

Secretariat of the Commission for Environmental Cooperation
Secretariat notification in accordance with Article 15(1) of the North American
Agreement on Environmental Cooperation

Submitters: [Information confidential pursuant to NAAEC Article 11(8)(a)]
Party: United Mexican States
Original submission: 3 October 2018
Revised submission: 21 February 2019
Date of the notification: 30 September 2020
Submission no.: **SEM-18-003** (*Hydraulic Fracturing in Nuevo León*)

Executive Summary

On 3 October 2018, the Secretariat of the Commission for Environmental Cooperation received submission SEM-18-003, which asserts that Mexico is failing to effectively enforce its environmental law in connection with site restoration and abandonment subsequent to hydraulic fracturing in the municipality of Los Ramones, Nuevo León. On 21 February 2019, further to the Secretariat's determination that the submission did not meet the requirements of Article 14(1) of the North American Agreement on Environmental Cooperation (NAAEC), the Secretariat received a revised submission containing sufficient additional information.

Submission SEM-18-003 (*Hydraulic Fracturing in Nuevo León*) asserts that Petróleos Mexicanos (Pemex) "has been exploring for hydrocarbons in the area of Los Ramones and other places in the state of Nuevo León" and that the Tangram-1 and Nerita-1 wells were built in that area "to use hydraulic fracturing and explore for hydrocarbons." The Submitters state that they have searched for the corresponding environmental impact statement (EIS) on the portals and websites where such documents are normally published but have found nothing. They add that if approval was in fact issued for the project, this would "illustrate the violation of Mexican environmental law" since, as they contend, the Ministry of the Environment and Natural Resources did not verify that Pemex "complied with the requirement to produce an environmental impact statement"; or, if it did, and the EIS was in fact produced, then the environmental authorities did not enforce compliance with the corresponding mitigation measures.

On 8 April 2020, Mexico submitted its response to the submission and gave notice of the existence of pending proceedings with respect to some of the Submitters' assertions. Mexico contends that the Tangram-1 and Nerita-1 wells are part of the Comprehensive Burgos Watershed Project 2004-2022, submitted to environmental impact assessment on 11 August 2000. This project exhibited various omissions subsequent to its approval and was therefore submitted to a new assessment on 10 March 2004. The project encompasses 6,493 wells, 5,897 discharge lines, 230 gas pipelines, 943 production systems (compression and collection stations), and 154 water injection and transfer systems.

Based on submission SEM-18-003 and Mexico's response, including the appendices to both, the Secretariat finds that the preparation of a factual record is warranted.

Article 2(4) of the Environmental Cooperation Agreement in force as of 1 July 2020 establishes that active submissions filed under the NAAEC will continue to be processed with adherence to

Articles 14 and 15 of the Agreement. Therefore, this notification is issued in accordance with NAAEC Article 15(1).

I. INTRODUCTION

1. Articles 14 and 15 of the North American Agreement on Environmental Cooperation (“NAAEC” or the “Agreement”) provide for a process allowing any person or nongovernmental organization residing or established in the territory of Canada, the United States, or Mexico to file a submission asserting that a Party to the NAAEC is failing to effectively enforce its environmental law (the “SEM” process). The Secretariat of the Commission for Environmental Cooperation (the “Secretariat” of the “CEC”)¹ initially considers submissions with reference to the requirements of NAAEC Article 14(1). Where the Secretariat finds that a submission meets these requirements, it then determines, pursuant to NAAEC Article 14(2), whether the submission merits a response from the concerned Party. In light of any response from the concerned Party, and in accordance with the NAAEC, the Secretariat may notify the Council that the matter warrants the development of a factual record, providing its reasons for such recommendation in accordance with Article 15(1). Where the Secretariat decides to the contrary, it then proceeds no further with the submission.²
2. On 3 October 2018, a person residing in Mexico, who requested that his personal information be kept confidential under NAAEC Article 11(8)(a) (hereinafter, the “Submitter”), filed an Article 14(1) submission with the Secretariat. The Submitter asserts that the Government of Mexico is failing to effectively enforce its environmental law in connection with site restoration and abandonment subsequent to hydraulic fracturing in the community of Hacienda El Carrizo, municipality of Los Ramones, Nuevo León.³
3. On 15 November 2018, the Secretariat found that the submission did not meet the Article 14(1) requirements because the Submitter had not identified the provisions of environmental law that the competent authorities are allegedly failing to enforce, nor did he include information relating to communication of the matter to the competent authorities of the Party.⁴
4. On 21 February 2019, the Secretariat received a revised submission containing additional assertions and information in response to the matters raised in the determination of 15 November 2018. This revised submission adds a second submitter, who also requested that his personal information be kept confidential under NAAEC Article 11(8)(a).⁵ For this reason, further references in this notification are to “the Submitters.”

¹ The Commission for Environmental Cooperation (CEC) was established in 1994 under the North American Agreement on Environmental Cooperation (NAAEC), signed by Canada, the United States, and Mexico (the “Parties”). The constituent bodies of the CEC are the Council, the Secretariat, and the Joint Public Advisory Committee (JPAC).

² For detailed information on the various stages of the submission process, as well as on the Secretariat’s determinations and factual records, visit the submissions on enforcement matters page of the CEC website at <www.cec.org/submissions>.

³ SEM-18-003 (*Hydraulic Fracturing in Nuevo León*), Article 14(1) Submission (3 October 2018).

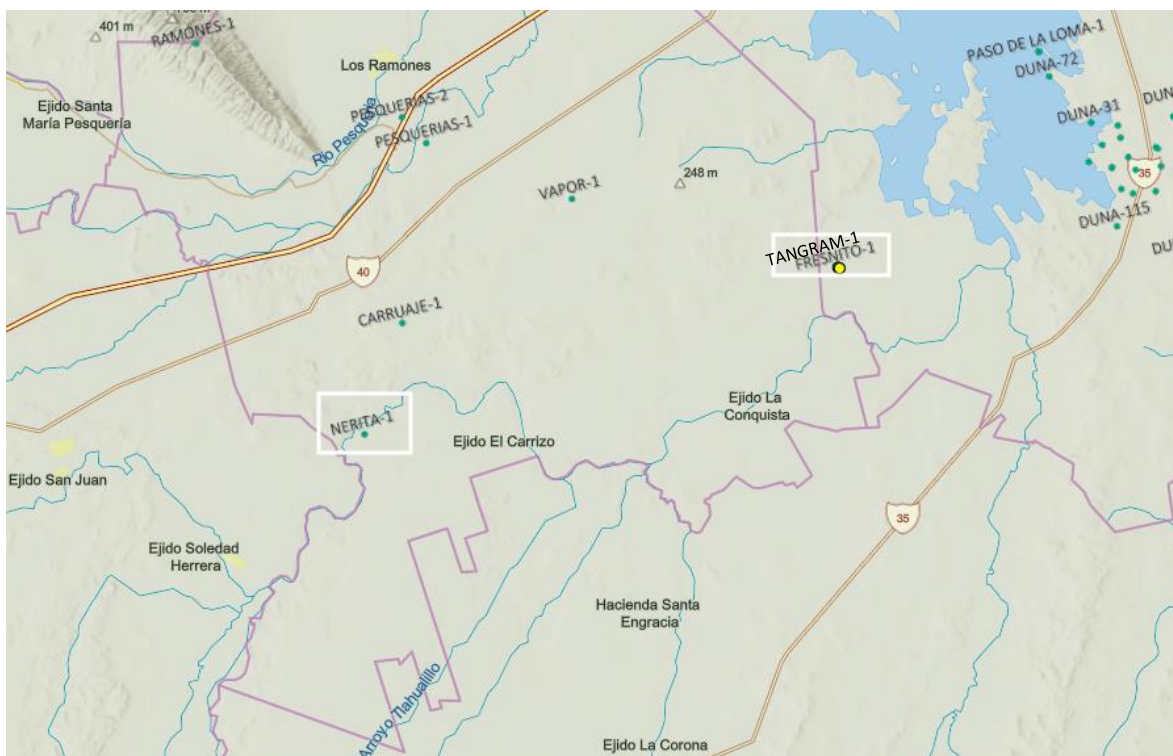
⁴ SEM-18-003 (*Hydraulic Fracturing in Nuevo León*), Article 14(1) Determination (15 November 2018), at 8.

⁵ SEM-18-003 (*Hydraulic Fracturing in Nuevo León*), Article 14(1) Submission (21 February 2019) [“Revised Submission”].

5. The Submitters assert that Mexico is failing to effectively enforce **Article 28 of the Mexican Environmental Protection Act** (*Ley General del Equilibrio Ecológico y la Protección al Ambiente*—LGEEPA) as regards the obligation to file an EIS before a project is approved; **LGEEPA Article 15**, on the obligation to repair harms ensuing from a work that affects the environment; **LGEEPA Article 122**, applicable to control of wastewater; **LGEEPA Article 170**, authorizing the Ministry of the Environment and Natural Resources (*Secretaría de Medio Ambiente y Recursos Naturales*—Semarnat) to apply safety measures; **LGEEPA Articles 1, 15, and 88**, in relation to sustainable water use; **Articles 7 and 10 of the Federal Environmental liability Act** (*Ley Federal de Responsabilidad Ambiental*—LFRA), as regards the responsibility of Petróleos Mexicanos (Pemex) for environmental harms; **Articles 2 and 91 of the Regulation to the Mexican Waste Prevention and Management Act** (*Reglamento de la Ley General de Prevención y Gestión Integral de Residuos*—LGPGIR Regulation), in relation to wastewater discharges into geologically stable formations, and **Articles 8, 16, and 18 of the Guidelines for the Protection and Conservation of National Waters in Connection with Hydrocarbon Exploration and Extraction in Unconventional Deposits** (*Lineamientos para la Protección y Conservación de las Aguas Nacionales en Actividades de Exploración y Extracción de Hidrocarburos en Yacimientos No Convencionales*—National Waters Contamination Prevention Guidelines), applicable to the prevention of subsoil and aquifer contamination.⁶
6. Submission SEM-18-003 (*Hydraulic Fracturing in Nuevo León*) asserts that Pemex “has been exploring for hydrocarbons in the area of Los Ramones and at other sites in the state of Nuevo León,” and that two wells, Tangram-1 and Nerita-1, were built in that vicinity “to use hydraulic fracturing and explore for hydrocarbons.” The Submitters assert that they have searched online for the environmental impact statement covering the project, and specifically the Tangram-1 and Nerita-1 wells, but found no relevant information. According to the Submitters, “the manner in which the Mexican authorities approved hydraulic fracturing in this area illustrates the violation of Mexican environmental law,” since, as they contend, Semarnat did not require Pemex “to comply with the requirement to produce an environmental impact statement,” or, if one was in fact produced, did not enforce compliance with the corresponding mitigation measures.
7. The Submitters assert that hydraulic fracturing “requires millions of liters of water”; that over 750 different chemicals are used in the process; that the wastewater contains heavy metals and radioactive substances; that the wastewater is stored in wastewater wells that often leak into and contaminate groundwater, and that hydraulic fracturing applies high pressure to geological formations, causing microseisms. In particular, they state that 25,808 m³ of water were injected into the Tangram-1 well, completed in December 2013, and that a depth of 4,426 meters was reached. As to the Nerita-1 well, completed in August 2014, 13,039 m³ of water were injected to a depth of 4,100 meters. They further contend that the operation of both wells produced seismic activity induced by hydraulic fracturing, in addition to generating impacts on water, the environment, and agriculture in the community of Hacienda El Carrizo, municipality of Los Ramones, Nuevo León.

⁶ *Ibid.* at 2.

Figure 1. Location of the Tangram-1 and Nerita-1 wells



Approximate location. Map derived from: CNH, *Mapa de la industria de hidrocarburos*, online at <mapa.hidrocarburos.gob.mx>, under options: "Información CNH", "Pozos" and "Zona Burgos".

8. On 8 May 2019, the Secretariat requested a response from Mexico with respect to the following matters raised in the submission:⁷

Responsibility for environmental harms and establishment of safety measures:

- LFRA Article 10 and LGEEPA Article 15 paragraphs II and IV, in relation to the alleged responsibility of Pemex for environmental harms, and
- LGEEPA Article 170, authorizing Semarnat to apply safety measures.

Water quality:

- LGEEPA Article 88 paragraph III, on sustainable water use;
- LGEEPA Article 122, applicable to wastewater control;
- Article 91 of the LGPGIR Regulation, requiring that wastewater be discharged into geologically stable formations; and
- Articles 8, 16, and 18 of the National Waters Contamination Prevention Guidelines, applicable to the prevention of subsoil and aquifer contamination.

⁷ SEM-18-003 (*Hydraulic Fracturing in Nuevo León*), Article 14(1) and (2) Determination (8 May 2019).

Environmental impact assessment:

- LGEEPA Article 28 paragraphs I and XIII, with respect to the obligation to file an EIS before a project is approved.
9. Mexico submitted its response on 8 April 2020, giving notice of the existence of a pending administrative proceeding before the National Industrial Security and Environmental Protection Agency for the Hydrocarbon Sector (*Agencia Nacional de Seguridad Industrial y de Protección al Medio Ambiente en el Sector de Hidrocarburos—ASEA*), bearing upon the probable environmental impacts caused by the drilling of the Tangram-1 and Nerita-1 wells by Pemex, using the technique of hydraulic fracturing, in the community of El Carrizo, municipality of Los Ramones, Nuevo León.⁸
 10. Mexico’s response refers to the environmental impact assessment (EIA) for the Comprehensive Burgos Watershed Project 2004–2022 (*Proyecto Integral Cuenca de Burgos 2004–2022*; the “Burgos Watershed Project”), which comprises the Tangram-1 and Nerita-1 wells. The Party contends that Pemex duly complied with the EIA procedure and the public participation requirements.
 11. Mexico notes that the hydrocarbon-related files held by the Ministry of Energy (*Secretaría de Energía—Sener*), the environmental impact approvals (*autorizaciones de impacto ambiental—AIA*) issued by Semarnat, and the inspection and surveillance proceeding files held by the Federal Attorney for Environmental Protection (*Procuraduría Federal de Protección al Ambiente—Profepa*) were transferred to ASEA.
 12. With respect to the assertions concerning alleged responsibility for environmental harms and the establishment of safety measures by Semarnat, Mexico states that the wells in question “have no discharge lines or aboveground infrastructure that give evidence of the wells being used for hydrocarbon extraction.”⁹
 13. As to the alleged water contamination in the municipality of Los Ramones, the Party responds that since the wells in question are not currently in the hydrocarbon extraction phase, they do not require a concession for the use, enjoyment, and exploitation of national waters from the National Waters Commission (*Comisión Nacional del Agua—Conagua*). In reference to the assertion concerning alleged enforcement failures relating to contamination of bodies of water into which wastewater was dumped, Mexico states that there are no records of wastewater discharge permits, wastewater wells, or discharges of produced water since the wells addressed by the submission are not in operation.¹⁰

⁸ SEM-18-003 (*Hydraulic Fracturing in Nuevo León*), Article 14(3) Response (8 April 2019) [“Response”], p. 6.

⁹ *Ibid.* at 13.

¹⁰ Mexican Official Standard NOM-143-Semarnat-2003, *Establishing environmental specifications for the management of produced water associated with hydrocarbons*, defines produced water as “water associated with the hydrocarbon in the deposit that rises to the surface during the extraction thereof; contains salts and may contain metals, and is considered an unusable byproduct.”

II. ANALYSIS

A) Notification of the existence of a pending proceeding

14. The Submissions on Enforcement Matters mechanism provides, in NAAEC Article 14(3)(a), that an NAAEC Party may give notice “whether the matter is the subject of a pending judicial or administrative proceeding, in which case the Secretariat shall proceed no further.” In addition, the mechanism provides that a Party may, in its response, indicate whether the matter was previously the subject of a judicial or administrative proceeding, or whether private remedies in connection with the matter are available to the person or organization making the submission.¹¹ The Secretariat performs the relevant analysis in this section, guided by the NAAEC Article 45(3) definition of a “judicial or administrative proceeding.”
15. A judicial or administrative proceeding is defined in NAAEC Article 45(3)(a) as:

a domestic judicial, quasi-judicial or administrative action pursued by the Party in a timely fashion and in accordance with its law. Such actions comprise: mediation; arbitration; the process of issuing a license, permit, or authorization; seeking an assurance of voluntary compliance or a compliance agreement; seeking sanctions or remedies in an administrative or judicial forum; and the process of issuing an administrative order...

16. Mexico notified the Secretariat of the existence of an administrative proceeding initiated by ASEA. The information serving as the basis for the Secretariat’s review in this section was classified as confidential by Mexico pursuant to NAAEC Article 39(2); thus, the Secretariat has taken care not to disclose this information in its analysis.

[Confidential section]

17. [Redacted]

18. [Redacted]

19. [Redacted]

¹¹ NAAEC Article 14(3)(b).

¹² [Redacted]

¹³ [Redacted]

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[End of confidential section]

28. Pursuant to NAAEC Article 45(3)(a), the Secretariat finds that the proceeding of which the Party gives notice has not been pursued in a timely fashion, and therefore does not constitute grounds for terminating the submission.
29. Consequently, the Secretariat finds that it should continue with its review of LFRA Article 10; LGEEPA Articles 15 paragraphs II and IV, 28 paragraphs I and XIII, 88 paragraph III, 122, and 170; Article 91 of the LGPGIR Regulation, and Articles 8, 16, and 18 of the National Waters Contamination Prevention Guidelines.

B) The assertions of submission SEM-18-003

30. The Secretariat proceeded to consider whether the preparation of a factual record is warranted in the light of Mexico's response.

i) Environmental impact assessment

31. The Submitters contend that they have searched for the environmental impact statement (EIS) corresponding to the works described in the submission, but have found nothing on the portals and websites where such documents are normally published.²⁶ They add that even if an EIS was filed, Pemex did not meet the public participation and disclosure requirements for the project,²⁷ nor those concerning the study and mitigation of environmental impacts, since, as they contend, the "water is contaminated" and "the aquifers are not functioning as they did before."²⁸

Mexico's response

32. In relation to the Submitters' assertion as to whether Pemex complied "with the requirement to prepare an EIS or any other administrative requirement before using the wells to extract gas," Mexico argues that the Environmental Impact and Risk Branch (*Dirección General de Impacto y Riesgo Ambiental*—DGIRA) heard and ruled on the regional modality of the EIS (EIS-R) as well as the risk study (ER) for the Burgos Watershed Project.²⁹ This project encompasses 6,493 wells, 5,897 discharge lines, 230 gas pipelines, 943 production systems (compression and collection stations), and 154 water injection and transfer systems. Two of these 6,493 wells are in fact the Tangram-1 and Nerita-1 wells to which the submission refers.
33. The information in the response indicates that, while the project was initially submitted to environmental impact assessment on 11 August 2000, various omissions on the part of the developer made it necessary for the authority to conduct a new assessment. In this regard, Mexico notes that the Burgos Watershed Project was submitted by Pemex to the DGIRA for

²⁶ Revised Submission at 7.

²⁷ *Ibid.*

²⁸ *Ibid.*

²⁹ Response at 11.

assessment on 10 March 2004 and was assigned file number 2BTM200AX0006 by this authority.³⁰

34. Mexico further states that on 11 March 2004, Semarnat published in the *Gaceta Ecológica* (Environmental Gazette) and on its website³¹ (where the corresponding EIA can be found by entering the project number) that the Burgos Watershed Project had entered the EIA phase of approval.³² Apart from this, there is no further information on the availability of the EIS for public consultation.
35. The DGIRA asked various bodies to assign technical representatives to participate in the EIA process for the project; in addition, it requested opinions from the environmental authorities of the three states where the project is situated (Coahuila, Tamaulipas, and Nuevo León).³³
36. On 28 September 2004, having concluded its analysis, the DGIRA found that the Burgos Watershed Project was environmentally viable, and therefore gave conditional approval to the EIS in the form of the corresponding AIA.³⁴
37. Mexico states that the EIS and the AIA for the Burgos Watershed Project constitute public information available on the Semarnat website.³⁵ It further states that “it is also currently possible for anyone to request any public information they may need from the National Institute of Transparency and Access to Information and Personal Data Protection (*Instituto Nacional de Transparencia, Acceso a la Información y Protección de Datos Personales*—INAI), which the Submitters did not do in this case.”³⁶
38. Regarding the alleged enforcement failure relating to public participation in the EIA process, Mexico asserts in its response that no request for public consultation was ever made. Its view is therefore that “the Submitters fail to indicate at what time and in what manner this right [to participate] was violated.”³⁷
39. Mexico notes that ASEA confirmed the physical existence of the files relating to the AIA for the Burgos Watershed Project.³⁸ It adds that the Tangram-1 well is located in the municipality of China, Nuevo León, 19 km from the community of Hacienda El Carrizo, while the Nerita-1 well is located in the municipality of Los Ramones, Nuevo León, 6 km from Hacienda El Carrizo.³⁹
40. The total number of works assessed and approved in the AIA is 13,657 over a period of 22 years (2004–2022), divided into 5,897 discharge lines, 230 gas pipelines, 943 production

³⁰ *Ibid.* at 9.

³¹ Response at 9.

³² Semarnat, online at < <https://apps1.semarnat.gob.mx:8443/consultatramite/inicio.php>>.

³³ *Ibid.*

³⁴ DGIRA, file no. SGPA/DGIRA.DEI.2440.04, containing the environmental impact and risk approval for the Burgos Watershed Project (28 September 2004), online at <<http://b.link/ak6dx>> (viewed 19 August 2020).

³⁵ EIS for the Burgos Watershed Project, online at <<http://b.link/8a4tx>> (viewed 19 August 2020).

³⁶ Response at 12.

³⁷ *Ibid.* at 13.

³⁸ ASEA, Legal Affairs Unit, file no. ASEA/UAJ/0068/2019 (10 June 2019).

³⁹ Response at 11.

systems (compression and collection stations), and 154 water injection and transfer systems. The area encompassed by the project consists of 12,541 hectares used for 2D seismic prospecting and 24,439 hectares used for 3D seismic prospecting. ASEA affirms that there has been no modification of the AIA in relation to the Tangram-1 and Nerita-1 wells, even though their environmental viability was assessed two decades ago.⁴⁰ There is no information on the modification of the environmental conditions or on the manner in which the works would affect the environment over the 22-year period encompassed by the project, particularly in the area where the Submitters live.

41. Mexico argues that based on “a perusal and analysis of the AIA,” as well as “the contents of the ASEA document,” the competent authority—that is, the DGIRA—“effectively complied with its obligation to conduct the relevant EIA as prescribed by Article 28 paragraph I.”⁴¹
42. As to the Submitters’ assertions concerning the failure to study and mitigate possible environmental impacts arising from the development of the Tangram-1 and Nerita-1 wells, Mexico states that according to the records of the National Hydrocarbons Commission (*Comisión Nacional de Hidrocarburos*—CNH), the Tangram-1 and Nerita-1 wells “have no discharge lines or aboveground infrastructure that would give evidence of their being used for hydrocarbon extraction.” It argues that Pemex stated that these wells “are not covered by any deed of transfer or contract and have not been active since their operations ceased in 2013.” The Party states that “there is no cause for which corresponding mitigation measures would have been applied,” nor “the existence of environmental harm that would require a remedy in the case at hand.”⁴²

The assertion concerning the production of an environmental impact statement warrants the preparation of a factual record

43. The version of LGEEPA Article 28 in force in 2004 read as follows:

The execution of public or private works or activities that may cause ecological disequilibrium, or exceed the limits and conditions set out in the regulations and environmental protection technical standards enacted by the Federation for the protection of the environment, requires the prior authorization of the federal government, acting by the Ministry, the federative entities, or the municipalities, according to the jurisdictions established by this Act, as well as compliance with any requirements imposed upon them once their potential environmental impact has been assessed, without prejudice to any other authorizations within the purview of the competent authorities.

For the assessment of environmental impact caused by the execution of works or activities whose object is the exploitation of natural resources, the Ministry shall require the interested parties to include, in the corresponding environmental impact statement, a description of the possible effects of said works or activities on the ecosystem in question, considering the sum total of

⁴⁰ *Ibid.*

⁴¹ *Ibid.* at 23.

⁴² *Ibid.* at 14.

the elements of which it is composed and not merely the resources to be exploited.

44. LGEEPA Article 28 also contains a list of works and activities requiring prior approval, which is obtained by filing an EIS for planned works or activities. In addition to detailing the possible effects of such works or activities, the EIS must contain a description of the sum total of the elements making up the ecosystem, as well as the preventive, mitigation, and other measures necessary to prevent and/or minimize the negative effects on the environment.⁴³ Where activities submitted for environmental impact assessment are considered high-risk, the EIS must include the applicable risk study.⁴⁴
45. It is worth mentioning in this regard that EIA is the “procedure whereby conditions are [placed on] the execution of works or activities that may cause ecological disequilibrium or exceed the limits and conditions set out in the applicable provisions for the protection of the environment and the preservation and restoration of ecosystems, with a view to preventing or minimizing their negative effects on the environment.”⁴⁵
46. EIA sets in motion a multi-stage procedure whose purpose is to produce a report, possessing certain formal aspects, on the environmental viability and the environmental and ecosystemic effects of a work or activity. By its nature, EIA is an administrative proceeding that precedes and leads to an administrative act known as environmental impact approval (AIA).⁴⁶
47. The works cited by the Submitters are part of the Burgos Watershed Project and were subjected to EIA, leading to a conditional AIA.⁴⁷ It is for this reason that Mexico’s response confirms, in principle, the existence of an EIS. However, it proved impossible for the Submitters to gain timely knowledge of the environmental impact of the Tangram-1 and Nerita-1 wells built in their locality.
48. As mentioned above, the essential components of the Burgos Watershed Project consist of 6,493 wells, 5,897 discharge lines, 230 gas pipelines, 943 production systems (compression and collection stations), and 154 water injection and transfer systems to be developed over a period of 22 years in three Mexican states. The Secretariat finds that it was impossible for the Submitters to obtain information on the existence of the EIS for the wells in question, since these formed a part of a large-scale project for which no information containing details of location, scope, and consequences for the environment and the neighboring communities was published. Nor did the Submitters have an opportunity to participate in a public consultation process on the project, since they did not have access to the corresponding studies and were not informed of their existence. The lack of access to information on infrastructure in their locality

⁴³ LGEEPA Article 30, first paragraph.

⁴⁴ *Ibid.*, second paragraph.

⁴⁵ Narciso Sánchez Gómez, *Derecho Ambiental* (Mexico City: Editorial Porrúa, 2013), at 275.

⁴⁶ An “environmental administrative proceeding” is defined in the doctrine as a series of duly concatenated or linked legal proceedings pursued, within the scope of their powers, by the administrative authorities of the federal government, the Federal District, the states, and/or the municipalities for the production and application of a binding administrative act relating to ecological equilibrium and environmental protection. It is a proceeding in which concessions, licenses, permits, and approvals, among other things, may be issued. See Sánchez Gómez, *op. cit.*, at 276–7.

⁴⁷ Response at 8–9.

is a relevant factor to be considered in determining whether to recommend the preparation of a factual record.

49. Mexico mentions the publication of the Burgos Watershed Project in the *Gaceta Ecológica*,⁴⁸ however, a perusal of the AIA yields no reference whatsoever to the publication of the excerpt in a large-circulation newspaper as prescribed by the LGEEPA.⁴⁹ The response does not address the reasons why no discussion of the project, including a description of the infrastructure that allegedly caused harm to the environment and the community of Los Ramones, was ever published in a large-circulation newspaper. Nor does the AIA explain whether there were any exceptional grounds for not making public the information on the wells in question in the localities where the project would have negative environmental effects.⁵⁰
50. The Secretariat observes that the note published in the *Gaceta Ecológica* that gave notice of the Burgos Watershed Project did not identify the municipalities in which the works mentioned by the Submitters would be located, nor state where the corresponding file could be perused. Moreover, even though the applicable environmental provisions provide for the publication of an excerpt of the project in a large-circulation newspaper in the federative entity (state) where the project is to be carried out, the Party's response contains no allusion to this aspect.
51. The Secretariat finds that while an EIS was filed in conformity to LGEEPA Article 28 for the Burgos Watershed Project, the affected community was not given an opportunity to learn about the proposed project, nor the anticipated environmental impacts of the Tangram-1 and Nerita-1 wells, by means of an effective, transparent, legally compliant consultation process.
52. Therefore, the Secretariat finds that the preparation of a factual record is warranted in regard to the effective enforcement of LGEEPA Article 28, since the review of the submission in the light of the response shows that central issues remain unresolved in regard to the requirements that should have been met during the EIA process with respect to the Tangram-1 and Nerita-1 wells.
53. A factual record would help citizens understand the manner in which the authority conducted the EIA procedure for the works identified by the Submitters, as well as the enforcement of compliance with the conditions of the AIA issued for the Tangram-I and Nerita-I wells.

ii) Responsibility for environmental harms and establishment of safety measures

54. In relation to LFRA Article 10 and LGEEPA Article 15 paragraphs II and IV, the Submitters assert that “the impacts in the area are clear and evidence the considerable environmental harm occurred since 2013, yet so far no one has taken responsibility, despite the existence of that obligation in law.”⁵¹

⁴⁸ *Ibid.* at 9.

⁴⁹ LGEEPA Article 34, first paragraph and subparagraph I.

⁵⁰ Semarnat, environmental impact approval, file no. SGPA/DGIRA.DEI.2440.04 (28 September 2004).

⁵¹ Revised Submission at 9.

55. Concerning LGEEPA Article 170, the Submitters assert that “the Mexican government failed to take safety measures to protect our houses and aquifers, the proof being that the harms occurred in conjunction with the hydraulic fracturing in our municipality.”⁵²

Mexico’s response

56. In regard to the assertions concerning an alleged failure to effectively enforce LFRA Article 10 and LGEEPA Article 15 paragraphs II and IV with respect to the Tangram-I and Nerita-I wells, Mexico states that “the records of the CNH indicate that these wells lack discharge lines and aboveground infrastructure to indicate that they are operating”; it adds that they “are not covered by any deed of transfer or contract, and have not been functioning since operations ceased in 2013.” It further contends that “there are no grounds for the corresponding mitigation measures to have been applied,” since there has been no proof “of the existence of environmental harm requiring a remedy in the case at hand.”⁵³
57. Regarding the assertion concerning an alleged failure to enforce LGEEPA Article 170, Mexico states that ASEA has powers relating to the application of the safety measures contemplated in Article 5 paragraph XI of the National Agency for Industrial Security and Environmental Protection in the Hydrocarbon Sector Act (*Ley de la Agencia Nacional de Seguridad Industrial y de Protección al Medio Ambiente del Sector de Hidrocarburos*).⁵⁴
58. In this regard, the Industrial Supervision, Inspection, and Surveillance Unit (*Unidad de Supervisión, Inspección y Vigilancia Industrial*) of ASEA states that a search in its records found no report of environmental incidents or accidents related to the Tangram-1 or Nerita-1 wells, nor to any other well in the municipalities of Los Ramones or China, Nuevo León.⁵⁵
59. In relation to the Tangram-1 and Nerita-1 wells, there has been no report of operating safety incidents or accidents giving rise to supervision, inspection, or surveillance measures on the part of ASEA. Likewise, the files transferred by Profepa and Sener indicate that there have been no proceedings initiated in response to alleged environmental or operating safety impacts.⁵⁶
60. Mexico reiterates that due to the absence of records of incident or accident reports linked to the Tangram-1 and Nerita-1 wells, as well as the nonexistence of operating safety-related incident or accident reports, ASEA has taken no supervision, inspection, or surveillance measures for these facilities, nor has there been any administrative proceeding that gave rise to the application of safety measures.⁵⁷
61. In addition, Mexico’s view is that since the mechanisms concerning lawsuits for redress of harm prescribed by LFRA Article 27 have not been exhausted, LFRA Article 10 should not be included in the Secretariat’s review.⁵⁸

⁵² *Ibid.* at 10.

⁵³ Response at 14.

⁵⁴ *Ibid.* at 16.

⁵⁵ *Ibid.*

⁵⁶ *Ibid.*

⁵⁷ *Ibid.*

⁵⁸ *Ibid.* at 14.

62. Finally, Mexico asserts that the Submitters' assertions are unfounded, since ASEA has no records of administrative proceedings brought against Pemex. Therefore, "there is no evidence to suggest that the Mexican authorities failed to enforce the obligation to apply safety measures" due to any environmental risk or harm occurred during the exploration process in the Tangram-1 and Nerita-1 wells.⁵⁹

The assertion concerning responsibility for environmental harms and the establishment of safety measures warrants the preparation of a factual record

63. In regard to the effective enforcement of LFRA Article 10 (which is applied with reference to the criteria set out in LGEEPA Article 15 paragraphs II and IV), the Secretariat observes that this instrument establishes a specific legal proceeding relating to environmental liability, which constitutes an alternative means of gaining access to environmental justice.⁶⁰ The Secretariat thus takes note of the procedure by which the mechanism prescribed by LFRA Article 10 allowing for *environmental liability* lawsuits is triggered. This environmental liability mechanism is available to the Submitters; however, the submission does not contain any information as to whether they have availed themselves of their rights under this act.
64. Therefore, the preparation of a factual record is not recommended with respect to the effective enforcement of LFRA Article 10 and LGEEPA Article 15 paragraphs II and IV.
65. As regards the assertions concerning the effective enforcement of LGEEPA Article 170, the Secretariat observes that safety measures may be of a preventative or protective nature, or they may be of a curative nature, and may be ordered by means of an express decision with a basis in law and fact, at the time of an inspection or when cognizance is taken of the ecological conditions of a given region, zone, entity, or municipality.⁶¹ In this regard, NAAEC Article 5(1) provides a list of governmental measures for the enforcement of environmental laws and regulations, which includes "issuing administrative orders, including orders of a preventative, curative or emergency nature."⁶²
66. The response does not clarify whether ASEA exercised the powers to conduct environmental verification, inspection, and supervision with respect to the Tangram-I and Nerita-I wells, within its regulatory framework and scope of jurisdiction.⁶³ The information in Mexico's response also does not indicate whether ASEA carried out any of these activities, beyond the initial acceptance of a citizen complaint.
67. The power of supervision and the possible safety measures deriving from it are not exercised exclusively in response to an incident or event but may also be exercised as a preventive act. This takes on relevance in light of the communication of the matters raised by the Submitters to ASEA through the filing of the complaint. The absence of incident or event reports alleged by

⁵⁹ *Ibid.* at 17.

⁶⁰ "Procedimiento judicial de responsabilidad ambiental previsto en la ley federal de la materia: su finalidad y características," *Gaceta del Semanario Judicial de la Federación*, tesis aislada, décima época, record 2018250, Tribunales Colegiados de Circuito, book 59, October 2018, vol. III, online at <<http://b.link/gepd5>> (viewed 19 August 2020).

⁶¹ Sánchez Gómez, *op. cit.*, at 290.

⁶² NAAEC Article 5(1)(I).

⁶³ ASEA Act, Articles 3 paragraph XVI and 5 paragraph VIII.

ASEA does not necessarily reflect that the two wells are compliant with the legal and regulatory provisions and standards, and the possibility of noncompliance arises in view of the statements made by the Submitters in their complaints.

68. The Secretariat has previously recommended the preparation of a factual record where it is evident from the response that the enforcement measures available to the Party's authorities have not been taken.⁶⁴
69. In accordance with the enforcement principle enunciated in NAAEC Article 37, the Secretariat stresses that its recommendation to Council for the preparation of a factual record should not be interpreted as challenging Mexico's decision not to take prosecutorial measures pursuant to the LGEEPA. The Secretariat finds, in any case, that Mexico's response leaves central issues unresolved as to the reasons why law enforcement tools available under LGEEPA Article 170 were not used with respect to, and in view of, the matters raised by the Submitters in regard to the Tangram-1 and Nerita-1 wells.
70. Therefore, the Secretariat recommends the preparation of a factual record in regard to the effective enforcement of LGEEPA Article 170 with respect to the Tangram-1 and Nerita-1 wells.

iii) Water quality

71. The Submitters assert that after the construction of the Tangram-1 and Nerita-1 wells, the water supply wells used in their community for daily water consumption began to dry up, preventing them from drawing water for their farming and ranching activities. This forced them to drill deeper wells to obtain water. According to the Submitters, the water they have been able to pump since then has a foul odor.⁶⁵
72. The Submitters mention that a water test taken in the community yielded "a high content of salts and other substances," indicating that the water is unpotable.⁶⁶ Furthermore, they say that they do not know whether the use of this water could cause harm to human health, farm animals, or vegetation.
73. The submission states that millions of liters of water are required for gas extraction by means of hydraulic fracturing, making it obvious that the increased water demand engendered by fracking greatly exceeds the capacity of the local aquifers.⁶⁷

⁶⁴ SEM-17-001 (*Alberta Tailings Ponds II*), Article 15(1) Notification (19 April 2018), §35:

Additionally, Canada's response does not indicate why these inspection results did not lead to the consideration or use of other enforcement tools available to Canada (other than prosecutions), particularly ones focused on gathering additional information. These enforcement options include ministerial orders, under which Canada could have obtained a very wide scope of information from oil sands operators to enable the Minister to determine whether there is or is likely to be a deposit of a deleterious substance. Similarly, Canada's response does not provide any information about whether search warrants were considered, or even inspector warnings or directions. The response also does not provide any information about whether Canada considered ways it could refocus its enforcement strategy away from inspections to obtain additional, new, or different information.

⁶⁵ Revised Submission at 5.

⁶⁶ *Ibid.*

⁶⁷ *Ibid.* at 8.

74. The Submitters emphasize that water scarcity in their community began in 2014, months after the drilling of the wells, and they attribute this to the carrying capacity of the local aquifers “having been harmed, a harm that the government failed to prevent.”⁶⁸

Mexico’s response

75. Mexico specifies in its response that it requested the assistance of Conagua, the national body in charge of regulating and administering water resources under federal jurisdiction, to obtain information about concessions issued to Pemex for the use, enjoyment, and exploitation of national waters for the operation of the wells in question.⁶⁹ It adds that Conagua reported that concessions for the use, exploitation, or enjoyment of national waters are only granted for the hydrocarbon extraction phase.
76. In this regard, from the information provided by ASEA, the documents published by the CNH, and the response of Pemex to the notice of violations identified during an inspection (*acuerdo de emplazamiento*) in connection with the citizen complaint,⁷⁰ it is evident that the Tangram-1 and Nerita-1 wells are not in operation and lack any aboveground infrastructure to suggest that they are. Mexico concludes that since the wells are not currently in the hydrocarbon extraction phase, the Conagua concession for the use, enjoyment and exploitation of national waters was not required.⁷¹
77. In regard to the effective enforcement of LGEEPA Article 122, Mexico states that the Public Registry of Water Rights Office (*Gerencia del Registro Público de Derechos de Agua*) of the Water Administration Division (*Subdirección General de Administración del Agua*) of Conagua reported that “a search in the database of the Public Registry of Water Rights found no wastewater discharge permits issued for the municipalities of Los Ramones or China in the state of Nuevo León, in connection with alleged hydraulic fracturing in the ‘Tangram I’ and ‘Nerita I’ wells.”⁷²
78. In addition, Mexico emphasizes that ASEA reported that both the EIS and the AIA for the Burgos Watershed Project “established the need for equipment to collect and channel the resulting wastewater,” as well as the safety measures necessary to prevent dispersal of the water, with no plan for wastewater to be discharged into geological formations through wastewater wells.⁷³
79. As regards the AIA issued by the DGIRA for the project, the authority placed restrictions on the dumping of produced water into natural watercourses, beds, or national property where

⁶⁸ *Ibid.*

⁶⁹ Response at 18.

⁷⁰ See administrative file no. DP-ASEA/UAJ/DGCT/139-18, opened by ASEA.

⁷¹ Response at 19.

⁷² See Conagua, Public Registry of Water Rights Unit (*Gerencia del Registro Público de Derechos de Agua*), Water Administration Division (*Subdirección General de Administración del Agua*), memorandum no. BOO.2.02.-2362 (2 December 2019).

⁷³ Response at 20.

wastewater is discharged, or onto land where it could seep into and contaminate soil or aquifers.⁷⁴

80. In particular, ASEA states that the CNH has no record of the existence of wastewater wells in the municipality of Los Ramones, Nuevo León; thus, there is no indication that produced water from the Tangram-1 and Nerita-1 wells was ever discharged in that municipality.
81. For the foregoing reasons, Mexico concludes that the authorities have not failed to effectively enforce LGEEPA Article 122, “since the treatment of wastewater and produced water was subject to collection and transportation for final disposal.”⁷⁵
82. Concerning the failure to effectively enforce Article 91 paragraph II of the LGPGIR Regulation in relation to final disposal of hazardous waste in geologically stable formations, Mexico states that pursuant to Mexican Official Standard NOM-143-SEMARNAT-2003, *Establishing the environmental specifications for the management of produced water associated with hydrocarbons*, water arising during the hydrocarbon extraction process is not classified as hazardous waste but as produced water.⁷⁶
83. In addition, the Party states that a condition of approval was that hazardous waste was to be stored in authorized confinement centers and that the dumping of such waste onto the soil, into bodies of water, or onto vegetation was prohibited, with reiteration of the requirement that the project possess wastewater collection and transportation equipment.⁷⁷
84. Regarding the alleged failure to effectively enforce Articles 8, 16, and 18 of the National Waters Contamination Prevention Guidelines, applicable to the prevention of contamination of the subsoil and aquifers, Mexico states that these provisions are not relevant in the case of the exploration that took place in the Tangram-1 and Nerita-1 wells, nor in relation to the extraction phase in these wells, because these guidelines were published on 30 August 2017, four years after the conclusion of the exploration phase in the Tangram-1 and Nerita-1 wells.⁷⁸

The assertion concerning the application of sustainable water use criteria warrants the preparation of a factual record

85. In regard to Article 91 paragraph II of the LGPGIR Regulation, the Secretariat takes note of Mexico’s response to the effect that produced water is not considered hazardous waste, so that the provision in question is inapplicable. The Secretariat does not recommend the preparation of a factual record in regard to the alleged failure to enforce Article 91 paragraph II of the LGPGIR Regulation.
86. Regarding the alleged failure to enforce Articles 8, 16, and 18 of the National Waters Contamination Prevention Guidelines, applicable to the prevention of contamination of subsoil and aquifers, the Secretariat does not recommend the preparation of a factual record because, as Mexico argues, they cannot be given retroactive effect.

⁷⁴ *Ibid.*

⁷⁵ *Ibid.*

⁷⁶ *Ibid.* at 21.

⁷⁷ *Ibid.*

⁷⁸ *Ibid.* at 22.

87. As regards LGEEPA Article 122, the Party acknowledges that the two wells in question are located on the territory of the two municipalities mentioned and that in neither case have wastewater discharge permits been issued, since the Tangram-1 and Nerita-1 wells are not currently in operation. Therefore, the Secretariat does not recommend the preparation of a factual record in regard to the assertion concerning water discharges from the wells in question.
88. Concerning the assertions surrounding the effective enforcement of LGEEPA Article 88 paragraph III, on sustainable water use, the Secretariat finds that the preparation of a factual record is warranted for the reasons set out below.
89. Pursuant to LGEEPA Article 88 paragraph III, the Secretariat finds that Pemex does not in fact hold a concession to exploit national property because the Tangram-1 and Nerita-1 wells are not in the hydrocarbon extraction phase. However, Mexico presents no information about the activities carried out prior to the extractive phase, in which water was used, as indicated in the Burgos Watershed Project EIS.⁷⁹ The environmental impact statement in question states that the wells would require three types of water—treated, raw, and potable—during the construction, operation, and maintenance phases. However, the EIS does not mention the maximum quantities used during these phases, nor the source from which the water would be obtained to meet the requirements of the Tangram-1 and Nerita-1 wells.⁸⁰
90. Although Mexico's response states that the Tangram-1 and Nerita-1 wells are not operating, the information attached to the submission includes an image of the Tangram-1 well with a production tree, normally installed during well drilling and production and corresponding, according to the Burgos Watershed Project EIS, to the operation and maintenance phase.⁸¹ The response does not discuss the components of the Tangram-1 and Nerita-1 wells in a manner that would make it possible to corroborate the operational status of the wells.
91. This is relevant because of the pressures on water availability in the zone of execution of the Burgos Watershed Project: high demand for irrigation and human consumption; deficiencies in the treatment systems for wastewater generated by human, agroindustrial, and industrial activities, and overexploitation of aquifers and briny groundwater.⁸²
92. For the foregoing reasons, the Secretariat finds that the response leaves central issues unresolved in regard to the enforcement of LGEEPA Article 88 paragraph III, with respect to the following criteria for the sustainable use of water in conjunction with the approval of the environmental viability of the Tangram-1 and Nerita-1 wells, in light of the prevailing situation for water availability and quality exhibited by the EIS. Article 88 paragraph III establishes criteria for sustainable water use and empowers the environmental authorities to consider them; thus, it is clear that these criteria can be directly enforced in connection with the environmental impact assessment and approval for the Tangram-1 and Nerita-1 wells.

⁷⁹ Regional modality of the Burgos Watershed Project EIS.

⁸⁰ *Ibid.* at 70.

⁸¹ *Ibid.* at 56.

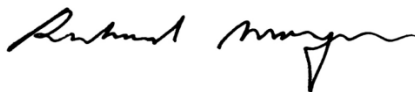
⁸² See Semarnat, environmental impact approval, file no. SGPA/DGIRA.DEI.2440.04 (28 September 2004), at 34.

III. NOTIFICATION

93. The Secretariat has reviewed submission SEM-18-003 (*Hydraulic Fracturing in Nuevo León*) in the light of the response of the United Mexican States.
94. Further to its review, the Secretariat finds that the proceeding of which Mexico gives notice does not trigger the termination of the submission under NAAEC Article 14(3).
95. Having considered the submission in the light of Mexico's response, the Secretariat finds that central issues remain unresolved with respect to alleged deficiencies in the environmental impact statement for the Tangram-I and Nerita-I wells, and also with respect to responsibility for environmental harm, the establishment of safety measures, and sustainable water use, and recommends a factual record in regard to the effective enforcement of LGEEPA Articles 28 paragraphs I and XIII, 88 paragraph III, and 170.
96. For the reasons set out herein and in accordance with NAAEC Article 15(1), the Secretariat hereby notifies the Council of its determination that, with a view to achieving the objectives of the Agreement, it recommends the preparation of a factual record for submission SEM 18-003. In conformity with paragraph 19.4 of the *Guidelines for Submissions on Enforcement Matters under Articles 14 and 15 of the NAAEC*, "the Council should vote on whether to instruct the Secretariat to prepare the factual record normally within 60 working days of receiving the Secretariat's recommendation"; that is, by **11 January 2021**.

Respectfully submitted for your consideration.

Secretariat of the Commission for Environmental Cooperation



Per: Richard A. Morgan
Executive Director, Commission for Environmental Cooperation

cc: Rodolfo Godínez Rosales, Alternate Representative, Mexico
Jane Nishida, Interim Alternate Representative, United States
Catherine Stewart, Alternate Representative, Canada
Submitters