental law in Mexico. This law establishes the jurisdiction of the different orders of government and regulates specific environmental matters. The provisions relevant to this factual record are those that establish the environmental impact-related obligations of anyone who engages in certain activities, as well as those defining the criteria and obligations for the prevention and control of water pollution.<sup>3</sup>

**LGEEPA Article 28 paragraph 1.**<sup>4</sup> The execution of public or private works or activities that may cause ecological imbalance or exceed the lim-

3. The Submission invokes Articles 28 paragraphs V, VII, X and XII; 117; 118; 119; 121; 123; 129; 130; 168, and 182. It was not considered relevant to include here Articles 117 par. IV; 118 par. I-IV and VI; 119; 168, or 182, since they refer to the issuance of standards, appeals for review, the establishment of prohibited zones, the organization of hydrology work, the reporting of environmental offenses, and other matters not applicable to the facts referred to by this factual record, such as urban wastewater discharges or water delivery agreements with the Executive Branch (*Poder Ejecutivo*).
4. The provision applicable to the facts referred to by the Submission is the one in force prior to the reform of the LGEEPA on 13 December 1996. However, the substance of both provisions is the same. The current text of LGEEPA Article 28 provides that:  
 Environmental impact assessment is the procedure whereby the Ministry establishes the conditions governing the execution of those works and activities that could cause ecological imbalance or exceed the limits and conditions established in the applicable provisions for the protection of the environment and the preservation and restoration of ecosystems, for the purpose of preventing or minimizing the negative effects of such works and activities on the environment. To that end, in the cases determined by any Regulations issued for such purpose, anyone attempting to carry out any of the following works or activities shall require prior environmental impact authorization from the Ministry:

its and conditions established in the technical environmental regulations and standards issued by the Federation for the purpose of protecting the environment shall be subject to the prior authorization of the Federal Government, through the Ministry or the federated entities or municipalities, according to the jurisdictions prescribed by this Law, and to compliance with the requirements imposed once any environmental impact that may be caused is assessed, without prejudice to other authorizations that are the jurisdiction of the competent authorities.

**LGEEPA Article 117.-** For prevention and control of water pollution, the following criteria shall be considered:

I. The prevention and control of water pollution is fundamental to preventing its availability from being reduced and to protecting the nation's ecosystems;

II. The prevention of the pollution of rivers, watersheds, reservoirs and marine waters, and that of other bodies of water and watercourses, including groundwater, is the responsibility of the State and society;

III. Anyone using water in productive activities that may cause it to become polluted bears the responsibility for treatment of discharges so as to restore it to a condition suitable for use in other activities and to maintain the balance of ecosystems;

... V. The participation and joint responsibility of society is an indispensable condition for the prevention of water pollution.

**LGEEPA Article 118.-** The criteria for water pollution prevention and control shall be considered in:

... V. Concessions, assignments, permits and, in general, authorizations that must be obtained by concession holders, assignees, or permit holders and, in general, the users of waters that are the property of the nation, in order to infiltrate wastewater onto lands, or to discharge it into collecting bodies other than the sewerage systems of population centers;...

**LGEEPA Article 121.-** No one may discharge wastewater containing pollutants, or allow such water to infiltrate, into any body of water or water-

---

... V. Forestry operations in tropical forests and those affecting slow-regenerating species.

... VII. Land use changes in forested areas, as well as in tropical wet forest and arid zones.

... X. Works and activities in wetlands, mangrove forests, lagoons, rivers, lakes and estuaries connected to the sea, as well as on their littoral portions or federal zones;

... XII. Fishing, aquacultural or agricultural activities which could endanger the preservation of one or more species or cause harm to ecosystems, and...

course or into the soil or subsoil without prior treatment and the permission or authorization of the federal authority, or the local authority in cases of discharge of water under local jurisdiction or into drainage and sewerage systems of population centers.

**LGEEPA Article 123.-** All discharges into collecting systems, rivers, aquifers, watersheds, riverbeds, reservoirs, marine waters and other bodies of water or watercourses as well as spills of wastewater on soil, or infiltration thereof into lands, shall satisfy the requirements of any Mexican Official Standards promulgated for such purpose and any applicable specific discharge conditions established by the Ministry or the local authorities. Whoever generates such discharges is responsible for performance of the prior treatment required...

**LGEEPA Article 129.-** Grant of assignments, authorizations, concessions, or permits for the exploitation or use of water in economic activities that may pollute that resource shall be conditional on performance of the necessary prior treatment of any wastewater produced.

**LGEEPA Article 130.-** The Ministry shall authorize the discharge of wastewater, waste substances, and all other types of waste into marine waters, in each case setting the environmental technical standards, conditions, and treatment requirements for the water and waste in accordance with the corresponding regulations. Where the discharges originate from mobile sources or from fixed platforms on the territorial sea or the exclusive economic area, the Ministry shall coordinate the issuance of the corresponding authorizations with the Ministry of the Navy.

The LF regulates and promotes the conservation, protection, restoration, use, management, cultivation and production of forest resources in Mexico. For this factual record, the relevant provisions are those relating to the authorization to use forest resources, to afforestation, and to reforestation.<sup>5</sup>

**LF Article 12.-** Applications for authorization to use timber resources, for afforestation and for reforestation shall include:

... III.- For forestry operations in tropical forests or involving slow-regenerating species, or in protected natural areas, environmental impact authorization by the Ministry of Social Development (*Secretaría de Desarrollo Social*) as prescribed by the applicable law...

---

5. The Submission invokes Articles 12 paragraph IV, 19 bis 11, and 51. In its recommendation of 4 August 2000, the Secretariat did not consider the development of a factual record to be warranted in regard to Article 51 since it refers to sanctioning powers of the authority that are not directly applicable to the matter in question.

**LF Article 19 bis 11.-** The Ministry may only authorize a change in forest land use, in exceptional cases, after consultation with the relevant Regional Council and based on technical studies demonstrating that it does not jeopardize biodiversity nor cause soil erosion, water quality degradation, or reduced catchments.

All authorizations issued shall adhere to the provisions of any applicable environmental land use plan, Mexican official standard, or other legal and regulatory provision.

The LAN and the RLAN regulate the exploitation and use of Mexican national waters, their distribution and control, and the preservation of their quantity and quality. Relevant to this factual record are the provisions establishing certain powers of the CNA, the requirement of holding a CNA permit in order to discharge wastewater, the CNA's power to suspend activities giving rise to wastewater discharges, other sanctions, and the obligations of water users.<sup>6</sup>

**LAN Article 86.-** The "Commission" shall be responsible for:

... III. Establishing and enforcing the specific conditions of discharge that must be met by wastewater generated on property and zones under federal jurisdiction, wastewater discharged directly into national waters or territory, or any land where such discharges may contaminate the subsoil or aquifers; and in the remaining cases set out in the General Law on Ecological Balance and Environmental Protection;...

**LAN Article 88.-** Natural or legal persons require a permit from the "Commission" to discharge wastewater on an ongoing, intermittent or occasional basis into collecting bodies, whether these be national bodies of water or other property of the nation, including marine waters, as well as where it infiltrates into lands that are the property of the nation or other lands where it may contaminate the subsoil or aquifers.

The "Commission," by means of general decrees by watershed, aquifer, area, locality, or use may replace the wastewater discharge permit by a mere notice.

---

6. The Submission invokes LAN Articles 4, 9 paragraphs V and XIII, 86 paragraphs III and V, 88, 92, 119 paragraphs I, II and VIII, and 122 paragraphs I and II, and RLAN Articles 134, 135, 137 and 153. In its recommendation of 4 August 2000, the Secretariat did not consider the development of a factual record to be warranted in regard to LAN Articles 88 paragraph V, and 122 paragraphs I and II. In addition, LAN Articles 4, 9, 92 and 119 paragraph II were not contemplated in this factual record, nor was RLAN Article 153, since they establish the powers of the CNA and other matters not directly applicable to the facts in question.

The control of wastewater discharges into drainage or sewerage systems in population centers is the jurisdiction of the municipalities, with the support of the States as necessary and as determined by law.

**LAN Article 119.-** The "Commission" shall sanction the following violations, as prescribed by this Law:

I. Ongoing, intermittent or occasional discharge of wastewater in violation of the provisions of this law into collecting bodies that are the property of the nation, including marine waters, as well as where such wastewater infiltrates into land that is the property of the nation or into other land where it could contaminate the subsoil or aquifers, without prejudice to the sanctions established by the sanitary provisions and the provisions on ecological balance and environmental protection;

... VIII. Exploitation or use of national waters without the relevant authorization, where required by the provisions of this law, as well as the modification or diversion of river channels, watercourses or reservoirs where they are the property of the nation, without the permission of the "Commission," or where hydraulic structures that are the property of the nation are damaged or destroyed;...

**RLAN Article 134.-** Natural or legal persons who exploit or use water for any purpose or activity are required, under their responsibility and as prescribed by law, to take the measures necessary to prevent it from being polluted and, as the case may be, to restore it to adequate conditions for subsequent utilization in other activities or uses and for maintenance of the balance of ecosystems.

**RLAN Article 135.-** Natural or legal persons who discharge wastewater into collecting bodies of water contemplated by the "Law" must:

I. Possess the wastewater discharge permit issued by the "Commission" or, as the case may be, present the relevant notice contemplated by the "Law" and these Regulations;

II. Treat wastewater prior to discharging it into collecting bodies of water, where this is necessary to fulfill the obligations set out in the relevant discharge permit;

III. Pay, as applicable, the federal fees for the use or exploitation of public property of the nation as collecting bodies of water for wastewater discharges;

IV. Install and maintain in good condition the gaging devices and access necessary to verify the discharge volumes and the concentrations of the parameters contemplated in the discharge permits;



V. Inform the "Commission" of any change in its processes, where this gives rise to modifications of the characteristics or volumes of wastewater specified in the relevant discharge permit;

VI. Inform the "Commission" of any pollutants present in the wastewater generated by the industrial process or service being operated, that were not specified in the original discharge conditions;

VII. Operate and maintain, by itself or third parties, the works and facilities necessary to manage and, as applicable, treat the wastewater as well as to provide quality control for such water before discharging it into collecting bodies of water;

VIII. Submit to any inspection and enforcement procedures established by the "Commission" for the control and prevention of water quality, as provided in the "Law" and the "Regulations";

IX. Conduct quality monitoring of wastewater discharged or infiltrating, as prescribed by the law and by regulatory provision;

X. Keep records of monitoring information for at least three years, as prescribed by the applicable legal provisions, standards, conditions and technical specifications, and

XI. Any other requirements prescribed by law or regulatory provision.

Domestic wastewater discharges that do not form a part of a municipal sewerage system may be carried out subject to any applicable Mexican Official Standards and subject to mere notice.

**RLAN Article 137.-** It is the responsibility of all water users and all concession holders contemplated in Chapter II, Title Six of the "Law," including the irrigation units and districts, to comply with the Mexican Official Standards and, as the case may be, with any other specific discharge conditions, for the prevention and control of widespread or dispersed pollution as a result of the management and application of substances that may contaminate the quality of national waters and collecting bodies of water.

The "Commission" shall promote and carry out, as applicable, any actions and measures necessary, and shall coordinate the issuance, with the competent authorities, of any Mexican Official Standards required to make land use compatible with the objectives of preventing and controlling the pollution of waters and property of the nation. In setting Mexican Official Standards for land use that may affect national waters, the technical opinion of the "Commission" shall be obtained.

The purpose of the LP and the RLP is to guarantee the conservation, preservation and rational use and exploitation of the fisheries of Mexico, and to lay the basis for their proper development and administration. The provisions relevant to this factual record regulate the introduction of aquatic wildlife species and the introduction of species that endanger fisheries, as well as the authorization of aquaculture activities.<sup>7</sup>

**LP Article 3.-** The enforcement of this Law is the responsibility of the Ministry of Fisheries, without prejudice to the powers invested in other bodies of the Federal Public Administration, which latter shall establish the necessary coordination with this Ministry, which is empowered to:

... VIII. Regulate the introduction of aquatic flora and fauna species into bodies of water under federal jurisdiction; define sanitary technical standards to guarantee the healthy development of aquatic species and verify the prevention and control measures in the area of aquacultural health, either directly or through duly accredited laboratories, in coordination with the competent bodies of the Federal Public Administration;...

**LP Article 24.-** The following constitute violations of this Law:

... XXIV. Introducing or managing, in waters under federal jurisdiction, species or biological material, in any form, that cause harm or alter or endanger the conservation of fisheries; and...

**RLP Article 44.-** Aquaculture is the cultivation of aquatic species of fauna and flora using methods and techniques for their controlled development at all biological stages and in all aquatic environments and kinds of facilities.

Only aquaculture carried out in bodies of water under federal jurisdiction shall require a concession.

**RLP Article 50.-** An authorization for the introduction of aquatic flora and fauna species into bodies of water under federal jurisdiction shall only be granted where it is proven that the species to be introduced are free of parasites and diseases that could harm local species or cause public health problems.

The introduction of species causing the extinction of native species is prohibited.

---

7. The Submission invokes LP Articles 3 paragraph VIII and 24 paragraph XXIV and RLP Articles 44, 48, and 50. The effective enforcement of RLP Article 48 was not considered relevant to this factual record since it refers to aquaculturists who do not require a concession.

The CPF defines those activities considered to be offenses, and prescribes the penalties, including fines and imprisonment, for persons who commit them. The provisions relevant to this factual record are those establishing the penalties for unauthorized performance of certain activities that harm the environment, such as the destruction of mangroves and the draining of wetlands.

**CPF Article 416.-** Anyone who, without such authorization as may be required, or in violation of the legal and regulatory provisions or Mexican Official Standards, engages in any of the following actions is liable for a penalty of three to six months imprisonment and a fine of one thousand to twenty thousand times the statutory daily minimum wage in the Federal District:

I. Discharging, dumping or allowing to infiltrate, or authorizing or ordering the discharge, dumping or infiltration of wastewater, chemical or biochemical liquids, waste or contaminants into soils, marine waters, rivers, watersheds, reservoirs or other bodies of water and watercourses under federal jurisdiction that cause or may cause harm to public health, natural resources, flora, fauna, water quality in watersheds, or ecosystems...

Where the waters in question are to be delivered as bulk water to population centers, the maximum penalty is three additional years imprisonment; or...

II. Destroying, draining or filling wetlands, mangrove forests, lagoons, estuaries or marshes.

**CPF Article 418.-** Anyone who, without the authorization required under the Forestry Law, fells or destroys natural vegetation, cuts, pulls out, fells or chops trees, engages in forest resource use or land use changes, is liable for a penalty of three months to six years imprisonment and a fine of one hundred to twenty thousand times the statutory daily minimum wage in the Federal District.

The same penalty shall apply to anyone who, with criminal intent, causes fires in woodlands, forests or natural vegetation that harm natural resources, wild flora or fauna, or ecosystems.

**CPF Article 420.-** Anyone who engages in any of the following actions is liable for a penalty of six months to six years imprisonment and a fine of one thousand to twenty thousand times the statutory daily minimum wage in the Federal District:

... IV. Engages in any activity for commercial purposes with wild flora or fauna species considered to be endemic, threatened, endangered, rare, or subject to special protection, as well as their products or subproducts...

V. Harms, with criminal intent, the wild flora or fauna species contemplated in the preceding paragraph.

Finally, Mexican Official Standard NOM-062, establishes the specifications to mitigate the adverse effects on biodiversity of changes from forest to agricultural land use.<sup>8</sup>

... 4.7 In the event that species of flora or fauna listed in the relevant Mexican Official Standard as rare, threatened, endangered, or subject to special protection are found, the only option that will be evaluated shall be that of engaging in a type of sustainable use of land or other resources that is different from land use changes and does not entail the local disappearance of these species and their required habitat. The evaluation shall be subject to the interested party's presenting an environmental impact statement in its general form...

The Ministry of the Environment, Natural Resources, and Fisheries (*Secretaría de Medio Ambiente, Recursos Naturales, y Pesca*—Semarnap; now the Ministry of the Environment and Natural Resources (Semarnat)) is the government body with primary responsibility for environmental protection and sustainable natural resource use. Semarnap included five semi-autonomous bodies, each with powers and responsibilities for different aspects of environmental protection, as follows:

- (i) CNA, in charge of administering the use of the water resource in Mexico, enforcing water-related legislation, and building and operating water-related infrastructure;
- (ii) INE, responsible for research and analysis on natural resources and their use, as well as for issuing authorizations, permits, and licenses for matters within the jurisdiction of Semarnap;
- (iii) the Mexican Institute of Water Technology (*Instituto Mexicano de Tecnología del Agua*—IMTA), charged with coordinating research, technological development, specialized consulting,

---

8. The effective enforcement of NOM-059 in and of itself was not considered relevant to the development of this factual record since it does not establish obligations to which Aquanova is subject but is merely a reference standard for NOM-062.

technical information, and high-level training programs relating to sustainable water use and management;

- (iv) the National Institute of Fisheries (*Instituto Nacional de la Pesca*—INP), responsible for designing, conducting, and assessing the country's fisheries and aquaculture research policy, and
- (v) Profepa, empowered to carry out inspection and enforcement in relation to offenses and administrative violations committed under federal environmental provisions (except in regard to national bodies of water, for which CNA is responsible).<sup>9</sup>

#### 4. Summary of the Submission and the Response

The Submission asserts that Mexico is failing to effectively enforce its environmental law with respect to the Aquanova shrimp farm located in Boca Cegada, San Blas, Nayarit, Mexico. Grupo Manglar asserts that Aquanova has violated environmental impact requirements, destroying wetlands and other habitat of protected species; that it illegally discharges wastewater, causing harm to the environment and to fisheries in the area; and that those fisheries have been affected by diseases allegedly caused by a new species of shrimp introduced by the company. In its Response, submitted on 15 June 1999, Mexico states that it is aware of the environmental problems existing in the area where Aquanova operates, and that it is using the legal means at its disposal to correct the degradation caused by the company's violations of the authorizations that had been issued to it.

---

9. As of the publication in the Official Gazette of the Federation (*Diario Oficial de la Federación*—DOF) of the new Internal Regulation (*Reglamento Interior*) of the Semarnat, this ministry no longer has responsibilities relating to fisheries promotion in Mexico, and for this reason the INP is no longer one of its semi-autonomous bodies. The rest of these agencies still form a part of this ministry's organizational structure; however, the IMTA has changed from a semi-autonomous to a decentralized agency, and a National Forestry Commission (*Comisión Nacional Forestal*) was created as a decentralized agency of Semarnat in charge of developing, promoting, and fostering forestry production, conservation, and restoration, as well as participating in the formulation of plans and programs and in the application of sustainable forestry development policy. As from this same date, the National Protected Natural Areas Commission (*Comisión Nacional de Áreas Naturales Protegidas*) was incorporated into the organizational structure of Semarnat as a semi-autonomous agency with a primary mission of overseeing the administration of the areas of the country under federal jurisdiction that hold this status. Also, INE no longer carries out Semarnat's regulatory functions.

The Submission asserts, and the Response of the Party also indicates, that Aqunova committed violations of environmental law or the environmental impact authorizations issued by INE for the Boca Cegada project. The violations may be summarized as follows:

- Non-compliance with three conditions of the environmental impact authorization for the first phase of the project in February 1995: i) prohibition on establishing camps; ii) order to respect the entirety of the mangrove vegetation and establish a mangrove replanting program, and iii) order to salvage and relocate the healthiest mangrove specimens (identifying them prior to clearing).<sup>10</sup>
- Non-compliance with various conditions imposed by INE in December 1996: maintenance of an environmental protection area and a conservation area within the concession area.<sup>11</sup>
- Non-compliance with instructions issued by INE in December 1997 concerning the removal of the obstruction of Los Olotes creek and the impact on an area of approximately 20 ha of mangrove forest in the La Diabla and Los Olotes creeks.<sup>12</sup>
- Unauthorized draining and filling of lagoons.<sup>13</sup>
- Unauthorized clearing, felling, and burning of vegetation in the habitat of species with protected status.<sup>14</sup>
- Unauthorized forest land use changes.<sup>15</sup>
- Wastewater discharges as of 1996 without the relevant permit, without the required monitoring of the discharges, and in violation of the applicable contaminant limits.<sup>16</sup>
- Causing mangrove mortality without authorization.<sup>17</sup>
- Unauthorized diversion of natural watercourses.<sup>18</sup>

---

10. Submission, pp. 6-7, and Mexico's Response (RSP), p. 10.

11. Submission, pp. 7-8, and RSP, p. 10.

12. *Ibid.*

13. Submission, p. 2, and RSP, p. 4.

14. Submission, pp. 2, 4, and RSP, pp. 5-6.

15. Submission, pp. 2-3, and RSP, pp. 5, 10.

16. Submission, p. 3, and RSP, p. 11.

17. Submission, pp. 3-4, and RSP, p. 12.

18. Submission, p. 4, and RSP, p. 13.

- Accelerating the disappearance of habitat for species with protected status, without authorization.<sup>19</sup>
- Impeding fishing activities without authorization.<sup>20</sup>

Grupo Manglar asserts that Profepa, on its visits to Aqanova, did not verify compliance with the LF in regard to environmental impact assessment for the change in forest land use and the use of forest resources, or verify compliance with NOM-062 and NOM-059 in regard to the adverse effects on biodiversity and the habitat of species with protected status. The Submission states that Aqanova's activities were carried out in the habitat of species with protected status under NOM-059<sup>21</sup> and contends that this situation makes the filing of an environmental impact statement mandatory under Article 4.7 of NOM-062. The Response of the Party confirms the existence of species with protected status in the zone in which Aqanova operates.

In its Response, Mexico asserts that INE issued an environmental impact authorization for the first phase of the project on 7 February 1995, establishing 43 conditions. It states that in April and May of that year, Profepa made inspection visits and detected compliance irregularities by Aqanova under the terms of that authorization, and sanctioned Aqanova for those irregularities. In addition, it states that collateral actions were taken leading to a program to correct the negative impact, including a mangrove-planting program. The Response states that felling, clearing, and burning were suspended on 9 May 1995.<sup>22</sup>

The Response states that the second phase of the project as regards environmental impact was authorized on 21 June and 8 July 1996, and that the third phase was authorized on 2 March and 19 May 1997.

The Submitter asserts that although Profepa ordered the suspension of clearing, felling, and burning activities carried out by Aqanova in violation of the INE authorization, the administrative proceeding corresponding to these violations was terminated on 12 May 1995 as a result of a working meeting at which it was agreed that INE would reissue the environmental impact assessment within 30 days.

---

19. Submission, p. 4, and RSP, p. 14.

20. Submission, p. 5, and RSP, pp. 15-16.

21. Submission, pp. 2, 4, and RSP, p. 7. The response indicates that Submitter erred in its classification of the species in question with respect to their specific status under the NOM.

22. RSP, p. 5.

According to Grupo Manglar, Profepa conducted other inspection visits in January 1996 during which irregularities were again detected in relation to the conditions established in the environmental impact authorization issued by INE. The Party's Response states that on 22 January 1996, irregularities were in fact detected in the construction of a discharge canal that caused harm, as well as forestry-related irregularities, involving the lack of a land use authorization and the removal of 3.35 hectares of mangroves.

Finally, Grupo Manglar states that the administrative proceeding initiated in December 1997 in relation to various violations by Aquanova, was terminated by means of an administrative agreement signed 30 March 1998 which the Submitter claims is contrary to law. The Submission asserts that the proceeding should have been terminated by a decision, not by an agreement, since "...the authority cannot negotiate compliance and enforcement of laws designed to preserve public order and protect the public interest, such as the General Law on Ecological Balance and Environmental Protection and the Forestry Law."<sup>23</sup> It claims that by virtue of the agreement, the authority renounces its power to sanction the alleged violations of Aquanova. The Response states that the authorities that entered into the administrative agreement are empowered to do so. The Party further contends that it is not mandatory to terminate an environmental proceeding with a decision. Mexico alleges that the agreement is not contrary to law because its purpose is not to negotiate compliance with the law, as the Submitter asserts, but to further the restoration of the environment. Finally, Mexico denies that it has renounced its power to sanction.

The Submission further asserts that Mexico is failing to effectively enforce its environmental law with respect to water use and wastewater discharge. Grupo Manglar asserts that although the CNA is the body competent to enforce the LAN, the CNA only required of Aquanova that it "regularize" its situation, and failed to effectively enforce the law and its regulations. It asserts that the CNA failed to enforce the cited provisions given: 1) the unauthorized water use by the company; 2) the unauthorized wastewater discharges by the company; 3) the obstruction of natural watercourses by the company without a permit, and 4) the deterioration of water quality in the area due to Aquanova's activities.

According to the CNA, the water use permit to which the Submitter refers is not applicable since the water is extracted from lagoons, inlets, and creeks, which are marine waters. The Response

---

23. Submission, pp. 9-10.



states that the company did in fact discharge wastewater without the relevant permit from 1996 until, apparently, 6 November 1998, when permit 08NAY104898/13BKGE98 was issued for one of the three discharges.<sup>24</sup> The Response further states that the permit for the other two discharges is pending, and that a favorable technical report from 11 December 1998 exists. The Response asserts that the company diverted natural watercourses but that this was contemplated by the environmental impact authorization. The Response further states that the obstructions of Los Olotos and La Cegada creeks had already been removed by the company, allegedly at the time the Response was submitted. The Submitter asserts that the lack of water quality monitoring is a violation of the environmental law and a failure of effective enforcement by the CNA. The CNA stated that it has developed a monthly water-quality monitoring program that allegedly covers the principal inlets relating to Aquanova's activities. The Response also states that the company has a monitoring program to comply with NOM-089-ECOL-1994.<sup>25</sup> The CNA reported that the samples taken at 4 sites (allegedly between October 1998 and April 1999) demonstrated that the wastewater quality complies with NOM-001-ECOL-1996.<sup>26</sup>

In regard to fisheries, Grupo Manglar asserts that Mexico is failing to effectively enforce the LP and the RLP by introducing a shrimp species of commercial interest (blue shrimp, *Penaeus stylirostris*, strain SPR—43) in the production of which viral diseases allegedly occur.<sup>27</sup> The Submitter asserts that more than 500 fishermen have been economically affected by the high mortality of fish species they typically catch, as well as by the obstruction of certain creeks along which they travel in order to carry out their fishing activities.<sup>28</sup>

Mexico's Response asserts that the Submitter's assertions in this regard are false. The Response states that Aquanova holds a concession issued by the Aquaculture Branch (*Dirección General de Acuacultura*) of Semarnap, that the species in question does not produce viral diseases, and that this was indicated in the sanitary certificates that, the Party

---

24. RSP, p. 11 and Appendices 13-14.

25. NOM-089-ECOL-1994, cited on p. 12 of the Response, establishes the maximum contaminant limits in wastewater discharges into collecting bodies from agricultural cultivation activities. However, it is unclear that the company is involved in such activities.

26. Establishing the maximum contaminant limits in wastewater discharges into national bodies of water and property.

27. Submission, p. 4.

28. The Submission asserts that the volume of fish decreased by 80 percent in the locality of San Blas and by 100 percent on the left bank of the Rio Grande de Santiago (p. 5).

alleges, were filed prior to each stocking period. Regarding the Submitter's assertions that fish stocks have been substantially decreased by the company's operations, Mexico's Response asserts that fish production has not decreased but rather increased.<sup>29</sup>

Grupo Manglar asserts that the following specific actions and ongoing activities of Aquanova, in addition to involving administrative violations, constitute offenses under CPF Articles 416, 418, and 420, and that these provisions were not enforced: draining and filling of lagoons since 1995; unauthorized felling, clearing and burning of vegetation in the habitat of species with protected status; unauthorized land use changes; unauthorized removal of forest cover; wastewater discharges since the first half of 1996 without a permit, without performing the required monitoring, and in violation of the applicable contaminant limits; causing mangrove mortality without authorization; unauthorized diversion of natural watercourses; unauthorized acceleration of the destruction of the habitat of species with protected status; unauthorized obstruction of fishing activities.<sup>30</sup>

Mexico's Response states that the environmental authority submitted reports to the Office of the Attorney General (*Ministerio Público*) that were requested in the context of preliminary investigation DGMPE/C/I-3/039/98 concerning the alleged commission of environmental offenses, allegedly initiated in response to a criminal complaint filed by the Submitter concerning Aquanova. The Response asserts, however, that under Article 16 of the Federal Code of Criminal Procedure (*Código Federal de Procedimientos Penales*) these reports cannot be disclosed, and no further information is provided on the status of the preliminary investigation or on the matter to which it referred.<sup>31</sup> Mexico also contends that the applicable offenses are those provided by the LGEEPA prior to the reform of 14 December 1996, rather than those set out in the CPF and invoked by the Submitter, since according to Mexico, the alleged offenses were committed prior to the aforementioned reform.<sup>32</sup>

Finally, the Submission asserts that Mexico is failing to effectively enforce the *Convention between the United Mexican States and the United States of America for the Protection of Migratory Birds and Game Animals*; the *Convention on Wetlands of International Importance Especially as Waterfowl Habitat* and the Protocol which amends it, and the *Trilateral Memorandum*

---

29. RSP, p. 16.

30. Submission, pp. 5, 7, 8.

31. RSP, pp. 17, 23.

32. RSP, pp. 16-17.

*of Understanding for the Conservation of Migratory Birds and their Habitats*,<sup>33</sup> allegedly by permitting the destruction of the area by Aqanova's activities. In its Response, Mexico asserts that these instruments are not applicable to the matters raised by the Submission.

The cited international instruments call on their parties to take legislative and regulatory measures to protect certain migratory birds and game mammals, and to designate wetlands of international importance on their territory. The Secretariat determined that this matter did not warrant developing in a factual record because these instruments do not refer to the enforcement of domestic law by their parties, nor do they establish specific obligations (hypothetically, contaminant limits, quality criteria for the resources, or other specific aquaculture standards) that could be related to the violations asserted in the Submission.<sup>34</sup> Consequently, the alleged failure to effectively enforce the cited international instruments is not addressed in this factual record.

## 5. Summary of Other Relevant Factual Information

### 5.1 Process Used to Gather Information

Based on the Secretariat's recommendation of 4 August 2000, the CEC Council instructed the Secretariat on 16 November 2001 to develop a factual record in regard to submission SEM-98-006 (Appendix 1 of this factual record contains the corresponding Council Resolution). In January 2002, the Secretariat initiated the factual record development process.

The focus of the information compiled for the factual record was the effective enforcement of LGEEPA Articles 117, 118, 119, 121, 123, 129, 130, 168 and 182; LF Articles 12 and 19 bis 11; NOM-059; NOM-062; LAN Articles 4, 9, 86 paragraph III, 88, 92 and 119 paragraphs I, II and VIII; RLAN Articles 134, 135, 137, and 153; LP Articles 3 paragraph VIII and 24 paragraph XXIV; RLP Articles 44, 48, and 50; and CPF Articles 416 paragraphs I and II, 418, and 420 paragraph V, with respect to Aqanova. The Secretariat attempted to gather information on the Party's initiatives and actions to enforce compliance by Aqanova with various environmental impact requirements; wastewater discharge monitoring and treatment obligations; steps to ensure sustainable water use, prevention

---

33. Submission, p. 11.

34. SEM-98-006 (Aqanova), Article 15(1) Notification to Council that Development of a Factual Record is Warranted (4 August 2000).

and control of water pollution, and the protection of aquatic ecosystems; and fisheries protection measures.

The Secretariat made available to the Parties, the Submitter, and any interested party a general plan for the development of the factual record (Appendix 2 of this factual record) and a description of the scope of the relevant information being gathered (Appendix 3 of this factual record). Pursuant to NAAEC Articles 15(4) and 21(1)(a), the Secretariat requested Mexico and 13 of its authorities to provide the relevant information in their possession for the preparation of the factual record (Appendix 4 of this factual record contains a list of the recipients of this request and a description of the information requested). Information was received from the Party, including information from several Mexican authorities in response to the request. The other Mexican authorities either did not respond, indicated that they did not possess information, or stated that the matter is outside their jurisdiction. Likewise, the Secretariat invited the other two parties to the NAAEC and the Joint Public Advisory Committee (JPAC) to provide relevant information. The Secretariat identified 22 persons or nongovernmental organizations that might possess relevant information, including Grupo Manglar and Aquanova, and invited them to provide that information. Information was received from the Submitter, the company, and one person in response to that request (Appendix 5 of this factual record contains a list of the recipients of the request and Appendix 3 contains a description of the information requested).

Appendix 6 contains a list of all the information gathered by the Secretariat, including information produced by the Secretariat through independent experts, which formed the basis for this factual record.

Article 15(5) of the NAAEC provides that “[t]he Secretariat shall submit a draft factual record to the Council. Any Party may provide comments on the accuracy of the draft within 45 days thereafter.” Pursuant to Article 15(6), “[t]he Secretariat shall incorporate, as appropriate, any such comments in the final factual record and submit it to the Council.” The Secretariat submitted the draft factual record to the Council on 7 March 2003. The Parties did not comment on the draft factual record.

## 5.2 *Timeline*

### 1994

---

November 3 The Ministry of Fisheries (*Secretaría de Pesca*) authorized Aquanova to introduce shrimp strain SPR—43 into the Boca Cegada shrimp farming project.

November 25 Aqunova filed the environmental impact statement for Phase I of the project.

---

**1995**

---

February 7 INE granted environmental impact authorization for Phase I of the Aqunova project.

February 27 Aqunova formally commenced work on Phase I of the project.

April 18 Aqunova applied to INE for amendments to its environmental impact authorization.

April 19-20 Profepa conducted environmental impact inspection visits. It detected the following irregularities: establishment of prohibited camps, failure to salvage flora and fauna, mechanical destruction of 42 ha of black mangrove (*Avicennia nitida*) and 250 coconut palms. The authorities ordered the suspension of these activities.

May 8 Aqunova requested INE approval of a new plan for the facility.

May 17 Profepa conducted an inspection visit to institute a new proceeding and identified the same violations on the part of Aqunova.

May 25 Aqunova applied for INE approval to amend the plan and conditions of its environmental impact authorization regarding camps and mangrove destruction.

June 27 INE authorized the new facility plan and the amendments to conditions 14, 16 and 17. It authorized the necessary camps and the removal of vegetation from the water supply and discharge canals.

August 16 Profepa ordered Aqunova to remove the infrastructure and auxiliary camps, replant mangroves, and carry out reforestation, and it fined the company P\$100,000.00.

September 6 Aqunova filed an appeal for review against the Profepa decision of August 16.

---

**1996**

---

January Aqunova began discharging wastewater into the estuarine zone.

January 22 Profepa conducted an inspection visit during which it detected that Aqunova had effected a land use change on 15.9 ha (including 3.25 ha of mangrove forest) in the area for its discharge canal without prior authorization.

- 
- March 22 INE authorized construction of the wastewater canal for Phase I involving discharge of wastewater into La Tronconuda marsh, subject to the filing of a water quality monitoring program and other studies of the impact on the marsh.
- May 15 Semarnap granted Aquanova a concession on 1,949 ha of the Federal Coastal Zone (*Zona Federal Marítimo Terrestre—Zofemat*).
- October 7 Aquanova filed the environmental impact statement for Phases II and III of the facility with INE.
- December 20 INE granted environmental impact authorization to carry out Phases II and III of the project, prohibiting Aquanova from blocking or impacting the creek adjacent to Isla del Rey, La Diabla creek, and El Rey inlet (*Estero del Rey*). The environmental impact authorization also required the salvaging and replanting of the healthiest plant specimens and the establishment of a water quality-monitoring program.

---

#### 1997

- January 6 The CNA required Aquanova to regularize its situation.
- April 15 INE authorized Aquanova to build and operate the ocean discharge canal, subject to refraining from blocking or impacting the creeks outside the discharge canal, but authorizing three obstructions, including one of Los Olotes creek.
- November 17 Profepa inspected the performance of corrective actions. It noted the planting of 39 coconut palms and the establishment of nurseries for reforestation purposes.
- December 5 Profepa issued a final decision in the proceeding initiated with the decision of 16 August 1995. In view of the amendments approved by INE, it rescinded the order to dismantle the camps and to carry out reforestation, and reduced the fine to P\$29,095.00.
- December 16-17 Profepa conducted an inspection visit during which it detected the obstruction of Los Olotes creek, and mortality of mangroves and vegetation in the flood-prone area.

---

#### 1998

- February 18 Profepa conducted a visit and noted that Aquanova had removed the obstruction from Los Olotes creek.

- March 30 Profepa and Aquanova entered into an administrative agreement that terminated the proceeding initiated further to the inspection of 16 December 1997. They agreed that a committee of experts would determine the causes of the harm to the mangrove forest in the area and that Aquanova would remedy any harm for which it was responsible.
- September 28 Semarnap granted Aquanova a concession for semi-intensive culture and commercial use of blue and white shrimp.
- October 16 Aquanova undertook to build civil engineering works to restore the flow in Los Olotes and La Diabla creeks and to carry out a Mangrove Restoration Program on 50 ha, as a result of the report of the committee of experts.
- October 20 Grupo Manglar filed Submission SEM-98-006 with the CEC, pursuant to NAAEC Article 14, asserting that Mexico is failing to effectively enforce its environmental law with respect to Aquanova.
- November 6 The CNA granted Aquanova a concession to discharge wastewater.

---

**1999**

- February 24 Aquanova filed a Mangrove Restoration Program with Semarnap.
- March 17 The CEC Secretariat requested a response to the Submission from Mexico in accordance with NAAEC Article 14(2).
- April 27 Aquanova completed the civil engineering works to restore the free flow of water in Los Olotes creek (metal bridge, electrical substation and pumping station) and La Diabla creek (piping under ocean discharge canal).
- June 15 Mexico filed its Response to the Submission pursuant to NAAEC Article 14(3).
- December 22 Aquanova entered into an agreement with representatives of the government of Nayarit, Semarnap, Profepa, Grupo Manglar, elected members of state government, and members of civil society, in which it undertook to limit Phase III of the project and help fund a socio-environmental analysis of the area, among other commitments. The signers acknowledged the restoration efforts carried out by Aquanova.

---

**2000**


---

- January 4 Semarnap authorized Aquanova to carry out the Mangrove Restoration Program.
- February 15 Profepa fined Aquanova P\$48,800.00 for failure to obtain a land use authorization and for removal of 3.5 ha of mangrove forest, as detected during the inspection of 22 January 1996.
- March 10 Profepa carried out an inspection visit to verify compliance with the Mangrove Restoration Program, with positive results.
- August 4 The CEC Secretariat recommended to Council that a factual record be developed in regard to Submission SEM-98-006.

---

**2001**


---

- May 2 The CNA conducted an inspection visit on which no irregularities were detected.
- May 11 Profepa conducted a visit to verify compliance with the Mangrove Restoration Program, observing the gradual regrowth of mangroves.
- November 16 The Council decided unanimously to instruct the Secretariat to develop a factual record in regard to Mexico's alleged failure to effectively enforce various provisions of its environmental law with respect to Aquanova.
- 2001 - summer  
2002 Grupo Manglar produced a socio-environmental analysis of the estuarine and mangrove zone of the Municipality of San Blas, Nayarit.

---

**2002**


---

- June 20 Profepa conducted an inspection visit and observed the gradual restoration of the mangroves in the areas covered by the restoration program.
- October 25 Hurricane Kenna severely affected the San Blas area.



### 5.3 *Environmental Impact Authorization Process and Related Authorizations*

Environmental impact assessment is the procedure prescribed by the LGEEPA whereby the environmental authority – Semarnat<sup>35</sup> – establishes the conditions governing the execution of those works and activities that could cause ecological imbalance or exceed the limits and conditions established in the applicable provisions for the protection of the environment and the preservation and restoration of ecosystems, for the purpose of preventing or minimizing the negative effects of such works and activities on the environment.<sup>36</sup>

In broad outline, the procedure for obtaining an environmental impact authorization (EIA) is as follows:

1. The interested party files an EIA application with Semarnat, attaching an environmental impact statement (EIS).<sup>37</sup>
2. The EIS must contain, at a minimum, a description of the possible effects on the ecosystems that could be affected by the work or activity, as well as the preventive, mitigation, and other measures necessary to prevent and minimize the negative effects on the environment.
3. Semarnat opens a file and makes the EIS publicly available for comment on the project by any interested party.<sup>38</sup>
4. When the assessment of the EIS (and any additional information generated by the process) is completed, Semarnat issues a

35. Since 4 June 2001, Semarnat has fulfilled this responsibility through its Environmental Impact and Risk Branch (*Dirección General de Impacto and Riesgo Ambiental—DGIRA*). During the period when the Granjas Aquanova—Boca Cegada project was initiated, and until 8 July 1996, this responsibility was met by the Environmental Standards Branch (*Dirección General de Normatividad Ambiental—DGNA*) of INE, a semi-autonomous body of the former Semarnap. After that date, this responsibility came under the Environmental Impact and Land Use Planning Branch (*Dirección General de Ordenamiento Ecológico e Impacto Ambiental—DGOEIA*) of INE, until the DGIRA was created.

36. LGEEPA Art. 28.

37. The Environmental Impact Regulation in effect when Aquanova filed its EIS provided for three types of EIS (general, intermediate, and specific) depending on the project characteristics (published in the DOF on 7 June 1988). The Regulation in force as of 30 June 2000 (published in the DOF on 30 May 2000) contemplates other types.

38. In the reform of the LGEEPA (DOF of 13 December 1996), public participation in the environmental impact assessment process was expanded (Article 34). The applicable text at the time of the Aquanova process did not provide for public comment on the project, but merely public consultation of the file (Article 33).

reasoned and justified decision: (i) authorizing the project, (ii) denying authorization to the project, or (iii) authorizing the project with conditions.

5. The execution of the work must adhere to the corresponding decision.
6. The applicant must notify Semarnat of any subsequent change in the authorized work in order for Semarnat to determine whether it is viable or whether a new environmental impact assessment is required.<sup>39</sup>

The EIA does not include any other permits and authorizations applicable to the work or activity, which the project proponent must obtain separately. Thus, for example, the LF establishes the requirement of obtaining an authorization to use timber resources and provides that in the case of tropical forests, the environmental impact must be assessed before such authorization may be issued (LF Article 12).<sup>40</sup>

Authorization is also required to change the land use on forested land. The LF provides that this may only be authorized after consultation with the relevant Regional Council and based on technical studies demonstrating that it does not jeopardize biodiversity or cause soil erosion, water quality degradation or reduced catchments (LF Article 19 bis 11).

Mexican Official Standard NOM-062 establishes specifications to mitigate the adverse effects on biodiversity of land use changes from forestry to agriculture. The NOM provides that the only types of projects that may be evaluated (prior filing of an EIS) are those that involve sustainable use of land or other resources and do not involve land use changes or entail the local disappearance of species of flora or fauna listed in the relevant Mexican Official Standard as rare, threatened,

---

39. The possibility of the applicant's making changes to the project and the authority's requesting clarifications of the EIS was not contemplated in the LGEEPA text in force at the time of the Aquanova process, but rather, only in the corresponding regulation. As of the 1996 reform, this provision also appears in the LGEEPA (Articles 30 and 35 bis).

40. Amendments to this law were published in the DOF on 20 May 1997 and 31 December 2001. The requirement of obtaining a land use change authorization is no longer provided by this law. Currently, such provisions are found in the legislation of each state. Nevertheless, the LGEEPA Environmental Impact Regulation, published in the DOF on 30 May 2000, establishes that an environmental impact authorization is required prior to effecting a land use change in forest areas for aquaculture, among other provisions (Article 5-O-I).

endangered, or subject to special protection and of their habitat (NOM-062, point 4.7).

Finally, pursuant to Article 30 of the General Law on Property of the Nation (*Ley General de Bienes Nacionales*), a concession is required in order to use land located within the Zofemat.

### 5.3.1 Phase I of the Granjas Aquanova — Boca Cegada Project

On 25 November 1994, Aquanova applied for an EIA for Phase I of its project, by filing with INE an EIS (intermediate type); the EIS was produced by Biopesca Asesores en Biología Pesquera, S.A. de C.V.<sup>41</sup> The Secretariat requested but did not obtain a copy of this EIS, and it was unable to determine from the information gathered whether this first EIS included information on all three phases of the project or only the first phase.

On 7 February 1995, INE granted an EIA to Aquanova for the first phase of the project.<sup>42</sup> The works authorized were: the water supply canal and the sump (for water supply), two inlet gates per pond, one outlet gate per pond, 52 semi-intensive ponds of 10 ha each, a buildings area in the urban zone of Ejido Isla del Conde (total area 700 m<sup>2</sup>), internal roads between the buildings (area of 5,000 m<sup>2</sup>) and reconditioning of access roads (5 m wide by 5 km long).

INE made the development of the project subject to 43 conditions. Among the limits and obligations imposed were the prohibition on establishing auxiliary camps in the project area during the preparation and construction phases (condition 14); the requirement that the company preserve the entirety of the mangrove vegetation existing on the premises and carry out a mangrove replanting program with species indigenous to the region in the areas of both the water supply canal and the discharge canal as well as in those areas sparsely populated with this vegetation but providing a suitable habitat for it (condition 16); the obligation of Aquanova to identify and mark the healthier mangrove specimens prior to clearing the land, and to take steps to salvage and relocate them within the facility (condition 17).

---

41. Information provided by Granjas Aquanova, S.A. de C.V. for the development of the factual record in regard to Submission SEM-98-006, received 9 July 2002 ("IPA"), Appendix 1.

42. By means of document no. D.O.O.P.-0333, IPA, Appendix 2.

Aquanova began its preparation and construction work on 27 February 1995.<sup>43</sup> Aquanova changed the land use of forest in an area of 2,000 ha in order to build its facilities and ponds, according to Grupo Manglar, without authorization.<sup>44</sup>

On 19 April 1995, Profepa conducted its first inspection visit to Aquanova. On this visit, irregularities relating to conditions 14, 16 and 17 of the EIA were found. The authority determined that Aquanova had established a camp in the project area; that it had failed to salvage the flora, for subsequent replanting, in an area of approximately 400 ha; that in the area projected to hold 12 ponds Aquanova had felled, amassed and burned black mangrove (*Avicennia nitida*) on an area of 50 ha; and that in the southern part of Laguna del Coyote it had felled and amassed approximately 250 coconut palms, using tractors and a chain. The inspector recommended that Aquanova suspend its felling of the existing vegetation as well as all auxiliary work in the project area.<sup>45</sup> On 20 April 1995, Profepa inspected Aquanova a second time to verify its compliance with these recommendations and found that it had not complied.<sup>46</sup>

As a consequence, on 25 April 1995 Profepa ordered Aquanova to suspend all auxiliary work in the project area, any other activity related to the amassing and burning of vegetation, as well as the felling, amassing and burning of the remaining vegetation in the authorized project area.<sup>47</sup> In May 1995, Aquanova provided INE with comments regarding the conditions of its EIA, arguing among other things: that it did not intend to install permanent camps that would result in population centers, but that it was absolutely necessary to install temporary camps to carry out the works; that the EIS did not indicate that all of the mangrove vegetation would be respected because that “would imply that no ponds or very few could be built”; and that conditions 16 and 17 are contradictory in requiring that all mangrove vegetation be respected and at the same time requiring that the healthier mangrove specimens be relocated (regardless of the fact that the criteria should be to conserve the specimens that are “adequate for replanting”).<sup>48</sup>

---

43. IPA, Appendix 5.

44. Information provided by Grupo Manglar (“IPGM”), p. 3.

45. Document no. 95/010, Information provided by Mexico on 4 April 2002 (“IPM-1”), Appendix 1.

46. Document no. 95/011, IPM-1, Appendix 2.

47. Unnumbered document, IPA, Appendix 10.

48. Information provided by Mexico on 19 December 2002 (“IPM-5”), Appendix 4, p. 9-13.

On 15 May 1995, Profepa acknowledged that it had made procedural irregularities during the inspections of 19-20 April 1995 and issued a decision that annulled its actions to that date, initiating a new proceeding and ordering a new inspection visit.<sup>49</sup> This third environmental impact-related inspection visit to Aquanova took place on 17 May 1995, and the same irregularities were detected as on the visit of 19 April 1995.<sup>50</sup> In consequence, on 16 August 1995, Profepa ordered Aquanova to remove all the auxiliary infrastructure built as well as the auxiliary camp located within the project area; to plant black mangrove (*A. nitida*) in various areas; to carry out planting and reforestation programs; and to pay a fine of P\$100,000.00.<sup>51</sup>

Aquanova appealed to Profepa for review of this order on 6 September 1995.<sup>52</sup> On 6 January 1996, the head of Profepa determined the order was to be reissued, properly justifying the sanctions imposed on Aquanova.<sup>53</sup> On 5 December 1997, Profepa rescinded the order to dismantle the auxiliary structures and replant mangroves, and reduced the fine to P\$29,095.00 in light of an authorization issued to Aquanova on 27 June 1995 (described below).<sup>54</sup>

Under the 27 June 1995 authorization, INE approved the new facility plan filed by Aquanova on 25 May 1995, as well as the amendments to several of the conditions set out in the authorization of 7 February 1995, including conditions 14 and 16. INE authorized Aquanova to install only those auxiliary areas that the construction company considered strictly essential to the siting, maintenance and operation of its machinery as well as the administration of earth moving activities, stipulating that the area would subsequently have to be used for the construction and operation of the buildings area. Since the sparser mangrove areas (42 ha) had already been removed in order to build "the necessary aquaculture facilities," the authority ordered maintaining in the project area a minimum of 14 ha of mangrove forest. INE also authorized Aquanova to remove the vegetation on the minimum area necessary for the construction of facilities relating to the supply and discharge canals, subject to prior identification and marking of the healthier mangrove specimens and measures to salvage and subsequently relocate them.<sup>55</sup>

---

49. Unnumbered decision, IPM-1, Appendix 3.

50. Document no. 016/95, IPM-1, Appendix 4.

51. Decision no. 003, IPM-1, Appendix 5.

52. IPM-1, Appendix 6.

53. No copy of this document was provided to the Secretariat; its existence is mentioned in IPM-1, p. 2, and Appendix 7, p. 2.

54. IPM-1, Appendix 7.

55. By means of document D.O.O. DGNA.-2587, IPA, Appendix 4.

On 22 January 1996, Profepa conducted an inspection visit during which it found that Aquanova had not obtained a land use change authorization prior to clearing 15.9 ha, including 3.25 ha of mangroves, in the area of the discharge canal.<sup>56</sup> On 15 February 2000, Profepa terminated the administrative proceeding initiated on that visit and fined Aquanova P\$48,800.00 for carrying out this land use change without prior authorization.<sup>57</sup> The information provided to the Secretariat does not indicate whether this sanction was appealed or whether it was made effective.

On 22 March 1996, INE authorized the construction of the wastewater discharge canal for Phase I of the project. This authorization established the following as conditions, among others: 1) the filing of a water quality monitoring program for the discharge canal, determining its efficiency as an instrument of water quality improvement in the Tronconuda marsh; 2) the filing of a wildlife conservation study for the Tronconuda marsh, including ecophysiology studies, so as to detect the impact of wastewater dumping on mangroves and aquatic fauna; and 3) the filing of a study on sedimentation of the particles contained in the wastewater and their impact on the bathymetry of the Tronconuda marsh, the discharge canal, and the creeks communicating with El Rey inlet, including an indication of the final resting point of the sludge generated.<sup>58</sup>

On 15 May 1996, Semarnap granted Aquanova a concession on 1,949 ha of the Zofemat.<sup>59</sup> Grupo Manglar claims that Aquanova began work in this area one year before obtaining the concession.<sup>60</sup>

On 22 May 1996, Aquanova applied to the Semarnat state office in Nayarit for a land use change authorization for Phase I of the project. The Natural Resources Section (*Subdelegación de Recursos Naturales*—SRN) of that office indicated on 28 May 1996 that such authorization could not be granted since Aquanova had already effected the land use change “... and that to issue the authorization *a posteriori* would be improper.”<sup>61</sup>

---

56. Information provided by Mexico on 29 April 2002 (“IPM-2”), Appendix 2. The Secretariat did not obtain a copy of this inspection report, but decision no. 169/2000 refers to it.

57. IPM-2, Appendix 2.

58. By means of document D.O.O.DGNA-01499, RSP, p. 12, Appendix 16.

59. The Secretariat did not receive a copy of this concession (no. DZF 226/96), but it is referred to by document D.O.O.DGOEIA-04076; information provided by Mexico on 7 May 2002 (“IPM-3”), Appendix 4.

60. IPGM, p. 5.

61. RSP, Appendix 5.

Grupo Manglar holds the view that the authorities issued authorizations to Aquanova that were not permitted since, under NOM-062, the destruction of the habitat of species with protected status may not be authorized.<sup>62</sup> Grupo Manglar further asserts that Mexico failed to effectively enforce the environmental law by failing to revoke the company's authorizations or concessions despite the seriousness of the violations detected during Profepa's inspection visits. The Submitter refers to LGEEPA Article 172, which provides that where the seriousness of the violation so warrants, the authority shall request that the issuer suspend, revoke, or cancel the authorization to carry out the activities that gave rise to the violation.<sup>63</sup> The EIAs stipulated that noncompliance with the conditions and provisions that they contained and/or the modification of the work "will invalidate" (in the case of the EIA for Phase I) or "could invalidate" (for the subsequent EIAs) the authorization in question.

### 5.3.2 Phases II and III of the Granjas Aquanova — Boca Cegada Project

On 4 and 6 June 1996, Aquanova applied for an authorization to carry out clearing activities not involving mangroves, leveling, and basic surveying for Phase II of the facility, filing an "Executive Summary of the Intermediate Form of the Environmental Impact Statement: Analysis of Critical Points" with INE.<sup>64</sup> Three weeks later, on 25 June 1996, INE approved this application subject to 10 conditions. It strictly prohibited Aquanova from removing young or old riparian mangrove vegetation without prior filing of a detailed engineering design for the work, for review and decision by the authority. It also prohibited Aquanova from blocking or affecting water flow in the creek adjacent to Isla del Rey. The authority required that clearing be restricted to land the use of which is defined for productive activities and which the company either owns or has rights to use, and subjected the commencement and continuation of clearing on federal lands to the filing of the land use change authorization and the Zofemat concession granted, respectively, by the Land Restoration and Conservation Branch (*Dirección General de Restauración y Conservación de Suelo*) and the Federal Coastal Zone Branch (*Dirección General de Zona Federal Marítimo Terrestre*).<sup>65</sup>

On 21 June 1996, Aquanova obtained a land use change authorization from the SRN for 316.17 ha in order to carry out Phase II of the project. This authorization also provides for the marking, storage, trans-

62. IPGM, p. 7.

63. IPGM, pp. 7-8.

64. RSP, p. 4, Appendix 2.

65. By means of document D.O.O.DGNA.-02783, RSP, p. 4, Appendix 2.

portation, and sale of timber logs produced by clearing the land.<sup>66</sup> Once the required land use change authorizations were filed, INE authorized, on 20 August 1996, the clearing and leveling of 10.01 ha of young riparian mangrove forest.<sup>67</sup>

On 7 October 1996, Aquanova applied for authorization to carry out Phases II and III of the project, filing with INE the intermediate form of the EIS for the project titled “Shrimp Farm, Boca Cegada Unit, Phases II and III.”<sup>68</sup> On 20 December 1996, INE granted the EIA, subjecting the execution of Phases II and III of the facility to 49 conditions. INE prohibited Aquanova from blocking or affecting the creek adjacent to Isla del Rey and La Diabla creek and required the company to take the necessary steps to prevent the facility’s wastewater from mixing into these creeks and the El Rey inlet or the alteration of their physicochemical quality. It again established the obligation to salvage mangroves prior to beginning the work and for subsequent replanting within the project area. The authority required Aquanova to establish a monthly water quality monitoring program at the water supply and discharge points so as to maintain the levels established in “Ecological Water Quality Criteria for Aquaculture” and in NOM-089-ECOL-1994. INE also ordered Aquanova to preserve 1,675 ha of riparian mangrove forest as an environmental protection area (as proposed by Aquanova in its EIS). INE did not, at this time, authorize construction of the proposed buildings area and discharge canal nor the modification of the existing discharge canal.<sup>69</sup> On 27 February 1997, Aquanova requested that INE revise these terms and conditions of the EIA for Phases II and III.<sup>70</sup>

On 5 March and 19 May 1997, Aquanova obtained authorization from the SRN for a land use change on a total of 1,116.20 ha in order to execute Phase III of the facility.<sup>71</sup>

### 5.3.3 *Ocean Discharge Canal for the Granjas Aquanova—Boca Cegada Project*

On 15 April 1997, INE authorized the “Ocean Discharge Canal Project for Phases II and III<sup>72</sup>” as a supplemental facility, subject to 15

66. By means of document no. 261.SRN/96/1431, RSP, Appendix 6, and IPM-1, Appendix 17.

67. By means of document D.O.O.DGOEIA.-04076, RSP, p. 7, Appendix 12.

68. RSP, p. 4, Appendix 3.

69. By means of document D.O.O.DGOEIA.-08160, RSP, Appendix 3 and IPM-3, Appendix 2.

70. Document INE-SMCO8160-025, IPM-5, Appendix 7.

71. Documents no. 261/SRN/97/0359 (RSP, Appendix 8) and 261/SRN/97/1233 (RSP, Appendix 9).

72. IPM-5, Appendix 6.



conditions. INE strictly prohibited the company from blocking or affecting the creeks outside the discharge canal area, although it did authorize Aquanova to install 3 obstructions for construction of the discharge canal, including one in Los Olotes creek.<sup>73</sup> Aquanova only obtained authorization to clear mangrove vegetation on an area of 8.83 ha corresponding to the areas to be used for expansion of the discharge canal and the areas corresponding to the crossing of La Diabla creek on its path to the ocean. The authority required Aquanova to ensure at all times that project wastewater would not mix with water in the creeks that cross the discharge canal.<sup>74</sup>

On 11 December 1997, INE approved a request by the citizens of the neighboring communities that Aquanova remove the obstruction from Los Olotes creek after considerable black mangrove (*Avicennia germinans*) mortality was detected in the creek.<sup>75</sup> On 16 December 1997, Aquanova received an inspection visit to verify compliance with the conditions established in the EIA for Phases II and III and the order to remove the obstruction from Los Olotes creek. Profepa found an earthen obstruction approximately 13 m long and approximately 3 m wide at the intersection of Los Olotes creek with the facility's discharge canal, which it considered to be a violation, despite the fact that Aquanova had installed 4 concrete pipes, each 1.5 m in diameter, on the bottom of the obstruction to facilitate water flow in the discharge canal and Los Olotes creek. Profepa also observed an affected area of approximately 207,412.5 m<sup>2</sup> of adult black mangrove (*A. nitida*) and a smaller amount of white mangrove (*Laguncularia racemosa*) as well as the permanent inundation of the area.<sup>76</sup> According to Grupo Manglar, the mangrove mortality occurred on approximately 500 ha in Los Olotes creek and 100 ha in La Diabla creek.<sup>77</sup>

Further to these inspection visits, Profepa instituted an administrative proceeding against Aquanova. This proceeding was terminated on 30 March 1998, by the signing of an administrative agreement between Profepa and Aquanova.<sup>78</sup> The agreement stipulated that a study would be conducted to determine the environmental impact of Aquanova's operations on the mangrove woodland of Los Olotes and La Diabla creeks. Dr. Francisco Flores Verdugo and Dr. Roy Lewis conducted the environmental impact study and determined that Aquanova was par-

73. IPM-1, p. 3, Appendix 12.

74. By means of document D.O.O.DGOEIA.-02187, RSP, p. 4, Appendix 4.

75. Document no. D.O.O.DGOEIA.- 07692, IPM-1, Appendix 12.

76. Document no. IIA 000010, IPM-1, Appendix 11.

77. IPGM, p. 11.

78. IPM-1, Appendix 13.

tially responsible for the degradation of the area in question.<sup>79</sup> The study was completed on 24 June 1998.

In this regard, Grupo Manglar claims that:

Concerning the illegality of that administrative agreement, we reiterate the observations we made in our citizen petition of 22 September 1998, but we wish to emphasize that the Office of the Federal Attorney for Environmental Protection lacked the power to enter into the administrative agreement whereby it terminated the proceeding brought against Aquanova, principally because if it was a matter, in this case, of determining the causes of contamination of those bodies of water, the National Water Commission should have participated in that proceeding or even instituted another proceeding on its own account, since it is the competent authority with respect to water pollution prevention and control. Therefore, it is that body's responsibility to verify and order measures and actions necessary to protect water quality. However, that body's participation in the process was quite secondary; it merely established the water quality monitoring program and did not participate in the signing and execution of the aforementioned administrative agreement.

To date, there is no record of a CNA report assessing the effects of the obstruction and diversion of the aforementioned watercourses or defining the appropriate measures to mitigate or avert the adverse effects.<sup>80</sup>

In considering this matter, the Secretariat reached no conclusion as to whether the administrative agreement in question is legally valid. It is not clear that the Federal Administrative Procedure Law (*Ley Federal de Procedimiento Administrativo*—LFPA) could be applied in place of the LGEEPA (Articles 168-169), which provides that the environmental inspection and enforcement procedure terminates with a written decision by the authority indicating the corrective measures and the relevant sanctions. The Secretariat further observed that it is not clear that the agreement does not negotiate compliance but merely restoration of the environment, since the agreement's express purpose, according to its Clause One, is to terminate the administrative proceeding relating to alleged irregularities engaged in by the company. Finally, the Secretariat noted that the use of compliance agreements is consistent with NAAEC Article 5, which refers to various government enforcement actions that the Parties may use to fulfill their obligation to effectively enforce their

---

79. IPA, Appendices 23-24. The purpose of this environmental impact study was to establish responsibilities for the degradation of an area of Boca Cegada, Nayarit, and it is unrelated to the procedure set out in LGEEPA Article 28.

80. IPGM, pp. 11-12.

environmental law.<sup>81</sup> In this regard, the reform of the LGEEPA published 31 December 2001 expressly provides for the possibility that the interested party and the Ministry may agree upon the actions of restoration or redress that are necessary to correct the irregularities observed, during the proceeding and before a decision is issued (Article 168).

On 18 February 1998, Aqanova received another inspection visit on which Profepa observed no irregularities, but did note the removal of the obstruction that had impeded the free flow of water in Los Olotes creek.<sup>82</sup>

As a result of the report of the committee of experts (Flores Verdugo/Lewis), on 16 October 1998, Aqanova undertook to build civil engineering works to restore the flow in the Los Olotes and La Diabla creeks and to carry out a mangrove-replanting program on 50 ha.<sup>83</sup>

On 24 February 1999, Aqanova filed a Mangrove Restoration Program with Semarnap,<sup>84</sup> for which it obtained approval on 4 January 2000.<sup>85</sup> On 27 April 1999, Aqanova completed the civil engineering works to restore the free flow of water in Los Olotes creek (metal bridge, electrical substation and pumping station) and La Diabla creek (piping under ocean discharge canal).<sup>86</sup> In the months of March to July 1999, Aqanova began monitoring the Mangrove Restoration Program.<sup>87</sup> On 10 March 2000, Profepa conducted an inspection visit to verify compliance with the Mangrove Restoration Program and found that the hydrodynamics of Los Olotes creek had favored the growth and repopulation of the mangrove plants.<sup>88</sup> On 14 January and 26 October 2000 and 8 June 2001, Aqanova filed progress reports on this program with Profepa.<sup>89</sup> On 11 May 2001 and 20 June 2001, Profepa conducted inspections during which it noted the gradual reestablishment of the mangrove forest in the program area.<sup>90</sup>

---

81. (SEM-98-006) Article 15(1) Notification to Council that Development of a Factual Record is Warranted (4 August 2000), pp. 29-30.

82. Document no. IIA 0002/98, IPA, Appendix 15.

83. Document arising from the administrative agreement of 30 March 1998, IPM-1, p. 3 and Appendix 14.

84. IPM-1, p. 4, Appendix 21.

85. IPM-1, p. 4, Appendix 22.

86. IPM-1, Appendix 20, and IPA, Appendix 31.

87. IPM-1, Appendix 23.

88. Document no. VIA 003/2000, IPM-1, p. 5 and Appendix 26.

89. IPM-1, pp. 4-5, Appendices 23-25.

90. IPM-1, p. 5, Appendix 27, and IPA, Appendix 20, respectively.

On 21 May 1999, Aqanova received an inspection visit on which Profepa recommended the suspension of dredging by Aqanova in Boca Cegada until the company filed an environmental impact authorization to carry out this work.<sup>91</sup> Information on the outcome of this inspection visit was not provided.

On 22 December 1999, Aqanova signed an agreement with representatives of the competent authorities, members of civil society (including Grupo Manglar), local fishermen, and other interested parties in which it undertook to limit Phase III of the facility and to restore to the federal government, for use by the fishermen, 948 ha of the Zofemat covered by a prior concession. In this agreement, the environmental restoration efforts of Aqanova are acknowledged.<sup>92</sup>

Nevertheless, concerning the effective enforcement of the laws relating to environmental impact and forest land use changes, Grupo Manglar claims that Aqanova carried out the work for the Boca Cegada project without holding an authorization prior to beginning its activities, since the EISs filed by the company did not contemplate all the works the company would later carry out. The Submitter asserts "there are serious omissions in terms of content, in relation to the impacts that would be caused by each part of the project and its totality, as well as false information provided in relation to ecosystems, their characteristics, and the manner in which they would be affected."<sup>93</sup>

The Submitter asserts that Aqanova did not declare in its EISs that the work would involve forest land use changes, and that in the EIS for Phase 1 of the facility, Aqanova stated that "the majority of the land to be used for ponds (1300 ha) is in the agricultural zone, and therefore it will not be necessary to clear land, fill or drain lagoons, or modify natural systems."<sup>94</sup>

The Submitter indicates that Aqanova stated that it would grade and level land on the 1,300 ha to be used for the ponds, but that in fact it drained and filled secondary and tertiary inlets as well as wetlands with mangrove and lowland forest vegetation. Grupo Manglar claims that the earth excavated to build the ponds was not employed in building the levees for the ponds, as Aqanova indicated in its EISs, but in filling wetlands, since the levees are at the same level as the ponds.<sup>95</sup>

---

91. Document no. IIA 0007/99, IPA, Appendix 16.

92. IPA, p. 6, Appendix 25.

93. IPGM, p. 2.

94. EIS, p. 11, cited in IPGM, p. 2. (The Secretariat requested but did not obtain a copy of the EIS filed by Aqanova with INE for phase I of the project).

95. IPGM, p. 4.

Grupo Manglar explains:

In its response to the CEC, the SEMARNAP, as it was then called, states that this is true [that Aquanova drained and filled wetlands] and clarifies that *“both the draining and the filling are necessary to carry out the aquacultural activity and that those environmental alterations tend to have negative impacts on the systems...”* but that this harm can be mitigated *“if the necessary environmental alterations are carried out under technical conditions that make it possible to diminish their harmful influence.”* In this specific case, according to the Ministry, the limits and conditions within which the aquaculture activity could be viable were indicated to the company.

We do not share SEMARNAP’s point of view because, in the first place, the environmental impact statements do not explicitly propose the draining and filling of lagoons and creeks, and thus the environmental authorities did not include this aspect in their assessment, and never expressly authorized it. On the contrary, Condition I,8 of authorization document D.O.O.P.- 0333 of 7 February 1997 states: *“All filling activities in bodies of water near the project are prohibited.”* Second, those authorizations do not explicitly state the limitations and parameters that the company must observe in order to mitigate the impact. The truth is, we have absolutely no idea what they are.

In addition, in view of the provisions of Article 155 of the Regulations to the National Waters Law, the company should have obtained the relevant permit from the National Water Commission to carry out the draining of wetlands affected by the national water regimes (italics in original).<sup>96</sup>

Grupo Manglar further claims that the EISs filed by Aquanova were deficient as pertains to wildlife and habitat protection. The Submitter states that the adverse effects on the local wildlife were not specified, and that no measures were proposed with a view to averting or mitigating such effects, notwithstanding the data presented by the company itself in its EIS, which reported that the mangrove and lowland forest ecosystems are the most important habitats for 84 species of wild fauna with protected status under Mexican Official Standard NOM-059, including 4 amphibian, 23 reptile, 48 bird and 9 mammal species.<sup>97</sup> The EISs for Phases II and III and the discharge canal<sup>98</sup> indicate the importance of the mangroves and lowland forest as habitat of some of the species listed in NOM-059. The EIS for Phases II and III describes the negative effects (environmental impacts identified) of clearing vegetation on wild fauna. The EIS concludes that “the components that will

96. IPGM, p. 8.

97. *Ibid.*, p. 6. The list of species in question is given in Appendix 8 of this factual record.

98. As noted, the Secretariat did not obtain a copy of the EIS for Phase I.

suffer negative impacts area soil, fauna and vegetation and that these will happen mostly during the construction phase of the project and diminish during operation and maintenance of the ponds. These impacts are minimal and will not affect at any time the ecology of the region.<sup>99</sup> The EIS provides as mitigation measures, a restitution and reforestation program in the areas not destined for the ponds and a fauna rescue program within the ponds area for Phase II of the project (previously initiated, according to the EIS); in addition to areas of ecological protection in the area under concession (682 ha of mangroves within the project area), the protection of the areas not destined for the ponds and the establishment of wildlife crossings.<sup>100</sup>

Grupo Manglar further asserts that the authorities failed to effectively enforce the environmental law by allowing Aquanova to persist in carrying out the works and activities irrespective of its violations of environmental law and the authorizations it had been issued. The Submitter states that instead of enforcing the law, the authorities signed agreements with the company whereby the latter would “present programs and studies to correct the irregular situation.<sup>101</sup>”

According to Grupo Manglar, the ponds were built on the former sites of the La Culebrilla, Varaderos, El Zapato, and La Herradura creeks, and the Los Pájaros and El Zapato lagoons.<sup>102</sup> Aquanova, for its part, asserts that the “the design of the facility did not affect the lagoons mentioned in the Submission, and only those authorized by the National Institute of Ecology were occupied by the facility.<sup>103</sup>” From the photographs and maps provided by Aquanova in support of this assertion, it is not clear whether the aforementioned lagoons were turned into shrimp ponds.

Grupo Manglar claims that taken together, Aquanova’s environmental impact-related violations severely impacted the forest, wetland, and mangrove ecosystems of the Municipality of San Blas, accelerating the disappearance of the habitat of various wildlife species with protected status and local importance, such as the following:

Red-tailed Hawk ( <i>Buteo</i>	Lizard
<i>jamaicensis</i> )	Psittacids

99. EIS Phases II and III, p. VI-19, IPM-5, Appendix 1.

100. *Ibid.*, p. VII-2.

101. IPGM, p. 7.

102. IPGM, p. 8, and IPA, Appendix 29.

103. IPA, p. 7 and Appendices 29-30.

Mountain Lion ( <i>Lynx rufus</i> )	Orioles ( <i>Icterus</i> spp.)
Margay ( <i>Felis Wiedii</i> )	Guáquina
Jaguarundi ( <i>F. yagouaroundi</i> )	Kingfishers ( <i>Ceryle</i> and
Ocelot ( <i>F. pardalis</i> )	<i>Chloroceryle</i> spp.)
White-tailed Deer ( <i>Odocoileus</i>	Accipiters
<i>virginianus</i> )	Flycatchers ( <i>Pitangus sulphuratus</i> ,
Badger	<i>Myiozetetes similis</i> and
Raccoon ( <i>Procyon lotor</i> )	<i>Megarhynchus pitangus</i> )
Opossum ( <i>Didelphis virginiana</i> )	

Grupo Manglar states that these ecosystems are also the habitat of migratory birds, mentioning the following species:

Greater White-fronted Goose ( <i>Anser albifrons</i> )	American Wigeon ( <i>A. americana</i> )
Canada Goose ( <i>Branta canadensis</i> )	Gadwall ( <i>A. strepera</i> )
Cinnamon Teal ( <i>Anas cyanoptera</i> )	Northern Shoveler ( <i>A. clypeata</i> )
Blue-winged Teal ( <i>A. discors</i> )	Redhead ( <i>Aythya americana</i> )
Green-winged Teal ( <i>A. crecca</i> )	Ruddy Duck ( <i>Oxyura</i>
Northern Pintail ( <i>A. acuta</i> )	<i>jamaicensis</i> ) <sup>104</sup>

The Secretariat did not receive further information regarding the status of these species in the area. No further information was developed by the Secretariat because the focus of the environmental law in question here is on habitat rather than on the species themselves.

#### 5.4 *Aquanova's Water-Related Authorizations*

The LAN provides that concessions are required in order to discharge wastewater into national bodies of water and to use national waters, with the exception of marine waters (LAN Articles 17, 20, 82 and 88; RLAN Articles 30 and 135). In addition, it is necessary to obtain a permit from the CNA in order to divert national watercourses and the federal zones contiguous to their banks (LAN Articles 100 and 119 paragraph VIII).

104. IPGM, pp. 6-7.

Aquanova's EIA of 7 February 1995 provides that the water used to fill the ponds would be taken from El Varadero creek, which is fed by La Cegada creek. This authorization did not specify the site of the discharge from the ponds but did provide that Aquanova must file with INE a map indicating the exact location of the discharge canal, the sediment trap, the oxidation ditch and the final point of discharge.<sup>105</sup> On 27 June 1995, INE required the wastewater discharge from the Aquanova ponds to be located in the area of saltpeter deposits to the southwest of the facility, unless there was a risk of impact on the El Rey lagoon.<sup>106</sup> As mentioned in the previous section, on 22 March 1996, INE authorized the construction of the discharge canal for Phase I, setting various requirements concerning its effect on La Tronconuda creek and El Rey inlet.<sup>107</sup>

On 24 April 1998, the CNA informed Aquanova that due to the location of the water intake for the facility, as well as the concentration of total dissolved solids and chlorides, these waters are considered marine waters; therefore, pursuant to LAN Article 17, Aquanova does not require a concession in order to use them.<sup>108</sup>

From 1996 until at least June of 1999, Aquanova discharged wastewater from its ponds into Los Olotes, La Atascosa, La Diabla, El Sauz, La Tronconuda, Zapata, Carbonera and Garceros creeks, as well as El Varadero inlet, and into El Sauz and Pericos lagoons, without CNA authorization.<sup>109</sup> Currently, the facility discharges wastewater from the ponds into the ocean by means of a canal that INE authorized as a supplemental project for Phases II and III of the facility on 15 April 1997.<sup>110</sup>

Aquanova initiated the procedure to obtain the wastewater discharge permit in February 1998.<sup>111</sup> When it began discharging wastewater in 1996, the company performed physicochemical water testing through third parties and also using its own environment and quality control division.<sup>112</sup>

---

105. RSP, Appendix 1, Conditions 20 and 27 of Section Four.

106. IPM-2, Appendix 1, pp. 4-5.

107. IPM-2, p. 4.

108. IPA, p. 7 and Appendix 26.

109. IPGM, p. 9, and RSP, p. 8.

110. Secretariat observation on its visit to Aquanova on 13 March 2002; RSP, p. 4 and Appendix 4.

111. Aquanova paid the corresponding fees on 20 February 1998; IPA, p. 7 and Appendix 27.

112. IPA, p. 7, Appendix 32. It is unclear from the appendices at which points the analyzed samples were taken.



Grupo Manglar states that although the CNA found that Aquanova was discharging wastewater without a permit:

... the CNA merely required the company to regularize its situation "immediately" by applying for and obtaining a permit for wastewater discharge and water diversions (obstructions)...

But it is not evident from the actions and documents of this commission that any administrative proceeding was ever instituted against Aquanova based on these irregularities and, consequently, no sanctions were ever applied as prescribed by Articles 95 and 119 paragraph 1 of the National Waters Law.<sup>113</sup>

Grupo Manglar claims that the authorities did not take any water quality samples until the month of October 1998, even though in accordance with the EIA for Phase I of the project Aquanova was to have established a monthly water-quality monitoring program at the project's intake and discharge points.<sup>114</sup> Indeed, the Secretariat has no information indicating that the authorities have taken any water quality samples at all in the area.

According to Grupo Manglar, the Aquanova wastewater discharges:

... *severely affected the water quality* of the aforementioned bodies of water [Los Olotes, La Atascosa, La Diabla, El Sauz, La Tronconuda, Zapata, Carbonera and Garceros creeks, Varaderos inlet and El Sauz and Pericos lagoons] and the adjacent coastal waters, to such an extent that they caused the *mortality of various forms of aquatic life* (fish, crustaceans, and mollusks) and mangroves, primarily in the "Los Olotes" and "La Diabla" creeks, where the mangrove mortality extended over areas of 500 and 100 ha respectively (italics in original).<sup>115</sup>

On 6 November 1998, the CNA granted Aquanova a concession for a permanent discharge of aquacultural wastewater at a rate of 2,600,000.00 m<sup>3</sup>/day or 950,000,000.00 m<sup>3</sup>/year into the estuarine zone.<sup>116</sup> On 29 August 2000, Aquanova applied to the CNA to amend the concession by changing the collecting body of water indicated therein from "estuarine zone" to "coastal zone." This application is still pending.

113. IPGM, p. 10.

114. IPGM, Section III, Condition 36, Document D.O.O.P. -0353.

115. IPGM, pp. 9-13.

116. No. 08NAY104898/13DKGE98, IPA, Appendix 28, and Information provided by Mexico on 22 July 2002 (IPM-4), Appendix 5-B.3.

On 22 April 1999, the CNA notified Semarnap that the quality of the wastewater discharged by the company complied with the limits set out in NOM-001-ECOL-1996 and that Aquanova had 3 wastewater discharges only one of which was covered by a permit, and two had permits pending.<sup>117</sup> According to the report of the CNA inspection visit of 2 May 2001, Aquanova has two wastewater discharges: the ocean discharge canal and a septic tank. Aquanova was found lacking the equipment necessary to measure its discharges, but the company showed that it calculates the volume discharged based on the time of use of each pump and the average flow through the supply and discharge pumps. Aquanova reminded CNA that in connection with a request made as part of a pending appeal for review, the CNA is in the process of determining whether this flow measurement method is suitable.<sup>118</sup> Aquanova also reminded CNA that the company's request to amend the ocean discharge permit and the septic tank permit was pending.<sup>119</sup> In view of Aquanova's clarifications, the CNA determined that there were no irregularities.<sup>120</sup> In that visit, no wastewater samples were taken, nor did the inspectors verify whether the mechanisms used to determine contaminant concentrations in the discharges were adequate. According to the CNA a proceeding that would look into this is pending, although no further information about it was provided to the Secretariat.<sup>121</sup>

As discussed above, LAN Articles 100 and 119 paragraph VIII provide that it is the responsibility of the CNA to prevent the construction and operation of a work from unfavorably altering the hydraulic conditions of a watercourse; they further establish the requirement of obtaining a CNA permit in order to divert national watercourses and the federal zones contiguous to their banks.

In this regard, Grupo Manglar claims that Aquanova diverted the Los Olotes, La Diabla, La Cegada, La Tronconuda and La Atascosa creeks, not only obstructing but also substantially modifying the normal flow of water, yet these works were not authorized in the environmental impact assessment procedures for the project or by the CNA.<sup>122</sup>

---

117. RSP, Appendix 13, and IPM-4, Appendix 5-B.3.

118. The information gathered by the Secretariat indicates only that the appeal for review was filed against the sanctions contained in document no. B00.00R09.04.4/1277-4130.

119. IPM-4, Appendix 5-B.3.

120. Document no. 003/2001, IPM-4, Appendix 6.

121. IPM-4, Appendix 5-B, p. 2. The attachment concerning this pending proceeding mentioned in CNA's communication was not provided to the Secretariat.

122. IPGM, pp. 9-13.

### 5.5 *Aquanova's Fisheries-Related Authorizations*

A concession is required to engage in marine aquaculture, and an authorization is required to introduce species not endemic to the region (LP Articles 4 and 15; RLP Articles 44, 50 and 53).<sup>123</sup> In addition, persons engaging in aquaculture must comply with NOM-010-PESC-1993.<sup>124</sup>

On 3 November 1994, Aquanova obtained authorization from the Ministry of Fisheries<sup>125</sup> to introduce blue shrimp strain SPR—43.<sup>126</sup> On 28 September 1998, Semarnap granted Aquanova a concession for semi-intensive culture and commercial use of blue shrimp (*Penaeus stylirostris*) and white shrimp (*P. vannamei*).<sup>127</sup>

Aquanova conducted sanitary testing on the shrimp strains imported for culture from March 1999 to November 2001.<sup>128</sup> These tests concluded that the strains analyzed contained the following:

- Abundant to moderate gram-negative bacteria (causing pre-enteritic processes and hemocytic enteritis in shrimp) in 5 of 7 shrimp specimens.<sup>129</sup>
- Abundant to rare intracellular bacteria (causing bacteremia and necrosis in shrimp) in 5 of 7 shrimp specimens.<sup>130</sup>
- Traces of infection in up to 5 of 9 shrimp specimens (such as lymphoid organ spheroids in shrimp, which are an immune response to infection).<sup>131</sup>

---

123. The Regulation applicable at that time was the one issued on 21 July 1992. It was in force until 29 September 1999, when it was repealed by the publication of a new regulation.

124. Establishing the sanitary requirements for the importation into national territory of live aquatic organisms in any phase of development for aquaculture or aquariums; DOF of 16 August 1994.

125. Both the authorization and the concession were under the jurisdiction of the Ministry of Fisheries until 8 July 1996, when this responsibility was transferred to Semarnap. Since 10 July 2001, it has been transferred to the Ministry of Livestock, Agriculture, Rural Development, Fisheries and Food (*Secretaría de Ganadería, Agricultura, Desarrollo Rural, Pesca y Alimentación—Sagarpa*).

126. By means of document 212.94/003819, IPA, Appendix 34.

127. IPA, Appendix 35.

128. IPA, Appendix 36. Aquanova provided copies of the reports of the clinical tests performed on the shrimp by the following laboratories: Molecular Pathology Laboratory of the Universidad Autónoma de Nuevo León; "Acuatecnos Asesores" Centro de Investigación en Alimentación y Desarrollo, A.C.; and the University of Arizona.

129. Tests conducted by Acuatecnos Asesores on 19 April 1999.

130. *Ibid.*

131. Studies conducted by the University of Arizona on 15 April 1999.

The tests further showed that the tested shrimp were free of the following diseases listed in Emergency Mexican Official Standard NOM-EM-003-PESC-2000: white spot syndrome virus (WSSV), yellowhead virus (YHV) and Taura syndrome virus (TSV).<sup>132</sup>

In the opinion of the expert that assisted the Secretariat in developing information, Aquanova incorporated some of the concepts of “environmentally friendly shrimp farming” into its management routines, primarily in terms of a drastic reduction in the water exchange rate in the ponds, strict sanitary control of the postlarvae, the use of native species only, a reduction of the protein content in the balanced feed, and the use of antiseptics and fertilizers of natural origin.<sup>133</sup>

## 5.6 Description of the Area in which Aquanova Operates

### 5.6.1 Background and Introduction

The description of the estuarine zone of San Blas and the conditions of operation of Aquanova in this section are based chiefly on a technical report produced by independent experts for the CEC Secretariat (*Technical Opinion of H. Licón*),<sup>134</sup> on the information provided by Aquanova for the development of the factual record,<sup>135</sup> the socio-environmental analysis produced by Grupo Manglar (*Socio-Environmental Analysis*),<sup>136</sup> and the Secretariat’s visit to Aquanova and vicinity on 13 March 2002.

132. Establishing the requirements for determining the presence of viral diseases in live and dead aquatic crustaceans, their products and subproducts in any form, or brine shrimp, for introduction into national territory and movement within it.

133. M.C. Héctor Alfonso Licón González, Technical Opinion on the Conditions of Operation, Impacts, and Remediation Actions of Aquanova, S.A. de C.V., Boca Cegada Unit, in San Blas, Nayarit, Mexico, summer 2002 (*Technical Opinion of H. Licón*), pp. 26-27. This report was based on an analysis of NALC series Landsat MSS satellite images for the years 1973, 1986 and 1992 and an ASTER EOS image from 2001; field exploration; interviews with local persons involved in the matter; a tour of the Aquanova facilities; and georeferencing with a Garmin GPS III plus. Appendix 7 of this factual record contains a description of the information to be developed by the Secretariat through independent experts, which the author used as a starting point.

134. See previous footnote.

135. Previously cited as IPA.

136. Dr. Artemisa Castro Félix, M.C. Maryló Mandujano Herrera, and Douglas Brown, Ph.D. (cand.), *Socio-Environmental Analysis* of the estuarine and mangrove zone of the Municipality of San Blas, Nayarit, 2001. The Ministry of Social Development (*Secretaría de Desarrollo Social—Sedesol*), the Nayarit State Ministry of Planning (*Secretaría de Planeación*), the Municipality of San Blas, and the company Granjas Aquanova, S.A. de C.V. funded Grupo Ecológico Manglar, A.C. to carry out this study as part of the 2001 Sedesol Social Joint Investment Program. The aim of the analysis is to assess the importance and fragility of the estuarine and mangrove

The Boca Cegada unit of Aquanova is located in the Mexican state of Nayarit near the port of San Blas. The volcanic ranges of Nayarit converge with the Pacific coastal plain at the Municipality of San Blas. Due to its location, San Blas harbors a wealth of natural ecosystems, including the wetland zone, which is composed of marshes, inlets and mangrove forest.<sup>137</sup> According to the *Socio-Environmental Analysis*, the San Blas area comprises 7.1 percent of the area known as the “Marismas Nacionales,” designated as Ramsar site 732 on 22 June 1995 (*Convention on Wetlands of International Importance Especially as Waterfowl Habitat*<sup>138</sup>). The Convention on Wetlands, signed in Ramsar, Iran, in 1971, is an inter-governmental treaty that provides the framework for national action and international cooperation for the conservation and wise use of wetlands and their resources. The Convention calls on each Contracting Party to designate suitable wetlands within its territory for inclusion in a List of Wetlands of International Importance. “Wetlands included in the List acquire a new status at the national level and are recognized by the international community as being of significant value not only for the country, or the countries, in which they are located, but for humanity as a whole.<sup>139</sup>”

Mangrove forests are a complex component of wetland ecosystems:

Mangrove forests are among the most peculiar forests in the world. They grow along the riverine estuaries and protected littorals of the tropical and subtropical coastal zones and are adapted to intertidal conditions. At high tide, their crowns protrude from the water. Only at low tide are their breathing roots visible; these take in atmospheric oxygen and transmit it to the buried roots. This adaptation enables the plant to survive on muddy anaerobic soils under highly saline conditions. These species are adapted to a scarcity of fresh water and can eliminate excess salt through their leaves.

Mangrove forests are characterized by a homogeneous structure. The intertwining maze of trees, shrubs, and roots tends to be, in reality, an ordered structure in which the different mangrove species grow in bands

---

zone of the Municipality of San Blas and to present the results of the workshops carried out in 13 communities of the area.

137. *Socio-Environmental Analysis*, p. 21.

138. Also known as the Ramsar Convention. Mexico signed the Convention on 23 July 1985, and it was published in the DOF on 29 August 1986.

139. There are presently 136 Contracting Parties to the Convention, with 1250 wetland sites, totaling 107 million hectares, designated for inclusion in the Ramsar List of Wetlands of International Importance. See <[http://www.ramsar.org/profile\\_index.htm](http://www.ramsar.org/profile_index.htm)>.

as a function of their differing degrees of tolerance to periodic tidal flushing, and hence to salt. Thus, red mangroves are usually found on the seaward edge of the mangrove forest, in direct contact with brackish water. Black mangroves are usually found behind the red mangroves, whilst white mangroves, less tolerant of salinity, are normally found further inland on higher-lying soils.<sup>140</sup>

Mangrove forests are of great ecological and economic importance. According to Dr. Flores Verdugo<sup>141</sup>:

The productivity of mangrove forests is greater than that of tropical rainforests and similar to that of our most efficient tropical crops (sugarcane). Mangrove forests originally covered three-fourths of the tropical and subtropical coastlines of the planet. Currently, less than 50 percent remains. These important tropical coastal woodlands are among the most endangered habitats in the world; they are probably disappearing at a more rapid rate than highland evergreen forests, and they are little known to the general public. The mangrove ecosystem represents the tree vegetation of the intertidal zone in tropical and subtropical regions. Mangroves are facultative halophytes that can grow in different ranges of salinity from 0 percent (freshwater) to hypersaline (40-90 percent), but brackish water (~15 percent) offers the optimum conditions for their development...

The benefits of mangrove forests include a great variety of valuable goods, services, uses, and functions for society, wildlife, and the maintenance of natural systems and processes. For purposes of economic valuation, the following should be considered:

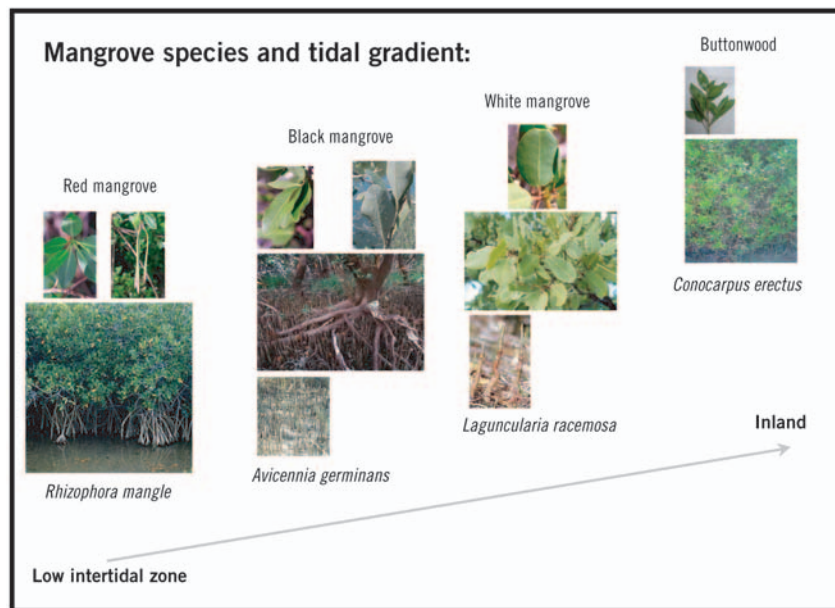
Their function in flood control, erosion control, and coastline protection and as hurricane barriers; as a biological filter that improves water quality by removing nutrients and toxins; their high fish productivity and function as an auxiliary habitat for fisheries; their function as a wildlife refuge for endangered, endemic, and migratory species among others, as a zone of refuge for juvenile crustaceans and fry, and as a gene bank; their use as routes of travel by human beings; their aesthetic and recreational value and their cultural and educational significance; their role in preventing the formation of acid soils; the microclimate they provide for the maintenance of natural systems and processes by responding to sea level changes, serving as carbon traps, and maintaining processes of accretion, sedimentation, and peat formation.<sup>142</sup>

- 
140. Greenpeace; Biodiversity/forests and woodlands, 16 February 2001, "Manglares, los bosques costeros" <<http://www.greenpeace.org.mx/php/gp.php>>.
  141. Francisco J. Flores Verdugo is an expert on coastal and mangrove ecosystems from the National Autonomous University of Mexico (UNAM-Mazatlán).
  142. Dr. Francisco Flores Verdugo, *Environmental Impact Report on Mangrove Ecosystems of the Boca Cegada Region*, San Blas (Nayarit), 24 June 1998, pp. 1-2.

The *Socio-Environmental Analysis* prepared by Grupo Manglar highlights the pressures on these ecosystems:

Coastal ecosystems, particularly estuarine and mangrove ecosystems, besides their ecological importance, are of great economic and social importance in our country. They are among the earth's most productive ecosystems, and in our country they support a high population density, due primarily to the wealth of natural resources they provide. The pressures being exerted on these systems are very high, since they are the sites of a large number of simultaneously occurring economic activities, which cause changes in their dynamics and structure.<sup>143</sup>

Four mangrove species are found in the vicinity of Aquanova. They are distributed along a gradient from greater to lesser tidal flooding:



- *Rhizophora mangle* (red mangrove): characteristic of the zone that is predominantly or continuously inundated.
- *Avicennia germinans* (black mangrove): occupies higher areas than the red mangrove, inland of it, in temporarily flooded areas with lower frequency of tidal flushing.

143. *Socio-Environmental Analysis*, p. 69.

- *Laguncularia racemosa* (white mangrove): prefers areas that are predominantly emergent and only occasionally subject to tidal flushing.
- *Conocarpus erectus* (buttonwood): grows in emergent areas on land.<sup>144</sup>

According to Grupo Manglar, other mangrove species also occur, including *A. nítida* (also known as black mangrove), *Capparis indica* and *Maytenus phyllantoides*, as well as middle and lower elevation forest species such as breadnut tree (*Brosimum alicastrum*), elephant's ear (*Enterolobium cyclocarpum*), palo mulato or gumbolimbo (*Bursera* spp.), fig (*Ficus*), guamuchil (*Pithecellobium* sp.) and *chalate*.<sup>145</sup>

Mexican Official Standard NOM-059<sup>146</sup> classifies the mangroves *L. racemosa* (white mangrove) and *C. erecta* (buttonwood) as species subject to special protection and *R. mangle* (red mangrove) as a rare species.

The *Socio-Environmental Analysis* mentions the valuations of mangrove forest produced by several environmental economists. It indicates that the annual value of the Mexican mangrove forests may be calculated in a range between US\$6,534,000,000.00 and \$12,060,840,000.00.<sup>147</sup> Dr. Flores Verdugo estimates "the value of the ecosystem of this zone [San Blas] at approximately US\$40,000.00/ha (\$4.00/m<sup>2</sup>)," including the costs associated with fisheries, reforestation, and loss of biodiversity.<sup>148</sup>

Concerning the current extent of the mangrove forest in the area, the *Socio-Environmental Analysis* indicates that there is a disparity between the data reported in the literature and the data produced by the fieldwork for that analysis. It concludes that this disparity could have serious environmental consequences during the planning and execution of development in the region. It states:

For example, with respect to the estimated total area occupied by mangrove-type vegetation, WWF, in a study conducted in the Marismas Nacionales zone in 1996, reports a total of 10,000 ha for the estuarine zone of San Blas; whereas Bojórquez et al. (1997) report a total 9,160 ha of mangrove forest for the study area. However, the estimate in this study, which

144. *Technical Opinion of H. Licón, supra* 1.

145. IPGM, p. 6.

146. This NOM was repealed on 6 March 2002, with the publication in the DOF of NOM-059-ECOL-2001, Environmental Protection; Native Mexican Wildlife Species; Risk Categories and Specifications for the Inclusion, Exclusion and Transfer: List of Species at Risk.

147. *Ibid.*

148. Flores Verdugo, *supra* 11, p. 16.



included field verification, indicates that the area occupied is approximately 7,214 ha (field verification of orthophotos, INEGI, 1998).<sup>149</sup>

Aquanova is located in an area locally known as Isla del Conde, approximately 13 km due northwest of the port of San Blas. It used to be a dry area in a coastal floodplain, although it is currently only inundated during periods of intense rainfall or during extreme weather events.

The *Socio-Environmental Analysis* indicates that human activities in the region have caused a loss of mangrove areas and low and middle elevation forest, replacement of salt marshes by freshwater marshes, erosion, altered hydrological patterns, tidal obstructions, elimination of protected bird species, soil degradation, and water pollution. It states that the main activities and infrastructure causing these impacts are the Aguamilpa dam on the Rio Grande de Santiago, highways and roads, the electric dike, felling and clearing for small farms, expansion of croplands and extensive grazing, human settlement, and the construction of small levees in shallow-sloped areas to establish extensive aquaculture facilities.<sup>150</sup>

Several nongovernmental organizations whose mission is to protect mangrove forests<sup>151</sup> and the signatories of the San Blas Declaration for the Defence of Mangroves (*San Blas Declaration*), concur that human activities like those mentioned above have caused environmental problems in the area. In this declaration, small-scale fishermen of San Blas and representatives of organizations and institutions (the identity of the signatories is not specified in the information available to the Secretariat) put forward a 17-point proposal to solve the priority problems and offered general comments and proposals on aquaculture regulation in Mexico.<sup>152</sup> The *San Blas Declaration* summarizes the problems of San Blas as follows:

With deforestation and the loss of plant cover, mountain soils are subject to erosion, the sedimentary material reaches the beds of rivers and streams and is transported from the highlands to the coastal areas. In the case of the San Blas area, the sediment is transported by the Rio Grande de Santiago and the Huiscicila basin. From 1970 on, this erosion worsened due to the intense deforestation in the higher parts of these watersheds. The most

---

149. *Socio-Environmental Analysis*, p. 92.

150. *Socio-Environmental Analysis*, pp. 30-32.

151. Mangrove Action Project, Greenpeace and Redmanglar. Information provided to the Secretariat by Alfredo Quarto on 14 February 2002, and by Jesús Silva Gámez on 13 March 2002.

152. Greenpeace and Redmanglar, *Buscando aliados para defender nuestras costas*.

important effect was the growth of the continental shelf and the concomitant threat to the region's wetlands.

However, the greatest threats to the San Blas wetlands are posed by anthropogenic effects such as the obstruction of the El Rey inlet; the San Blas-Guadalupe Victoria highway; the Aguamilpa dam; the Viejo El Conchal bridge; the shrimp farming industry; demographic growth, and unsuitable fishing methods.

For the residents of San Blas, the greatest threat to the wetlands in recent years has come from the shrimp farming projects, due to their destruction of valuable ecosystems and contamination of others that are dead or dying. One immediate impact on the local economy has been the decline in fish populations in the vicinity of the projects. Currently there are 4,000 ha of shrimp ponds in this municipality.<sup>153</sup>

#### 5.6.2 Description of the San Blas Estuarine and Mangrove Zone<sup>154</sup>

This section describes the current condition of the wetlands and critical habitat of Aquanova's area of influence, based on the interpretation of satellite images and on GPS georeferenced field data.

The images from the years 1973, 1986, and 1992 show the changes to the region prior to the establishment of Aquanova, due to land use changes, alterations in the flow pattern of the El Rey-El Pozo inlet system, and changes in the course and volume of the Rio Grande de Santiago.

The image from 2001 shows the changes to the area following the establishment of Aquanova.

#### 1973 Image

In the 1973 image, the following may be observed in the area:

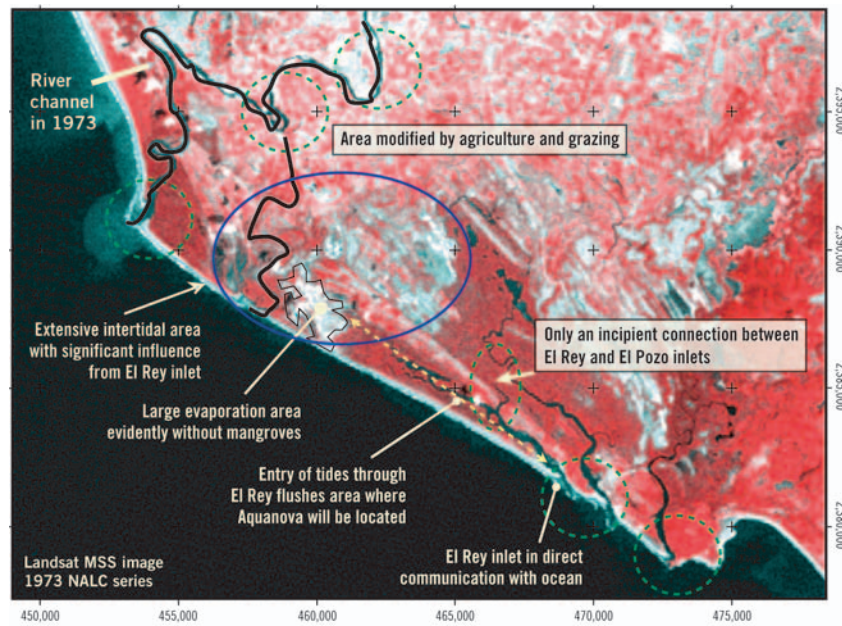
- El Rey inlet communicates directly with the ocean; water exchange due to tides favors the establishment of an extensive flood-prone area.
- There is a small creek linking the El Rey and El Pozo inlets, but this natural watercourse is not a broad, navigable channel; it is merely an incipient connection.

---

153. Greenpeace, p. 41.

154. Unless otherwise indicated, the content of this section is taken from *Technical Opinion of H. Licón*, *supra* footnote 128.

- At Aquanova's future point of discharge there is a large evaporation area without significant mangrove communities that is under the influence of water exchange through El Rey.



### 1986 Image

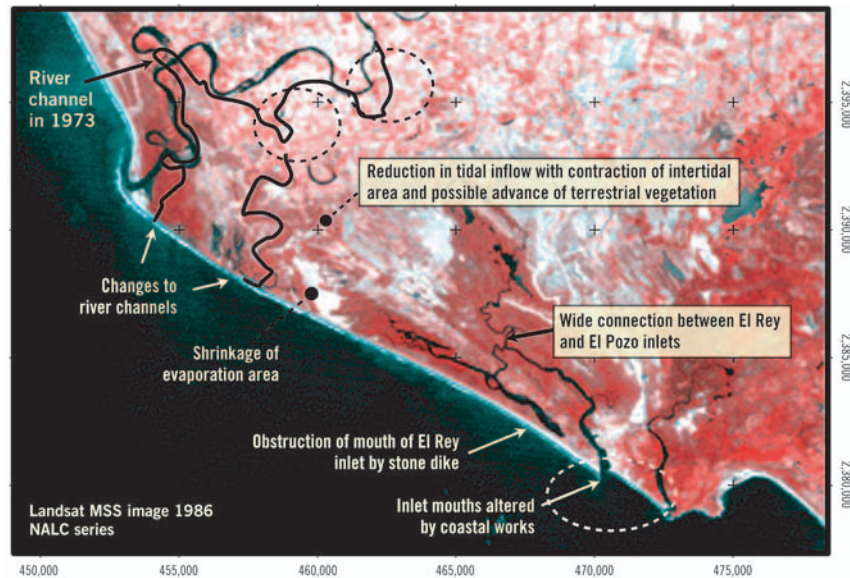
Thirteen years later, the following changes may be observed in the area:

- A stone dike now blocks direct communication between El Rey inlet and the ocean, and there is communication between El Rey and El Pozo inlets. The dike forces tidal exchange through El Pozo via the new connection, such that the water flow itself keeps the new channel navigable.<sup>155</sup>
- The obstruction of El Rey led to a significant reduction in the inundated area at the site of the future facility. It is possible that the reduction in tidal exchange volume had the effect of concentrating the water in the canals of the area, and causing Los Olotes, La Tronconuda, La Atascosa and La Diabla creeks to

155. Apparently the purpose of this structure was to give San Blas fishermen more direct access to El Rey through El Pozo. Without this, they had to detour via the open ocean to gain access to the mouth of El Rey.

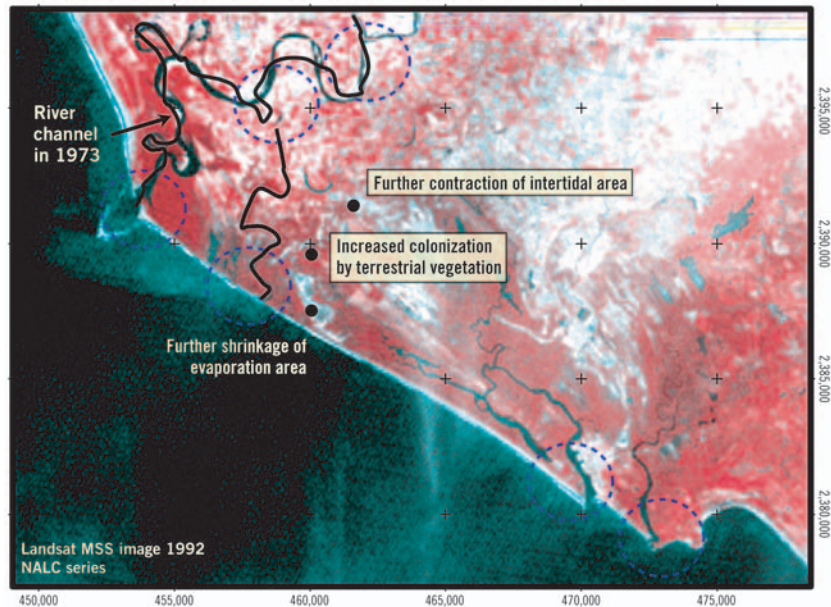
become more defined. These creeks apparently took on greater importance as critical habitat with the shrinkage of the flood-prone area. The area no longer subject to regular flushing began to be colonized by more intermediate vegetation.

- A significant change can be seen in the channel of the Rio Grande de Santiago. This is due to both natural causes and, apparently, the damming of the river. The riparian wetlands “moved” to the new channel and their former locations are colonized by species adapted to drier conditions.
- The course of La Cegada creek remains stable.



### 1992 Image

- The flood-prone area and the evaporation area have shrunk further and land predominates, tending to be colonized by mesophytic vegetation.
- The channel of the Rio Grande de Santiago has continued to be altered.
- La Cegada creek remains stable.



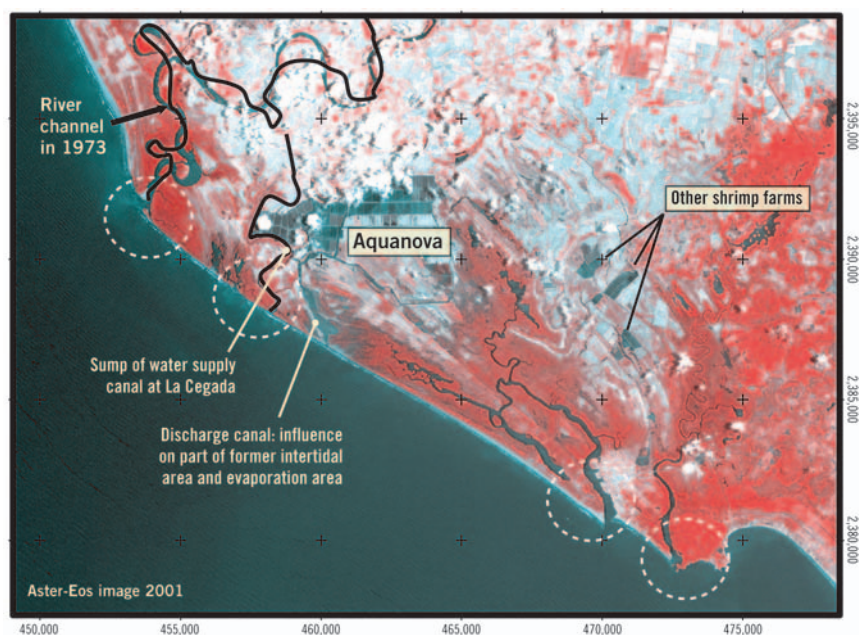
### 2001 Image

This image represents the conditions in the area after approximately six years of operation by Aquanova.

- The replacement of the lowland forest, wetland and mangrove habitats by the company's infrastructure is visible. As an estimate, approximately 85 percent of the affected area corresponded to second-growth vegetation or lowland forest modified by agriculture, and the remaining 15 percent corresponded predominantly to wetlands. The available images do not allow determination of the exact percentage of each type of mangrove in retrospect, but direct observation during the field visit by H. Licón indicated that at least 50 percent of the wetland area corresponded to occasionally inundated areas.
- One can observe the intersection and blocking of the natural channels of Los Olotes, La Tronconuda and La Diabla creeks by the installation and operation of the facility's discharge canal.
- La Cegada, or at least the trajectory of its channel, has apparently remained stable. It is possible that the mangrove species composition and structure along this body of water has been

altered, but the field visit by H. Licón did not produce reliable evidence to that effect.

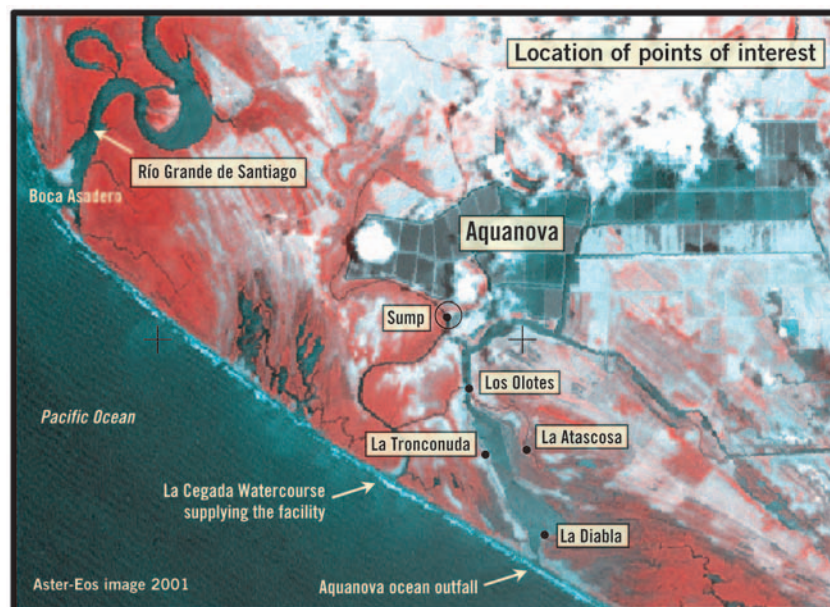
- There is a considerable area of silting in El Rey inlet, most likely due to the construction of the dike.



### 5.6.3 Status of La Cegada, Los Olotes, La Tronconuda, La Diabla and La Atascosa Creeks<sup>156</sup>

La Cegada is the natural creek from which the facility takes water for its operations. Los Olotes, La Tronconuda, and La Diabla creeks are intersected by the ocean discharge canal built by Aquanova for Phases II and III of the facility. La Atascosa creek is located by some reports as intersecting the discharge canal, by others as being parallel to it.<sup>157</sup>

156. Unless otherwise indicated, the content of this section is taken from *Technical Opinion of H. Licón*, *supra* footnote 128.
157. H. Licón explains that the official maps available (1:50,000 topographic map, INEGI, 1995) do not show all points of interest. He indicates that these maps are derived by photogrammetry from aerial photos taken in November 1970, and as such the information they contain is obsolete and does not represent the current physical appearance of the area; nor do they show relevant structures such as highways, dikes, etc. Consequently, the description of the area contained in *Technical Opinion of H. Licón* is based on the creek identifications made by Juan Francisco García Rodríguez of Grupo Manglar, taking the INEGI topographic map and the display of an ASTER image as references.



Pursuant to the 30 March 1998 agreement with Profepa, Aquanova undertook to finance a study to determine the scope of its responsibility for the apparent harm in the vicinity of the discharge canal, and to remedy any existing harm found.<sup>158</sup> This study was performed by Dr. Francisco Flores Verdugo, a researcher at the Marine Sciences and Limnology Institute of UNAM, who was designated by Profepa, and Dr. Roy R. Robinson Lewis, a salt marsh specialist, who was designated by Aquanova. These experts concluded that Aquanova's responsibility is partial. They identified as principal causes of the harm to the mangrove forest the blocking of El Rey inlet in 1974-1975 and the blocking of Los Olotes creek (Aquanova's responsibility).<sup>159</sup> According to Dr. Flores Verdugo:

The total affected area of mangrove forest in the zones adjacent to Los Olotes and La Diabla creeks was estimated at 125.6 ha... In the case of Los Olotes creek, the southern part was strongly affected by the activities of this company when it temporarily (19 months) blocked the tidal influence from Asadero inlet... It is estimated that 58.6 ha of mangroves were lost due to this action, including fringe mangrove forest on Los Olotes..., the

158. IPA, pp. 5-6, Appendix 21. Section 5.3.3 of this factual record details the circumstances surrounding this administrative agreement.

159. Flores Verdugo, pp. 10 and 13; and Dr. Roy R. Robinson Lewis, letter of 23 March 1998, concerning recent inspection at San Blas Blas, Nayarit site (in English), pp. 1-2 (IPA, Appendices 23 and 24, respectively).

tributary creeks (El Zapato), and an area of basin mangrove forest on both [banks] of Los Olotes. The principal mangrove species affected was fringe-type black mangrove (*Avicennia germinans*), which has a hydraulic relationship with the creek as observed by examining the tree growth patterns. The type of thickets that are functionally related to the marsh were not notably affected....<sup>160</sup>

Dr. Robinson Lewis also concluded that the visible harm to part of Los Olotes creek and to La Diabla creek was the result of Aqunova's operations, in particular the obstruction of the creeks by the construction of the ocean discharge canal.<sup>161</sup>

Aqunova undertook to restore 50 ha of affected mangroves in Los Olotes creek, to conduct semi-annual monitoring during the first year, and to conduct annual monitoring during the subsequent nine years.<sup>162</sup> The Mangrove Restoration Program undertaken by Aqunova is based on the technical recommendations of these experts.<sup>163</sup>

The status of these creeks in the summer of 2002 was as follows:

**La Cegada.** This creek supplies the sump of the facility's water supply canal. The watercourse, or at least its trajectory, is apparently stable and there are no evident signs of obstruction. The mangrove composition is similar upstream and downstream of the sump and with respect to comparable creeks not affected by the facility.



Water supply station at La Cegada.

160. Flores Verdugo, Executive Summary.

161. Robinson Lewis, pp. 1-2.

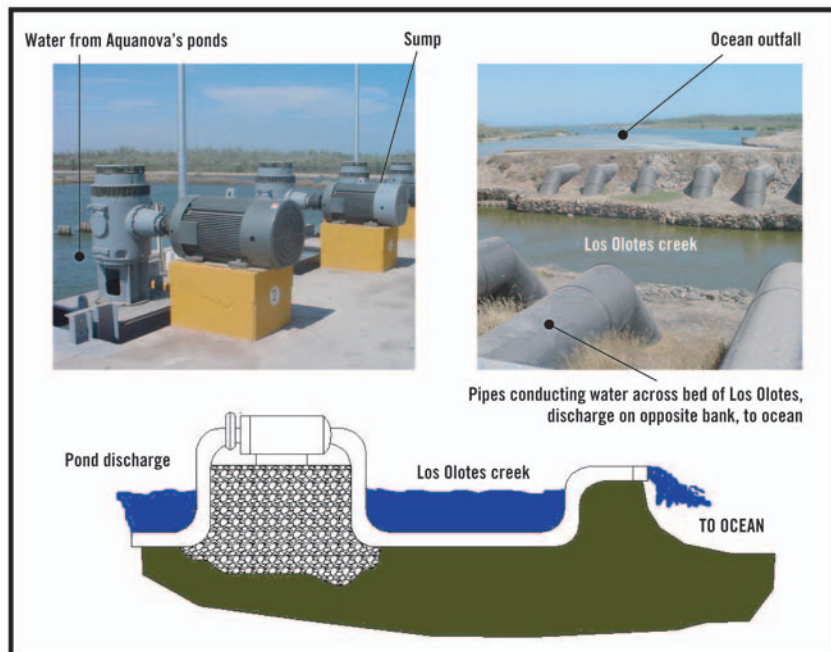
162. IPA, p. 6, Appendices 23-24.

163. IPA, Appendices 23-24.



**Los Olotes.** This is the first creek crossed by the discharge canal. In 1997, Aquanova placed an obstruction on this creek, blocking water circulation and navigation on it. In early 1998 Aquanova removed the obstruction, and in April 1999 it completed the hydraulic structures that keep the flow of the farm's discharge water separate from the neighboring bodies of water.<sup>164</sup> The natural flow in Los Olotes creek was restored by installing pipes and a pumping system, that channel the discharge water under Los Olotes creek to the ocean. Aquanova also installed a metal bridge over this creek for vehicles.

The following diagram illustrates the Los Olotes hydraulic structure:



164. IPA, pp. 3-4, Appendix 31.

In order to remedy the harm suffered by this creek due to the obstruction, Aquanova is carrying out a reforestation program on a 50 ha area along this creek.<sup>165</sup> The program is based on restoring water flow and either introducing new plants or promoting recolonization by the species present in surviving areas near each remediation point.<sup>166</sup> The reforestation work is evident at various points of Los Olotes creek. In the opinion of Héctor Licón, the approach taken by Aquanova is the most appropriate one and the program has had success; however, he cautions that efforts must be enhanced in order to fully restore the affected areas.

**La Tronconuda.** This is the second creek between the start of the discharge canal and the site of the ocean outfall. It is not currently obstructed although dead tree trunks are visible, probably due to the combined effect of the reduction in the flood-prone area due to the dike built on El Rey inlet and the period of time during which the creek was obstructed by the facility's discharge canal. There is no pumping system on La Tronconuda, as there is on Los Olotes, to allow the facility's wastewater to circumvent the creek. In this creek, the surface flow is from the facility's discharge, and Aquanova installed pipes on the bed (diameter greater than 32 inches) to connect the north and south sections of the creek. In this creek, Aquanova also carried out reforestation under the previously mentioned principles, with evidence of success. In the opinion of Héctor Licón, the environmental quality of this creek is gradually recovering following the installation of the pipes and due to the reforestation actions. However, he cautions that it is very important that these pipes continue to operate free of obstruction and that they be stabilized in place, with a sufficient slope to maintain water flow by means of gravity during both ebb and flood tides.

**La Diabla.** This creek is located between La Tronconuda and the ocean, shortly before reaching the beach. Aquanova also installed a piping system here to resolve the problem caused by the intersection of the discharge canal with the natural channel of the creek. The pipes have helped to improve circulation in the creek by restoring the connection that had been broken by the facility's discharge canal, and there is active flow in the creek under high tide conditions. However, there is no evidence that reforestation has been carried out along this creek. The deterioration of the mangrove specimens is evident; the majority are dead trees or isolated young specimens in poor condition.

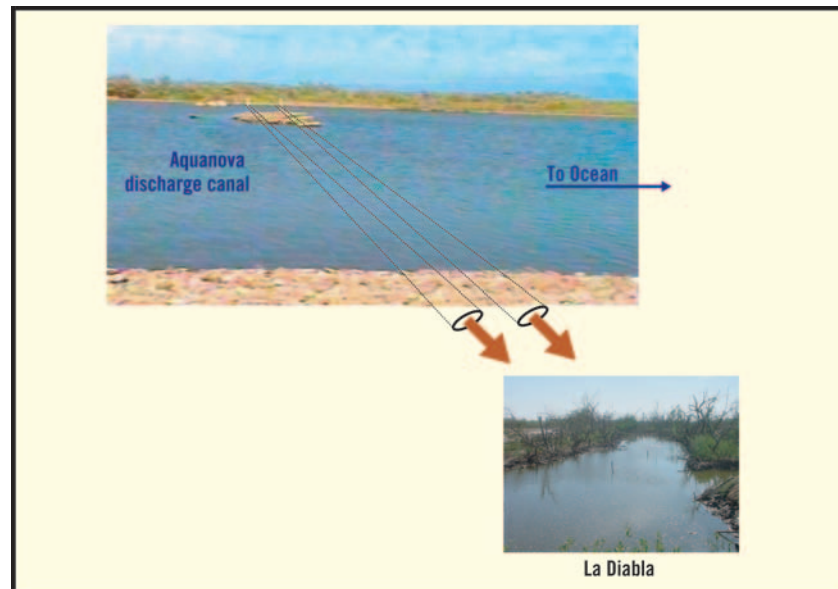
---

165. IPA, p. 6.

166. IPA, p. 6; IPM-1, pp. 4-5, Appendices 21-26.

**La Atascosa.** Opinions differ as to whether this creek runs parallel to the facility's discharge canal (as asserted by Francisco García R. of Grupo Manglar) or whether it crosses it near the point where the discharge canal departs from the ponds and the sump (as asserted by Javier Suárez T. of Aqanova). Aqanova asserts that pipes have been installed in this creek as well, and that reforestation actions are taking place. Flowing water and recovering mangroves were visible.

The piping system installed by Aqanova in La Tronconuda, La Diabla and La Atascosa creeks is diagrammed in the following photograph:



#### 6. Facts Presented by the Secretariat in Relation to the Matters Raised in the Submission

This factual record addresses whether Mexico is failing to effectively enforce its environmental law with respect to the Granjas Aqanova, S.A. de C.V. shrimp farming company in Boca Cegada, Nayarit referred to by Submission SEM-98-006, filed 20 October 1998 by Grupo Ecológico "Manglar," A.C. In particular, the factual record refers

to the alleged failure to effectively enforce various provisions of the LGEEPA, the LF, and NOM-062 in relation to environmental impact; the LGEEPA, the LAN and the RLAN in relation to water; the LP and the RLP in relation to fisheries, and the CPF in relation to environmental crimes.<sup>167</sup>

### **6.1 *Environmental Impact-Related Enforcement with Respect to Aquanova***

In the Submission that gave rise to this factual record, Grupo Manglar asserts that Mexico is failing to effectively enforce the environmental impact requirements contained in the LGEEPA, the LF, NOM-062, and the three environmental impact authorizations applicable to Aquanova. In its Response, Mexico asserts that the environmental authority conducted inspection visits, held working meetings, and took collateral action, all of which represents the effective enforcement of the environmental impact requirements with respect to Aquanova. Mexico states in its Response that the limits and conditions established in the environmental impact authorization are the limits within which Aquanova's activities "could have been viable from an environmental standpoint."<sup>168</sup> The Secretariat recommended the development of this factual record in order to understand how those actions contributed to compliance with those limits and the aforementioned environmental law.<sup>169</sup> The facts relevant to this matter are presented below.

As stated previously, obtaining an environmental impact authorization from Semarnat and complying with terms and conditions are obligations of anyone who carries out works or activities that may cause ecological imbalance or exceed the limits and conditions established in the applicable regulations and standards (LGEEPA Article 28). Likewise, anyone who effects forest land use changes must obtain prior authorization from Semarnat (LF Article 19 bis 11). The NOM-062 provides that the only types of projects that may be evaluated (prior filing of an EIS) are those that involve sustainable use of land or other resources and do not involve land use changes or entail the local disappearance of species of flora or fauna listed in the relevant Mexican Official Standard

---

167. The relevant provisions are cited verbatim in section 3 of this factual record.

168. RSP, p. 4.

169. SEM-98-006, Article 15(1) Notification to Council that Development of a Factual Record is Warranted, p. 31.

as rare, threatened, endangered, or subject to special protection and of their habitat (NOM-062, point 4.7).

In 1995 and 1996, Aquanova obtained an EIA from INE for the various phases of the shrimp-farming project (Phases I, II, III and ocean discharge canal). INE subjected these authorizations to multiple conditions, whose principal aim was to prevent the destruction of species with protected status (including various mangrove species) and their habitat and to preserve water quality in the estuarine zone. Aquanova carried out the construction work for the first phase of the facility in violation of some of these conditions because it considered them to be illegal, and in April 1995 requested an amendment of the EIA. In June 1995, INE amended and annulled certain conditions of the EIA for the first phase of the project; principally, the prohibition on establishing camps, the prohibition on removing mangroves and other vegetation, and the obligation to carry out a mangrove replanting program.

Also in April of 1995, prior to the INE amendments to the EIA for the first phase of the project, Profepa detected violations of the conditions set out in the EIA; principally, the establishment of expressly prohibited camps, the unauthorized destruction of mangroves and other vegetation, unauthorized forest land use changes, and the failure to implement a program to salvage and replant the removed vegetation. Initially it fined Aquanova P\$100,000.00 and ordered corrective measures but, following the appeal for review brought by Aquanova and the amendments to the EIA approved by INE, in December 1997, Profepa rescinded the corrective measures order and reduced the fine to P\$29,095.00. Also during this phase of the project, in February 1996, Profepa found that Aquanova had failed to obtain a land use change authorization prior to clearing 15.9 ha, including 3.25 ha of mangroves, in the area of the discharge canal, and fined Aquanova P\$48,800.00.

In the second phase of the project, in response to a citizen complaint, Profepa detected the death of 50 ha of mangroves due to the obstruction (authorized by INE) of Los Olotes creek in order to build the facility's ocean discharge canal. Profepa and Aquanova signed an administrative agreement that terminated the enforcement proceeding initiated following the citizen complaint, and created a committee of experts, which determined that Aquanova was partially responsible for the harm suffered by the mangroves in Los Olotes and La Diabla creeks. As a result of the experts' report, Aquanova built hydraulic structures and initiated a Mangrove Restoration Program in these creeks in 1999.

## 6.2 *Water-Related Environmental Law Enforcement with Respect to Aquanova*

As discussed above, the CNA is responsible for enforcing the LGEEPA and LAN for the prevention and control of water pollution. A CNA permit is required to discharge wastewater into national bodies of water and to use national waters (except marine waters). Wastewater discharged shall not exceed the maximum contaminant limits set out in the Mexican Official Standards or the particular conditions of discharge, and wastewater that does exceed them shall be treated before being discharged. The users of national waters must pay the applicable fees, monitor the quality of their discharges, and report the results periodically to the authorities (LAN Articles 17, 20, 82, and 88; RLAN Articles 30 and 135). CNA authorization is required in order to divert national watercourses and the federal zones contiguous to their banks (LAN Articles 100 and 119 paragraph VIII).

In the Submission, Grupo Manglar asserts that Mexico is failing to effectively enforce these provisions. Mexico's Response indicates that according to the CNA, Aquanova met its wastewater discharge and water use obligations, and that INE had authorized the watercourse diversion. The Secretariat recommended the development of this factual record in order to verify this compliance and ascertain the actions taken by the CNA in enforcing the relevant provisions.<sup>170</sup> The facts relevant to this matter are presented below.

Aquanova takes water from La Cegada creek for the facility's ponds. Use and discharge began in approximately mid- to late 1996, and Aquanova reports that it conducted the first water quality studies in November of that year.<sup>171</sup> On 24 April 1998, the CNA determined that Aquanova's water use did not require a concession since the waters in question were marine waters. On the other hand, a concession was required for discharges to the estuarine zone. On 6 November of that year, the CNA granted Aquanova a concession to discharge a volume of 950,000,000 m<sup>3</sup>/year.

Aquanova does not have water meters at the intake or discharge points; instead, it determines the volume of water extracted and discharged by taking readings on the corresponding pumps. Aquanova conducts water quality analyses through an independent laboratory and its own laboratory. It does not have a wastewater treatment system

---

170. *Ibid.*

171. IPA, p. 7, Appendix 32.

because, according to its own water quality monitoring, it does not exceed the maximum contaminant limits set out in NOM-001. The CNA conducted an inspection visit on 2 May 2001, on which it detected no irregularities. However, the visit did not include water measurement and analysis, which is allegedly the subject of a pending proceeding. As required by the Federal Rights Law, Aqanova paid fees for the use of national waters as a repository for wastewater discharges from the first quarter of 1997 to the first quarter of 2001.

Aqanova discharged wastewater from its ponds into La Tronconuda marsh starting in 1996, and into the ocean as of 1998. As stated above, the ocean discharge canal initially obstructed Los Olotes creek and caused the death of 50 ha of mangroves. Following a citizen complaint and the intervention of the authorities, Aqanova removed the obstruction and built a structure whereby the discharge is piped under Los Olotes creek. In order to limit the impact on the creeks located between this point and the ocean, Aqanova installed piping to direct the water flow in La Tronconuda, La Atascosa and La Diabla creeks underneath the discharge canal.

### **6.3 *Fisheries-Related Environmental Law Enforcement with Respect to Aqanova***

Grupo Manglar asserts in its Submission that Mexico has failed to effectively enforce the LP and the RLP by introducing a commercial shrimp species (blue shrimp strain SPR—43) which allegedly harbors viral diseases that affect shrimp.<sup>172</sup> Grupo Manglar indicated that more than five hundred fishermen have been economically affected by the high mortality of the fish species they typically catch as well as the obstruction of several creeks over which they traveled to carry out their fishing activities.<sup>173</sup> Mexico's Response denies these assertions. The Secretariat recommended the development of this factual record in order to verify compliance by Aqanova in this matter and ascertain whether and how the cited environmental law was enforced for the protection of the fisheries in relation to the species introduction.<sup>174</sup>

The LP and its Regulation set forth the requirement of obtaining an authorization to introduce species and obtaining a concession to engage

---

172. Submission, p. 5.

173. The Submission states that the volume of fish decreased by 80 percent in the area of San Blas and by 100 percent on the left bank of the Río Grande de Santiago (p. 5).

174. SEM-98-006, Article 15(1) Notification to Council that Development of a Factual Record is Warranted, p. 23.

in aquaculture activities, which are subject to certain sanitary standards (LP Articles 3 paragraph VIII and 24 paragraph XXIV; RLP Articles 44, 48 and 50).

On 3 November 1994, Aquanova obtained authorization to introduce blue shrimp strain SPR—43,<sup>175</sup> and on 28 September 1998, it obtained a concession to engage in semi-intensive culture and commercial use of blue shrimp (*Penaeus stylirostris*) and white shrimp (*P. vannamei*).<sup>176</sup>

Grupo Manglar asserts that viral diseases occur in the production of the shrimp species introduced by Aquanova. Aquanova conducted sanitary testing on the shrimp strains imported for culture from March 1999 to November 2001. The shrimp specimens tested were free of three viruses that may affect shrimp, the white spot syndrome virus (WSSV), the yellowhead virus (YHV) and the Taura syndrome virus (TSV).<sup>177</sup>

The Secretariat confirmed the perception of some local fishermen that fish catch has decreased in the area and that the facility's activities negatively affected fish populations, but it was unable to obtain specific information on the impact of the introduction of these species on local fishing.<sup>178</sup> According to Héctor Licón:

Fish populations in El Rey inlet declined concurrently with a generalized decline of the system, as evidenced by accelerated silting and the gradual loss of sizeable red mangrove areas...

Insofar as the decline in fish production is due to the silting and loss of red mangrove in El Rey inlet, it does not appear to be a consequence of Aquanova's operations, but rather an effect of the dike built in the early 1980s.

In the case of the inshore fishermen working in the immediate vicinity of Aquanova, the information they provide points toward a short-term increase in catch size in the discharge and in the areas associated with the water supply canal. The main species concerned are shrimp, mullet, porgy, and crab, but in general they note a reduction in the diversity of available species. The perception of declining catch appears to relate to the

---

175. By means of document 212.94/003819, IPA, Appendix 34.

176. IPA, Appendix 35.

177. IPA, Appendix 36. Aquanova provided copies of the laboratory tests performed on shrimp by the following laboratories: Molecular Pathology Laboratory of the Universidad Autónoma de Nuevo León; "Acuatecnos Asesores" Centro de Investigación en Alimentación y Desarrollo, A.C.; and the University of Arizona.

178. *Technical Opinion of H. Licón*, pp. 39-41.



significant shrinkage in their historical fishing grounds, primarily due to the dramatic reduction in the flood-prone area.<sup>179</sup>

As part of the cooperation efforts that followed the filing of the submission, on 22 December 1999, Aquanova reached an agreement with representatives of the competent authorities, members of civil society (including Grupo Manglar), local fishermen, and other interested parties. In response to the complaints of reduced access to fisheries by fishermen in the area, Aquanova agreed to “allow organized fishermen to exploit all species found in the southeast drain of the facility’s discharge, subject to compliance by the fishermen with the applicable law.<sup>180</sup>” The agreement also addressed other concerns, including rights of way through Aquanova’s property to access grazing land; the reassertion of Aquanova’s commitment to restoring the affected mangrove areas in Los Olotes and La Diabla; abandoning the phase III expansion of the ponds, and committing to provide partial funding for a study of socio-economic of the development needs of the area, among others.

#### 6.4 *Enforcement of Law Governing Environmental Offenses with Respect to Aquanova*

In its citizen complaint of 3 August 1998, Grupo Manglar stated that Aquanova’s violations constitute offenses under LGEEPA Article 183, which provides penalties for anyone who causes (produces, authorizes, or orders) serious harm to flora, fauna, or ecosystems.<sup>181</sup>

The CPF establishes the applicable fines and prison terms for unauthorized performance of any activity that harms the environment, such as destruction of mangroves and draining of wetlands (CPF Article 416 paragraph II).

According to Environmental Offenses Section (*Fiscalía Especializada para la Atención de los Delitos Ambientales*) “C” of the Office of the Attorney General of the Republic, an action was instituted against Aquanova on 4 September 1998 for the offense defined in CPF Article 416 paragraph II.

---

179. *Technical Opinion of H. Licón*, pp. 40-41.

180. IPA, Appendix 25.

181. IPGM, p. 8, and Submission, Appendix 8. The provisions of the LGEEPA that formerly characterized environmental offenses were repealed by Decree published in the DOF on 13 December 1996 which added an environmental offenses chapter to the CPF; that chapter took effect on 14 December 1996.

On 16 March 2000, the Attorney General's Office "determined that criminal prosecution was inapplicable since one element of the *corpus delicti* was missing; to wit, the normative element of the *absence of the relevant authorization*, since such authorization was in fact issued by the National Institute of Ecology. That decision was approved by memo no. 99/2000 signed by Deputy Prosecutor for Criminal Proceedings (*Subprocurador de Procedimientos Penales*) 'C' (italics in original).<sup>182</sup>" The Secretariat has no information about whether the Attorney General's Office considered whether Aquanova went beyond INE's authorization.

#### **6.5 Summary of Acts of Environmental Authority with Respect to Aquanova and Consequences of Filing of Submission SEM-98-006**

Between 19 April 1995 and 20 June 2002, Aquanova received a total of 13 inspection visits (12 by Profepa and 1 by CNA). Of these visits, 5 were to verify compliance with the conditions established in its environmental impact authorizations;<sup>183</sup> 3 were to verify compliance with the corrective measures imposed by the authorities;<sup>184</sup> 3 were to verify compliance with the actions undertaken in the administrative agreement of March 1998,<sup>185</sup> and 2 were to verify compliance with the conditions of the other authorizations.<sup>186</sup>

Appendix 9 of this factual record contains a table summarizing those acts of the environmental authorities with respect to Aquanova of which the Secretariat is aware.

Grupo Manglar maintains that the facility was authorized in violation of the environmental law and that Mexico failed to effectively enforce that law despite the violations committed by Aquanova in the initial phase of the project.<sup>187</sup> However, Grupo Manglar acknowledges that Aquanova took significant restoration actions. The following is a

182. IPM-1, pp. 5-6.

183. Those of 19 April 1995 (IPM-1, Appendix 1), 17 May 1995 (IPM-1, Appendix 4), 16 December 1997 (IPM-1, Appendix 11), 18 February 1998 (IPA, Appendix 15), and 21 May 1999 (IPA, Appendix 16).

184. Those of 20 April 1995 (IPM-1, Appendix 2), 9 May 1995 (IPA, Appendix 9) and 17 November 1997 (IPM-1, Appendix 8).

185. Those of 10 March 2000 (IPM-1, Appendix 26), 11 May 2001 (IPM-1, Appendix 27) and 20 June 2002 (IPA, Appendix 20). That record ensues from the administrative agreement of 30 March 1998 and sets forth a reforestation and monitoring program for which Aquanova is responsible (IPM-1, Appendix 14).

186. Those of 22 January 1996 (of which no copy was provided to the Secretariat) and 2 May 2001 (IPM-4, Appendix 6).

187. IPGM, p. 8.

summary of the views of Juan Francisco García Rodríguez of Grupo Manglar about the positive consequences of his group's filing of the Submission with the CEC on 20 October 1998. He explains:

The Submission originated when local fishermen approached Grupo Manglar, A.C. and the two parties determined that they shared a concern to preserve the quality and health of the inlets and creeks located within the area of influence of the shrimp farm.

...The filing of the Submission with the CEC had positive effects, since it gave rise to actions in response by the company, the authorities of the three levels of government, society at large, and environmental non-governmental organizations.

Following the initial clash of opposing positions between the facility and the environmentalists, and subsequent to the formal submission to the CEC, there was an extremely significant period of rapprochement between the different stakeholders. The company's initial attitude toward the NGOs and the general public was clearly rectified, and in parallel, as it began to accept its responsibility, the generalized animosity toward it has begun to subside.

We [Grupo Manglar] acknowledge that it has taken significant steps to initiate the process of remediation of the errors committed and has adopted a more open and cooperative stance towards the community; however, it is necessary to establish a mechanism enabling society to become aware of and obtain first-hand information on the problems and the goodwill of this company...<sup>188</sup>

On its visit to San Blas on 13 March 2002, the Secretariat witnessed the ties of communication and cooperation established among the representatives of certain sectors of society in San Blas who are interested in the environmental situation in the estuarine zone.

#### **6.6 *Current Factual Status of Aquanova and the Surrounding Area***

Aquanova operates in the estuarine zone of San Blas, primarily in an area known as Isla del Conde and in the adjacent portion of the Zofemat to which it holds a concession. It employs 240 persons and produces approximately 1,500 tons of shrimp annually. The facility currently consists of 109 ponds of 10 ha each. According to one approxi-

---

188. *Technical Opinion of H. Licón*, pp. 25-26 (summary of most relevant points of the conversation held 2 June 2002 between M.C. Héctor A. Licón G. and Juan Francisco García Rodríguez of Grupo Ecológico Manglar A.C.).

mation, the facility occupies an area of at least 1,300 ha, which was previously occupied by mangroves (15 percent) and by second-growth vegetation or lowland forest (85 percent).<sup>189</sup> Another approximation indicates that Aquanova removed at least 52 ha of mangroves (42 in Phase I without authorization as well as 10 in Phase II).<sup>190</sup>

The facility takes water for its operations from Boca La Cegada, which is associated with Varaderos creek, and discharges wastewater from the ponds into the ocean via a canal that is piped under Los Olotes creek by a pumping system, and passes above the piped flow of La Diabla, La Atascosa and La Tronconuda creeks. Aquanova built these hydraulic structures in early 1999 to repair the harm caused to Los Olotes and La Diabla creeks by the construction of its discharge canal. The facility does not have a treatment system since, according to its own water quality monitoring, its wastewater does not exceed the contaminant limits of NOM-001.

In an additional measure to repair the harm caused by the construction of its ocean discharge canal, Aquanova implemented a Mangrove Restoration Program in mid-1999. This program is based on the recommendations of the experts who assessed the harm to the area, and pursuant to an agreement with Profepa.

The area where Aquanova is located was subjected to other significant environmental impacts prior to the company's arrival, including:

- The land use changes on the alluvial plain caused by agricultural and grazing activities that entailed considerable clearing of lowland forest.
- The building of the dike that cut off direct communication between El Rey inlet and the ocean and negatively impacted critical habitat on the floodplain adjacent to the facility.
- The changes in the course and volume of the Rio Grande de Santiago due to the combined effects of natural changes in the river channels and the damming activity on this important watercourse.<sup>191</sup>

---

189. *Technical Opinion of H. Licón*, p. 13.

190. IPM-1, Appendix 6 (appeal for review filed by Aquanova on 6 September 1995), and RSP, Appendix 3 (authorization to remove mangroves, Phase II).

191. *Technical Opinion of H. Licón*, p. 26.

The Secretariat's expert and authorities that visited this area in the period from March 2000 to June 2002 reported the gradual regrowth of the mangroves in the area of the Mangrove Restoration Program. However, Héctor Licón cautions that:

Even though the company has taken action to improve its environmental record, this action is not sufficient in and of itself to reverse the major impact on this area. As long as steps are not taken to gradually restore the original flow pattern in El Rey inlet and to adopt an integrated regional land management program, one should not expect a spectacular recovery of the impacted environments.<sup>192</sup>

Similarly, Dr. Robinson Lewis indicates that "if such efforts [to restore the water flow in the area] are not undertaken by the responsible governmental agencies in Mexico, a collapse of the entire El Rey estuarine subsystem of the San Blas estuarine ecosystem can be expected within 10-20 years."<sup>193</sup>

Cooperation among various sectors of society in San Blas to meet the environmental challenges around Aquanova following the filing of the submission augurs well for the recovery of the area. The value of this cooperation is especially important now in that, as this factual record was being completed, the region was confronting unexpected challenges. Specifically, on 25 October 2002, Hurricane Kenna severely affected the San Blas area. Winds of up to 230 km/h were recorded during a 45-minute period, along with a sea level increase of approximately 8 meters. San Blas and neighboring communities suffered severe physical damage, and were subsequently beset by significant health risks from diseases caused by the prolonged flooding of the area. The environmental impact has not been assessed in detail, but preliminary reports mention the loss of approximately 400 m of mangrove along the beach, severe silting of La Cegada creek, destruction of mangroves in the creeks of the area, eutrophication of the creeks due to the obstruction of the water flow by the accumulation of dead trees, and mortality of a great deal of aquatic wildlife. The damage to the Aquanova facility appears to have been severe as well, with heavy loss of product and the destruction of its warehouses and electrical system.<sup>194</sup>

---

192. *Technical Opinion of H. Licón*, p. 27.

193. Robinson Lewis, p. 1.

194. Telephone conversation with Nayarit State Fisheries Officer (*Subdelegado de Pesca*) Julio Gómez Gurrola on 7 November 2002.

## 7. Closing Note

Factual records provide information on alleged failures to effectively enforce the environmental law in North America that may assist submitters, the NAAEC Parties, and other interested members of the public in taking any action they consider appropriate in regard to the matters addressed. In accordance with Council Resolution 01-09, which determined its scope, this factual record provides information on whether Mexico is failing to effectively enforce various provisions of its environmental law in relation to environmental impact, water, fisheries, and environmental offenses with respect to Aquanova.

Without aiming to reach conclusions of law on this matter, the information presented by the Secretariat in this factual record reveals that, in fact, Aquanova obtained prior authorization for the Aquanova—Boca Cegada shrimp farm, authorization to introduce blue shrimp strain SPR—43, and a concession for semi-intensive culture and commercial use of two shrimp species. The information further reveals that Aquanova changed forest land use without authorization, destroying 42 ha of mangrove forest, uprooting 250 coconut palms and filling wetlands, without taking actions to salvage flora and fauna as applicable, in violation of the environmental impact law and the conditions of the project authorization, and that it initiated wastewater discharge two years prior to applying for the corresponding authorization.

In addition, the information gathered reveals that Aquanova caused severe harm to 50 ha of mangrove forest in Los Olotes and La Diabla creeks by obstructing (with INE's authorization) Los Olotes creek; seeking to restore it by building corrective structures and initiating reforestation actions, pursuant to an agreement with the environmental authorities. Between 19 April 1995 and 20 June 2002, Aquanova received a total of 13 inspection visits, 2 sanctions and 5 orders, principally by Profepa. Finally, this factual record reveals that Aquanova took part in an effort of cooperation between the various sectors of society in San Blas, including Grupo Manglar, which made it possible to overcome an initially hostile situation, concerning the environmental impact of its operations.

## **Appendix 1**

**Council Resolution 01-09, Instruction to the Secretariat of the Commission for Environmental Cooperation Regarding the Assertion that Mexico is Failing to Effectively Enforce provisions of its General Law on Ecological Balance and Environmental Protection, the Forestry Law, Mexican Official Standards NOM-062-ECOL-1994 and NOM-059-ECOL-1994, the Law of National Waters and its Regulations, the Fisheries Law and its Regulations and the Federal Criminal Code with Respect to the Activities of Granjas Aquanova (SEM-98-006)**





Montreal, November 16, 2001

COUNCIL RESOLUTION 01-09

**Instruction to the Secretariat of the Commission for Environmental Cooperation Regarding the Assertion that Mexico is Failing to Effectively Enforce provisions of its General Law on Ecological Balance and Environmental Protection, the Forestry Law, Mexican Official Standards NOM-062-ECOL-1994 and NOM-059-ECOL-1994, the Law of National Waters and its Regulations, the Fisheries Law and its Regulations and the Federal Criminal Code with Respect to the Activities of Granjas Aquanova (SEM-98-006)**

THE COUNCIL:

SUPPORTIVE of the process provided for in Articles 14 and 15 of the *North American Agreement on Environmental Cooperation* (NAAEC) regarding submissions on enforcement matters and the preparation of factual records;

CONSIDERING the submission filed on the above-mentioned matter by Grupo Ecológico Manglar, A.C. and the response provided by the Government of the United Mexican States on June 15, 1999;

HAVING REVIEWED the notification by the Secretariat of August 4, 2000 that the development of a factual record is warranted in relation to the submission (SEM-98-006); and

NOTING that the notification to Council does not consider that a factual record warrants preparation with respect to the assertions that Mexico is failing to effectively enforce three international agreements for migratory species and wetland protection;

HEREBY UNANIMOUSLY DECIDES:

TO INSTRUCT the Secretariat to prepare a factual record in accordance with Article 15 of the NAAEC and the *Guidelines for Submissions on Enforcement Matters under Articles 14 and 15 of the North American Agreement on Environmental Cooperation* for the assertions set forth in Submission SEM-98-006 that Mexico is failing to effectively enforce provisions of its General Law on Ecological Balance and Environmental Protection, the Forestry Law, Mexican Official Standards NOM-062-ECOL-1994 and NOM-059-ECOL-1994, the Law of National Waters and its Regulations, the Fisheries Law and its Regulations and the Federal Criminal

Code, provided that the adequacy of the penalties imposed in accordance with the legislation is not reviewed;

TO DIRECT the Secretariat to provide the Parties with its overall work plan for gathering the relevant facts and to provide the Parties with the opportunity to comment on that plan; and

TO DIRECT the Secretariat, in developing the factual record, to consider whether the Party concerned "is failing to effectively enforce its environmental law" since the entry into force of the NAAEC on January 1, 1994. In considering such an alleged failure to effectively enforce, relevant facts that existed prior to January 1, 1994, may be included in the factual record.

APPROVED BY THE COUNCIL

## **Appendix 2**

**Overall Plan to Develop a Factual Record with  
Regard to Submission SEM-98-006**



---

## Secretariat of the Commission for Environmental Cooperation

### Overall Plan to Develop a Factual Record

<b>Submission I.D.:</b>	SEM-98-006
<b>Submitter(s):</b>	Grupo Ecológico “Manglar”, A.C.
<b>Party:</b>	United Mexican States
<b>Date of this plan:</b>	14 December 2001

---

### Background

On 20 October, 1998, Grupo Ecológico “Manglar”, A.C. presented to the Secretariat of the Commission for Environmental Cooperation (CEC) a submission in accordance with Article 14 of the North American Agreement on Environmental Cooperation (NAAEC). The submission asserts that Mexico is failing to effectively enforce its environmental law with respect to a shrimp farm operated by Granjas Aquanova, S.A. de C.V. (hereinafter, “Granjas Aquanova”) in the state of Nayarit, Mexico, that allegedly has caused severe damage to wetlands, water quality, fisheries and to the habitat of a number of protected species.

On 16 November 2001, the Council decided unanimously to instruct the Secretariat to develop a factual record, in accordance with Article 15 of the NAAEC and the *Guidelines for Submissions on Enforcement Matters under Articles 14 and 15 of the NAAEC (Guidelines)*, with respect to the assertions Mexico is failing to effectively enforce provisions of its General Law on Ecological Balance and Environmental Protection (*Ley General del Equilibrio Ecológico y la Protección al Ambiente—General Environmental Law*), the Forestry Law (*Ley Forestal*), Mexican Official Standards NOM-062-ECOL-1994<sup>1</sup> (NOM-062) and NOM-059-ECOL-1994<sup>2</sup> (NOM-059), the Law of National Waters (*Ley de Aguas Nacionales*) and its Regulations, the Fisheries Law (*Ley de Pesca*) and its Regulations, and the Federal Criminal Code (*Código Penal Federal*), in connection with the activities of Granjas Aquanova. The Council

- 
1. Establishing specifications to mitigate the adverse effects on biodiversity of land use changes from forestry to agriculture.
  2. Determining endangered, threatened and rare species and subspecies of terrestrial and aquatic wildlife and those subject to special protection, and establishing specifications for their protection.

directed the Secretariat, in developing the factual record, to consider whether the Party concerned “is failing to effectively enforce its environmental law” since the entry into force of the NAAEC on 1 January 1994. In considering such an alleged failure to effectively enforce, relevant facts that existed prior to 1 January 1994, may be included in the factual record.

Under Article 15(4) of the NAAEC, in developing a factual record, “the Secretariat shall consider any information furnished by a Party and may consider any relevant technical, scientific or other information: (a) that is publicly available; (b) submitted by interested non-governmental organizations or persons; (c) submitted by the Joint Public Advisory Committee; or (d) developed by the Secretariat or by independent experts.”

#### **Overall Scope of the Fact Finding:**

Granjas Aquanova, S.A. de C.V. has engaged in shrimp aquaculture operations in Isla del Conde, San Blas, Nayarit, since approximately 1995. The submission filed by Grupo Ecológico “Manglar”, A.C. asserts, and Mexico’s response also indicates, that Granjas Aquanova has committed violations of environmental law and of the environmental impact authorizations granted by the National Institute of Ecology (INE).

The General Environmental Law, the Forestry Law, Mexican Official Standard NOM-062 and particularly the three environmental impact authorizations granted to Granjas Aquanova, establish various environmental impact requirements. To prevent and control water contamination and protect aquatic ecosystems, the Law of National Waters and its Regulations establish the obligation to monitor and treat wastewater discharges and provisions for sustainable water use. The Fisheries Law and its Regulations regulate the introduction of new species to protect fisheries. Lastly, certain acts, like drying up wetlands without prior authorization or discharging wastewater without treatment or control, are considered environmental crimes under the Federal Criminal Code.

The alleged violations as to which the Submitters assert Mexico has failed to effectively enforce its environmental law include: non-compliance with conditions established in the environmental impact authorizations; non-compliance with orders issued by INE; unauthorized draining and filling of lagoons; unauthorized felling, clearing and

burning of vegetation in the habitat of protected species; unauthorized land use changes and removal of forest cover; unauthorized discharges of contaminated wastewater and failure to monitor discharges; unauthorized diversion of natural watercourses; and obstruction of fishing activities. The principal environmental damages purportedly caused are mangrove mortality, the accelerated destruction of habitat of protected species and the degradation of water quality.

To prepare the factual record, the Secretariat will gather and develop information relevant to the facts concerning:

- (i) the alleged violations by Granjas Aquanova of the provisions cited in the submission of the General Law, NOM-062, the Forestry Law, the Law of National Waters and its Regulations, the Fisheries Law and its Regulations and the Federal Criminal Code;
- (ii) Mexico's enforcement of those provisions with respect to Granjas Aquanova; and
- (iii) the effectiveness of Mexico's enforcement of those provisions with respect to Granjas Aquanova.

**Overall Plan:**

Consistent with Council Resolution 01-09, execution of the overall work plan will begin no sooner than 14 January 2002. All other dates are best estimates. The overall plan is as follows:

- Through public notices or direct requests for information, the Secretariat will invite the Submitters; JPAC; community members; the regulated community; and local, provincial and federal government officials, to submit information relevant to the scope of fact-finding outlined above. The Secretariat will explain the scope of the fact finding, providing sufficient information to enable interested non-governmental organizations or persons or the JPAC to provide relevant information to the Secretariat (section 15.2 of the *Guidelines*). **[January 2002]**
- The Secretariat will request information relevant to the factual record from federal, state and local government authorities of Mexico, as appropriate, and will consider any information provided by a Party (Articles 15(4) and 21(1)(a) of the NAAEC). Information will be requested relevant to the facts regarding:

- (i) the violations by Granjas Aquanova of the provisions cited in the submission of the General Law, NOM-062, the Forestry Law, the Law of National Waters and its Regulations, the Fisheries Law and its Regulations and the Federal Criminal Code;
  - (ii) Mexico's enforcement of those provisions with respect to Granjas Aquanova; and
  - (iii) the effectiveness of Mexico's enforcement of those provisions with respect to Granjas Aquanova. [**January 2002**]
- The Secretariat will gather relevant technical, scientific or other information that is publicly available, including from existing databases, public files, information centers, libraries, research centers and academic institutions. [**January through April 2002**]
  - The Secretariat, as appropriate, will develop, through independent experts, technical, scientific or other information relevant to the factual record. [**January through June 2002**]
  - The Secretariat, as appropriate, will collect relevant technical, scientific or other information for the preparation of the factual record, from interested non-governmental organizations or persons, the JPAC or independent experts. [**January through June 2002**]
  - In accordance with Article 15(4), the Secretariat will prepare the draft factual record based on the information gathered and developed. [**June through September 2002**]
  - The Secretariat will submit a draft factual record to Council, and any Party may provide comments on the accuracy of the draft within 45 days thereafter, in accordance with Article 15(5). [**end of September 2002**]
  - As provided by Article 15(6), the Secretariat will incorporate, as appropriate, any such comments in the final factual record and submit it to Council. [**November 2002**]
  - The Council may, by a two-thirds vote, make the final factual record publicly available, normally within 60 days following its submission, according to Article 15(7).



**Additional information**

The submission, Mexico's response, the Secretariat determinations, the Council Resolution, and a summary of these are available in the Registry on Citizen Submissions in the CEC home page [www.cec.org](http://www.cec.org) or upon request to the Secretariat at the following address:

Secretariat of the CEC  
Submissions on Enforcement Matters Unit (SEM Unit)  
393 St-Jacques St. West, Suite 200  
Montreal QC H2Y 1N9  
Canada



## **Appendix 3**

**Process for Gathering Information for the  
Preparation of the Factual Record  
on Submission SEM-98-006  
(Examples of relevant information)**



## Secretariat of the Commission for Environmental Cooperation

### REQUEST FOR INFORMATION for Preparation of a Factual Record Submission SEM-98-006 (Aquanova) February 2002

#### I. The factual record process

The Commission for Environmental Cooperation of North America (CEC) is an international organization created under the North American Agreement on Environmental Cooperation (NAAEC) by Canada, Mexico and the United States. The CEC operates through three organs: a Council, made up of the highest-level environmental official in each country; a Joint Public Advisory Committee (JPAC), composed of five citizens from each country; and a Secretariat located in Montreal.

Article 14 of the NAAEC allows persons or nongovernmental organizations in North America to inform the Secretariat, in a submission, that any member country (hereinafter, a Party) is failing to effectively enforce its environmental law. This initiates a process of review of the submission, in which the Council may instruct the Secretariat to prepare a factual record in connection with the submission. A factual record seeks to provide detailed information to allow interested persons to assess whether a Party has effectively enforced its environmental law with respect to the matter raised in the submission.

Under Articles 15(4) and 21(1)(a) of the NAAEC, in developing a factual record, the Secretariat shall consider any information furnished by a Party and may ask a Party to provide information. Additionally, the Secretariat may consider any relevant technical, scientific or other information that is publicly available; submitted by the JPAC or by interested nongovernmental organizations or persons; or developed by the Secretariat or independent experts.

On 16 November 2001, the Council decided unanimously to instruct the Secretariat to develop a factual record, in accordance with Article 15 of the NAAEC and the *Guidelines for Submissions on Enforcement Matters under Articles 14 and 15 of the NAAEC (Guidelines)*, with respect to the assertions that Mexico is failing to effectively enforce several provisions of the General Law of Ecological Balance and Environ-

mental Protection (*Ley General del Equilibrio Ecológico y la Protección al Ambiente*—LGEEPA), the Forestry Law (*Ley Forestal*), Mexican Official Standards NOM-062 and NOM-059, the National Waters Law (*Ley de Aguas Nacionales*—LAN) and its Regulations, the Fisheries Law (*Ley de Pesca*—LP) and its Regulations, and the Federal Criminal Code (*Código Penal Federal*), in connection with the activities of Granjas Aquanova. The Council directed the Secretariat, in developing the factual record, to consider whether the Party concerned “is failing to effectively enforce its environmental law” since the entry into force of the NAAEC on 1 January 1994. In considering such an alleged failure to effectively enforce, relevant facts that existed prior to 1 January 1994, may be included in the factual record.

By means of this document, the Secretariat seeks information relevant to matters to be addressed in the factual record for the Aquanova submission, SEM-98-006. The following sections provide background on the submission and describe the kind of information requested.

## II. The Aquanova Submission

On 20 October 1998, Grupo Ecológico “Manglar” filed a submission with the CEC with respect to the shrimp aquaculture activities carried on by the company Granjas Aquanova, S.A. de C.V. in Isla del Conde, San Blas, Nayarit, since approximately 1995. The submission asserts that Granjas Aquanova has allegedly committed violations of the environmental law and of the environmental impact authorizations granted by the National Institute of Ecology (*Instituto Nacional de Ecología*—INE).

The LGEEPA, the LF, Mexican Official Standard NOM-062-ECOL-1994<sup>1</sup> (NOM-062) with regard to NOM-059-ECOL-1994<sup>2</sup> (NOM-059) and, in particular, the three environmental impact authorizations granted to Granjas Aquanova, establish various environmental impact requirements. The LAN and its Regulations set forth wastewater monitoring and treatment obligations and provisions as to sustainable water use for the prevention and control of water pollution and the protection of aquatic ecosystems. The LP and its Regulations govern the introduction of new species for the protection of fishing resources. Lastly, certain acts, such as the unauthorized drying up of wetlands

- 
1. Establishing the specifications to mitigate the adverse effects on biodiversity of land use changes from forestry to agriculture.
  2. Determining the endangered, threatened and rare species and subspecies of terrestrial and aquatic wildlife and those subject to special protection, and establishing specifications for the protection thereof.

without prior authorization and the uncontrolled discharge of untreated wastewater, are considered environmental crimes under the CPF. Specifically, the following provisions are in question: Articles 117, 118, 119, 121, 123, 129, 130, 168 and 182 of the LGEEPA; Article 51 of the LF; NOM-059; NOM-062; Articles 4, 9, 86 paragraph III, 88, 92 and 119 paragraphs I, II and VIII of the LAN; Articles 134, 135, 137 and 153 of the LAN Regulations; Articles 3 paragraph VIII and 24 paragraph XXIV of the LP; Articles 44, 48 and 50 of the LP Regulations; and Articles 416 paragraphs I and II, 418 and 420 paragraph V of the CPF.

The alleged violations with respect to which the Submitters assert that Mexico is failing to effectively enforce its environmental law include: noncompliance with the conditions established in the environmental impact authorizations, noncompliance with instructions issued by INE, unauthorized drying and refilling of lagoons, unauthorized clearing and burning of vegetation in protected species' habitats, unauthorized land-use changes and removal of forest cover, unmonitored discharge of wastewater without a permit, unauthorized diversion of natural waterways, and the obstruction of fishing activities. The principal environmental damages allegedly caused have been mangrove mortality, the accelerated destruction of protected species' habitats and the degradation of water quality.

The response to this submission, provided by the Mexican Government on 15 June 1999, also indicates that Granjas Aquanova has committed violations of the environmental law, although Mexico asserts that it has not failed to effectively enforce such law.

### **III. Request for information**

The Secretariat of the CEC requests information relevant to the facts concerning:

- i) alleged violations by Granjas Aquanova against the aforesaid provisions of the LGEEPA, NOM-062, the LF, the LAN and its Regulations, the LP and its Regulations, and the CPF;
- ii) Mexico's enforcement of these provisions with respect to Granjas Aquanova; and
- iii) the effectiveness of Mexico's enforcement of these provisions with respect to Granjas Aquanova.

**IV. Examples of relevant information**

1. Information on the local, state or federal policies or practices regarding enforcement of the environmental law that apply to the alleged violations of the environmental laws cited in the submission (as described in Section II of this document) and on the manner in which they were implemented in this case.
2. Information on Granjas Aquanova's alleged violations of Articles 117, 118, 119, 121, 123, 129, 130, 168 and 182 of the LGEEPA; Article 51 of the LF; NOM-059; NOM-062; Articles 4, 9, 86 paragraph III, 88, 92 and 119 paragraphs I, II and VIII of the LAN; Articles 134, 135, 137 and 153 of the LAN Regulations; Articles 3 paragraph VIII and 24 paragraph XXIV of the LP; Articles 44, 48 and 50 of the LP Regulations; and Articles 416 paragraphs I and II, 418 and 420 paragraph V of the CPF.
3. Information on Mexico's enforcement of the provisions cited above with respect to Granjas Aquanova.
4. Information on the effectiveness of Mexico's enforcement of these provisions, with respect to Granjas Aquanova; that is, information on the extent and manner in which the efforts to enforce the environmental law have contributed to the prevention and control of the environmental impact of Granjas Aquanova's activities, water pollution in the area and the effect on mangroves and the habitats of other protected species.
5. Information on the area where Granjas Aquanova carries on its operations particularly with respect to water quality, wetlands conditions and the conditions of protected species' habitats.
6. Information on the effects of the environmental law violations allegedly committed by Granjas Aquanova, particularly regarding the effects on fishing resources and the fishing activities in the zone where the company is located, due to the introduction of new species allegedly without due authorization, and the effects on water quality and mangrove health caused by the allegedly unauthorized discharge of wastewater.
7. Information on the human, financial and technical resources used in the enforcement of environmental law, with respect to the alleged violations by Granjas Aquanova.



8. Any other technical, scientific or other information that could be relevant.

#### V. Additional background information

The submission, Mexico's response, the Secretariat's determinations, the Council Resolution, the general plan to develop the factual record and other information are available in the Registry and Public Files in the Citizen Submissions on Enforcement Matters section of the CEC website at <<http://www.cec.org>>. These documents may also be requested from the Secretariat.

#### VI. Where to Send Information

Relevant information for the development of the factual record may be sent to the Secretariat until 30 June 2002, to the following address:

Secretariat of the CEC Submissions on Enforcement Matters Unit (SEM Unit) 393, rue St-Jacques Ouest, bureau 200 Montréal QC H2Y 1N9 Canada Tel. (514) 350-4300	CCA / Mexico Liaison Office Atención: Unidad sobre Peticiones Ciudadanas (UPC) Progreso núm. 3 Viveros de Coyoacán México, D.F. 04110 México Tel. (52-55) 5659-5021
---	--

For any questions, please send an e-mail to the attention of Carla Sbert, at <[info@ccemtl.org](mailto:info@ccemtl.org)>.



## **Appendix 4**

### **Information Requests to Mexican Authorities and List of Recipient Authorities**



## Letter to Party Requesting Information to Develop the Factual Record on SEM-98-006

7 February 2002

**Re: Development of the factual record on submission  
SEM-98-006 (Aquanova)**

The Secretariat hereby requests from Mexico relevant information to develop the factual record for the Aquanova submission, SEM-98-006, in accordance with Articles 15(4) and 21(1)(a) of the NAAEC.

As you know, on 16 November 2001, the Council decided unanimously to instruct the Secretariat to develop a factual record, in accordance with Article 15 of the NAAEC and the *Guidelines for Submissions on Enforcement Matters under Articles 14 and 15 of the NAAEC (Guidelines)*, with respect to the assertions that Mexico is failing to effectively enforce various provisions of its General Law on Ecological Balance and Environmental Protection (*Ley General del Equilibrio Ecológico y la Protección al Ambiente*), the Forestry Law (*Ley Forestal*), Mexican Official Standards NOM-062-ECOL-1994 and NOM-059-ECOL-1994, the Law of National Waters (*Ley de Aguas Nacionales*) and its Regulations, the Fisheries Law (*Ley de Pesca*) and its Regulations, and the Federal Criminal Code (*Código Penal Federal*), in connection with the activities of Granjas Aquanova.

Under Article 15(4) of the NAAEC, in developing a factual record, the Secretariat shall consider any information furnished by a Party and may consider any relevant technical, scientific or other information: (a) that is publicly available; (b) submitted by interested non-governmental organizations or persons; (c) submitted by the Joint Public Advisory Committee; or (d) developed by the Secretariat or by independent experts.

Attached you will find the list of matters on which information is requested of Mexico for developing this factual record. The Secretariat has established 30 June 2002 as the deadline for receiving information. However, please respond to this request no later than 15 April 2002 to allow for follow up, if necessary.

Thank you in advance for your attention to this matter.

Yours truly,

Legal Officer  
Submission on Enforcement Matters Unit

Attachment

cc: Environment Canada  
US EPA  
CEC Executive Director

## Secretariat of the Commission for Environmental Cooperation

### Request to Mexico of Additional Information for Preparation of the Factual Record Submission SEM-98-006 (Aquanova) 7 February 2002

1. Provide additional information on the alleged violations by Granjas Aquanova of Articles 117, 118, 119, 121, 123, 129, 130, 168 and 182 of the General Law on Ecological Balance and Environmental Protection (*Ley General del Equilibrio Ecológico y la Protección al Ambiente—LGEEPA*); Article 51 of the Forestry Law (*Ley Forestal—LF*); Mexican Official Standard NOM-062-ECOL-1994; Mexican Official Standard NOM-059-ECOL-1994; Articles 4, 9, 86 paragraph III, 88, 92 and 119 paragraphs I, II and VIII of the (*Ley de Aguas Nacionales—LAN*); Articles 134, 135, 137 and 153 of the Regulations to the Law of National Waters (*Reglamento de la Ley de Aguas Nacionales—RLAN*); Articles 3 paragraph VIII and 24 paragraph XXIV of the Fisheries Law (*Ley de Pesca—LP*); Articles 44, 48 and 50 of the Regulations to the Fisheries Law (*Reglamento de la Ley de Pesca—RLP*); and Articles 416 paragraphs I and II, 418 and 420 paragraph V of the Federal Criminal Code (*Código Penal Federal—CPF*).
2. Describe the local, state or federal policies or practices for enforcing the environmental laws that apply to the alleged violations of the environmental laws by Granjas Aquanova.
3. Provide information on the area where Granjas Aquanova carries out its operations particularly concerning its environmental situation, water quality, the state of wetlands and the state of the habitat of any protected species.
4. Provide information on the effects of the alleged violations of the environmental laws committed by Granjas Aquanova, particularly on the effects on fishing resources and fishing activities in the area where the company is located, by reason of the allegedly unauthorized introduction of new species, and on the effects on water quality and mangrove health due to allegedly unauthorized wastewater discharges.

5. According to Mexico's response to the submission, the project filed by Granjas Aquanova for environmental impact assessment consisted of three phases. The National Institute of Ecology (*Instituto Nacional de Ecología*—INE) granted an environmental impact authorization for phase I of the project on 7 February 1995, establishing 43 conditions. On 16 and 17 May of that year, the Office of the Federal Attorney General for Environmental Protection (*Procuraduría Federal de Protección al Ambiente*—Profepa) performed an inspection visit and found irregularities in Granjas Aquanova's compliance with the terms of that authorization. The Profepa Delegation in Nayarit also performed an inspection on 19 April 1995. Mexico asserts that it fined Granjas Aquanova for these irregularities and that it undertook collateral actions leading to a program to correct the negative impacts, apparently a mangrove planting program. In the aforesaid inspection, the authority found that the company cut, felled and burned mangroves and removed the forest cover without the forest land-use authorization. According to Mexico's response to the submission, the authority sanctioned this administrative offense.
  - 5.1. With respect to the aforementioned mangrove-planting program, indicate what the program comprised, how compliance was verified and what were the results of such program.
  - 5.2. Provide specific information on the sanction imposed on the company for the cutting, felling and burning of mangroves and the removal of the forest cover without the forest land-use authorization, described above.
6. The submission states that the activities of Granjas Aquanova were undertaken in the habitat of species protected under NOM-059-ECOL-1994. The Submitter argues that, pursuant to Article 4.7 of NOM-062-ECOL-1994, this situation requires the filing of an environmental impact statement in order for the authority to assess the possibility of carrying on any type of sustainable use of the soil or other resources that does not imply a change in land use. In its response to the submission, Mexico confirms the existence of protected species in the area where Granjas Aquanova operates.
  - 6.1. Indicate how the provision mentioned in the environmental impact authorization granted to Granjas Aquanova, and the



compliance verification procedure in relation thereto, were undertaken with respect to the company's activities.

- 6.2. Indicate the reasons why the environmental impact authorizations were granted for phases II and III, in spite of the degree of noncompliance observed by the authority with respect to the environmental impact authorization for phase I (D.O.O.P.-0333, 7 February 1995).
  - 6.3. Explain the consideration given to invalidating the first environmental impact authorization, as provided in the tenth whereas clause thereof.
7. On 12 May 1995, as a result of a working meeting in which it was agreed that the INE would reconsider the environmental impact assessment in a period of 30 days, an administrative proceeding against Granjas Aquanova for violations to the environmental impact authorization, detected in the April 1995 inspection visits, was terminated. Indicate whether that new consideration was issued and explain the follow-up given to the violations in question.
  8. The LF in effect since 1992 establishes the need to obtain an authorization for the use of timber resources, and provides that in the case of rain forests, the environmental impact assessment is a requirement for such authorization.
    - 8.1. Explain whether the past or present activities of Granjas Aquanova include the use of timber resources, pursuant to the LF.
    - 8.2. Indicate whether Granjas Aquanova has been issued an authorization for the use of timber resources.
    - 8.3. Explain whether the environmental impact assessment, required for the authorization, was done, and attach the corresponding documents.
  9. On 22 January 1996, irregularities were found in the construction of a discharge drain that caused damages, as were forestry irregularities absent the required land-use authorization and because of the removal of 3.35 hectares of mangrove. Indicate what enforcement measures were taken with respect to these irregularities.

10. Mexico's response indicates that, according to the National Water Commission (*Comisión Nacional del Agua*—CNA), the activities of Granjas Aquanova do not require an authorization to use water because the water is extracted from lagoons, estuaries and streams, which contain marine waters.
  - 10.1. Indicate the basis for classifying the water bodies in question as marine waters.
  - 10.2. Indicate the basis for concluding that the water use authorization does not apply to marine waters.
11. Mexico's response states that the company did in effect discharge wastewater without a permit, from 1996 and apparently until 6 November 1998, when permit 08NAY104898/13BKGE98 was issued for one of the three discharges. The response also mentions that the permit for the other two discharges is being processed, and that there is a favorable technical report dated 11 December 1998. Provide a copy of permit 08NAY104898/13BKGE98, of the technical report from 11 December 1998, and any other documents concerning the wastewater discharge permit for each of the company's wastewater discharges.
12. The submission indicates that Granjas Aquanova improperly obstructed the La Tronconuda, La Atascona, Los Olotes and La Cegada streams, notwithstanding the prohibition against rerouting or obstructing waterways without a permit under Article 119 paragraph VIII of the LAN. Mexico's response to the submission asserts that the environmental impact authorization contemplated the company's rerouting natural waterways.
  - 12.1. Specify which of the three authorizations allows the rerouting of waterways, indicating the relevant clause.
  - 12.2. Explain the basis under which the INE granted permission in an environmental impact authorization to carry on an activity that is under CNA jurisdiction pursuant to Articles 9 paragraph VII and 119 paragraph VIII of the LAN.
  - 12.3. Indicate what actions the authority took with respect to the waterway obstruction by Granjas Aquanova, and the effectiveness thereof.

- 
13. The submission asserts that the CNA has failed to effectively enforce the environmental laws with respect to Granjas Aquanova's lack of monitoring of water quality. Mexico's response to the submission is based on a CNA report.
    - 13.1. Provide a copy of the documents relevant to the monthly water quality monitoring program in the main marshes relating to the activities of Granjas Aquanova, which the CNA claims to have prepared.
    - 13.2. Provide a copy of the monitoring program to comply with Mexican Official Standard NOM-089-ECOL-1994, which the company has according to Mexico's response to the submission.
    - 13.3. Provide a copy of the results of the sampling done at four sites (presumably between October 1998 and April 1999) that, as reported by the CNA, shows that the wastewater quality meets Mexican Official Standard NOM-001-ECOL-1996.
  14. Provide a copy of the concession that, according to Mexico's response to the submission, the Aquaculture Bureau of the Secretariat of Environment, Natural Resources and Fisheries (*Secretaría de Medio Ambiente, Recursos Naturales y Pesca*—Semarnap) granted to Granjas Aquanova.
  15. Mexico denies the Submitters' allegation that the shrimp species introduced by Granjas Aquanova produces viral epidemics. Provide a copy of the health certificates that, according to Mexico's response to the submission, Granjas Aquanova presented before each spawning period.
  16. Provide a copy of the ruling in which, according to Mexico's response to the submission, on 26 April 1999 the Semarnap Aquaculture Bureau reported that the fishery production did not decrease but rather increased.
  17. With regard to the allegations that Granjas Aquanova has committed environmental crimes (the filling and draining of lagoons allegedly beginning in 1995, and allegedly criminal wastewater discharges from the first half of 1996 to the submission date), with respect to which Mexico has not effectively enforced its environ-

mental laws, Mexico's response to the submission states that the environmental authorities provided reports in criminal investigation DGMPE/C/I-3/039/98.

- 17.1. Indicate the status of this proceeding.
  - 17.2. State what matter was investigated by the Party in this proceeding.
  - 17.3. Explain how this matter coincides with the matter raised by the Submitter.
  - 17.4. Indicate whether enforcement actions have been taken with respect to the Submitter's allegation, and the result thereof.
18. Provide factual references and explanations of how the inspection and oversight procedures described in Mexico's response to the submission, which culminated in the agreement between Profepa and the company, result in the effective enforcement of the provisions cited by the Submitter, for the protection of aquatic resources and protected species in the area and for the prevention of water pollution.
  19. Detail the human, financial and technical resources used in the enforcement of the environmental laws, with respect to the alleged violations by Granjas Aquanova.
  20. Provide any other technical, scientific or other information that could be relevant.

**Mexican authorities recipient of a request for  
information for the development of the factual  
record in regard to Submission SEM-98-006**

**FEDERAL**

International Affairs Coordination  
Unit (UCAI)  
**Ministry of the Environment and  
Natural Resources (SEMARNAT)**

Nayarit State Office  
**SEMARNAT**

Federal Coastal Zone and Coastal  
Environments Branch  
**SEMARNAT**

Environmental Impact and Risk  
Branch  
**SEMARNAT**

National Institute of Ecology (INE)  
**SEMARNAT**

Wildlife Branch  
Office of the Deputy Minister for  
Environmental Protection  
**SEMARNAT**

General Technical Division  
**National Water Commission**

Aquaculture Research Branch  
**National Institute of Fisheries**

Office of the Deputy Attorney for  
Environmental Auditing  
**Office of the Federal Attorney for  
Environmental Protection**

Nayarit State Office of the Federal  
Attorney for Environmental  
Protection

Fisheries Administration  
Fisheries Office in the State of  
Nayarit

**STATE**

**Nayarit Institute for Sustainable  
Development (INADES)**

**MUNICIPAL**

**Municipality of San Blas  
Nayarit**

**Municipal Development Planning  
Committee (COPLADEMUN)**  
San Blas, Nayarit



## **Appendix 5**

**Information Requests to NGOs, JPAC  
and other Parties to the NAAEC**





---

## Form Letter to NGOs

12 February 2002

**Re: Request for information relevant to the factual record for the Aquanova submission (SEM-98-006)**

The Secretariat of the Commission for Environmental Cooperation of North America recently began the process of preparing a "factual record" regarding an assertion that Mexico is failing to effectively enforce its environmental law with respect to a shrimp farm operated by Granjas Aquanova, S.A. de C.V. (hereinafter "Granjas Aquanova") in the state of Nayarit, Mexico, that allegedly has caused severe damage to wetlands, water quality, fisheries and to the habitat of a number of protected species. This assertion was made in a "submission" filed with the Secretariat in October 1998 by Grupo Ecológico "Manglar", A.C.

I am writing to invite you to submit information relevant to the factual record. The attached Request for Information explains the citizen submissions process and factual records, gives background about the so-called Aquanova submission (SEM-98-006), describes the scope of the information to be included in the factual record for the Aquanova submission, and provides examples of information that might be relevant. We will accept information for possible consideration in connection with the factual record **until June 30, 2002**.

We appreciate your consideration of this request and look forward to any relevant information you are able to provide. Please feel free to contact the Secretariat if you have questions. Contact information is provided at the end of the Request for Information.

Sincerely,

Legal Officer  
Submissions on Enforcement Matters Unit

Enclosure



---

## Memorandum to the Joint Public Advisory Committee

### Memorandum

**DATE:** 13 February 2002

**À / PARA / TO:** Chair of the Joint Public Advisory  
Committee

**CC:** JPAC Members, CEC Executive  
Director, JPAC Liaison Officer

**DE / FROM:** Legal Officer, Submissions on  
Enforcement Matters Unit

**OBJET / ASUNTO / RE:** Request for information relevant to  
the factual record for the Aquanova  
submission (SEM-98-006).

---

As you know, the CEC Secretariat recently began the process of preparing a factual record for the Aquanova submission (SEM-98-006). This submission was filed with the Secretariat in October 1998 by Grupo Ecológico “Manglar”. Consistent with Council Resolution 01-09, the factual record will focus on the assertion that Mexico is failing to effectively enforce provisions of its General Law on Ecological Balance and Environmental Protection (*Ley General del Equilibrio Ecológico y la Protección al Ambiente*— General Environmental Law), the Forestry Law (*Ley Forestal*), Mexican Official Standards NOM-062-ECOL-1994<sup>1</sup> (NOM-062) and NOM-059-ECOL-1994<sup>2</sup> (NOM-059), the Law of National Waters (*Ley de Aguas Nacionales*) and its Regulations, the Fisheries Law (*Ley de Pesca*) and its Regulations, and the Federal Criminal Code (*Código Penal Federal*), in connection with the activities of Granjas Aquanova.

I am writing to invite the JPAC to submit information relevant to the factual record, consistent with Article 15(4)(c) of the NAAEC. The attached Request for Information, which has been posted on the CEC website, gives background about the Aquanova submission,

- 
1. Establishing specifications to mitigate the adverse effects on biodiversity of land use changes from forestry to agriculture.
  2. Determining endangered, threatened and rare species and subspecies of terrestrial and aquatic wildlife and those subject to special protection, and establishing specifications for their protection.

(SEM-98-006), describes the scope of the information to be included in the factual record, and provides examples of information that might be relevant. We will accept information for possible consideration in connection with the factual record until June 30, 2002.

We appreciate your consideration of this request and look forward to any relevant information you are able to provide. Please feel free to contact me at (514) 350-4321 or [csbert@ccemtl.org](mailto:csbert@ccemtl.org) if you have questions regarding this request or the factual record process.

---

## Letter to the Other Parties of the NAAEC (Canada & US)

13 February 2002

**Re: Request for information relevant to the factual record for the Aqanova submission, SEM-98-006.**

As you know, the CEC Secretariat recently began the process of preparing a factual record for the Aqanova submission (SEM-98-006), consistent with Council Resolution 01-09. I am writing to invite the [Canadian][the United States] Party to submit information relevant to the factual record, in accordance with Article 15(4) of the NAAEC.

The attached Request for Information, which has been posted on the CEC website, gives background about the Aqanova submission, describes the scope of the information to be included in the factual record, and provides examples of information that might be relevant. We will accept information for consideration in connection with the factual record until June 30, 2002.

We appreciate your consideration of this request and look forward to any relevant information you are able to provide. Please feel free to contact me at (514) 350-4321 or [csbert@ccemtl.org](mailto:csbert@ccemtl.org) if you have questions regarding this request.

Sincerely,

Legal Officer  
Submissions on Enforcement Matters Unit

Enclosure

cc: Semarnat  
[Environment Canada]  
[US EPA]  
CEC Executive Director



**Nongovernmental organizations and  
individual recipients of requests for  
information for the development of the factual  
record in regard to Submission SEM-98-006**

Greenpeace México, A.C.	Coordinadora Estatal Ecologista de Nayarit
Centro Mexicano de Derecho Ambiental (CEMDA)	Fondo Mexicano para la Conservación de la Naturaleza
Unión de Grupos Ambientalistas, I.A.P.	Universidad Autónoma de Nayarit Faculty of Fisheries Engineering
Wetlands International Mexico	Universidad Autónoma de Nayarit Faculty of Law
Pronatura Sonora	Centro de Investigación Científica y de Educación Superior de Ensenada (CICESE)
WWF (World Wildlife Federation)	Centro de Investigación en Alimentación y Desarrollo (CIAD)
IUCN - Union mondiale para la Naturaleza Wetlands Program	Grupo Industrias Resistol S.A. (GIRSA)
IUCN - The World Conservation Union	Granjas Aquanova, S.A. de C.V.
Conservation International	Grupo Ecológico Manglar, A.C.
Earth Island Institute Mangrove Action Project	
Centro de Estudios del Sector Privado para el Desarrollo Sustentable (CESPEDES)	





## **Appendix 6**

**Information Gathered for the  
Development of the Factual Record on  
Submission SEM-98-006 (Aquanova)**



**List of Information Gathered for the Development of the  
Factual Record in Regard to Submission SEM-98-006 (Aquanova)**

No.	ID	DOCUMENT DATE mm/dd/yy	AUTHOR	DOCUMENT	PROVIDED TO SECRETARIAT BY	RECEIVED mm/dd/yy
1	N/A	05/07/00	N/A	"San Blas Declaratory for the Defense of the Mangroves," document signed by 300 fishermen. (Original in English).	Mangrove Action Project (Quarto, A.)	02/15/01
2	N/A	N/A	Article SWARA-MAG-EDITED	Article: "The Rise and Fall of the Blue Revolution."	Mangrove Action Project (Quarto, A.)	02/15/01
3	N/A	03/13/97	Nature Vol. 386-AQUACULTURE (Ehsan M.)	Article from British Journal <i>Nature</i> , "Aquaculture: Part of the Problem, not a Solution."	Mangrove Action Project (Quarto, A.)	02/15/01
4	N/A	02/00/01	Greenpeace	GREENPEACE REPORT: "Antibiotics in industrial sea fruit production." (Original in English).	Mangrove Action Project (Quarto, A.)	02/15/01
5	IPGM1	03/18/00	Profepa (Echeverría Domínguez, A.)	Publication in Official Gazette, Third Section, Government of the State of Nayarit, of the decision presented by Empresa Granjas Aquanova S.A. de C.V.	Grupo Ecológico Manglar (García Rodríguez, J. F.)	06/09/01

1. Information provided by Grupo Manglar, A.C.

No.	ID	DOCUMENT DATE mm/dd/yy	AUTHOR	DOCUMENT	PROVIDED TO SECRETARIAT BY	RECEIVED mm/dd/yy
6	IPGM	06/18/01	Grupo Ecológico Manglar (García Rodríguez, J.F.)	Letter from Grupo Ecológico Manglar to the Commission for Environmental Cooperation reiterating its interest in continuing with the process for the submission filed on 20 October 1998.	Grupo Ecológico Manglar (García Rodríguez, J. F.)	06/18/01
7	N/A	07/00/01	Greenpeace	REDMANGLAR publication, "Buscando aliados para defender nuestras costas."	COPLADEMUN (Silva Gámez, J.)	03/13/02
8	IPM-12	03/19/02	Semamat (Ojeda Cárdenas, O.)	Memorandum no. UCAI/1319/02 with 29 appendices and additional information within the jurisdiction of Profepa.	UCAI (Ojeda Cárdenas, O.)	04/04/02
9	IPM-1	06/22/01	Profepa (Campillo García, J.)	Memorandum no. PFFPA/324 issued by Profepa.	UCAI (Ojeda Cárdenas, O.)	04/04/02
10	IPM-1	06/20/01	Profepa (Campillo García, J.)	Information on the submission to the CEC by Grupo Ecológico Manglar, A.C. against the Granjas Aquanova shrimp farm.	UCAI (Ojeda Cárdenas, O.)	04/04/02

2. Information provided by Mexico, 4 April 2002.

No.	ID	DOCUMENT DATE mm/dd/yy	AUTHOR	DOCUMENT	PROVIDED TO SECRETARIAT BY	RECEIVED mm/dd/yy
11	IPM-1 IPA <sup>3</sup>	04/19/95	Profepa (Rivas Jiménez, E. and García Cayeros, L.)	Appendix 1. Inspection Report no. 95/010. Memorandum of Appointment no. UAT 95/007 issued by Semarnap, Profepa, Nayarit State Office, Auditing and Technical Support Section. Profepa conducted inspection visits in relation to environmental impact.	UCAI Granjas Aquanova (Ojeda Cárdenas, O. Suárez Torres, J.)	04/04/02; 07/09/02
12	IPM-1 IPA	04/20/02	Profepa (Rivas Jiménez, E. and García Cayeros, L.)	Appendix 2. Inspection Report no. 95/011. Memorandum of Appointment no. SVAT95/039 issued by Semarnap, Profepa, Nayarit State Office, Auditing and Technical Support Section.	UCAI Granjas Aquanova (Ojeda Cárdenas, O. Suárez Torres, J.)	04/04/02; 07/09/02
13	IPM-1	05/15/95	Profepa (Lomeli Madrigal, J.)	Appendix 3. Decision on irregularities detected in Inspection Reports nos. 95/010 and 95/011 and in the proceeding against Empresa Granjas Aquanova, S.A. de C.V.	UCAI (Ojeda Cárdenas, O.)	04/04/02
14	IPM-1 IPA	05/17/95	Profepa (Rivas Jiménez, E. and García Cayeros, L.)	Appendix 4. Inspection Report no. 016/95. Memorandum of Appointment no. UAT95/013 issued by Semarnap, Profepa, Nayarit State Office, Auditing and Technical Support Section to reinstate the proceeding.	UCAI Granjas Aquanova (Ojeda Cárdenas, O. Suárez Torres, J.)	04/04/02; 07/09/02

3. Information provided by Granjas Aquanova, S.A. de C.V.

No.	ID	DOCUMENT DATE mm/dd/yy	AUTHOR	DOCUMENT	PROVIDED TO SECRETARIAT BY	RECEIVED mm/dd/yy
15	IPM-1	08/16/95	Profepa (Lomeli Madrigal, J.)	Appendix 5. Decision no. 003. File no. 009/95 issued by Semamap. Profepa ordered Aquanova to take various measures and fined the company P \$100,000.00.	UCAI (Ojeda Cárdenas, O.)	04/04/02
16	IPM-1	09/06/95	Granjas Aquanova (Bacelis Esteva, R.)	Appendix 6. Appeal for review filed by Granjas Aquanova S.A. de C.V. against the Profepa decision of 16 August.	UCAI (Ojeda Cárdenas, O.)	04/04/02
17	IPM-1	12/05/97	Profepa (Yepez Barajas, S.)	Appendix 7. Administrative Proceeding no. 009/95. Implementation of decision of 6 January 1996. Profepa issued the final decision in the proceeding initiated on 16 August 1995.	UCAI (Ojeda Cárdenas, O.)	04/04/02
18	IPM-1 IPA	11/17/97	Profepa (Sánchez Rangel, A.)	Appendix 8. Inspection Report no. PFFA/SRN-DGVOE-18-012-214/97. Inspection Order no. PFFA/SRN DGVOE-979/97. Issued by Semamap, Profepa, Nayarit State Office.	UCAI Granjas Aquanova (Ojeda Cárdenas, O. Suárez Torres, J.)	04/04/02; 07/09/02
19	IPM-1 IPM-24 IPA	06/27/95	INE (Alvarez-Icaza Longoria, P.)	Appendix 9. Memorandum no. D.O.O. DGNA -2587. Reference to Memorandum D.O.O.P.-333 of 02/07/95. INE authorized the new facility plan and amended the conditions 14, 16 and 17.	UCAI Granjas Aquanova (Ojeda Cárdenas, O. Guzmán Sandoval, H. Suárez Torres, J.)	04/04/02; 04/29/02; 07/09/02

4. Information provided by Mexico, 29 April 2002.

No.	ID	DOCUMENT DATE mm/dd/yy	AUTHOR	DOCUMENT	PROVIDED TO SECRETARIAT BY	RECEIVED mm/dd/yy
20	IPM-1	07/27/95	Granjas Aquanova (Dominguez Moro, F.)	Appendix 10. Application of Mangrove Replanting Program by Granjas Aquanova, S.A. de C.V., Boca Cegada Unit.	UCAI (Ojeda Cárdenas, O.)	04/04/02
21	IPM-1 IPA	12/16/97	Profepa (Rivas Jiménez, E. and Garcia Cayeros, L.)	Appendix 11. Inspection Report no. IIA 000010- Inspection Order no. DPEPA-SRN-AIA. 97/020 and SRN-AF-97/168. Issued by Semarnap, Nayarit State Office, in which it detected obstruction of Los Olotos creek, mangrove mortality and inundation of the area.	UCAI Granjas Aquanova (Ojeda Cárdenas, O. Suárez Torres, J.)	04/04/02; 07/09/02
22	IPM-1	12/11/97	INE (Butrón Madrigal, L.)	Appendix 12. Memorandum no. D.O.O. DGOEIA- 07692. The Environmental Land Use Planning and Environmental Impact Branch approved the request by citizens to remove the obstruction on Los Olotos creek, given the high mangrove mortality in the area.	UCAI (Ojeda Cárdenas, O.)	04/04/02
23	IPM-1 IPA	03/30/98	Profepa Granjas Aquanova (Yépez Barajas, S. and Villaseñor López, M.)	Appendix 13. Administrative agreement between Granjas Aquanova and Profepa in the State of Nayarit which terminated the proceeding initiated further to the inspection of 16 December 1997.	UCAI Granjas Aquanova (Ojeda Cárdenas, O. Suárez Torres, J.)	04/04/02; 07/09/02

No.	ID	DOCUMENT DATE mm/dd/yy	AUTHOR	DOCUMENT	PROVIDED TO SECRETARIAT BY	RECEIVED mm/dd/yy
24	IPM-1 IPA	10/16/98	Profepa Granjas Aquanova (Yépez Barajas, S. and Villaseñor López, M.)	Appendix 14. Detailed report further to the administrative agreement between Granjas Aquanova and the Profepa Nayarit State Office.	UCAI Granjas Aquanova (Ojeda Cárdenas, O. Suárez Torres, J.)	04/04/02; 07/09/02
25	IPM-1	10/26/90	Fianzas Monterrey Aetna, S.A. (Infante Moreno, C.)	Appendix 15. Memorandum no. ES 529158. Surety bond.	UCAI (Ojeda Cárdenas, O.)	04/04/02
26	IPM-1	05/28/96	Semarnap Natural Resources Section (Aragón Morales, L.)	Appendix 16. Memorandum no. 261. SRN/96 relating to the request for authorization of land use change for Granja Camaronícola Aquanova-Boca Cegada Phase I issued by Semarnap federal office in Nayarit.	UCAI (Ojeda Cárdenas, O.)	04/04/02
27	IPM-1	06/21/96	Semarnap Natural Resources Section (Aragón Morales, L.)	Appendix 17. Memorandum no. 261. SRN/96 Technical study with supporting documents for land use change, Phases II and III at the site known as Boca Cegada. Municipality of San Blas.	UCAI (Ojeda Cárdenas, O.)	04/04/02



No.	ID	DOCUMENT DATE mm/dd/yy	AUTHOR	DOCUMENT	PROVIDED TO SECRETARIAT BY	RECEIVED mm/dd/yy
28	IPM-1	03/05/97	Semarnap Natural Resources Section (Aragón Morales, L.)	Appendix 18. Memorandum no. 261.SRN/97 Technical study with supporting documents for land use change, Phases II and III at the site known as Boca Cegada. The Natural Resources Section of the Nayarit office authorized Aquanova to carry out the land use change for phase II.	UCAI (Ojeda Cárdenas, O.)	04/04/02
29	IPM-1	05/19/97	Semarnap Natural Resources Section (Aragón Morales, L.)	Appendix 19. Memorandum no. 261/SRN/97 addendum to Memorandum issued by Semarnap Federal Office in Nayarit Natural Resources Section, authorizing the land use change for Phase III of the Aquanova Boca Cegada shrimp farming project.	UCAI (Ojeda Cárdenas, O.)	04/04/02
30	IPM-1 IPA	04/27/99	Granjas Aquanova (Dominguez Moro, F.)	Appendix 20. Memorandum no. PROFEPA-REP-070 with aerial photos of the facility, produced by Granjas Aquanova and delivered to the PROFEPA Nayarit State Office further to the administrative agreement and the operation of the project.	UCAI (Ojeda Cárdenas, O., Suárez Torres, J.)	04/04/02; 07/09/02
31	IPM-1	02/24/99	Granjas Aquanova (Dominguez Moro, F.)	Appendix 21. Memorandum DPRON-AR-071 Mangrove Restoration Program.	UCAI (Ojeda Cárdenas, O.)	04/04/02

No.	ID	DOCUMENT DATE mm/dd/yy	AUTHOR	DOCUMENT	PROVIDED TO SECRETARIAT BY	RECEIVED mm/dd/yy
32	IPM-1	01/04/00	Profepa (Valdivia López, R.)	Appendix 22. Memorandum PPFA/SRN/DGVOE/003/2000 by Profepa to Granjas Aquanova in relation to the Mangrove Restoration Program.	UCAI (Ojeda Cárdenas, O.)	04/04/02
33	IPM-1	01/14/00	Granjas Aquanova (Dominguez Moro, F.)	Appendix 23. Memorandum PPFA/SRN/DGVOE/003/2000. Aquanova filed with Profepa the first monitoring report in the Mangrove Res- toration Program (March-July 1999).	UCAI (Ojeda Cárdenas, O.)	04/04/02
34	IPM-1	10/26/00	Granjas Aquanova (Dominguez Moro, F.)	Appendix 24. Technical progress report on activities relating to the detailed report arising from the administrative agreement of 30 March 1998.	UCAI (Ojeda Cárdenas, O.)	04/04/02
35	IPM-1	06/08/01	Granjas Aquanova (Dominguez Moro, F.)	Appendix 25. Preliminary progress report on activities relating to the detailed report arising from the adminis- trative agreement of 30 March 1998.	UCAI (Ojeda Cárdenas, O.)	04/04/02
36	IPM-1 IPA	03/10/00	Profepa (Casanova Colunga, E.)	Appendix 26. Auditing Report no. VIA 003/2000. Auditing Order no. DPPFA.SRN.VIA 2000/002. Issued by the Semarnap Nayarit State Office to audit compliance with the Mangrove Restoration Program.	UCAI Granjas Aquanova (Ojeda Cárdenas, O. Suárez Torres, J.)	04/04/02; 07/09/02

No.	ID	DOCUMENT DATE mm/dd/yy	AUTHOR	DOCUMENT	PROVIDED TO SECRETARIAT BY	RECEIVED mm/dd/yy
37	IPM-1 IPA	05/11/01	Profepa (Valdivia Viera, Ma. and Adame Galván, J.)	Appendix 27. Auditing Report no. VIA 739/2001. Issued by the Semarnap Nayarit State Office to audit compliance with the Mangrove Restoration Pro- gram.	UCAI Granjas Aquanova (Ojeda Cárdenas, O. Suárez Torres, J.)	04/04/02; 07/09/02
38	IPM-1 IPA	12/22/99	Various	Appendix 28. Agreement between Granjas Aquanova S.A. de C.V., repre- sentatives of the Nayarit state govern- ment, Semarnap, Profepa, Grupo Manglar, state representatives and mem- bers of civil society.	UCAI Granjas Aquanova (Ojeda Cárdenas, O. Suárez Torres, J.)	04/04/02; 07/09/02
39	IPM-1 IPGM	05/24/01	Ministry of Planning State of Nayarit	Appendix 29. Minutes of the working meeting held at the offices of the Minis- try of Planning to review the stipulations of the agreement between Empresa Aquanova S.A. de C.V. and the state government.	UCAI (Ojeda Cárdenas, O.) Grupo Ecológico Manglar	04/04/02; 06/09/01
40	IPM-2	04/23/02	UCAI (Guzmán Sandoval, H.)	Memorandum UCAI/1796/02, includ- ing three appendices with additional comments by Profepa.	UCAI (Guzmán Sandoval, H.)	04/29/02
41	IPM-2	04/17/02	Profepa (Munguía Aldaraca, N.)	Memorandum no. OAI/176/02 issued by Profepa.	UCAI (Guzmán Sandoval, H.)	04/29/02

No.	ID	DOCUMENT DATE mm/dd/yy	AUTHOR	DOCUMENT	PROVIDED TO SECRETARIAT BY	RECEIVED mm/dd/yy
42	IPM-2	02/15/00	Profepa (Ibarra Cerecer, J.)	Appendix 2. Decision no. 169/2000. File no. 032/96. Profepa fined Aquanova P\$48,800.00 for failure to obtain a land use authorization and removal of man-groves as detected during the inspection of 22 January 1996.	UCAI (Guzmán Sandoval, H.)	04/29/02
43	IPM-2 IPA	01/07/02	Profepa (Gaytán Ráangel, S.; Córdova Ruelas, R. and Márquez Flores, G.)	Appendix 3. Concluding decision no. 020/01 I.A. 2001 by Profepa, Nayarit State Office, Legal Affairs Section.	UCAI Granjas Aquanova (Guzmán Sandoval, H. Suárez Torres, J.)	04/29/02; 07/09/02
44	IPM-3 <sup>5</sup>	04/26/02	UCAI (García Velasco, M.)	Memorandum no. UCAI/1853/02 with 5 appendices and additional comments by Semarnat Environmental Impact and Risk Branch.	UCAI (García Velasco, M.)	05/07/02
45	IPM-3	04/23/02	Semarnat (Juárez Palacios, J. R.)	Memorandum no. S.G.P.A.-DGIRA-001102 issued by the Office of the Deputy Minister of Management for Environmental Protection, Environmental Impact and Risk Branch.	UCAI (García Velasco, M.)	05/07/02

5. Information provided by Mexico, 7 May 2002.

No.	ID	DOCUMENT DATE mm/dd/yy	AUTHOR	DOCUMENT	PROVIDED TO SECRETARIAT BY	RECEIVED mm/dd/yy
46	IPM-3 IPA	02/07/95	Centro de Estudios del Sector Privado para el Desarrollo Sustentable (Quadri de la Torre, G.)	Appendix 1. Memorandum no. D.O.O.P. 0333. INE gave environmental impact authorization to Aquanova for Phase I of the project.	UCAI (García Velasco, M. Suárez Torres, J.)	05/07/02; 07/09/02
47	IPM-3	12/20/96	INE (Álvarez-Icaza Longoria, P.)	Appendix 2. D.O.O. DGOEIA 08160. INE granted an EIA for Phases II and III of the facility.	UCAI (García Velasco, M.)	05/07/02
48	IPM-3	06/25/96	INE (Álvarez-Icaza Longoria, P.)	Appendix 3. D.O.O. DGNA. 02783. INE authorization to land clearing, leveling and surveying necessary for Phase II.	UCAI (García Velasco, M.)	05/07/02
49	IPM-3	08/20/96	INE (Álvarez-Icaza Longoria, P.)	Appendix 4. D.O.O. DGOEIA - 04076. The Environmental Land Use Planning and Environmental Impact Branch revalidated the authorization to carry out Phase II of the Granjas Aquanova project.	UCAI (García Velasco, M.)	05/07/02
50	IPM-3	11/11/97	INE (Buitrón Madrigal, Ligia)	Appendix 5. Memorandum no. D.O.O.DGOEIA-07162 of INE, Environmental Land Use Planning and Environmental Impact Branch. Follow up to terms and conditions.	UCAI (García Velasco, M.)	05/07/02

No.	ID	DOCUMENT DATE mm/dd/yy	AUTHOR	DOCUMENT	PROVIDED TO SECRETARIAT BY	RECEIVED mm/dd/yy
51	Diagnóstico socio-ambiental <sup>6</sup>	06/24/02	Grupo Ecológico Manglar (García Rodríguez, J.F.)	Socio-environmental analysis of the estuarine and mangrove zone of the municipality of San Blas, Nayarit.	Grupo Ecológico Manglar (García, Juan F.)	06/28/02
52	IPGM	06/30/02	Grupo Ecológico Manglar (García Rodríguez, J.F. and Bernal, M.C.)	Document: Aquanova's environmental law violations, enforcement by the authorities and effectiveness of law enforcement.	Grupo Ecológico Manglar (García, Juan F.)	07/01/02
53	IPA	06/26/02	Granjas Aquanova (Suárez Torres, J.)	Response by Granjas Aquanova to the request for information for development of the factual record, including 36 appendices.	Granjas Aquanova (Suárez Torres, J.)	07/09/02
54	IPA	11/25/94	Granjas Aquanova (Bacelis Esteva, R.)	Appendix 1. Correspondence by Aquanova in re Environmental Impact Statement, Intermediate Form.	Granjas Aquanova (Suárez Torres, J.)	07/09/02
55	IPA	04/18/95	Granjas Aquanova	Appendix 3. Memorandum no. 333/95 by Aquanova to INE, in re Authorization 333/95.	Granjas Aquanova (Suárez Torres, J.)	07/09/02
56	IPA	04/19/95	Profepa (Lomeli Madrigal, J.)	Appendix 5. Inspection Order, Memorandum no. SVAT.95/039 issued by Semarnap, Profepa, Nayarit State Office, Auditing and Technical Support Section.	Granjas Aquanova (Suárez Torres, J.)	07/09/02

6. Socio-environmental analysis of the estuarine and mangrove zone of the municipality of San Blas, Nayarit, 2001.

No.	ID	DOCUMENT DATE mm/dd/yy	AUTHOR	DOCUMENT	PROVIDED TO SECRETARIAT BY	RECEIVED mm/dd/yy
57	IPA	05/08/95	Profepa (Lomeli Madrigal, J.)	Appendix 9. Inspection Order, Memorandum no. UAT.95/011 issued by Semarnap, Profepa, Nayarit State Office, Auditing and Technical Support Section.	Granjas Aquanova (Suárez Torres, J.)	07/09/02
58	IPA	04/25/95	Profepa (Lomeli Madrigal, J.)	Appendix 10. File 009/95. Results of inspection visit and summons issued by Semarnap, Profepa, Nayarit State Office, Auditing and Technical Support Section. Profepa ordered Aquanova to suspend its amassing and burning of vegetation.	Granjas Aquanova (Suárez Torres, J.)	07/09/02
59	IPA	05/16/95	Profepa (Lomeli Madrigal, J.)	Appendix 11. Notice of inspection visit. Memorandum no. UAT.95/013 issued by Semarnap, Profepa, Nayarit State Office, Auditing and Technical Support Section.	Granjas Aquanova (Suárez Torres, J.)	07/09/02
60	IPA	02/18/98	Profepa (García Cayeros, L.)	Appendix 15. Inspection Order no. DPPFA.SRN.AIA. 98/002. Issued by Semarnap, Nayarit State Office. Found that Aquanova had removed the obstruction on Los Olotes.	Granjas Aquanova (Suárez Torres, J.)	07/09/02
61	IPA	05/16/99	Profepa (Rivas Jiménez, E. and Delgado Rodríguez, P.)	Appendix 16. Inspection Report no. IIA 007/99. Inspection Order no. DPPFA.SRN.AIA.99/010. Issued by Semarnap, Nayarit State Office.	Granjas Aquanova (Suárez Torres, J.)	07/09/02

No.	ID	DOCUMENT DATE mm/dd/yy	AUTHOR	DOCUMENT	PROVIDED TO SECRETARIAT BY	RECEIVED mm/dd/yy
62	IPA	05/10/01	Profepa (Valdivia Viera, Ma. and Adame Galván, J.)	Appendix 18. Auditing Order no. SAA.2001/022 issued by Profepa, Nayarit State Office.	Granjas Aquanova (Suárez Torres, J.)	07/09/02
63	IPA	04/28/02	Profepa (Ibarra Cerecer, J.)	Appendix 19. Decision 454 issued by Profepa, Legal Affairs Unit to audit areas subject to implementation of the Mangrove Restoration Program arising from the administrative agreement between Granjas Aquanova and Profepa.	Granjas Aquanova (Suárez Torres, J.)	07/09/02
64	IPA	06/20/02	Profepa (Gaytán Rángel, S. and Casanova Colunga, E.)	Appendix 20. Auditing Report no. SIV. 2002/405 issued by Profepa, Nayarit State Office, Inspection and Monitoring Section.	Granjas Aquanova (Suárez Torres, J.)	07/09/02
65	IPA	06/24/98	UNAM (Flores Verdugo, <sup>7</sup> F.)	Appendix 23. Report of Environmental Impact on Mangrove Ecosystems of the Boca Cegada, San Blas (Nayarit) region.	Granjas Aquanova (Suárez Torres, J.)	07/09/02
66	IPA	03/23/98	Lewis Environmental Services, Inc. (Robinson Lewis, <sup>8</sup> Roy)	Appendix 24. Final report of Dr. Lewis on the impact of the Granjas Aquanova S.A. de C.V. project on mangroves.	Granjas Aquanova (Suárez Torres, J.)	07/09/02

7. Dr. Francisco Flores Verdugo, Environmental Impact Report on Mangrove Ecosystems of the Boca Cegada, San Blas (Nayarit) area, 24 June 1998.

8. Dr. Roy R. Robinson Lewis, letter of 23 March 1998, concerning recent inspection of San Blas, Nayarit site.



No.	ID	DOCUMENT DATE mm/dd/yy	AUTHOR	DOCUMENT	PROVIDED TO SECRETARIAT BY	RECEIVED mm/dd/yy
67	IPA	04/24/98	National Water Commission (Nava Salcedo, J.)	Appendix 26. Memorandum no. BOO.E.33.1.0295. Response of the National Water Commission, Nayarit State Office to Granjas Aquanova, S.A. de C.V. on the use of marine waters.	Granjas Aquanova (Suárez Torres, J.)	07/09/02
68	IPA	02/20/98	BANAMEX	Appendix 27. Declaration of payment of water fees and fees for use and enjoyment of national property.	Granjas Aquanova (Suárez Torres, J.)	07/09/02
69	IPA	11/06/98	National Water Commission (Gangoiti Ruiz, E.)	Appendix 28. Concession Title no. 08NAY104898/13BKGE98 to Granjas Aquanova S.A. de C.V., registry no. 08NAY101319 for wastewater discharge.	Granjas Aquanova (Suárez Torres, J.)	07/09/02
70	IPA	N/A	N/A	Appendix 29. Aerial photograph indicating the position of the creeks and lagoons mentioned in the Submission as well as a photograph showing the current location of the facility.	Granjas Aquanova (Suárez Torres, J.)	07/09/02
71	IPA	05/18/95	INE (Alvarez Icaza Longoria, P.)	Appendix 30. Plans authorized by INE for construction of the Boca Cegada facility.	Granjas Aquanova (Suárez Torres, J.)	07/09/02
72	IPA	11/28/96	Laboratorios Clínicos Quezada	Appendix 32. Clinical water quality test results by Granjas Aquanova (1996–2001)	Granjas Aquanova (Suárez Torres, J.)	07/09/02

No.	ID	DOCUMENT DATE mm/dd/yy	AUTHOR	DOCUMENT	PROVIDED TO SECRETARIAT BY	RECEIVED mm/dd/yy
73	IPA IPM-4 <sup>9</sup>	05/18/01	Granjas Aquanova (Martínez Ramírez, J.)	Appendix 33. Memorandum no. CNA-DER-001/01 to National Water Commission. Quarterly and annual declarations of fees for use or enjoyment of public property pursuant to the Federal Water Duties Law.	UCAI (Suárez Torres, J. García Velasco, M.)	07/09/02; 07/22/02
76	IPA	07/10/01	Universidad Autónoma de Nuevo León (Galaviz Silva, L.)	Appendix 36. Folio no. 0160/2001 Certificates of test results for white spot syndrome virus (WSSV), Taura syndrome virus (TSV) and yellowhead virus (YHV) in accordance with the Emergency Mexican Official Standard, conducted by Universidad de Nuevo León.	Granjas Aquanova (Suárez Torres, J.)	07/09/02
77	IPM-4	07/09/02	UCAI (García Velasco, M.)	Memorandum no. UCAI/3139/02 with 5 appendices delivered to Semamat UCAI with additional information by the National Water Commission.	UCAI (García Velasco, M.)	07/22/02
78	IPM-4	03/30/01	AgroLab (Santiago Hernández, E.B.)	Appendix 2. Soil analysis.	UCAI (García Velasco, M.)	07/22/02

9. Information provided by Mexico 22 July 2002.

No.	ID	DOCUMENT DATE mm/dd/yy	AUTHOR	DOCUMENT	PROVIDED TO SECRETARIAT BY	RECEIVED mm/dd/yy
79	IPM-4	1997-2001	N/A	Appendix 3. Discharge volume analysis, 1997-2001. Analysis method. Operating time of metered supply pumps. Average flow through supply pump per hour.	UCAI (García Velasco, M.)	07/22/02
80	IPM-4	1997-2001	N/A	Appendix 4. Hours of operation of pumping equipment.	UCAI (García Velasco, M.)	07/22/02
81	IPM-4	06/03/99	Several authors (Rico Angulo, R. and Orozco Mata, J.L.)	Appendix 5.A. Note (tests of pumps in sump).	UCAI (García Velasco, M.)	07/22/02
82	IPM-4	07/04/02	National Water Commission (Mendoza Vera, B. A.)	Appendix 5.B. Memorandum no. BOO.00.02.02.1, registry nos. 5317 and 5465, file no. 02-0699 of the National Water Commission, Legal Affairs Unit, Civil Processes Office. Follow up to Sub-mission SEM-98-006 and Response of the Party by the National Water Commission.	UCAI (García Velasco, M.)	07/22/02
83	IPM-4	04/30/01	National Water Commission (García Mayén, R.)	Appendix 5.B.1. Memorandum no. BOO.OO.R.09.04.4/0298.1707, issued by National Water Commission, Santiago Pacifico Regional Office, Water Administration Section. Inspection visit.	UCAI (García Velasco, M.)	07/22/02

No.	ID	DOCUMENT DATE mm/dd/yy	AUTHOR	DOCUMENT	PROVIDED TO SECRETARIAT BY	RECEIVED mm/dd/yy
84	IPM-4	05/02/01	National Water Commission (Marrujo López, J.)	Appendix 5.B.2. Official notice by National Water Commission of inspection visit to verify compliance with the National Waters Law and its regulation.	UCAI (García Velasco, M.)	07/22/02
85	IPM-4	05/02/01	Comisión Nacional del Agua (Marrujo López, J. and Villalvazo Peña, P.)	Appendix 5.B.2.1. Report of inspection visit no. 003/2001, 14 pages, issued by the National Water Commission, Nayarit State Office.	UCAI (García Velasco, M.)	07/22/02
86	IPM-4	05/18/01	Granjas Aquanova (Martínez Ramírez, J.)	Appendix 5.B.3. Memorandum CNA-REP-003/2001 by Aquanova to National Water Commission. Report on wastewater discharge.	UCAI (García Velasco, M.)	07/22/02
87	IPM-4	05/15/01	Granjas Aquanova (Sequeira, V.M.)	Appendix 5.B.3.1 Aquanova memorandum with information on pump flow volume at sump.	UCAI (García Velasco, M.)	07/22/02
88	IPM-4	04/30/01	National Water Commission (García Mayén, R.)	Appendix 5.B.4. Memorandum no. BOO.OO.R.09.04.4/0299.1706 of National Water Commission, Santiago Pacifico Regional Office, Water Administration Section. Inspection visit to Granjas Aquanova, S.A. de C.V facilities.	UCAI (García Velasco, M.)	07/22/02

No.	ID	DOCUMENT DATE mm/dd/yy	AUTHOR	DOCUMENT	PROVIDED TO SECRETARIAT BY	RECEIVED mm/dd/yy
89	Opinión técnica de H. Licón <sup>10</sup>	09/06/02	Licón González, H.	Technical opinion on conditions of operation, impacts, and remediation actions of Aquanova, S.A. de C.V., Boca Cegada Unit, San Blas, Nayarit, Mexico.	Licón González, H.	09/06/02
90	IPM-511	12/02/02	Semarnat (García Velasco, M.)	Memorandum UCAI/5419/02 with 7 appendices relating to environmental impact statements filed by Granjas Aquanova, S.A. de C.V., provided by Semarnat.	UCAI (García Velasco, M.)	12/19/02
91	IPM-5	09/00/96	Asesores en Biología Pesquera, S.A. de C.V.	Appendix 1. Environmental Impact Statement, Intermediate Form, for Granjas Aquanova—Boca Cegada project, Phases II and III.	UCAI (García Velasco, M.)	12/19/02
92	IPM-5	04/00/96	Asesores en Biología Pesquera, S.A. de C.V.	Appendix 2. Executive summary: Analysis of critical points of the Environmental Impact Statement, Intermediate Form, Granjas Aquanova—Boca Cegada, Phases II and III.	UCAI (García Velasco, M.)	12/19/02

10. Technical opinion on conditions of operation, impacts and remediation actions by Aquanova, S.A. de C.V., Boca Cegada Unit, San Blas, Nayarit, Mexico, summer 2002.

11. Information provided by Mexico, 19 December 2002.

No.	ID	DOCUMENT DATE mm/dd/yy	AUTHOR	DOCUMENT	PROVIDED TO SECRETARIAT BY	RECEIVED mm/dd/yy
93	IPM-5	03/31/95	Asesores en Biología Pesquera, S.A. de C.V.	Appendix 3. General timeline of mitigation measures proposed in environmental impact statement, Phase I. Empresa Aquanova, S.A. de C.V.	UCAI (García Velasco, M.)	12/19/02
94	IPM-5	05/00/95	Asesores en Biología Pesquera, S.A. de C.V.	Appendix 4. Comments on conditions established by INE for analysis, assessment and report on Environment Impact Statement, Intermediate Form, Granjas Aquanova—Boca Cegada project.	UCAI (García Velasco, M.)	12/19/02
95	IPM-5	05/00/95	Asesores en Biología Pesquera, S.A. de C.V.	Appendix 5. Calculation of area cleared and classification of vegetation in area of Granjas Aquanova—Boca Cegada project, Phase I.	UCAI (García Velasco, M.)	12/19/02
96	IPM-5	03/00/97	Aquanova S.A. de C.V.	Appendix 6. Discharge canal project, Phases II and III.	UCAI (García Velasco, M.)	12/19/02
97	IPM-5	02/27/97	Aquanova S.A. de C.V.	Appendix 7. Memorandum INE-SMCO8160-025 of 27 February 1997 to Pedro Álvarez-Icaza Longoria, then Director of Environmental Land Use Planning and Environmental Impact for INE, requesting review of the terms and conditions of the environment impact authorization for Phases II and III.	UCAI (García Velasco, M.)	12/19/02

## **Appendix 7**

**Information to be gathered / developed by  
the Secretariat directly and through  
independent experts**





## Information to be gathered/developed by the Secretariat directly and through independent experts<sup>1</sup>

### Factual Record for the Aquanova Submission 19 February 2002

For the development of the factual record on submission SEM-98-006, the CEC Secretariat is compiling information pertaining to Mexico's alleged failure to effectively enforce its environmental laws with respect to Granjas Aquanova, in San Blas, Nayarit, Mexico. The Secretariat is seeking to compile technical, scientific or other information on the state of natural resources in the area where Granjas Aquanova operates, which is available in existing databases, public files, information centers, libraries, research centers and academic institutions.<sup>2</sup>

In particular, information is required on the following points:

1. Description of the area where Granjas Aquanova's activities are undertaken, particularly its environmental situation, water quality, the state of wetlands and the state of protected species' habitat.
2. Description of the effects of Granjas Aquanova's alleged violations of the environmental laws on the state of wetlands and the state of the habitat of protected species in the area.
3. Description of the effects on fishing resources and on fishing activities in the area where the company is located, because of the allegedly unauthorized introduction of new species.
4. Description of the effects on water quality and mangrove health, due to the allegedly unauthorized discharge of wastewater.
5. Indication as to whether mangroves have been planted in the area since 1995 (an action that was claimed to have been undertaken as a corrective measure).<sup>3</sup>

---

1. Draft subject to change.

2. The overall work plan and the corresponding information request, issued by the Secretariat for the development of this factual record, provide more information on the background for this matter. These documents are available at <[http://www.cec.org/citizen/guides\\_registry/registryview.cfm?varlan=espanol&submissionID=49](http://www.cec.org/citizen/guides_registry/registryview.cfm?varlan=espanol&submissionID=49)>.

3. According to Mexico's response, the project filed by Granjas Aquanova for environmental impact assessment consisted of three phases. The National Institute of Ecology (*Instituto Nacional de Ecología*—INE) granted an environmental impact authorization for the first phase on 7 February 1995, establishing 43 conditions. In inspections performed in 1995, irregularities were found in Granjas Aquanova's compliance with the terms of that authorization, but Mexico asserts that a program to correct the negative impacts was undertaken—apparently a mangrove planting program.

6. Information indicating whether the activities carried on by Granjas Aquanova implied a change of land use in the habitat of protected species.<sup>4</sup>
7. Description of the state of the La Tronconuda, La Atascona, Los Olotes and La Cegada streams, which according to the submission were improperly obstructed by Granjas Aquanova.
8. Description of the shrimp species introduced by Granjas Aquanova, and an indication of whether it produces viral epidemics.
9. Information on fishery production in the area where Granjas Aquanova operates, and on whether it has decreased or increased by reason of Granjas Aquanova's operations.<sup>5</sup>

---

4. The submission and Mexico's response agree that the activities of Granjas Aquanova were undertaken in the habitat of species protected under NOM-059-ECOL-1994.

5. In April 1999, the Aquaculture Bureau of the Secretariat of Environment, Natural Resources and Fisheries (*Secretaría de Medio Ambiente, Recursos Naturales y Pesca*—Semarnap) reported that production had increased.

## **Appendix 8**

**Species Listed in NOM-059-ECOL-1994,  
found in the Aquanova Area**



The following species included in Mexican Official Standard NOM-059-ECOL-1994, were found in the Aquanova area, according to a study prepared for Aquanova by SIAFASE in 1997. Based on this study, Aquanova replaced the Fauna Rescue Plan by the “Wildlife Program for Granja AquaNova, Boca Cegada Facility, Municipality of San Blas, Nay.,” in compliance with its environmental impact authorization of 20 August 1996 (IPM-3, annex 4).

CLASS	SCIENTIFIC NAME	COMMON NAME	NOM-059-ECOL-1994
<i>Reptiles</i>			
	<i>Iguana iguana</i>	Iguana	Pr
	<i>Cnemidophorus lineatissimus</i>	Many-lined whiptail	R, En
	<i>Boa constrictor</i>	Boa	E
	<i>Lampropeltis triangulum</i>	Milk snake	E
	<i>Leptodeira maculata</i>	Southwestern cat-eyed snake	R, En
	<i>Leptophis diplotropis</i>	Pacific coast parrot snake	E, En
	<i>Crotalus basiliscus</i>	Mexican West Coast rattlesnake	Pr, En
	<i>Kinosternon integrum</i>	Mexican mud turtle	Pr
<i>Birds</i>			
	<i>Ardea herodias</i>	Great blue heron	R
	<i>Mycteria americana</i>	Wood stork	E
	<i>Anas discors</i>	Blue-winged teal	Pr
	<i>Aythya affinis</i>	Lesser scaup	Pr
	<i>Chondrohierax uncinatus</i>	Hook-billed kite	R
	<i>Circus cyaneus</i>	Hen harrier	E
	<i>Accipiter cooperii</i>	Cooper’s hawk	E
	<i>Geranozypiza caerulescens</i>	Crane hawk	E
	<i>Buteogallus anthracinus</i>	Common black hawk	E
	<i>Buteogallus urubitinga</i>	Great black hawk	E
	<i>Parabuteo unicinctus</i>	Harris hawk	E
	<i>Buteo nitidus</i>	Gray hawk	Pr
	<i>Falco peregrinus</i>	Peregrine falcon	E
	<i>Otus guatemalae</i>	Vermiculated screech owl	R

CLASS	SCIENTIFIC NAME	COMMON NAME	NOM-059-ECOL-1994
Birds			
	<i>Glaucidium minutissimum</i>	Least pygmy owl	R
	<i>Glaucidium brasilianum</i>	Ferruginous pygmy owl	E
	<i>Asio flammeus</i>	Short-eared owl	E
	<i>Campephilus guatemalensis</i>	Pale-billed woodpecker	R
	<i>Melanotis caerulescens</i>	Blue mockingbird	E, En
	<i>Seiurus noveboracensis</i>	Northern waterthrush	R
Mammals			
	<i>Felis yagouaroundi</i>	Jaguarundi	E

E = Endangered  
 R = Rare  
 Pr = Special protection  
 En = Endemic

## **Appendix 9**

### **Summary of Actions by Mexican Authorities with Respect to Granjas Aquanova**





Act of authority	Date	Description of violations detected	Provision of reference	Sanctions or actions imposed on Aquanova
Conditional environmental impact authorization, first phase, by means of document no. DOOP-0333; issued by INE [Mexico's Response, ("RSP"/), p. 3 and Appendix 1].	7 February 1995	N/A.	LGEEPA; 28, 29 and 34. R-Impact <sup>1</sup> 5 and 20.	43 conditions, including: 14) prohibition on establishing auxiliary camps; 16) preserve the entirety of the mangrove vegetation and carry out a replanting program; 17) identify and mark the mangrove specimens that could be relocated.
Inspection visits, reports no. 95/010 and 95/011; ordered by PROFEPA [information provided by Mexico ("IPM-1"), p. 1 and Appendices 1 and 2]. Resolution (no ref.); issued by PROFEPA [information provided by Aquanova ("IPA") Appendix 10].	19, 20 and 25 April 1995	Noncompliance with conditions 14, 16 and 17 set out in authorization D.O.O. P-0333 of 7 February 1995, detecting the presence of camps and auxiliary facilities, the felling and burning of mangroves, and the failure to relocate mangroves where possible.	R-Impact, 20, last paragraph. Conditions established in authorization no. DOOP-0333.	Ordered the suspension of felling and burning of the existing vegetation in the area and the suspension of construction of auxiliary facilities in the project area.
Report of inspection visit (no ref.); ordered by PROFEPA (IPA Appendix 9).	9 May 1995	None found.	N/A.	Verified compliance with the order contained in the document of April 25.
Decision (no ref.). Inspection visit, report no. 016/95. Decision document no. 003. Issued by PROFEPA (RSP, p. 4 and IPM-1, pp. 1-2 and Appendices 3-5).	15 and 17 May and 16 August 1995	Irregularities were detected in the procedures of 19 and 20 April 1995, and therefore a new proceeding was instituted and a new inspection visit was ordered. On that visit, in addition to confirming the irregularities indicated in the document of April 25, the authorities detected the failure to mark mangrove specimens for relocation.	R-Impact, 20 last paragraph. Conditions established in the environmental impact assessment of 7 February 1995.	<ul style="list-style-type: none"> <li>removal of auxiliary camp located within the project area,</li> <li>replanting of black mangrove (<i>Avicennia nitida</i>) in various areas of the camp;</li> <li>implementation of planting and reforestation programs;</li> <li>payment of a fine of P\$100,000.00.</li> </ul>

1. LGEEPA Environmental Impact Regulation, DOF, 7 June 1988; repealed 30 May 2000.

Act of authority	Date	Description of violations detected	Provision of reference	Sanctions or actions imposed on Aquanova
Amendment of various conditions by means of document no. D00DGNMA-2587; issued by INE (IPA, Appendix 4).	27 June 1995	N/A.	Ensuing from authorization of 7 February 1995.	Approval given to increase capacity of sump to 13,750 m <sup>3</sup> and amendment of the following conditions of the authorization of 7 February 1995: 1, 2, 3, 5, 11, 13, 14, 16, 20, 23, 24, 28, 41 and 43. Notably conditions 14, authorizing the installation of auxiliary structures, and 16, authorizing the removal of vegetation.
Administrative decision (IPME-1, p. 2) (No copy of this decision was provided).	6 January 1996	Annulled administrative decision no. 003 of 16 August 1995.	LFPA <sup>2</sup> 91-III.	Ordered that a new decision be issued justifying the sanctions imposed on Aquanova.
Inspection visit report (no ref.) (RSP, p. 20) (No copy of this report was provided).	22 January 1996	Forestry-related irregularities due to the lack of an authorization for land use changes and mangrove removal.	LF <sup>3</sup> 11 and 12.	Suspension of work.
Intervention in work; ordered by PROFEIPA (IPME-2, Appendix 16, p. 1, paragraph 3).	22 February 1996	Lack of relevant authorization. (No documentary information in this regard; presumably arises from the preceding inspection visit).	Not indicated.	Suspension of work.
Authorization to build wastewater discharge canal by means of document no. D00DGNMA-01499; issued by INE (RSP, p. 12 and Appendix 16).	22 March 1996	N/A.	Ensuing from authorization of 7 February 1995.	Various conditions imposed on the performance of the work, including: <ul style="list-style-type: none"> <li>• File a wastewater quality monitoring program.</li> <li>• File a study of the impact of wastewater discharge on the wildlife in La Tronconuda marsh.</li> <li>• Adhere to the maximum contaminant limits for the discharge.</li> </ul>

2. Federal Administrative Procedure Law, DOF, 4 August 1994.
3. Forestry Law, DOF, 17 December 1992.

Act of authority	Date	Description of violations detected	Provision of reference	Sanctions or actions imposed on Aquanova
Land use change authorization by means of document no. 261-SRN.96/1431; issued by Nayarit state Semarnap office (RSP, p. 5 and Appendix 6)	21 June 1996	N/A.	LF 19, RLF, 419, 20, 21 and 22.	Various conditions imposed, notably, to preserve the entirety of the riverine (mangrove) vegetation.
Authorization to clear, level, and survey by means of document no. DOODGNA-02783; issued by INE (RSP, p. 4 and Appendix 2).	25 June 1996	N/A.	LGEEPA 28, 29 and 34. R-Impact, 5 and 20.	Various conditions imposed, including: <ul style="list-style-type: none"> <li>• Prohibition on removing young or old mangroves.</li> <li>• Prohibition on blocking water flow in the creek adjacent to Isla del Rey.</li> <li>• File a salvage plan for flora and fauna and a restoration and reforestation program for nonproductive areas.</li> </ul>
Favorable preliminary evaluation on land use change. Document no. 261-SMA. 96/107; issued by Nayarit state Semarnap office (RSP, p. 5 and Appendix 7)	8 July 1996	N/A.	LF 19, RLF, 19, 20, 21 and 22.	Prohibited: <ul style="list-style-type: none"> <li>• Blocking water flow in the creek adjacent to Isla del Rey.</li> <li>• Interrupting the unimpeded land access to Isla del Rey.</li> </ul>
Authorization to clear and level 10 ha of mangrove forest by means of document no. DOODGEIA-04076; issued by INE (IPM-3, Appendix 4).	20 August 1996	N/A.	Related to authorization of 25 June 1996.	Established various conditions, including: <ul style="list-style-type: none"> <li>• Prohibition on impacting old-growth riverine mangrove forest.</li> <li>• Prohibition on blocking water flow in the creek adjacent to Isla del Rey.</li> <li>• Requirement to provide additional information on fauna salvage plan.</li> <li>• Requirement to file the restoration and reforestation program for nonproductive areas.</li> </ul>

4. Regulations to the Forestry Law, DOF, 21 February 1994; repealed 25 September 1998.

Act of authority	Date	Description of violations detected	Provision of reference	Sanctions or actions imposed on Aquanova
Environmental impact authorization, phases II and III, by means of document no. DOODGOEIA-08160; issued by INE (RSP, p. 4 and Appendix 3).	20 December 1996	N/A.	LGEEPA 28, 29 and 34. R-Impact 5 and 20.	Established 49 conditions, including: <ul style="list-style-type: none"> <li>• Prohibition on impacting the creek adjacent to Isla del Rey.</li> <li>• Maintenance of 1,675 ha of mangrove forest.</li> <li>• Guaranteeing free access to Isla del Rey.</li> <li>• Identification and marking of healthiest specimens for relocation.</li> <li>• Compliance with the applicable law on wastewater quality.</li> </ul>
Land use change authorization by means of documents nos. 261/SRN/97-0359 and 261/SRN/97-1233; issued by the Nayarit state Semarnap office (RSP, p. 6 and Appendices 8 and 9).	5 March and 19 May 1997	N/A.	LF 19. RLF 19, 20, 21 and 22.	Various conditions imposed, notably, to reserve the entirety of the unauthorized vegetation.
Authorization for ocean discharge canal, phases II and III by means of document no. DOODGOEIA-02187; issued by INE (RSP, p. 4 and Appendix 4).	15 April 1997	N/A.	LGEEPA 28, 30 and 35. R-Impact 20.	Established 15 conditions, including: <ul style="list-style-type: none"> <li>• Prohibition on blocking or affecting the creeks outside the discharge canal.</li> <li>• Salvage of mangroves for replanting.</li> <li>• Performing the work necessary to mitigate the negative environmental impact.</li> </ul>
Inspection visit, report no. PFPA/SRN-DGVOE-18-012-214/97; ordered by PROFEPA (IPM-1, p. 2 and Appendix 8).	17 November 1997	None found. Verified compliance with the technical corrective measures ordered in the decision of 16 August 1995.	N/A.	Two of the measures in document no. DOODGNA-2587 of 27 June 1995 were annulled (removal of auxiliary camp and replanting of the number of mangroves originally ordered).
Final decision (no ref.); issued by PROFEPA (RSP, p. 21 and IPM-1, p. 2 and Appendix 7).	5 December 1997	This decision makes effective the decision of 6 January 1996.	R-Impact 20, last paragraph. Conditions 14, 16 and 17 of authorization no. DOOP-0333.	Aquanova fined P\$29,095.00.

Act of authority	Date	Description of violations detected	Provision of reference	Sanctions or actions imposed on Aquanova
Document no. DOODGOEIA-07162; issued by INE (IPM-3, 7/05/02, Appendix 5).	11 November 1997	N/A.	Related to authorization of 20 December 1996.	Followed up on the conditions of the authorization of 20 December 1996. Compliance with some is noted (actions to prevent mixing of the discharge with the creek adjacent to Isla del Rey, La Diabla and El Rey inlet; conservation and protection area; construction of weir around La Tronconuda Marsh to use area as settling lagoon); authorized amendment of others (the area of riverine mangrove forest in the conservation area is reduced from 1,675 to 1,580 ha), and it is noted that compliance with other conditions is pending (land use change authorization; 50 ha buffer zone between ponds and agricultural zone).
Document no. DOODGOEIA-07692; issued by INE (RSP, p. 10 and IPM-1, p. 3 and Appendix 12).	11 December 1997	Black mangrove ( <i>A. germinans</i> ) mortality detected in Los Olotes creek.	Not indicated.	Aquanova was ordered to remove the obstruction between its discharge canal and Los Olotes creek.
Inspection visit, report no. IIA 000010; ordered by PROFEPA (RSP, p. 10 and IPM-1, p. 3 and Appendix 11).	16 December 1997	Detection of noncompliance with the conditions set out in authorization of 20 December 1996, as well as the measures ordered in the document of 11 December 1997. Detection of impact on 20 ha of mangrove vegetation in Los Olotes and La Diabla creeks.	Not indicated.	Administrative proceeding instituted by means of summons (no copy was provided).
Inspection visit, report no. IIA 00002/98; ordered by PROFEPA (RSP, p. 13 and IPA Appendix 15).	18 February 1998	None found. Noted compliance with document no. DOODGOEIA-07692, of 11 December 1997.	N/A.	No sanctions or measures applied.
Administrative agreement between PROFEPA and Aquanova (RSP, p. 23 and IPM-1, p. 3 and Appendix 13).	30 March 1998	N/A. This agreement terminated the administrative proceeding instituted further to the inspection visit of 16 December 1997.	LFPA 57-VI.	Creation of a committee of experts to determine the degree of responsibility of Aquanova for the harm suffered by the mangrove forest along the Los Olotes and La Diabla creeks.

Act of authority	Date	Description of violations detected	Provision of reference	Sanctions or actions imposed on Aquanova
Opening of file no. DGMPE/C/1.3/039/98; document no. 99/2000 (IPM-I, pp. 5 and 6) (No copy was provided of the file or the subsequent document indicating that criminal prosecution was inapplicable).	4 September 1998 and 16 March 2000	Criminal proceeding brought against Aquanova.	CPF <sup>5</sup> 416-II	Determined that criminal prosecution was inapplicable "since one element of the <i>corpus delicti</i> was missing; to wit, the normative element of the absence of the relevant authorization."
Concession to grow and harvest blue and white shrimp; issued by Semarnap (IPA, Appendix 35).	28 September 1998	N/A.	LP <sup>6</sup> 3, 24, RLP <sup>7</sup> 44, 50.	The concession prohibits: <ul style="list-style-type: none"> <li>- Altering natural spawning, rearing and refuge areas for any species, particularly mangrove forest.</li> <li>- Dumping of materials or substances that harm aquatic flora and fauna.</li> <li>- Culturing, extracting, or catching marine species not authorized in the concession.</li> </ul>
Detailed report ensuing from administrative agreement of 30 March 1998 (IPM-I, p. 3 and Appendix 14).	16 October 1998	The committee of experts determined that Aquanova is partially responsible for the impact on mangroves in Los Olotes and La Diabla creeks.	Not indicated.	The following remediation measures were agreed upon: <ul style="list-style-type: none"> <li>- Restore the free flow of water in these creeks.</li> <li>- Carry out a restoration program and monitor recovery of the area for nine years.</li> <li>- Contribute P\$50,000.00 for mangrove preservation actions.</li> <li>- Post a bond in an amount of P\$1,000,000.00 to guarantee performance of the agreement and the recommendations contained in the report.</li> </ul>
Wastewater discharge permit no. 08NAY104898/13RGE98; issued by CNA (IPA Appendix 28).	6 November 1998	N/A.	Articles establishing jurisdiction over issuance of the document.	Established particular conditions of discharge, additional to compliance with NOM-001-ECOL-1996.

5. Federal Criminal Code; DOF, 14 August 1931.

6. Fisheries Law, DOF, 25 June 1992.

7. Regulations to the Fisheries Law, DOF, 27 July 1992; repealed 29 September 1999.

Act of authority	Date	Description of violations detected	Provision of reference	Sanctions or actions imposed on Aquanova
Inspection visit, report no. IIA0007/99; ordered by PROFEPA (IPA Appendix 16).	21 May 1999	Did not exhibit authorization to carry out dredging.	Not indicated.	Recommended suspension of dredging until relevant authorization filed.
Agreement between representatives of the government of Navarín, Aquanova, Semarnap, PROFEPA, state elected officials, and members of civil society. (IPM-1, p. 5 and Appendix 28).	22 December 1999	N/A.	N/A.	Aquanova made the following undertakings: <ul style="list-style-type: none"> <li>- Limit future growth of phase III.</li> <li>- Allow fishing in the southeast discharge canal.</li> <li>- Allow grazing on Isla del Rey.</li> <li>- Implement material urban improvement programs in neighboring communities.</li> </ul>
Decision no. 169/2000, Ex' p.no. 032/96, forest area 1996; issued by PROFEPA (IPM-2, Appendix 2).	15 February 2000	Forestry-related irregularities due to lack of land use authorization and removal of 3.5 ha of mangrove forest, detected during inspection of 22 January 1996.	LF 46	Fine of P\$48,800.00 (2000 times daily minimum wage).
Inspection visit, report no. VIA 003/2000 (IPM-1, p. 5 and Appendix 26); ordered by PROFEPA.	10 March 2000	None found. Verified compliance with the mangrove restoration program agreed upon in the administrative agreement of 30 March 1998.	N/A.	No sanctions or measures imposed.
Inspection visit no. 003/2001; ordered by CNA (IPM-4).	2 May 2001	No discharge measurement apparatus detected, therefore assuming that there was no discharge monitoring.	N/A.	Following the response and the evidence presented by Aquanova (analysis and measurement results), no sanctions or measures were imposed.
Inspection visit, report no. VIA 739/2001 (IPM-1, p. 5 and Appendix 27); ordered by PROFEPA. Decision (no ref.); issued by PROFEPA (IPA, Appendix 19).	11 May 2001 and 7 January 2002	The slow growth of mangroves in the highly affected areas was detected; at the time of the visit, Aquanova had not filed acknowledgements of receipt of the progress reports agreed upon in the administrative agreement of 30 March 1998.	Articles establishing jurisdiction over this procedure.	Decided not to impose sanctions since it was ascertained that Aquanova had filed the restoration program reports.
Inspection visit, report no. VIA/2002/104; ordered by PROFEPA (IPA, Appendix 20).	20 June 2002	None found. The gradual restoration of mangroves was noted, as indicated by Aquanova in its monitoring reports.	N/A.	No actions or measures recommended.





## **Attachment 1**

**Council Resolution 03-06 – Instruction to  
the Secretariat of the Commission for  
Environmental Cooperation to make  
public the Factual Record for  
Submission SEM 98-006 (Aquanova)**



23 June 2003

COUNCIL RESOLUTION 03-06

**Instruction to the Secretariat of the Commission for Environmental Cooperation to make public the Factual Record for Submission SEM-98-006 (Aquanova)**

THE COUNCIL:

SUPPORTIVE of the process provided for in Articles 14 and 15 of the *North American Agreement on Environmental Cooperation* (NAAEC) regarding submissions on enforcement matters and the preparation of factual records;

NOTING that the Secretariat received no comments from the Parties on the draft Aquanova factual record;

HAVING RECEIVED the final factual record for Submission SEM-98-006;

FURTHER NOTING that pursuant to Article 15(7) of the NAAEC, the Council is called upon to decide whether to make the factual record publicly available; and

AFFIRMING its commitment to a timely and transparent process;

HEREBY DECIDES:

TO MAKE PUBLIC and post on the registry the final factual record for Submission SEM-98-006;

APPROVED BY THE COUNCIL:

---

Judith E. Ayres  
Government of the United States of America

---

Olga Ojeda Cardenas  
Government of the United Mexican States

---

Norine Smith  
Government of Canada