



Sumidero Canyon II

Factual Record regarding Submission SEM-11-002

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

Please cite as:

CEC. 2015. *Sumidero Canyon II, Factual Record regarding Submission SEM-11-002*
Montreal, Canada: Commission for Environmental Cooperation. 98 pp.

This report was prepared by the Secretariat of the Commission for Environmental Cooperation's Submission on Enforcement Matters Unit. The information contained herein does not necessarily reflect the views of the CEC, or the governments of Canada, Mexico or the United States of America.

Reproduction of this document in whole or in part and in any form for educational or non-profit purposes may be made without special permission from the CEC Secretariat, provided acknowledgment of the source is made. The CEC would appreciate receiving a copy of any publication or material that uses this document as a source.

Except where otherwise noted, this work is protected under a Creative Commons Attribution Noncommercial-No Derivative Works License.



© Commission for Environmental Cooperation, 2015

ISBN: 978-2-89700-146-9 (print)/978-2-89700-143-8 (e-version)

Disponible en français – ISBN: 978-2-89700-148-3 (print)/987-2-89700-145-2 (e-version)

Disponible en español – ISBN: 978-2-89700-147-6 (print)/987-2-89700-144-5 (e-version)

Legal deposit—*Bibliothèque et Archives nationales du Québec*, 2015

Legal deposit—Library and Archives Canada, 2015

Publication Details

Publication type: Factual Record

Publication date: December 2015

Original language: Spanish

Review and quality assurance procedures:

Final Parties review: 16 June-17 August 2015

Cover photo: Andrés Youshimats (andres_youshimats on <www.flickr.com>).

For more information:



Commission for Environmental Cooperation

393, rue St-Jacques Ouest, bureau 200

Montreal (Quebec)

H2Y 1N9 Canada

t 514.350.4300 f 514.350.4314

info@cec.org / www.cec.org

Sumidero Canyon II
Factual Record regarding Submission SEM-11-002



Comite Pro-Mejoras de la Ribera Cahuare (2010)

Table of contents

Summary of the Facts	1
1. History of the Submission	3
2. Scope of the factual record	5
3. Background	6
3.1 Sumidero Canyon National Park	6
3.2 The community of Ribera Cahuaré	11
3.3 Cales y Morteros del Grijalva, S.A. de C.V.	13
3.4 Description of production process and equipment	15
3.5 Changes in quarrying area and production intensity	17
3.6 Proposed relocation of the company	18
3.7 Public complaints, proceedings, and other steps taken in relation to Cales y Morteros	19
4. Measures taken by Mexico to effectively enforce LGEEPA Article 155 and NOM-081 in relation to noise emissions from the operations of Cales y Morteros	24
4.1 Environmental law in question	24
4.2 Noise sources	25
4.3 Reports produced in relation to noise	27
4.4 Enforcement of the environmental law in question	28
4.5 Actions undertaken by the company to mitigate noise and dust	29
5. Measures taken by Mexico to effectively enforce RANP Article 80 with respect to the definition of acceptable rates or limits of change and carrying capacities corresponding to the natural resource use taking place in Sumidero Canyon National Park	31
5.1 Environmental law in question	31
5.2 Enforcement of the environmental law in question	31
6. Measures taken by Mexico to enforce the chapeau of RANP Article 81, with respect to the extent to which the production activities of Cales y Morteros generate benefits for local residents, and whether these activities are compatible with the declaration of the site as a protected natural area, as well as with the corresponding management plan, the environmental zoning plans, the applicable NOMs, and other legal instruments	33
6.1 Environmental law in question	33
6.2 Enforcement of the environmental law in question	34
7. Continuing commitment to transparency	44
Notes	46
Appendix 1	63
Apéndice 2	70
Apéndice 3	85

Tables

Table 1.	SCNP species data	7
Table 2.	Population growth in Ribera Cahuaré	12
Table 3.	Changes in area of premises occupied by Cales y Morteros	17
Table 4.	Administrative proceedings brought by Profepa against the company	20
Table 5.	Maximum allowable limits under NOM-081	24
Table 6.	Noise sources and factors influencing their impact on residents	25
Table 7.	Sound levels L (loudness of noise)	25
Table 8.	Studies and reports issued in relation to noise reports	27
Table 9.	Noise mitigation measures planned by Cales y Morteros	30
Table 10.	Reports issued in relation to blasting	34
Table 11.	Studies and reports issued in relation to public health	37
Table 12.	Types of environmental zoning plans	41

Figures

Figure 1.	Boundaries of the Sumidero Canyon National Park	6
Figure 2.	Land use and vegetation in SCNP	8
Figure 3.	The community of Ribera Cahuaré	11
Figure 4.	Demographic intensification in the vicinity of Cales y Morteros between 2005 and 2015	12
Figure 5.	General location of Cales y Morteros	13
Figure 6.	Industrial process at the Cales y Morteros quarry	15
Figure 7.	Distribution of equipment on the premises of Cales y Morteros	16
Figure 8.	Quarrying area, 2005–2015	17
Figure 9.	Sources of noise at the Cales y Morteros quarry	26

Photos

Photo 1.	Sumidero Canyon	4
Photo 2.	Cales y Morteros del Grijalva quarry	5
Photo 3.	Screening and separating process	16
Photo 4.	Former quarrying area	18
Photo 5.	Enclosure of production facilities	30
Photo 6.	Cracks in the east wall of Sumidero Canyon	36

Acronyms, abbreviations, and definitions

Abbreviations and acronyms

CEC	Commission for Environmental Cooperation
CEDH	State Human Rights Commission (<i>Comisión Estatal de Derechos Humanos</i>)
Civil Protection	Chiapas State Ministry of Safety and Civil Protection, Civil Protection Branch (<i>Secretaría de Seguridad y Protección Ciudadana del Estado, Subsecretaría de Protección Civil</i>)
CNDH	National Human Rights Commission of Mexico (<i>Comisión Nacional de Derechos Humanos</i>)
Cofepris	Federal Commission for Protection against Sanitary Risks (<i>Comisión Federal para la Protección contra Riesgos Sanitarios</i>)
Conabio	National Biodiversity Commission (<i>Comisión Nacional para el Conocimiento y Uso de la Biodiversidad</i>)
Conanp	National Protected Natural Areas Commission (<i>Comisión Nacional de Áreas Nacionales Protegidas</i>)
DOF	Official Gazette of the Federation (<i>Diario Oficial de la Federación</i>)
EPJ	Prior study to justify an amendment to the decree of the Natural Protected Area “Sumidero Canyon National Park” (September 2012) (<i>Estudio previo justificativo para modificar el decreto del Área Natural Protegida Parque Nacional Cañón del Sumidero</i>)
FEPADA	Office of the Chiapas State Attorney for Environmental Offenses (<i>Fiscalía Especializada para la Atención de Delitos Ambientales del estado de Chiapas</i>)
IHNE	Chiapas State Institute of Natural History and Ecology (<i>Instituto de Historia Natural y Ecología del estado de Chiapas</i> , now Chiapas State Ministry of the Environment and Natural History (<i>Secretaría de Medio Ambiente e Historia Natural—Semahn</i>))
INEGI	National Institute of Statistics and Geography (<i>Instituto Nacional de Estadística y Geografía</i>)
Imeca	Metropolitan Air Quality Index (<i>Índice Metropolitano de la Calidad del Aire</i>)
IMSS	Mexican Institute of Public Health (<i>Instituto Mexicano del Seguro Social</i>)
JPAC	Joint Public Advisory Committee
LGEEPA	Mexican Environmental Protection Act (<i>Ley General del Equilibrio Ecológico y la Protección al Ambiente</i>)
NAAEC	North American Agreement on Environmental Cooperation
NOM	Mexican Official Standard (<i>Norma Oficial Mexicana</i>)
PNA	protected natural area
POEGT	General Environmental Zoning Plan (<i>Programa de Ordenamiento Ecológico General del Territorio</i>)
POELT	Local Environmental Zoning Plan (<i>Programa de Ordenamiento Ecológico Local del Territorio</i>)
POERT	Regional Environmental Zoning Plan (<i>Programa de Ordenamiento Ecológico Regional del Territorio</i>)
Profepa	Office of the Federal Attorney for Environmental Protection (<i>Procuraduría Federal de Protección al Ambiente</i>)
RANP	Protected Natural Areas Regulation to the LGEEPA (<i>Reglamento de la LGEEPA en Materia de Áreas Naturales Protegidas</i>)
SCNP	Sumidero Canyon National Park
Sedena	Ministry of National Defense (<i>Secretaría de la Defensa Nacional</i>)

Semahn	Chiapas State Ministry of the Environment and Natural History (<i>Secretaría de Medio Ambiente e Historia Natural</i> ; formerly, Ministry of the Environment and Housing (<i>Secretaría de Medio Ambiente y Vivienda</i> —Semavi), and prior to that the Chiapas State Institute of Natural History and Ecology (<i>Instituto de Historia Natural y Ecología del estado de Chiapas</i> —IHNE))
Semarnat	Ministry of the Environment and Natural Resources (<i>Secretaría de Medio Ambiente y Recursos Naturales</i> ; formerly, Ministry of the Environment, Natural Resources and Fisheries (<i>Secretaría de Medio Ambiente, Recursos Naturales y Pesca</i> —Semarnap)
Semavi	Chiapas State Ministry of the Environment and Housing (<i>Secretaría de Medio Ambiente y Vivienda</i> ; predecessor to Semahn)
SSa-Chiapas	Chiapas State Ministry of Health (<i>Secretaría de Salud del estado de Chiapas</i>)
UCAJ	Legal Affairs Coordinating Unit (<i>Unidad Coordinadora de Asuntos Jurídicos</i>) of Semarnat
UNAM	National Autonomous University of Mexico (<i>Universidad Nacional Autónoma de México</i>)

Definitions

Agreement	North American Agreement on Environmental Cooperation
Cales y Morteros or the “company”	The company named “Cales y Morteros del Grijalva, S.A. de C.V.”
Council	Council of the Commission for Environmental Cooperation
Notification	SEM-11-002 (<i>Sumidero Canyon II</i>), Secretariat Notification to Council under Article 15(1) (15 November 2013)
Parties	The governments of Canada, the United States, and Mexico
Party	The Government of Mexico
Submission	SEM-11-002 (<i>Sumidero Canyon II</i>), Revised Article 14(1) Submission (11 June 2012)
Submitter	Comité Pro-Mejoras de la Ribera Cahuaré
Resolution	SEM-11-002 (<i>Sumidero Canyon II</i>), Council Resolution 14-05 instructing the Secretariat to prepare a factual record (10 June 2014)
Response	SEM-11-002 (<i>Sumidero Canyon II</i>), Party Response (27 November 2012)
Secretariat	Secretariat of the Commission for Environmental Cooperation
Chiapas	The Free and Sovereign State of Chiapas
Mexico	United Mexican States

Units of measure

dB	decibels
ha	hectares
km²	square kilometers
t	tons
m	meters
masl	meters above sea level
TSP	total suspended particles
PM₁₀	particles under 10 µ

Note of clarification

Due to the length of some of the Internet addresses referred to in this document, Google Shortener <<http://goo.gl/>> has been used to abbreviate the URLs. In each case, the functionality of the corresponding link has been checked and the viewing date specified.

Maps and figures in this factual record were produced from publicly available sources and are for illustrative purposes only. The maps are not to scale.



Nathan Gibbs (nathangibbs on <www.flickr.com>)

Summary of the Facts

- i. On 29 November 2011, the Comité Pro-Mejoras de la Ribera Cahuaré (the” Submitter”) filed a submission with the Secretariat of the Commission for Environmental Cooperation (CEC) in accordance with Article 14(1) of the North American Agreement on Environmental Cooperation. The Submitter asserts that Mexico is failing to effectively enforce its environmental law in connection with the operation of a rock quarry that is allegedly damaging Sumidero Canyon National Park (SCNP, “Sumidero Canyon” or the “Park”) in Chiapas, Mexico. On 10 June 2014, in Resolution 14-05, the Council unanimously instructed the CEC Secretariat to prepare a factual record for submission SEM-11-002 (see paragraphs 2-6).
- ii. In accordance with Council Resolution 14-05, this factual record presents relevant factual information relating to the Submitter’s assertions and applicable provisions of environmental law, in connection with Cales y Morteros’ noise emissions, Sumidero Canyon’s rate of change and its carrying capacity, the extent to which Cales y Morteros’ activities generate benefits to the neighbouring community, and whether these are compatible with the applicable laws (see paragraphs 11-13).
- iii. Characterized by the majestic landforms of Sumidero Canyon, Sumidero Canyon National Park was declared by the Government of Mexico a protected natural area (PNA) on 8 December 1980. With an area of approximately 217 km², SCNP harbors 8.42% of the faunal biodiversity of Mexico and 21.05% of that of Chiapas. Its biodiversity includes protected species of birds, mammals, orchids, and bromeliads (see paragraphs 15-20). SCNP has been designated a Wetland of International Importance under the Ramsar Convention; similarly, the National Biodiversity Commission (*Comisión Nacional para el Conocimiento y Uso de la Biodiversidad*—Conabio) has designated it a Priority Terrestrial Region and an Important Bird Conservation Area (see paragraphs 21-24).
- iv. The company Cales y Morteros del Grijalva, S.A. de C.V., began quarrying limestone in the area of what is now the SCNP in 1965, fifteen years before the above-mentioned protected natural area declaration. The company has not been compensated to date for the expropriation of its land (see paragraphs 36-40).
- v. The National Protected Natural Areas Commission (*Comisión Nacional de Áreas Naturales Protegidas*—Conanp)—the federal government entity charged with the responsibility of conserving the most representative ecosystems in Mexico and its biodiversity, including natural protected areas such as the Sumidero Canyon—has stated in several documents that the activities of Cales y Morteros are incompatible with the conservation goals of Sumidero Canyon, because the only activities permitted in national parks are those related to protecting natural resources, enhancing the quality of flora and fauna and, in general, preservation of ecosystems and the components thereof, along with such activities as research, recreation, tourism, and environmental education. The activities of Cales y Morteros do not fit into any of these limited categories of activity permitted in national parks.(see paragraphs 29, 92-93)
- vi. Starting in 2000, Cales y Morteros began taking particle and noise emissions control measures for its equipment (see paragraphs 84-86). From 2002 onward it considerably stepped up its rock quarrying activities in SCNP, until 2013 when it stopped extraction (see paragraphs 47-50).
- vii. In 2002, residents of the nearby community of Ribera Cahuaré began filing complaints with the three levels of government against Cales y Morteros, addressing noise, air emissions and explosions (see paragraphs 55-60).
- viii. To address the issues and concerns raised by the residents of Ribera Cahuaré regarding the activities of Cales y Morteros, beginning in 2002 the Chiapas State Ministry of Health (SSa-Chiapas), Conanp, and Chiapas State Ministry of the Environment and Natural History (Semahn) held inter-institutional meetings, conducted studies and monitoring campaigns, and produced expert reports on noise, seismic activity caused by the rock blasting, air emissions, and health impacts (see paragraphs 55-56, 74, 106 and 119).
- ix. Various studies conducted by SSa-Chiapas have established a relationship between airborne limestone dust, vibrations, and noise from the company’s activities and the residents’ complaints, including respiratory and dermatological ailments, anxiety, sleep disruption, and damage to their houses (see paragraphs 117-131).

- x. The studies available to the Secretariat show the following significant impacts of the company's activities on SCNP: i) forested land use change, resulting in species loss, landscape alteration, and heavier runoff increasing the instability of the subsoil; ii) particle emissions settling on vegetation and affecting its growth; iii) water pollution and its impact on flora and fauna, and iv) vibrations causing cracking on the east wall of Sumidero Canyon (although a consultant retained by the company doubts the scientific validity of the claim that the company's activities have caused the cracking) (see paragraphs 29, 106-131).
- xi. As a result of public complaints, the Office of the Federal Attorney for Environmental Protection (Profepa) and Semahn brought multiple administrative enforcement proceedings against Cales y Morteros in regard to noise, air emissions, environmental impacts, and forested land use changes. Some of the proceedings ended with the company being ordered to pay fines and take corrective measures, others were overturned in favor of the company, and a few more remain pending (see paragraphs 55-60).
- xii. According to noise measurements taken by state authorities and by the company between 2002 and 2012, the company's equipment emits noise between 58 and 112 decibels. In 2003, the company was fined for noise violations and as a result, took control measures. A study issued in 2012 by Conanp indicated that according to company-supplied data, the noise arising from blasting, the most significant source of noise exceeds the thresholds in Mexican Official Standard NOM 081. The company ceased blasting in December 2013. The company has plans to undertake additional measures to reduce noise (see paragraphs 66-83).
- xiii. The extraction of rock materials used for construction is excluded from the purview of the Mining Act (*Ley Minera*) and as a result, limestone quarrying is not considered a mining activity and is not a matter under federal jurisdiction; rather, it falls under the jurisdiction of the Chiapas state government. But the federal government does have jurisdiction over approvals of certain activities proposed to be carried out in a PNA (see paragraphs 57, 91).
- xiv. During an administrative proceeding opened by Profepa in 2004, the authority maintained that the company is located outside the park boundaries, although Conanp denies that Cales y Morteros is outside the national park (See paragraphs 31-33, 42-44, 152).
- xv. No acceptable rates or limits of change, or carrying capacities, have been determined for limestone quarrying in SCNP. Mexico asserts that it did not do so because the company's activities are not compatible with SCNP (92, 133-140).
- xvi. At the time when the executive order creating the Park (the declaration) was issued, the applicable law provided that a regulation covering the PNA in question be issued, but not that a management plan be produced; to the Secretariat's knowledge, no such regulation has been issued (see paragraphs 137-138).
- xvii. A study (*estudio previo justificativo*—EPJ), issued by Conanp with a view to amending the SCNP declaration and published in 2012, proposes to sever from the Park those areas that are occupied by irregular human settlements, but not the limestone quarry. The EPJ also contemplates the production of a management plan for the zoning of the Park. The current status of the draft amendment to the declaration is unknown (see paragraphs 28-29, 139-140).
- xviii. In 2008, the company initiated the studies to relocate its operations outside SCNP. Some of these procedures remain pending. Prior to the conclusion of this factual record, the Company obtained the land use permit from the municipal authorities and had filed before federal authorities applications on environmental impact and change in forested land use (see paragraphs 53-54).
- xix. The company decided to cease blasting and rock quarrying since 14 December 2013, but it is still processing rock material on the premises in the crusher and the kilns with material from another limestone quarry (see paragraph 50).

1. History of the Submission

- Articles 14 and 15 of the North American Agreement on Environmental Cooperation (the “NAAEC” or the “Agreement”) provide for a process allowing any person or nongovernmental organization residing or established in Canada, Mexico or the United States to make a submission to the Secretariat of the Commission for Environmental Cooperation (“CEC Secretariat” or “Secretariat”) asserting that a Party to the NAAEC is failing to effectively enforce its environmental law. The CEC Secretariat initially considers submissions to determine whether they meet the criteria contained in NAAEC Article 14(1). When the Secretariat finds that a submission meets these criteria, it then determines, pursuant to the provisions of 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, pursuant to NAAEC Article 15(1), that the Secretariat considers that the matter warrants the development of a factual record, providing its reasons for such notification. Where the Secretariat decides to the contrary, it then proceeds no further with the submission.¹ The Secretariat will prepare the factual record if the Council of the CEC (“the Council”) instructs it to do so by a two-thirds vote.
- On 29 November 2011, the Comité Pro-Mejoras de la Ribera Cahuaré (the “Submitter”) filed a submission with the CEC Secretariat in accordance with NAAEC Article 14(1).² The Submitter asserts that Mexico is failing to effectively enforce its environmental law in connection with the operation of a rock quarry that is allegedly damaging Sumidero Canyon National Park (SCNP, “Sumidero Canyon” or the “Park”) in Chiapas, Mexico.
- On 10 May 2012, the Secretariat found that the submission did not meet all the eligibility requirements of NAAEC Article 14(1).³ On 11 June 2012, the Submitter filed a revised submission⁴ with the Secretariat in accordance with paragraph 6.2 of the *Guidelines for Submissions on Enforcement Matters under Articles 14 and 15 of the North American Agreement on Environmental Cooperation* (the “Guidelines”).
- On 6 September 2012, the Secretariat found that revised submission SEM-11-002 (*Sumidero Canyon II*) meets all the eligibility requirements of Article 14(1) and, in accordance with the criteria of Article 14(2), requested a response from the Government of Mexico.⁵ On 27 November 2012, the Secretariat received and reviewed Mexico’s response to submission SEM-11-002.⁶
- The Secretariat then notified the Council on 15 November 2013 that the Secretariat considered that the revised submission warrants the preparation of a factual record.⁷ The Secretariat found that the Response left central issues unresolved in relation to:
 - the issuance of air emissions approvals to Cales y Morteros del Grijalva, S.A. de C.V. (“Cales y Morteros” or the “company”);⁸
 - noise emissions from the company;⁹ the granting of environmental impact approval for the company’s alleged modifications and expansions;¹⁰
 - the implementation of safety measures in case of imminent risk of ecological imbalance, harm or serious damage to natural resources, or in cases of pollution having dangerous consequences to ecosystems, to its components or to public health;¹¹
 - the activities permitted in Sumidero Canyon National Park; the establishment of acceptable rates or limits of change and carrying capacities in the Park;¹²
 - the establishment of restrictions on the use of natural resources by Cales y Morteros,¹³ and
 - the issuance of the management plan for the Park.¹⁴
- On 10 June 2014, in Resolution 14-05, the Council unanimously instructed the Secretariat to prepare a factual record for submission SEM-11-002.¹⁵

IN BRIEF

The Submitter asserts that Mexico is failing to effectively enforce its environmental law regarding the operation of a rock quarry in a national park.

Photo 1. Sumidero Canyon



Nathan Gibbs (nathangibbs on <www.flickr.com>)

7. In accordance with Council Resolution 14-05, this factual record presents relevant factual information relating to the Submitter's assertions and applicable provisions of environmental law, in connection with Cales y Morteros' noise emissions, Sumidero Canyon's rate of change and its carrying capacity, the extent to which Cales y Morteros' activities generate benefits to the neighbouring community, and whether these are compatible with the applicable laws.
8. Canada and Mexico made public their reasons for authorizing the preparation of a factual record with a different scope than was recommended by the Secretariat. The United States stated that it "would have also supported a broader scope for the factual record."¹⁶ The reasons stated by the Parties are included in Appendix 1.
9. In accordance with Article 15(5) of the Agreement, on 15 June 2015 the Secretariat submitted to Council the draft factual record for submission SEM-11-002 (*Sumidero Canyon II*), commencing a period of 45 working days for the Parties to make observations on the accuracy of the document.
10. On 13 August 2015, Mexico submitted its comments on the accuracy of the draft factual record. Likewise, Canada submitted its comments on August 14 while the US provided its comments on August 17 2015. In accordance with Article 15(6) of the Agreement, on 17 September 2015, the Secretariat incorporated the relevant observations into the final version of the factual record and submitted it to Council for a vote pursuant to Article 15(7) of the Agreement.

IN BRIEF

This factual record focuses on:

- a. Noise emissions by the company;
- b. Sumidero Canyon's rate of change and capacity of its natural resources to sustain human activities (carrying capacity); and
- c. The extent to which Cales y Morteros' activities generate benefits to the neighbouring community and whether these are compatible with the applicable laws.

2. Scope of the factual record

11. This section describes the scope of the factual record for revised submission SEM-11-002 (*Sumidero Canyon II*), filed with the CEC Secretariat on 11 June 2012.
12. This factual record presents information within the scope approved by the Council in Council Resolution 14-05, and thus addresses the effective enforcement of the following provisions of environmental law:¹⁷
 - a) Article 155 of the Mexican Environmental Protection Act (*Ley General del Equilibrio Ecológico y la Protección del Ambiente*— LGEEPA) and NOM-081-SEMARNAT-1994, *Establishing the maximum allowable limits for noise emissions from fixed sources and the corresponding measurement method* (NOM-081), in relation to noise emissions caused by the activities of Cales y Morteros;
 - b) Article 80 of the Protected Natural Areas Regulation to the LGEEPA (*Reglamento de la LGEEPA en Materia de Áreas Naturales Protegidas*—RANP), only in regard to the definition of acceptable rates or limits of change and carrying capacities corresponding to the use of natural resources taking place in SCNP, and
 - c) the *chapeau* of RANP Article 81, only as regards the extent to which the production activities of Cales y Morteros generate benefits for the local residents and whether these activities are compatible with the declaration of the site as a PNA, as well as with the corresponding management plan, the environmental zoning plans, the applicable NOMs, and other legal instruments.
13. The full text of Council Resolution 14-05 and the NAAEC Parties' reasons for instructions regarding the scope of the factual record can be found in Appendix 1 of this factual record. The text of LGEEPA Article 155, RANP Articles 80 and 81 (first paragraph), as well as that of the provisions related to the environmental law in question, is in Appendix 3 of this factual record.

Photo 2. Cales y Morteros del Grijalva quarry



Aerial view of the Cales y Morteros quarry (looking south), the Grijalva River and the nearby community of Ribera Cahuaré

3. Background

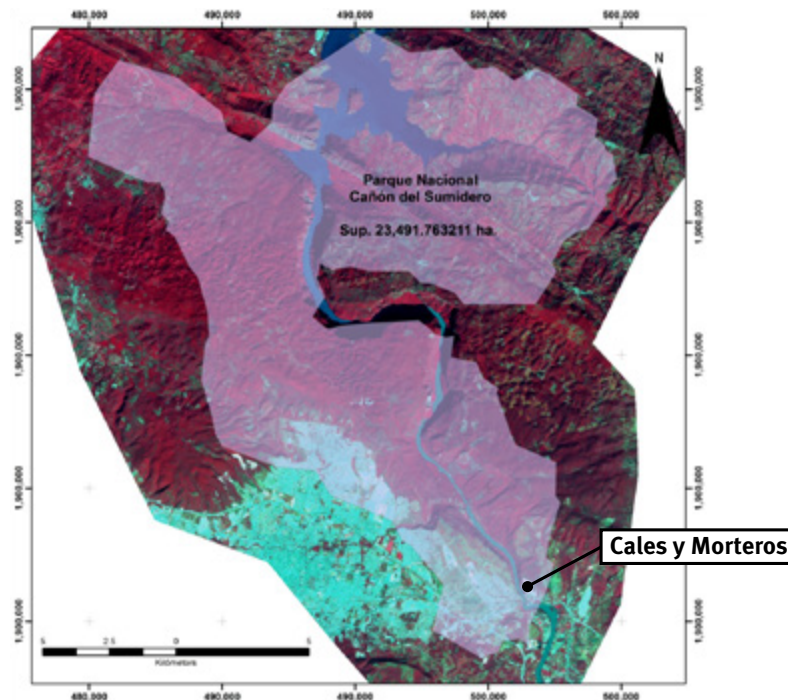
14. This section provides a general description of Sumidero Canyon National Park the community of Ribera Cahuaré, and the company Cales y Morteros. This is essential in order to understand the alleged impact of the quarry activities. The photo below shows the Cales y Morteros quarry inside the Sumidero Canyon National Park.

3.1 Sumidero Canyon National Park

15. Sumidero Canyon National Park, with a total area of 217,894,190 m², is located in the Central Depression (a geological formation formed by erosion) of the state of Chiapas, south of the city of Tuxtla Gutiérrez and comprises parts of the following municipalities: the northern part of Osumacinta, the northeastern part of Soyaló, the western part of San Fernando, and the southeastern and eastern parts of Chiapa de Corzo.¹⁸ Twenty percent of the total area of the Park is part of the municipality of Chiapa de Corzo, while 35% is part of Osumacinta, 20% is part of San Fernando, 5% is part of Soyaló, and 20% is part of Tuxtla Gutiérrez.¹⁹ Some areas inside the park are populated and developed and are referred to as irregular settlements (see section 3.1.3 below). Figure 1 below shows the Sumidero National Park boundaries.
16. The National Protected Natural Areas Commission (*Comisión Nacional de Áreas Nacionales Protegidas*—Conanp) defines the geology of the Sumidero Canyon as follows:

Sumidero Canyon is the channel through which the Grijalva River leaves the Central Depression physiographic province of the state of Chiapas and enters the Central Highlands province. This deep, narrow canyon is characterized by vertical walls that change direction by as much as 90° along the river's trajectory.²⁰

Figure 1. Boundaries of the Sumidero Canyon National Park²¹



3.1.1 Physical environment

i. Geological setting

17. Generally speaking, the rugged topographical features of SCNP have protected it from degradation caused by human activity.²² Its altitude varies from 600 to 1,200 masl.²³ The Sumidero Canyon landform

had its origin in a long process of geological activity, the visible evidence of which includes Upper Mesozoic limestone strata along with strata containing fossilized marine organisms, in addition to river terraces left behind as the river descended from its former levels, deepening its bed; this erosion left behind extravagantly shaped peaks and cavities as well as huge rock outcroppings and underground channels which, as they encounter permeable rock, give rise to the subterranean bodies of water that emerge on the canyon walls in the form of waterfalls.²⁴

i. Flora and fauna

18. The predominant vegetation in SCNP is mid-elevation semi-deciduous forest, although moist deciduous forest, oak woodlands, pine woodlands, induced pasture, and secondary vegetation can also be found. Vegetation estimates for the park are: medium-height semi-deciduous forest is the predominant vegetation, covering an area of 10,712.97 ha; followed by 6,576.87 ha of induced [cleared] pasture; 5,594.65 ha of low deciduous forest; 194.5 ha of secondary vegetation; 57.50 ha of oak woodlands; and 20.17 ha of pine forest (see Figure 2).²⁵
19. In terms of biodiversity, Table 1 summarizes the available information on species found in the SCNP.²⁶

Table 1. SCNP species data²⁷

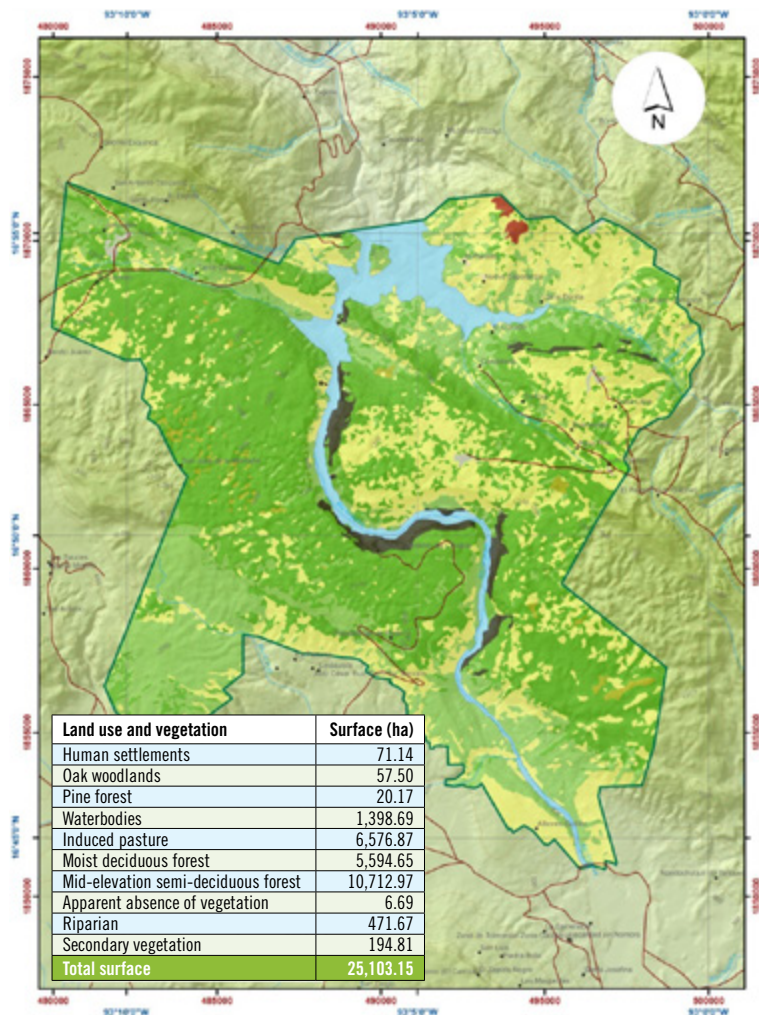
SNCP constitutes the habitat for:

1,736 species	1,381 flora
	355 fauna
29 threatened species	14 flora
	15 fauna
43 species subject to special protection	3 flora
	40 fauna
6 endangered species	2 flora
	4 fauna
1.4% of the flora is endemic to the state of Chiapas	
0.4% of the species have limited range	

i. Climate and wind

20. SCNP has three climatic types: warm and dry, semi-warm, and warm and humid. Mean precipitation is 1,000 mm in the rainy season (May to October) and 200 mm in the dry season (November to April). Prevailing winds are from the northwest.²⁸

Figure 2. Land use and vegetation in SCNP²⁹



3.1.2 History

21. On 24 May 1972, the Chiapas state government declared the lands making up Sumidero Canyon as a park.³⁰ Subsequently, on 8 December 1980, Sumidero Canyon was declared a National Protected Area and designated a “National Park” by a presidential order published in the Official Gazette of the Federation (*Diario Oficial de la Federación*—DOF).³¹ The SCNP declaration included provision for the expropriation of lands needed for the newly created Park, including land owned by Cales y Morteros. National parks are one of several Natural Protected Area designation categories.

IN BRIEF

Created in 1980, the Sumidero Canyon PNA has been administered by Conanp since 2003.

22. Since its inception, SCNP has been administered by a succession of federal authorities; namely, the Ministry of Human Settlements and Public Works (*Secretaría para Asentamientos Humanos y Obras Públicas*—SAHOP), the Ministry of Urban Development and Environment (*Secretaría de Desarrollo Urbano y Ecología*—Sedue), the Ministry of the Environment, Natural Resources, and Fisheries (*Secretaría*

de Medio Ambiente, Recursos Naturales y Pesca—Semarnap; now Semarnat), and the National Protected Natural Areas Commission (*Comisión Nacional de Áreas Nacionales Protegidas* or *Conanp*). Since 2003, Sumidero Canyon has been administered by Conanp,³² whose work includes ensuring adequate marking of the Park boundaries as there were inconsistencies in the SCNP declaration, identifying areas at risk of land use change, and regulating tourism activities.³³ A predominant portion of Conanp’s work has involved the paying of compensation for the numerous lands affected by the 1980 expropriation included in the SCNP declaration.³⁴ The succession of authorities in charge of the SCNP administration has led to “sporadic attention and gaps that caused the fragmentation of the ecosystem, at times due to lack of knowledge, but in general due to a weak or absent institutional presence.”³⁵

23. The Park was later designated by the National Biodiversity Commission (*Comisión Nacional para el Conocimiento y Uso de la Biodiversidad*—Conabio) as a Priority Terrestrial Region (RPT 141-La Chacona-Cañón del Sumidero) and as an Important Bird Conservation Area (AICA SE-46 Corredor Laguna Bélgica-Sierra Limón-Cañón del Sumidero).³⁶

IN BRIEF

Sumidero Canyon has been designated a Wetland of International Importance, a Priority Terrestrial Region, and an Important Bird Conservation Area.

24. On 2 February 2004, SCNP was listed as a Wetland of International Importance under the Ramsar Convention.³⁷ That same year, the federal government and the Chiapas state government signed a Collaboration Agreement for the Preservation and Development of SCNP (*Convenio de Colaboración para la Preservación y Desarrollo del Parque Nacional Cañón del Sumidero*). In 2005, a coordination agreement was signed for the protection of archeological, artistic, and historic monuments and zones. The signatories to the agreement were Semarnat, acting through Conanp, and the Ministry of Public Education (*Secretaría de Educación Pública*), acting through the National Institute of Anthropology and History (*Instituto Nacional de Antropología e Historia*).³⁸

3.1.3 Delimitation of SCNP

25. The original area of SCNP has been affected by the arrival of irregular settlements since 1982 and, in more accelerated fashion, by settlements on the outskirts of the cities of Tuxtla Gutiérrez and Chiapa de Corzo since 1990.³⁹ According to information from Conanp, these are human settlements “without property deeds” but served by the state and municipal governments, which provide electrical, street layout, drinking water, sewer, and other services.⁴⁰
26. In 1995, the Semarnap office in Chiapas submitted a proposal to sever from SCNP a piece of land containing irregular settlements with a population of 8,513, and with an area of 163.5758 hectares.⁴¹ By 2003, this proposal had reached the stage of verifying the boundaries of the area to be severed, and included the irregular settlements of the municipality of Chiapa de Corzo and the area occupied by Cales y Morteros. The proposal was never implemented.⁴²
27. In 2002, the federal executive branch and the executive branch of the state of Chiapas signed a coordination agreement with a view to devising a relocation plan for the irregular human settlements located in protected natural areas under federal jurisdiction, such as SCNP. The relocation plan was not implemented and instead, Conanp decided to undertake amendment of the SNCP declaration.⁴³
28. In 2007, Conanp published a study proposing amendment of the SCNP declaration (*Estudio Previo Justificativo*, EPJ) on the basis of encroachment by irregular settlements. In this EPJ, the area of the limestone quarry operated by Cales y Morteros was zoned as a “recovery subzone”; the purpose of this category — in accordance with LGEEPA Article 47 bis paragraph II(h) — is to restore and rehabilitate areas where natural resources have been severely altered or modified. The area of this subzone comprised 12,781 ha.⁴⁴

29. In September 2012, Conanp issued a second study (EPJ) to justify an amendment to the declaration of the Sumidero Canyon National Park.⁴⁵ The EPJ provides justification for changing the boundaries of SCNP to exclude irregular settlements that generate impacts contrary to Park objectives. The study notes that after the entry into force of the executive order creating the park (the park declaration), the companies Cales y Morteros and ICASA continued with quarrying activities (the Secretariat learned through interviews with Conanp that the latter company is no longer operating). The study underscores the negative impacts from quarrying activities in the geomorphology, land use, landscape, flora and fauna and notes that 91 irregular settlements are affecting 12% of the Park's area. Although both quarrying and irregular settlements affect the Park's integrity, none of the studies discuss both issues together. The Park declaration amendment would establish zones in support of the conservation goals of the PNA, banning extraction and rock quarrying, among other activities. Irregular settlements would be excluded from the Park. The EPJ anticipates the development of a management plan for the Park, incorporating the new zoning rules.⁴⁶

IN BRIEF

Proposals have existed since 1995 either to sever from the Park those areas that have been invaded by irregular human settlements or to relocate them. In 2007 and 2012 Conanp published studies (EPJs) proposing to amend the SCNP boundaries to exclude irregular settlements.

30. The notice informing the public that the EPJ was available for consultation appeared in the DOF on 27 November 2012.⁴⁷ State and federal bodies and the general public were given a period of 30 calendar days from the day after publication, in which to review and comment on the EPJ.

31. On 18 December 2012, Cales y Morteros submitted its observations on the EPJ. Since the expropriation order covering its land had been revoked (see section 3.3 *infra*), the company asked that the land be excluded from the new SCNP boundaries. The company questioned why, since one of the goals of the EPJ was to exclude the irregular settlements, its land was kept inside the new park boundaries, given the fact that unlike irregular settlements, the company's operations had been established lawfully, prior to the creation of SCNP. The company further argued that the company's operations had irreversibly changed the environment. Cales y Morteros maintained that since its premises already affected the site, they do not meet the criteria for national parks established by the LGEEPA. The company stated that the vegetation on parts of its premises now corresponds to that of mature secondary forest. It also noted that the exclusion of its premises would give legal certainty with respect to its property rights and that this exclusion would not affect the permanence of the existing ecosystems, consistent with the purpose of the EPJ. In response to the alleged environmental impacts attributed by the study to Cales y Morteros, the company indicated that it holds various environmental approvals and studies corroborating that no damage has been proven, particularly to the walls of Sumidero Canyon, and that in 1973 practically all of the property had already been cleared for agriculture.⁴⁸

IN BRIEF

Cales y Morteros is asking to be excluded from the Park. However, its inclusion prevents further damage to the Sumidero Canyon. Conanp stated in 2012 that quarrying was damaging geological structures in the Park.

32. Conanp's letter in response to Cales y Morteros, dated 2 July 2013, indicates that the alleged revocation of the expropriation order lacks legal force since a PNA declaration can only be amended by another executive order, pursuant to LGEEPA Articles 57 and 62 and that consequently, all those private land purchase-and-sale contracts relating to the quarry that postdate the creation of SCNP are considered null and void. Conanp noted that the vegetation present on the company's premises (moist deciduous forest) is representative of SCNP and is one of the most endangered tropical vegetation types. Concerning the impact of the company's activities in the area, Conanp cited a study from the National Autonomous University of Mexico (*Universidad Nacional Autónoma de México*—UNAM) demonstrating that the company's activities had made the zone next to the quarry very unstable, threatening

one of the Sumidero Canyon walls. It concluded that the exclusion of the premises from SCNP is not feasible, since the quarrying is damaging the geological structure of the park and is therefore “incompatible with the management classification” of the PNA in question.⁴⁹

33. On 26 August 2013, Cales y Morteros filed an application for administrative review of Conanp’s July 2013 letter rejecting the exclusion of the limestone quarry from SCNP. Among other things, the company argued that the law does not give the Conanp regional office that issued the letter the power to make a final decision on the company’s application.⁵⁰ On 1 November 2013, Conanp headquarters concluded that the application for review had a legal basis and voided the Conanp regional office decision of 2 July 2013.⁵¹ The November 2012 EPJ to amend the Parks decree is still in effect as a study that justifies modification of the SCNP.

3.2 The community of Ribera Cahuaré

34. The community of Ribera Cahuaré is situated on the banks of the Grijalva River at what is known as the gateway to Sumidero Canyon National Park,⁵² at coordinates of N16°21’02.05” and W92°04’29.2.” (see Figure 3 below).⁵³ The nearest houses are 50 m from the quarry limits, 700 m south of the working face of the quarry⁵⁴ and 200 m north, 150 m south, and 120 m east of the kilns area.⁵⁵ The community was settled in 1900,⁵⁶ although the Submitter states that it was established in the early 1990s.⁵⁷ In 2013, the Chiapa de Corzo municipal council officially recognized Ribera Cahuaré as an integral part of the municipality of Chiapa de Corzo (Chiapas),⁵⁸ whose population in 2010 was 87,603.⁵⁹ According to Conanp, 64% of the area of Ribera Cahuaré is within Sumidero Canyon National Park; that is, 20,036 of the locality’s 31,289 hectares are occupied by irregular human settlements.⁶⁰ As previously mentioned, although a coordination agreement was signed in 2002 between the federal and state executive branches to relocate the irregular human settlements, including Ribera Cahuaré, this project was never implemented.⁶¹

Figure 3. The community of Ribera Cahuaré



Source: Google Maps

35. In 2014, Ribera Cahuaré had a total population of 660 living in 221 houses; of these, children 14 years of age and under accounted for 28.5% of the population.⁶² Cahuaré is the place of residence of 49 of the 108 employees of Cales y Morteros,⁶³ and most of the residents earn their living from wage work or the informal sector.⁶⁴ Almost a third (32%) of the population has some economic activity, 29% are students, 27% are homemakers, 1% hold no salaried position or are retired, and 10% have no occupation.⁶⁵ Ribera Cahuaré is a low- to middle-income community that has electricity and drinking water services but lacks drainage and sewer infrastructure.⁶⁶ Thirty-five percent of the population of Ribera Cahuaré has primary school education and 19% has high school education.⁶⁷ The following table (Table 2) shows population growth in Ribera Cahuaré while Figure 4 shows demographic intensification in the area.

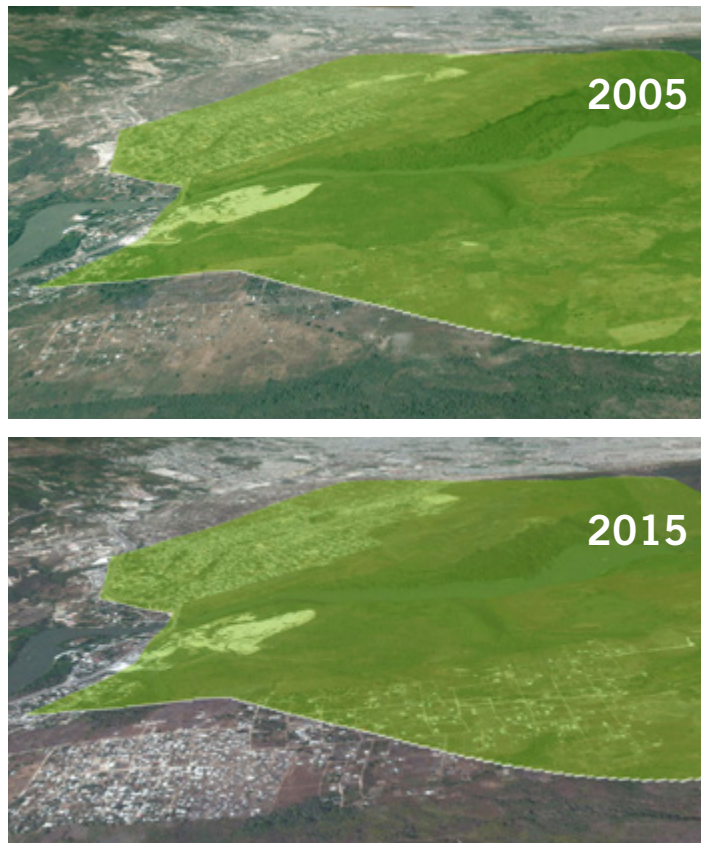
IN BRIEF
 The community of Ribera Cahuaré (pop. 660) is adjacent to Sumidero Canyon and at a distance of 50 m from the Cales y Morteros property.

Table 2. Population growth in Ribera Cahuaré⁶⁸

Year	dB
1900	82
1910	4
1921	91
1930	63
1940	30
1950	388
1960	282
1970	356
1980	812
1990	n.d.
2000	n.d.
2011	709

n.d. = no data available.

Figure 4. Demographic intensification in the vicinity of Cales y Morteros between 2005 and 2015⁶⁹



3.3 Cales y Morteros del Grijalva, S.A. de C.V.

36. This section provides information about Cales y Morteros, its history, its production process, how its operations have changed over time, and its conflict with the residents of Ribera Cahuaré.
37. Cales y Morteros is located in the municipalities of Chiapa de Corzo and Tuxtla Gutiérrez, in the state of Chiapas, at an approximate elevation of 444 masl,⁷⁰ at coordinates of N16°44'32.71" and W93°1'49.00."⁷¹ The north side of the company, which is situated at kilometre 1,096 of the Pan-American Highway, borders the east face of Sumidero Canyon and thus has some steep terrain.⁷² At the south end of the lot is the offices area, while the crushers and gravel pits are at the north end of the lot. The company is bounded on the south by the Pan-American Highway. On the other side of the highway, to the east of the company's premises, are houses belonging to the communities of Ribera Cahuaré, Santa Cruz, Colonia Nuevo Bochil, and Adriana Gabriela.⁷³ While the company's premises occupy a total area of 59.55 ha,⁷⁴ only 23.7 ha⁷⁵ are dedicated to its operations (limestone quarrying and processing), and of these, 16.05 ha⁷⁵ are exclusively devoted to quarrying (see Table 3). The unused east side of the company's property retains its forest cover. Figure 5 shows the location of the quarry, the property owned by Cales y Morteros and the Sumidero Canyon National Park.
38. The company is engaged in the processing (through crushing, calcination, hydration and packaging) of limestone or rock material brought from elsewhere, and selling this material as quicklime, hydrated lime, agricultural lime, gravel, and other products.⁷⁸ Rock quarrying has not taken place since December 2013. The company has 108 employees, 72 of them unionized.⁷⁹ It operates twenty-four hours a day and seven days a week, throughout the year.

Figure 5. General location of Cales y Morteros⁷⁷



39. The company was incorporated on 22 November 1965.⁸⁰ It became the owner of the Cahuaré property, comprising the land provided by a shareholder of the company in 1965⁸¹ and three lots purchased in 1991,⁸² with an area of 54 ha, corresponding to 0.27% of the area of Sumidero Canyon National Park.⁸³
40. In 1975, the company was acquired by Grupo Sanroke,⁸⁴ and in November 2013 it was acquired by Grupo Industrial Monclova.⁸⁵
41. Following the creation of SCNP on 8 December 1980 the landowners were to have been paid compensation for the value of their land, normally following an appraisal.⁸⁶ The Secretariat found no information to the effect that the company mentioned in the expropriation order was compensated, and Secretariat interviews with both Cales y Morteros representatives⁸⁷ and Conanp officials suggest that compensation never occurred.⁸⁸
42. On 4 June 1981, Cales y Morteros and several owners of the three plots of the Cahuaré property filed a revocation motion against the expropriation order with what was then the Ministry of Human Settlements and Public Works (SAHOP). On 9 April 1987, the Housing Branch (*Subsecretaría de Vivienda*) of the Ministry of Urban Development and Environment (Sedue) issued a decision on the revocation motion in favor of the company and the owners of the other subdivisions of the Cahuaré property, thereby revoking the effects of the Park declaration.⁸⁹ It should be noted that the only remaining copy of the decision on the revocation motion is a copy authenticated by a notary public on 21 October 2004, since the original document has apparently been lost.⁹⁰ The notarized document states that the revocation motion affects an area of 36.1663 ha, but it does not specify coordinates. In addition, due to an alleged error in the decision, the notarized document does not refer to all 59.55 hectares (the whole property) that were at issue in the revocation motion.⁹¹ The entry for the revocation motion in the Federal Public Registry of Property, dated 26 June 1982 (*folio real* no. 2810) indicates that of the area expropriated by the order, 1,000,000 m² and another 600,000 m² (the El Cahuaré property) are excluded as a result of an amparo motion and another revocation motion filed by Virginia Ceballo Espinosa (amparo no. 806/981) and by the company's owners, although the revocation motion filed by the company had yet to be resolved at this time.⁹²
43. According to Cales y Morteros, the premises it occupies are situated outside the park boundaries due to the decision on the motion filed.⁹³ But both Conanp⁹⁴ and Semarnat⁹⁵ maintain that the limestone quarry is inside the Sumidero Canyon Protected Natural Area, although there are no specific judicial actions that confirm this position. In contrast, the regional branch office of Profepa in Chiapas concluded in a 2004 administrative decision—issued after an administrative proceeding on environmental impact—that the company's premises “[were] exempted from the legal effects of the expropriation order” and that “these premises are therefore situated outside the boundaries of the protected natural area.”⁹⁶
44. Following the 1980 expropriation, Cales y Morteros filed an administrative motion with Semarnat's predecessor agency (Sedue) to revoke the expropriation. At a meeting with the head of the Legal Division of Conanp and a representative of Semarnat who reports to that ministry's Legal Affairs Coordinating Unit (*Unidad Coordinadora de Asuntos Jurídicos*),⁹⁷ Conanp's legal counsel noted that Sedue had revoked the expropriation order in 1987, but that the original of Sedue's order could not be located. However, Cales y Morteros holds a notarized certification dated October 2004, made before Notary Public 13 of the city of Córdoba, Veracruz, transcribing the 1987 order. It was also stated by Conanp's legal counsel that Sedue, rather than the President, had purportedly issued the revocation order, which adds to the uncertainty created by the absence of an original because an expropriation decree can be revoked only by Presidential order.

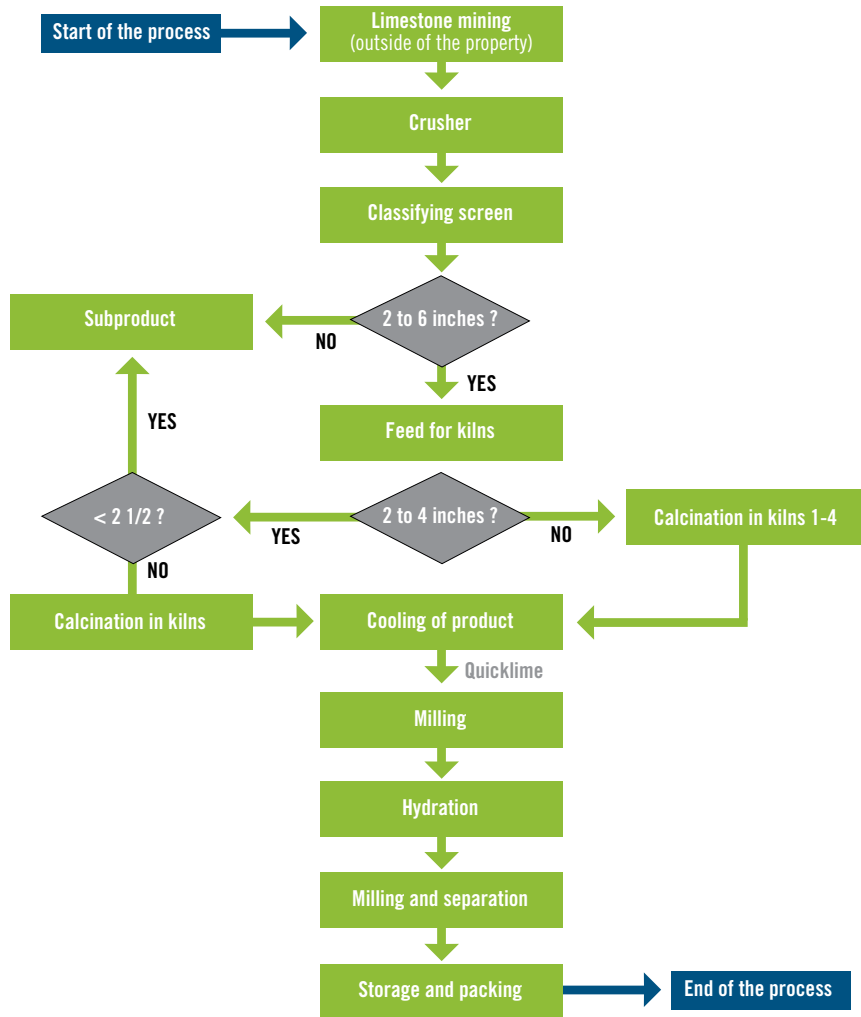
IN BRIEF

Following the 1980 expropriation, Cales y Morteros filed an administrative motion with Semarnat's predecessor agency to revoke the expropriation. On October 2004, a Notary from the state of Veracruz formalized in its register that in 1987 an administrative authority—Sedue—sided in favor of the company. Today, the 1987 original Sedue ruling is lost.

3.4 Description of production process and equipment⁹⁸

45. In order to produce hydrated lime, gravel, and other products, the company mines limestone and processes it in three principal stages: crushing, calcination, and hydration. The process is outlined in Figure 6:

Figure 6. Industrial process at the Cales y Morteros quarry⁹⁹



Limestone from the quarry



Burnt lime from the kilns (quicklime)



Hydration (manual)



Hydrated lime

Photo 3. Screening and separating process¹⁰⁰



46. Rock crushing takes place in the quarry, while the other stages take place in the production area at the south end of the premises. Figure 7 shows the distribution of the equipment on the premises.

Figure 7. Distribution of equipment on the premises of Cales y Morteros¹⁰¹



3.5 Changes in quarrying area and production intensity

47. Table 3 presents the information that the Secretariat was able to gather in relation to changes in the quarrying area, the quantity of rock material consumed, and the quantity of product obtained.
48. According to the Submitter, from 2003 to 2009 the company removed twice as much material as it had in the previous thirty years.¹⁰⁹ The actual tonnage of hydrated lime produced went from 4,200 in 1999 to 4,371 in 2004; however, the volumes of stone removed do not necessarily correspond to production, since that depends on the quality of the material.¹¹⁰
49. Aerial photos in Figure 8 show that the main working face of the quarry is oriented to the northeast, whereas quarrying on the west face, on the Sumidero Canyon side, appears to have stopped in 2005. The company confirmed this in a 2012 memo in which it stated that “for several years, the quarry has been operated at sites distant from the wall of the canyon, and there is no [basis for the] claim that the quarrying is getting closer; on the contrary, it is moving further away.”¹¹¹

Table 3. Changes in area of premises occupied by Cales y Morteros

Year	Area of land used (ha)
1980	9.3242 ¹⁰²
2008	20.1 ¹⁰³
2011	23.3741 ¹⁰⁴
2012	23.7 ¹⁰⁵
2013	16.05 (area dedicated exclusively to quarrying) ¹⁰⁶
2014	No limestone quarrying since 14 December 2013. ¹⁰⁷

Furthermore, the quarry was closed by Semahn* as part of the verification procedure under state jurisdiction carried out on 9 July 2014.¹⁰⁸

* Semahn is the successor agency to Semavi, which was the successor to IHNE.

Figure 8. Quarrying area, 2005–2015



Quarrying on the west side of the site, facing Sumidero Canyon, stopped in 2005. However, extraction on the northeastern side of the quarry continued until 2013.¹¹²

Image prepared with Google Earth.

Photo 4. Former quarrying area¹¹³



The company has not conducted explosions since December 2013.¹¹³

50. According to information provided by Cales y Morteros and corroborated by Conanp and the Chiapas State Ministry of the Environment and Natural History (*Secretaría de Medio Ambiente e Historia Natural*—Semahn), the company has not been engaged in blasting or rock quarrying since 14 December 2013. Cales y Morteros states that it purchases rock material from Triturados y Concretos del Sureste, S.A. de C.V. —outside the SCNP— and continues to process the rock material in the crusher and the kilns on the existing premises.¹¹⁴

3.6 Proposed relocation of the company

51. The Submitter maintains that for several years it has been calling for intervention by the authorities to relocate the company's quarrying and operational activities.¹¹⁵ Letters have been sent to the President of the Republic,¹¹⁶ Semarnat,¹¹⁷ the Chiapas state government,¹¹⁸ and the mayor of Chiapa de Corzo.¹¹⁹
52. Minutes from a meeting of the municipal council of Chiapa de Corzo in February 2002 show support to the residents of Ribera Cahuaré and urge various authorities to “take the steps necessary to relocate the company.”¹²⁰ In March 2008 the company requested from Semarnat the requirements and procedures for setting up and operating a quarry and for producing hydrated lime on a 214-hectare site called “La Encañada” at kilometer 31 of the Tuxtla Gutiérrez-Villaflores highway, to the south of SCNP and outside its boundaries. In April 2008, Semarnat responded to the request with a list of requirements for the operation of a quarry and crusher at the proposed site; the requirements included an environmental impact statement, a risk study, a forested land use change approval, a comprehensive environmental license, registration as a hazardous waste generating company, and an accident prevention plan for the management of explosives.¹²¹

53. In April 2014, Cales y Morteros had the studies ready for filing applications for La Encañada including forest land use change,¹²² environmental impact statement,¹²³ environmental impact before the state of Chiapas.¹²⁴ The company had ready as well a hydrological study to delimit the zone under the federal jurisdiction of the National Waters Commission (*Comisión Nacional del Agua*).¹²⁵ The documents prepared by Cales y Morteros specified that the project would take place in an area of 30 ha¹²⁶ divided into two sectors: one for the production infrastructure (8.874 ha) and the other for the operational infrastructure (21.126 ha).¹²⁷ The throughput would be approximately 23,000 tonnes (equivalent to a volume of 9,200 m³) of limestone ore per month.¹²⁸
54. According to Cales y Morteros information, on 5 March 2015 the municipal authority of Suchiapa granted the land use license to conduct quarrying at “La Encañada” property¹²⁹ and on 25 August 2015 the company had filed the environmental impact assessment study and the change in forested land use change application before federal authorities.¹³⁰

IN BRIEF

The project to relocate the operations of Cales y Morteros outside of SCNP has been pending completion since 2008.

3.7 Public complaints, proceedings, and other steps taken in relation to Cales y Morteros

55. The problems between some residents of Ribera Cahuaré and Cales y Morteros first came to light when complaints were filed in 2002. To date, various meetings have been held with the authorities, petitions and complaints have been filed, and administrative proceedings have been opened. This section reports on the steps taken to alert the authorities to the matters raised by the Submitter.
56. From 2002 to 2012, there are records of 16 meetings with the authorities or public hearings to address the problems relating to the operations of Cales y Morteros. Ten interinstitutional meetings are known to have taken place involving various bodies, including the Profepa and Semarnat offices in Chiapas, Conanp, the SCNP administration, Semahn (formerly, the Chiapas State Institute of Natural History and Ecology (*Instituto de Historia Natural y Ecología*—IHNE) and Semavi), the state government, the Civil Protection Branch (*Subsecretaría de Protección Civil*) of the Chiapas State Ministry of Public Security and Civil Protection (*Secretaría de Seguridad y Protección Ciudadana*), the Chiapas State Ministry of Health (*Secretaría de Salud del estado de Chiapas*—SSa-Chiapas), the Chiapas State Environmental Attorney (*Fiscalía Especializada para la Atención de Delitos Ambientales*—FEPADA), the Chiapa de Corzo municipal council, and the management of Cales y Morteros.¹³¹ These meetings resulted in signed agreements in which the government bodies agreed to take certain steps to relocate the company¹³² and provide construction materials for houses at high risk.¹³³ Other authorities have agreed to conduct a tour of the damaged houses in the locality,¹³⁴ conduct air quality monitoring in the company’s area of influence,¹³⁵ send documentation to Profepa justifying the performance of an inspection visit,¹³⁶ produce a technical report within the scope of their jurisdiction on the problems associated with the company,¹³⁷ verify compliance by Cales y Morteros with the measures ordered in administrative decisions,¹³⁸ send health brigades to address the residents’ problems,¹³⁹ define and quantify the pollutants emitted by the company,¹⁴⁰ and invite the company to improve its processes.¹⁴¹
57. Profepa is the main federal environmental authority with enforcement jurisdiction over protected natural areas. Table 4 enumerates the administrative proceedings brought by Profepa as a result of public complaints against Cales y Morteros.

IN BRIEF

Between 2002 and 2012, 16 meetings were held with the participation of the Submitter, Cales y Morteros, Semarnat, Conanp, Semahn, and Civil Protection, among others.

Table 4. Administrative proceedings brought by Profepa against the company

Concerning air emissions

<p>File no. CH.SJ/VI-004/02 (2002-2007), closed due to procedural defect.¹⁴²</p>	<ul style="list-style-type: none"> • 4 July 2002: Public complaint by Raúl Guerrero Borraz et al.¹⁴³ • 2 September 2002: Inspection record no. PFPA/027/608/2002, which noted air emissions irregularities and the lack of an up-to-date operating permit; ordered a temporary partial shutdown as a safety measure. • 6 December 2002: Notice of decision and deadline for response (<i>acuerdo de emplazamiento</i>) no. E07.SJ.307/2002 whereby Profepa ratified the ordered safety measure. • 28 July 2006: Termination decision whereby Profepa terminated the proceeding due to defects in the order.
<p>File no. PFPA/CHISS/47/0134/2008 (2008-2009), closed due to procedural defect.¹⁴⁴</p>	<ul style="list-style-type: none"> • 5 November 2008: Public complaint by the Submitter.¹⁴⁵ • 15 December 2008: Inspection record no. PFPA/027/0196/2008, which found air emissions irregularities and the lack of an up-to-date operating permit. • 26 February 2009: Administrative decision no. PFPA/14.5/2C.27.1/0715/2009, whereby Profepa terminated the proceeding due to a defect in both the inspection order and the corresponding record.
<p>File no. PFPA/14.2/2C.27.1/0047-09 (2008-2009), closed due to procedural defect.¹⁴⁶</p>	<ul style="list-style-type: none"> • 6 May 2009: Inspection record no. PFPA/027/0061/2009, which identified air emissions irregularities and the lack of an up-to-date operating permit. • 1 October 2009: Administrative decision no. 2388/2009, which fined the company and ordered it to implement corrective measures. • 15 January 2010: Motion against decision no. 2388/2009 under file no. 90/10-19-01-6. • 30 August 2010: Tax and Administrative Court (<i>Tribunal de Justicia Fiscal y Administrativa</i>), regional court for Chiapas-Tabasco declared decision no. 2388/2009 null and void for lack of a proper legal basis.
<p>File no. PFPA/14.3/2C.27.2/0023-11 (2011-present), pending.¹⁴⁷</p>	<p>Information declared confidential by the Party because it was a pending proceeding.¹⁴⁸</p>

Concerning environmental impact and land use change

<p>File no. CH.SJ/VI-001/2003 (2003-2004) in re environmental impact and land use change, resolved in favor of the company.¹⁴⁹</p>	<ul style="list-style-type: none"> • 28 January 2003: Inspection record no. PFPA/026/149/2003, which noted the lack of a land use change approval, and lack of an environmental impact approval for rock quarrying in a PNA. • 27 February 2004: Public complaint by the SCNP administration recorded under no. DQ/049/2004. This complaint was addressed together with a separate proceeding. • 29 July 2004: Notice of decision and deadline for response no. E07.SJ.123/2004, in which Profepa ordered the suspension of quarrying activities as a safety measure. • 4 October 2004: Amparo motion by the company to have the notice of decision and deadline for response set aside.¹⁵⁰ • 12 November 2004: Administrative decision whereby Profepa terminated the proceeding and voided the measures ordered because the environmental impact legislation is not retroactively applicable and the land occupied by the company is outside the PNA boundaries.¹⁵¹
<p>File no. PFPA/14.3/2C.27.5/0046/2009 in regard to environmental impact (2008 to the present), pending.</p>	<ul style="list-style-type: none"> • 5 November 2008: Public complaint by the Submitter.¹⁵² • 20 April 2009: Public complaint by the SCNP administration.¹⁵³ • 28 April 2009: Public complaint by Leopoldo Martínez Hernández et al.¹⁵⁴ • 15 April 2009: Public complaint by the Submitter.¹⁵⁵ • 16 April 2009: Public complaint by Fernando Velásquez Pérez et al.¹⁵⁶ <p>These public complaints were processed in proceeding no. PFPA/14.3/2C.27.5/0046/2009, which Mexico has declared¹⁵⁷</p>

Concerning environmental impact and land use change (continued)

<p>File no. PFPA/14.3/2C.27.2/0031/2009 in regard to land use change (2008-2009).</p>	<p>This file stemmed from the same complaints as file no. PFPA/14.3/2C.27.5/0046/2009.</p> <p>These public complaints were processed in proceeding no. PFPA/14.3/2C.27.2/0031/2009.¹⁵⁸</p> <p>The public complaint PFPA/CHIS/DQ/79/0240/2008 was concluded by the decision no. PFPA/14.7/2c.28.2/0385/09, with the company being fined and subjected to partial and temporary closure in 2009. In 2011, the company filed an amparo motion that was unsuccessful.</p>
<p>Forestry and environmental impact proceedings, file numbers and status unknown (2014 to the present).</p>	<ul style="list-style-type: none"> • 21 March 2014: Complaint by Alejandra Aldama Pérez et al.¹⁵⁹ • 1 July 2014: Complaint by the SCNP administration. The two complaints were consolidated.¹⁶⁰ • 9-10 July 2014: Forestry and environmental impact-related inspection visit.¹⁶¹ • 31 July 2014: Administrative decisions declaring the forestry and environmental impact proceedings terminated.¹⁶² The Secretariat did not have access to these decisions.

58. Not all of the various public complaints resulted in administrative proceedings being commenced. The information available to the Secretariat indicates that in some cases Profepa did not find that environmental violations had occurred,¹⁶³ or the complainant was informed that the problem was already being addressed by an administrative proceeding.¹⁶⁴ In other cases, the complaint was referred to another body,¹⁶⁵ and in the case of three complaints the Secretariat was not able to determine the outcome.¹⁶⁶
59. In addition to the proceedings opened by Profepa, there is a record of an intervention by Semahn which, after a site visit, ordered the closing of the quarry on 9 July 2014.¹⁶⁷ It should be noted that the company's quarrying activities had already ceased on 14 December 2013.¹⁶⁸
60. In addition to the public complaints filed with Profepa, the Submitter and others have filed petitions and complaints with various federal, state, and local institutions.¹⁶⁹ The following paragraphs summarize these proceedings and how they were processed by the authorities in question.
- i. Office of the Attorney General of the Republic (Procuraduría General de la República—PGR). In 2012 and 2013, Profepa¹⁷⁰ and the SCNP administration¹⁷¹ each filed before PGR complaints of land use changes occurring in a PNA. Two criminal investigations resulted from each complaint.¹⁷²
 - ii. Semarnat. On 6 January 2003, the Submitter filed a complaint¹⁷³ asserting that Cales y Morteros is encroaching on the PNA. Semarnat responded that a project to sever certain areas from SCNP has been ongoing since 1995, and that efforts to ascertain whether the limestone quarry is inside the Park continue.¹⁷⁴ Between 2009 and 2011, the Submitter submitted three documents that Semarnat referred to Profepa,¹⁷⁵ and six more whose status is unknown.¹⁷⁶ The Secretariat was not able to determine the extent to which these documents resulted in any enforcement actions by Profepa. Each document constitutes a complaint of alleged unauthorized natural resource use in a PNA by the company.
 - iii. Ministry of National Defense (Secretaría de la Defensa Nacional—Sedena). In 2002, 2009, and 2012, the Submitter submitted documents to Sedena making mention of irresponsible use of explosives by the Company and resulting damage to houses.¹⁷⁷ Sedena responded that the company held an explosives permit¹⁷⁸ and that the asserted damage was not within the purview of Sedena but rather Semarnat and Ssa-Chiapas.¹⁷⁹ As a consequence of these responses, the Submitter asked Conanp to involve Sedena in the process of resolving the problems relating to the operations of the limestone quarry, maintaining that no authority had informed Sedena of the impacts being caused by the company.¹⁸⁰

- iv. SSa-Chiapas. Between 2002 and 2014, the Submitter complained nine times to the SSa-Chiapas about harm caused to the health of residents of Ribera Cahuaré due to air emissions from Cales y Morteros, and calling for a medical assessment of the population.¹⁸¹ As a result of these complaints, SSa-Chiapas conducted four health assessments — in May 2011 (with referral to Semavi to address the problem),¹⁸² October 2013,¹⁸³ August 2014,¹⁸⁴ and September 2014,¹⁸⁵ this last in response to the Submitter's request to update the previous epidemiological study — with a view to ascertaining whether there is a direct relationship between the company's operations and the health problems exhibited by the population (see section 6.2.1, ii) and table 11 *infra*).
- v. Civil Protection. Between 2002 and 2008, three petitions were filed calling for a technical report to assess the cracks forming in certain houses and in the Lic. Benito Juárez primary school.¹⁸⁶ In January 2003, Civil Protection made a physical inspection of the houses and the school and issued a report¹⁸⁷ (see paragraph 109 and table 10 *infra*). However, it did not send the report to the Submitter, in spite of the Submitter's request.¹⁸⁸ The primary school was demolished and rebuilt months later¹⁸⁹ based on recommendations made by experts after a field trip they conducted for the purposes of the technical report.¹⁹⁰
- vi. Semahn.¹⁹¹ In 2002, the Submitter applied twice to the Chiapas State Institute of Natural History and Ecology (*Instituto de Historia Natural y Ecología*—IHNE) to assess the impact caused by the Company's operations.¹⁹² On 29 October 2002, IHNE conducted noise monitoring and found that the emissions exceeded the thresholds set out in NOM-081. These violations were confirmed during an inspection visit performed on 14 November 2002. An administrative proceeding was opened;¹⁹³ it was closed on 13 February 2013 with a fine being assessed¹⁹⁴ (see section 4.4 *infra*). In 2008 and 2009, three petitions were filed with Semavi in relation to noise, cracking caused by the blasting, and damage to the ecosystem of a PNA.¹⁹⁵ Semavi responded, explaining the responsibilities of each government body, and referring two petitions to FEPADA.¹⁹⁶ In 2009, the Submitter requested the air quality monitoring results for the company's area of influence,¹⁹⁷ which had been produced by Semavi from 18 to 21 March 2009 (see paragraph 119 and table 11 *infra*). On 26 June 2009, Semavi sent the Submitter the results of the report in question, along with the results of an assessment performed in accordance with an air quality standard (NOM-025-SSA1-1993).¹⁹⁸ The Submitter made two other requests for government intervention in 2010 and 2011,¹⁹⁹ to which Semahn responded by stating that, as a result of an inspection visit made on 5 November 2010, it had brought an administrative proceeding against the company.²⁰⁰ This proceeding resulted in the company being fined on 9 August 2011.²⁰¹
- vii. FEPADA. Between 2010 and 2012, the Submitter filed three complaints concerning environmental offenses allegedly committed by the company.²⁰² An administrative record was produced,²⁰³ in which FEPADA ordered a general medical examination for various residents of Ribera Cahuaré allegedly affected by air pollution,²⁰⁴ and Conanp testified for the purpose of endorsing the Submitter's complaint.²⁰⁵
- viii. Conanp and SCNP administration. Since 2003, Comité Pro-Mejoras has filed two petitions with Conanp for irreversible harm to the walls of the canyon and to the ecosystem of the PNA, but the Secretariat has been unable to determine how these petitions were processed or assessed.²⁰⁶ On 8 February 2012, the SCNP administration filed official complaints with the PGR in regard to land use changes, forest clearing, and improper occupation of federal property, giving rise to criminal investigation no. PGR/CHIS/TGZ-III/108/2012.²⁰⁷ The Secretariat has been unable to determine the status of the complaint.

- ix. Chiapas state government. Between 2002 and 2013, four petitions were filed with the state government concerning various aspects of the issues covered by this factual record.²⁰⁸ The only fact that the Secretariat has been able to determine regarding these petitions is that one was referred to Profepa.²⁰⁹
- x. Municipal Council of Chiapa de Corzo. On 11 July 2002, at a public hearing held in Chiapa de Corzo with the company in attendance, the Submitter requested that the damage caused by the blasting be repaired. The company stated that it had made various investments in dust control equipment and that it was willing to visit the damaged houses.²¹⁰ On 26 August 2002, another public hearing was held with the same outcome.²¹¹ In November 2008, a complaint by the Submitter²¹² resulted in a municipal file being opened.²¹³ On 13 February 2013, the Municipal Council of Chiapa de Corzo supported relocation of the company and agreed to provide the construction materials needed to repair the damage to houses.²¹⁴ Three more petitions on similar subjects, dating from 2002, 2011, and 2013,²¹⁵ did not result in any known action on the part of the Municipal Council.
- xi. State Human Rights Council (Consejo Estatal de Derechos Humanos—CEDH). In 2002 and again in 2008, the Submitter filed complaints related to their right to a healthy environment (respecting air pollution, health impacts, cracks in houses, noise, and dumping of waste into the Grijalva River).²¹⁶ Further, as follow-up to a May 2011 complaint by a private individual,²¹⁷ CEDH referred the matter to the National Human Rights Commission (*Comisión Nacional de Derechos Humanos—CNDH*) as a problem deserving its attention.²¹⁸ On 29 October 2012, the CNDH made a field trip to the Park and the area where the company operates. On 30 May 2013, a CNDH staff member issued an environment-related technical opinion noting that the company was in violation of LGEEPA Article 50 because it is sited within SCNP. The technical opinion also made observations on the structure of the canyon and the instability of the soils in the area, the environmental impact of the land use changes effected by the company, and the air pollution produced by the company and its impact on the health of local residents (see section 3.7). Meanwhile, two more complaints reached the CEDH in 2011 and 2012.²¹⁹ The first resulted in file CEDH/1269/2011, in which the complaint file was referred to the CNDH on 20 August 2014.²²⁰ The Secretariat has not been able to determine the status of the second complaint.

4. Measures taken by Mexico to effectively enforce LGEEPA Article 155 and NOM-081 in relation to noise emissions from the operations of Cales y Morteros

61. The Submitter maintains that Semarnat is failing to effectively enforce LGEEPA Article 155²²¹ and NOM-081 in relation to the noise emissions from Cales y Morteros.²²²

4.1 Environmental law in question

62. The first paragraph of LGEEPA Article 155 establishes a prohibition on noise emissions that exceed the thresholds set out in the Mexican Official Standards (NOM).
63. The noise standard applicable to Cales y Morteros is NOM-081-SEMARNAT-1994, *Establishing the maximum allowable limits for noise emissions from fixed sources and the corresponding measurement method*. The Ministry of Health was involved in the drafting of NOM-081.²²³ Paragraph 5.4 of this standard provides maximum allowable limits by zone and time of day, as summarized in Table 5 below.

Table 5. Maximum allowable limits under NOM-081

Zone	Time of day	Maximum allowable limit in dB**
Residential* (outdoors)		55
		50
Industrial and commercial	6:00 a.m. to 10:00 p.m.	68
	10:00 p.m. to 6:00 a.m.	65
Schools (outdoor playgrounds)	During play time	55
Ceremonies, festivals, and entertainment events	4 hours	100

Note: NOM-081-SEMARNAT-1994 was updated on 3 December 2013 to include noise generation by zone.

* Includes single-family and multi-family residential dwellings; residential dwellings above ground-floor businesses; mixed residential dwellings; residential dwellings with offices; community centers, and educational services zones.

** dB measured at the critical zones, which are located 30 cm outside the property where the noise source is located.

64. Paragraph 6.1 of NOM-081 provides that enforcement authority for this standard rests with Profepa as well as with the states and, as applicable, with the municipalities. Meanwhile, LGEEPA Article 7 paragraph VII provides that the states have jurisdiction over “the prevention and control of pollution generated by noise emissions ... from fixed sources operating as non-federal industrial establishments.” Thus, the Chiapas state government is the appropriate authority to enforce LGEEPA Article 155 and NOM-081 vis-à-vis Cales y Morteros, since it is an industrial establishment.
65. From 1991 to 2009, noise emissions from fixed sources in the state of Chiapas were also regulated by Article 85 of the state Environmental Protection Act, whose language was similar to that of LGEEPA Article 155. Although this state law was repealed on 18 March 2009 with the enactment of the Environment Act for the State of Chiapas (*Ley Ambiental para el Estado de Chiapas*), Article 174 of the newer law provides that noise emissions must adhere to the limits set out in the applicable environmental provisions (see Appendix 3),²²⁴ which are the standards set out in NOM-081.

4.2 Noise sources

66. Based on the information gathered, including a diagram provided by the company that identifies noise-generating equipment,²²⁵ the Secretariat compiled a list of noise sources on the premises of Cales y Morteros and identified where each noise source occurs in the production process (see Table 6 and Figure 9 below). It should be noted that blasting activities are no longer taking place at the site and that the Secretariat did not obtain information regarding noise levels at the calcination, gravel and hydration areas. For each noise source, the factors influencing the impact of the noise on nearby residents is identified: noise intensity, hours of operation, and distance from the equipment in question to the nearest houses.

Table 6. Noise sources and factors influencing their impact on residents

Noise source	Intensity	Hours of operation	Distance to nearest houses
Blasting	112 dB	No blasting since January 2014	700 m to the south
Crushing area	64–76 dB at a distance of 150 m	6:00 a.m.-10:00 p.m., 6 days/week	500 m north of plant boundary
Calcination area	n.d.	24 hours, 7 days/week	200 m to the north, 150 m to the south, 120 m to the east
Gravel area	n.d.	6:00 a.m.-10:00 p.m., 6 days/week	n.d.
Hydration area	n.d.	24 hours, 6 days/week	n.d.
Packing area	58–73 dB at entrance	6:00 a.m.-10:00 p.m., 6 days/week	n.d.

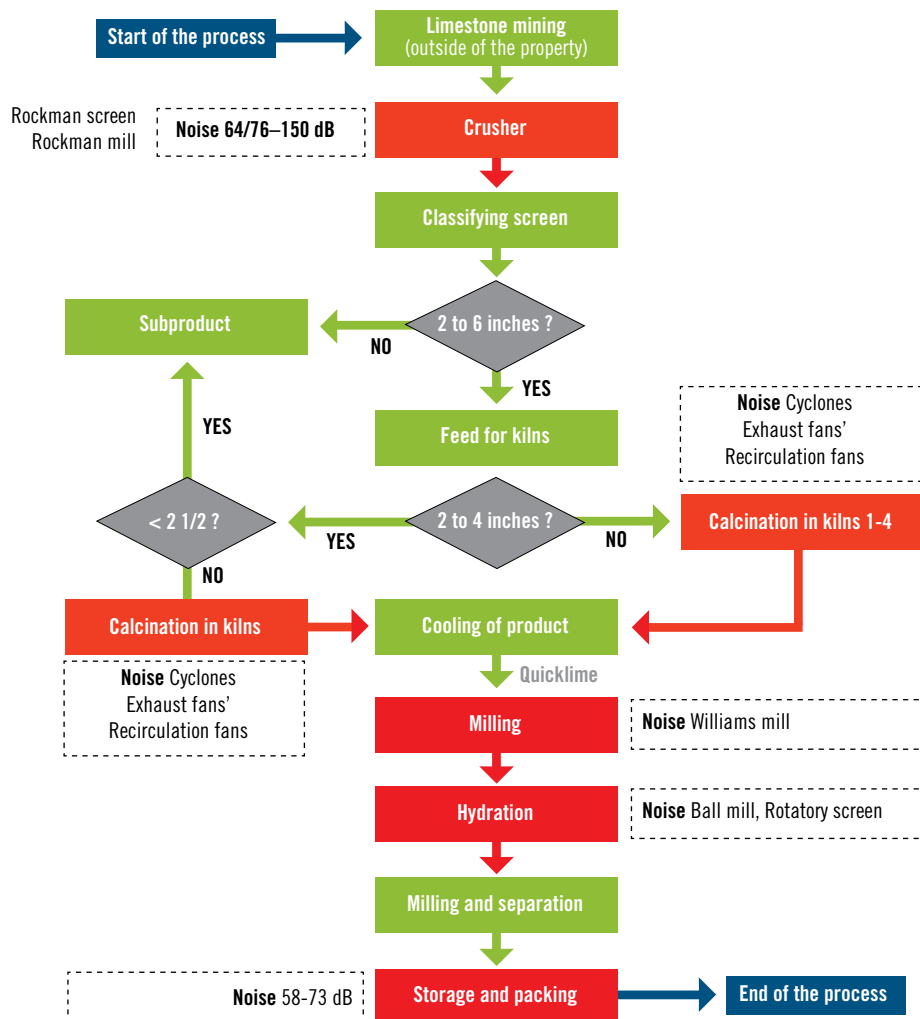
n.d. = no data available.

67. Table 7 compares the noise levels of different sources of sound, from the limit of human hearing up to and above the threshold of pain. Figure 9 shows noise sources within the quarry's operations.

Table 7. Sound levels L (loudness of noise)²²⁶

Sound sources (noise) Examples with distance	Decibels (dB)
Jet aircraft, 50 m away	140
Threshold of pain	130
Threshold of discomfort	120
Chainsaw, 1 m distance	110
Disco, 1 m from speaker	100
Diesel truck, 10 m away	90
Kerbside of busy road, 5 m	80
Vacuum cleaner, distance 1 m	70
Conversational speech, 1 m	60
Average home	50
Quiet library	40
Quiet bedroom at night	30
Background in TV studio	20
Rustling leaves in the distance	10
Hearing threshold	0

Figure 9. Sources of noise at the Cales y Morteros quarry²²⁷



68. **Blasting.** A report by a Cales y Morteros consultant indicates that the blasting that occurred at the working face of the limestone quarry until December 2013 produced noise emissions of 112 dB.²²⁸ However, the consultant does not specify the distance at which the measurements were made. A document by the Submitter mentions as noise sources “the constant clanging of the backhoe or hydraulic arm that they use to excavate and remove the rock from the ground ... the blasting, [and] the lines of heavy trucks waiting for their cargo.”²²⁹ The nearest houses are located between 700 and 800 meters south of the working face of the quarry.²³⁰
69. **Rock crushing.** According to IHNE measurements, the crushing area, and the crusher in particular, generates noise intensity of 64–76 dB (with a median of 66 dB) at a distance of 150 m.²³¹ The diagram provided by the company indicates that the noise-generating machines in the secondary crushing area are the screen and the mill.²³² The crusher operates from 6:00 a.m. to 10:00 p.m., six days a week.²³³ A report commissioned by the company notes that although the crushers do generate noise, it is not perceptible off the premises because this equipment is situated 500 m from the property boundary.²³⁴ The documents available to the Secretariat do not clarify whether noise from the crushers was actually measured.

70. **Kilns.** The calcination area, and in particular the kiln blower and exhaustor motors, is another noise source identified by IHNE.²³⁵ The diagram provided by the company indicates that the noise-generating equipment in this area consists of the five cyclones, the exhaust fans, and the recirculation fans.²³⁶ The kilns operate 24 hours a day, seven days a week.²³⁷ The residential housing nearest to the kilns area (including the houses of the company’s manager and staff) is situated about 200 meters to the north,²³⁸ 150 meters to the south, and 120 meters to the east.²³⁹
71. **Gravel area.** The gravel area or milling, and in particular the Williams mill, is another noise source identified by the company.²⁴⁰ The gravel area operates 6:00 a.m. to 10:00 p.m., six days a week.²⁴¹
72. **Hydration.** The hydration area, and in particular the ball mill and the rotating screen, constitutes a significant noise source.²⁴² The hydrator operates 24 hours a day, six days a week.²⁴³
73. **Packing process.** Although this source was not identified by the Company in its noise diagram (see modified diagram in Figure 9), the packing machine, according to three reports commissioned by the company to determine noise emissions, is the only noise source audible off the premises, since it is at the entrance to the site, but this source is allegedly neutralized by the louder background noise of constant vehicle traffic on the highway to Tuxtla Gutiérrez.²⁴⁴ The packing machine generates noise intensity of 58–73 dB, with no major difference between daytime and nighttime noise.²⁴⁵ The packing area operates from 6:00 a.m. to 10:00 p.m., six days a week.²⁴⁶

4.3 Reports produced in relation to noise

74. The impact of the company’s operations has been addressed in various reports on noise, as may be observed in Table 8.

Table 8: Studies and reports issued in relation to noise reports

Date	Description	Author
October 2002	Noise emissions monitoring	IHNE
2002–2004	Noise emissions monitoring	Company retained by Cales y Morteros
September 2011	EPJ	Conanp
September 2011	Report on blasting	Nitroex, S.A. de C.V.
April 2012	Noise emissions monitoring	Grupo Eréndira de Proyectos Industriales
November 2013	Noise emissions monitoring	Grupo Eréndira de Proyectos Industriales
May 2014	Noise emissions monitoring	Grupo Eréndira de Proyectos Industriales

75. Between 2002 and 2014, the facility’s noise emissions were monitored, but no measurements were made of the noise levels in the neighborhoods of Ribera Cahuaré, and few describe the exact sources of noise from the facility. These monitoring activities are enumerated below in chronological order:

- i. In October 2002, IHNE made an inspection visit and detected noise emissions from the company of up to 80 and 89 dB (the measurement points are not specified), which exceed the maximum allowable limits of NOM-081: 68 decibels daytime and 65 nighttime.²⁴⁷ A November 2002 inspection visit by IHNE recorded noise emissions from rock crushing and readings of 64-76 dB (with a median of 66 dB) at an approximate distance of 150 meters from the crusher. Also

IN BRIEF

A proceeding opened in 2002 by IHNE confirmed noise violations by the company. The company was fined and ordered to submit a technical alternative for purposes of noise mitigation.

observed were noise emissions from the blower and exhauster motors of the kilns, which operate 24 hours a day, 365 days a year. The report stated that the residential housing nearest to the calcination area is approximately 200 meters to the north, 150 meters to the south, and 120 meters to the east.²⁴⁸

- ii. In September 2011, Nitroex, S.A. de C.V., the company that supplies explosives to Cales y Morteros, issued a report concluding that the noise intensity is 112 dB (the maximum allowable limit for environmental noise is 68 db during daytime); however, the report does not specify the point where the measurement was taken.²⁴⁹
- iii. In April 2012, at the request of Cales y Morteros, Grupo Eréndira de Proyectos Industriales, S.A. de C.V., conducted noise monitoring at the perimeter of the company's property following the methodology of NOM-081; 35 measurements were taken at the entrance to the site, on the Pan-American Highway side, where the source of noise is the packing machine. The report notes that the background noise measured (70 dB during both day and night) exceeds the noise levels from the plant and concludes that the limits of NOM-081 are therefore not exceeded.²⁵⁰
- iv. The EPJ of September 2012 (see section 3.1.3 *supra*) indicates that, according to company-supplied data, airblast and particle velocity (112 dB and 0.09 inches/second, respectively) exceed the thresholds of NOM-081 and other provisions, and that the health of the residents of neighboring communities is affected by the noise and vibrations.²⁵¹
- v. In November 2013, Grupo Eréndira conducted a second noise monitoring campaign at the perimeter of the Cales y Morteros property. It used the same methodology and took measurements at the same point as in the April 2012 study. The report found that the background noise (77 dB at day and 62 dB at night) exceeds the noise levels from the plant and concludes that the limits of NOM-081 are therefore not exceeded.²⁵²
- vi. In May 2014, Grupo Eréndira conducted a third noise monitoring campaign at the perimeter of the company's premises using the same methodology, at the same spot, and reached the same conclusion as in the 2012 and 2013 monitoring.²⁵³ In a letter to Cales y Morteros, Grupo Eréndira specifies —without providing a numerical value—that the noise from the crushers is inaudible off the premises, since the crushers are 500 meters from the property boundary. The letter also notes that only the packing machine emits noise that is audible off the property (65 dB at day and 63 dB at night). The letter also states that background noise (71 dB at day and 75 dB at night) was greater than that of the company's operations, due to vehicle traffic on the highway.²⁵⁴

4.4 Enforcement of the environmental law in question

76. The Secretariat requested relevant factual information on the measures taken by Mexico to effectively enforce LGEEPA Article 155 and NOM-081 and, in particular, on the measurement of noise from Cales y Morteros.²⁵⁵
77. In its response, Mexico states that the submission does not assert any specific failures to effectively enforce the provisions in question.²⁵⁶ Mexico also asserts that the enforcement of LGEEPA Article 155 and NOM-081 with respect to fixed sources operating as industrial establishments (as in the case of Cales y Morteros) is under the jurisdiction of the Chiapas state government, pursuant to LGEEPA Article 7 paragraph VII.²⁵⁷
78. Both the response²⁵⁸ and the information provided by the Party during the preparation of the factual record underscore the noise-related measures taken by the state of Chiapas's IHNE, which resulted in an administrative enforcement action and a fine being imposed on the company. These measures are detailed in the following five paragraphs.²⁵⁹

79. On 29 October 2002, in response to a request by the Submitter,²⁶⁰ IHNE monitored noise emissions from Cales y Morteros. Emissions of up to 89 dB were measured, although the measurement points are not specified.²⁶¹ According to Mexico, this demonstrates that the Party effectively enforced its environmental law in that it investigated the alleged violations and concluded that the company's noise emissions exceeded NOM-081.²⁶²
80. On 14 November 2002, an IHNE inspector confirmed the noise violations, observing that the noise sources are the crushing area and the kiln blower and exhauster motors, with readings of 64–76 dB (median of 66 dB) at 150 meters from the crusher. Based on this inspection record, IHNE opened noise-related administrative proceeding no. UAJ/006/002, for violation of Article 85 and other applicable provisions of the Chiapas State Environmental Protection Act (*Ley de Equilibrio Ecológico y Protección al Ambiente del Estado de Chiapas*). On 13 February 2003 the company was fined the equivalent of 600 times the daily minimum wage applicable in the state of Chiapas.²⁶³
81. Following a 4 March 2003 meeting between the company and IHNE to discuss ways to reduce noise emissions, Cales y Morteros proposed a technical noise mitigation measure that would consist of building enclosures for the noise-generating equipment.²⁶⁴ The company requested that the plant be allowed to continue operating and that the fine be waived.²⁶⁵ There is no information to determine whether the fine was waived.
82. Years later, in October 2013²⁶⁶ and February 2014,²⁶⁷ the company provided information in response to letters from IHNE, demonstrating progress on the renovations with photos, maps, and dates.²⁶⁸
83. Finally, Mexico notes that the mandatory conditions of the company's updated operating permit, issued by Semarnat, include compliance with the levels set out in NOM-081.²⁶⁹ As already noted, in December 2013 quarrying operations ceased, eliminating a significant noise source.

4.5 Actions undertaken by the company to mitigate noise and dust

84. According to information provided by the company, by 2000 Cales y Morteros had made various investments to modernize its production machinery and control dust emissions.²⁷⁰ Some of these were in compliance with Semarnat conditions, originally aimed at dust control, although their implementation also helped to mitigate noise.²⁷¹ Following enforcement actions, the company undertook the following actions:

IN BRIEF

Since 2000, Cales y Morteros has invested in equipment to control its dust and noise emissions, including enclosures and dust collectors.

- Installed dust collection equipment for the packing process, the mill and the kiln outlets a gas scrubbing system in the hydrator, and hoppers with linings on the kilns (Table 9).²⁷²
- In 2003, built an enclosure for the hopper and a sprinkler system for the crusher to mitigate noise and dust emissions.²⁷³ All the screening machinery was encapsulated inside the gravel pit (Photo 5), and a new dust collector was installed on the new crushing line;²⁷⁴
- In 2004, automated the five kilns and built enclosures at the top of each (Photo 5). The walls were coated with polyurethane foam and the crushing, crusher receiving, milling and gravel areas were enclosed within metal structures.²⁷⁵
- In 2005, installed an automatic rotary packer (to replace two manual packing machines) and two additional dust collectors,²⁷⁶ one for the calcination process and another for the packing area.²⁷⁷
- In 2009, built a new crusher.²⁷⁸ The company also changed the cementing of the kiln exhausters and lined the ball mill with polyurethane cushioning.²⁷⁹
- In 2010, installed a dust collector for the gravel area.²⁸⁰
- In 2012 and 2013, installed two additional dust collectors for the new packing machine, and invested in dust collectors (cyclones) for the kilns.²⁸¹

85. On 16 of the company's machines, dust emissions are not channeled through ducts or stacks, since Cales y Morteros applied for and in 2012,²⁸² obtained from Semarnat, an exemption from the requirement to channel this equipment.²⁸³ The dust channelling exemption was granted on the condition that other dust emission control measures would be taken, such as the installation of enclosures and dust collectors.²⁸⁴ According to information provided by Cales y Morteros, since 1997 some 5.8 million pesos has been invested in dust collectors, enclosures, gas scrubbers and cyclones.²⁸⁵
86. In early 2015, Cales y Morteros informed the Secretariat that it planned additional mitigation measures, as listed in Table 9, below, aimed at noise reduction. The company undertook an analysis of the various sources of noise (shown in red in Figure 9, above). These measures are however not meant to be an enforceable commitment.²⁸⁷ According to the company as of February 2015, while the measures had not yet been put in place, the company was seeking proposals for conducting the work.²⁸⁸

Photo 5. Enclosure of production facilities²⁸⁶



Table 9. Noise mitigation measures planned by Cales y Morteros²⁸⁹

Location	Machine	Noise type	Action
Kiln 2	Stone hopper	Knocking of stone against steel plate	Fabrication of hopper with liquid polyurethane lining and installation of a rubber strip as armor
Kiln 3			
Kiln 5			
Kiln 2	ID fan	Buzzing produced by gas exhausters	Muffler installed
Kiln 3			Continual balancing of ID fan
Kiln 5			Enclosure of ID fan
Collector 1	Dust collector	Buzzing produced by gas exhausters	Fan replacement
Collector 2			Installation of a conical cap
Collector 3			Installation of a muffler
Collector 4			
Ball mill	Pulverizer	Striking of balls against mill armor	Encasement of mill body in polyurethane

5. Measures taken by Mexico to effectively enforce RANP Article 80 with respect to the definition of acceptable rates or limits of change and carrying capacities corresponding to the natural resource use taking place in Sumidero Canyon National Park

87. The Submitter asserts that the production activities of the company within SCNP must abide by RANP Article 80,²⁹⁰ in force since 2005; the article provides that Semarnat shall issue the rates and shall establish the proportions, acceptable limits of change, or carrying capacities for the natural resource uses taking place within protected natural areas. The Submitter notes that Semarnat has not produced these instruments for SCNP.²⁹¹

5.1 Environmental law in question

88. RANP Article 80²⁹² provides that Semarnat shall establish the rate of environmental change and the capacity of natural resources to sustain human activities in protected natural areas (“carrying capacity”). LGEEPA Article 46 paragraph III provides that national parks are considered protected natural areas. Consequently, RANP Article 80 applies to Sumidero Canyon National Park.
89. RANP Article 3 defines the terms “carrying capacity” and “acceptable limit of change” as follows:

Article 3. For the purposes of this Regulation, the definitions contained in the Mexican Environmental Protection Act [LGEEPA] shall apply, as well as the following:

...

IV. Carrying capacity: Estimate of an ecosystem’s tolerance to the use of its components, such that its capacity to recover in the short term, without the application of restoration or recovery measures to restore ecological stability, is not surpassed;

...

VIII. Acceptable limit of change: Determination of the intensity of use or the acceptable volume of natural resource use in a given area, through a process that considers the desirable conditions, as regards the degree of environmental alteration arising from the intensity of environmental impacts considered tolerable, as a function of the conservation and resource use objectives, under specific management measures. It includes an ongoing process of monitoring and feedback making it possible to adapt the management measures for the maintenance of the desirable conditions, where the alterations exceed the established limits;...

5.2 Enforcement of the environmental law in question

90. In its response, Mexico notes on the subject of RANP Article 80 that:

[...] although this article authorizes Semarnat to determine rates or acceptable limits of change and carrying capacities to regulate use and exploitation within natural protected areas, the provision does not require Semarnat to define such elements in a particular administrative act or a specific legal device. This, considering that the concepts of “acceptable limit of change” and “carrying capacity” are technical definitions that must be determined for a specific surface and ecosystem, based on the biophysical and socioeconomic conditions.²⁹³

91. Mexico states that the activities of Cales y Morteros are not considered “mining” in Mexican law, because quarrying activities are excluded from the Mining Act (*Ley Minera*) and they are not considered a mining activity. Extraction of rock materials used in construction—such as limestone quarrying—is therefore not a matter under federal jurisdiction.²⁹⁴
92. In its response to the CEC Secretariat’s request for information for the preparation of the factual record, Conanp indicated that it has not determined rates, acceptable limits of change, or carrying capacities for limestone quarrying in SCNP because the removal of non-renewable material is not permitted by LGEEPA Article 50 or by the declaration of the PNA in question.²⁹⁵ In 2013, Conanp did estimate the tourism carrying capacity and the acceptable limits of change for the public use portion of SCNP (representing 1% of the total area of the Park).²⁹⁶
93. In the response, Mexico notes that the SCNP declaration is in the process of being amended, laying the groundwork for the preparation of a management plan that, according to the Party, will be sufficient to define the “acceptable limit of change” and the “carrying capacity” of the Park.²⁹⁷ As to the status of this draft amendment, see section 3.1.3 of this factual record.

6. Measures taken by Mexico to enforce the chapeau of RANP Article 81, with respect to the extent to which the production activities of Cales y Morteros generate benefits for local residents, and whether these activities are compatible with the declaration of the site as a protected natural area, as well as with the corresponding management plan, the environmental zoning plans, the applicable NOMs, and other legal instruments

94. The Submitter asserts that production activities in a PNA are subject to the *chapeau* of RANP Article 81.²⁹⁸ It states that Cales y Morteros has been operating a quarry in Sumidero Canyon National Park since 1963.²⁹⁹

6.1 Environmental law in question

95. RANP Article 81 provides that the only permitted uses of natural resources in protected natural areas are those that generate benefits for the local residents. It also provides that such uses must be consistent with the sustainable development schemes, the relevant declaration, the management plan, the environmental zoning plans, the Mexican Official Standards, and other applicable legal provisions (see Appendix 3).
96. Although neither the RANP nor the LGEEPA defines the term “sustainable development schemes,” LGEEPA Article 3 paragraph XI defines “sustainable development” and this can serve as a guide in analyzing RANP Article 81.³⁰⁰
97. Both the LGEEPA and the RANP provide that activities to be carried out in protected natural areas shall be geographically delimited in accordance with central and buffer zones established in the protected natural area (PNA) declaration and with any subzones established in the corresponding management plan.³⁰¹ The “primary function [of buffer zones] is to ensure that the resource use activities taking place therein conduce to sustainable development...”³⁰² The Secretariat finds it is reasonable to conclude that the term “sustainable development schemes” refers to various mechanisms regulating resource use activities in protected natural areas.
98. The instrument issued for the establishment of a PNA is known as a declaration³⁰³ and its content is regulated by RANP Articles 48–61 and LGEEPA Article 60. In relation to natural resource use, a declaration must contain “the modalities governing the use or enjoyment of natural resources in general, or those subject to protection in particular, within the area.”³⁰⁴
99. Article 65 of LGEEPA, as amended, requires Semarnat to create a management plan for a PNA within one year of the publication of a declaration in the DOF.³⁰⁵ The management plan must be consistent with the provisions of the declaration.³⁰⁶ Management plans are regulated by RANP Articles 74 and 75 and LGEEPA Article 66. In particular, a management plan must specify, in addition to requirements in LGEEPA Article 66, “the densities, intensities, conditions, and modalities governing works and activities carried out [in a PNA],” as well as “the delimitation, extent, and location of the subzones set out in the declaration.”³⁰⁷ Mexico argues that the one-year period incorporated into LGEEPA Article 65 on 13 December 1996 is not applicable to a PNA created before this date and that the obligation to formulate the management plan within one year after publication in the DOF, is inapplicable to SCNP.³⁰⁸ Mexico is in the process of amending the Park’s declaration and preparing a management plan for the Park.

100. The environmental zoning plan referred to in RANP Article 81 is defined as “the environmental policy instrument whose purpose is to regulate or induce land use and production activities with a view to achieving environmental protection.”³⁰⁹ It is also relevant to point out that unlike a declaration and management plan for a PNA, environmental zoning plans are applicable to the entirety of the designated territory, not only to the coverage area of a PNA. The environmental zoning plan must consider the modalities set out in PNA declarations and management plans.³¹⁰

6.2 Enforcement of the environmental law in question

6.2.1 Whether the production activities of Cales y Morteros generate benefits for the local residents

101. Concerning benefits for local residents generated by activities of the company, the Submitter asserts that such benefits have not been generated; the Submitter asserts that the company is harming the neighbours of the limestone quarry. In particular, the Submitter maintains that the limestone quarry is causing harm to the health of nearby residents due to high levels of air pollution caused by limestone particles and to noise produced by the equipment, as well as damage to house structures as a result of the seismic activity caused by the blasting, and that all of this poses a safety risk to the residents.³¹¹
102. The company’s information provided to the Secretariat notes some services rendered by the company to the community of Ribera Cahuaré, such as jobs and donations of construction materials.
103. Cales y Morteros maintains that it directly employs more than 120 residents of the locality, in addition to the indirect employment generated by its operations.³¹²
104. The company maintains that it has supported Ribera Cahuaré in various ways: by building a school-room and restrooms for Antonio de Mendoza elementary school,³¹³ by donating gravel to the municipality for street repair,³¹⁴ and by donating construction material for flooring and offering other services to the Lic. Benito Juárez primary school.³¹⁵ It asserts that it provided machinery and staff to help remove mud from the riverfront of the village after the river overflowed its banks in 2005.³¹⁶
105. The Submitter has also made allegations about noise, the impact of blasting on dwellings and the walls of Sumidero Canyon, and harm to the health of community residents.

i. Impact of blasting on dwellings and the walls of Sumidero Canyon

106. From 2003 to 2013, the studies listed below (Table 10) were done to assess the impact of the company’s blasting operations on Sumidero Canyon and on buildings in neighboring settlements.

Table 10. Reports issued in relation to blasting

Date	Description	Author
January 2003	Physical inspection	Chiapas State Ministry of Security and Civil Protection, Civil Protection Branch
September 2006	Seismographic monitoring	Company retained by Cales y Morteros
April 2009	Risk assessment	Chiapas State Ministry of Security and Civil Protection, Civil Protection Branch
August 2011	Structural geology report	Geological engineer retained by Cales y Morteros
September 2011	Structural report	Geortec, S.A. de C.V. (retained by the company)
September 2011	Report on blasting	Nitroex, S.A. de C.V.
November 2012	Risk report	Geophysical Institute, UNAM
November 2013	Technical report on impact of blasting	Engineer, Institute of Geology, UNAM

107. In 2003, a physical inspection performed by the Chiapas State Ministry of Civil Protection found damage to ten dwellings and to the Lic. Benito Juárez primary school. Civil Protection reached the conclusion that the damage is due to the fact that the buildings are located in a high seismic activity zone, and maintained that the company's blasting activity was a vector making damage more likely. In addition, it stated that the dwellings and the school were built with poor-quality materials and do not meet construction and safety standards. Civil Protection asked the company to reduce its blasting frequency to once every two weeks. In January 2003, Civil Protection began monitoring the area with a seismograph. On 21, 23 and 24 January 2003, the presence of seismic activity coinciding with blasting by the company was detected.³¹⁷
108. In September 2006, a company retained by Cales y Morteros conducted monitoring of seismic activity and blasting on the premises of the quarry. It reached the conclusion that, according to US Bureau of Mines damage criteria, at the distance between the company and the locality of Ribera Cahuaré, as well as according to measurements of vibrations, noise, and particle velocities, "there is not the slightest possibility of any damage" to the residential housing of Ribera Cahuaré since the seismographs, positioned at 200 and 250 meters from the blasts, did not detect any particle velocity greater than 0.04 inches/second and no airblast greater than 106 dB.³¹⁸
109. In April 2009, a risk assessment by Civil Protection concluded that some of the dwellings are vulnerable due to the quality of the construction materials, techniques, and systems used to build them. The assessment recommended limiting the construction of more dwellings in this area and implementing an improvement plan for the existing ones. It stated that between December 2002 and January 2003, only one seismic event recorded by a seismograph installed in Ribera Cahuaré originated from the company's blasting operations, and considered the other seismic activity to be typical of the area. This assessment found that the cracks in the houses are caused by differential settlement of land, lateral forces on load-bearing walls, the construction of some houses on uncompacted backfill, and the construction of additions to older structures.³¹⁹
110. In August 2011, a geological engineer retained by Cales y Morteros issued a geological report concluding that it is impossible for the east wall of the Sumidero Canyon to collapse as a result of the company's activities. The report indicated that the cracking of this wall corresponds to the periods of the canyon's formation and that, in any event, it was caused by water (mineralization resulting from leaching, dolomitization). It stated that the rock formations in this area are stable, that no recent landslides, rockfalls, or cracking have been observed, and that nearby civil works such as the Ángel Albino Corzo bridge exhibit no structural damage.³²⁰
111. A September 2011 report commissioned by the company from Geortec, S.A. de C.V. issued a structural report concluding that the company's buildings do not exhibit structural damage, even though some of them are 46 years old. It states that 30% of Mexico's seismic activity is found in the state of Chiapas.³²¹
112. On 10 September 2011, Nitroex, S.A. de C.V., the company that supplies explosives to Cales y Morteros, reported in the conclusions of its seismographic monitoring report that particle velocity and airblast (0.09 inches/second and 112 dB, respectively) are at the lower end of the safety scale established by the US Bureau of Mines. The report concludes that at no time could the vibrations provoked by the explosions have affected the structure of nearby dwellings or the canyon walls.³²²
113. In September 2012, the second EPJ (see section 3.1.3 *supra*) concluded that according to company-supplied data, airblast and particle velocity (112 decibels and 0.09 inches/second, respectively) exceed the thresholds established by NOM-081 and other provisions, and that blasting in the quarries poses a cracking risk to the canyon walls.³²³ It should be noted that there are no standards in Mexico applicable to noise arising from quarry explosions.

IN BRIEF

There are reports with contradictory conclusions as to the impact of the blasting on the east wall of Sumidero Canyon.

Photo 6. Cracks in the east wall of Sumidero Canyon³²⁵



114. In November 2012, the Geophysical Institute of UNAM produced a report commissioned by Conanp on the risks to the walls of the canyon and to local residents, stemming from the company's operations. After measuring and comparing rock structures and soil conditions in the vicinity of the limestone quarry with areas farther away, the report concluded that hollow structures identified in the adjacent zone to the company's facilities were indeed a result of limestone dissolution upon contact with groundwater and that possibly, their size is a result of seismic vibration, road traffic and/or explosions. This suggests that the quarry surroundings have increased natural instability, creating a rockfall risk. The report stated in particular that the company's operations have caused cracking on the east wall of the canyon and have damaged cave paintings (see Photo 6).³²⁴
115. On 30 May 2013, a CNDH staff biologist issued a technical opinion based on observations made during a field trip on 29 October 2012. The technical opinion notes the presence of cracks perpendicular to strata formations on the east wall of SCNP, which may be caused by both natural and induced erosive processes. This wall is located less than 100 meters away from the limestone quarry. The biologist cautions, in an interview with Conanp, that the current structural condition of this wall is unknown. The CNDH staff biologist notes that the company is carrying on its activities despite the fact that Civil Protection concluded, in its April 2009 risk assessment report, that the dwellings are highly vulnerable and the risk classification of the area is moderate.³²⁶
116. In November 2013, a UNAM seismic engineer commissioned by the company produced a technical report on the impact of blasting by Cales y Morteros on neighboring dwellings. The document offers a critical analysis of the November 2012 report commissioned by Conanp and asserts that it is subjective because it is not based on the internationally recognized parameter of particle velocity, further stating that the study commissioned by Conanp attempts to compare two sites without taking into account the different geological origin and formation of the limestone present at each. Based on the particle velocity method, the study monitors the impact of a blast that occurred on 16 November 2013 at three points (an edge of Sumidero Canyon, a dwelling in Cahuaré, and a dwelling in Santa Cruz). The report concludes that the values obtained do not exceed the threshold set out in the reference standard for structural vibration, namely German standard DIN 4150-3.³²⁷

ii. Impact of air quality on public health

117. While various reports indicate that harm to human health and impacts on vegetation have been caused by particle emissions from Cales y Morteros, only the health assessments performed by SSa-Chiapas provide a medical assessment of a representative sample of residents in the areas adjacent to the company’s operations.
118. The Submitter alleges harm to the health of community residents. The Submitter makes a connection between the limestone dust in the atmosphere and the vibrations and noise from the company’s activities and the respiratory and dermatological ailments, sleep disruption and anxiety experienced by local residents as well as the damage sustained by their houses. A 2008 document filed with Profepa by the Submitter mentions “noise from the rock mills, the incessant clanging of the backhoe or hydraulic arm that they use to excavate and remove the rock from the ground..., the blasting, [and] the lines of heavy trucks waiting for their cargo.”²²⁸
119. Concerning the noise emitted by the company’s equipment and its possible impact on the health of the residents, the EPJ indicates that the health of the residents of communities situated near the company is being affected by the noise and vibrations in the form of effects on the nervous system. The EPJ includes no data to support this observation.³²⁹
120. From 18 to 21 March 2009, Semavi (the predecessor agency to Semahn) conducted air quality monitoring in the company’s area of influence. Specifically, it measured concentrations of total suspended particles (TSP) and particulate matter measuring 10 microns or less ($\leq PM_{10}$) with reference to the criteria of NOM-025. The measurements were taken over four days at four points: two for TSP³³⁰ and two for PM_{10} .³³¹ The report concludes that the PM_{10} air quality standard was exceeded at one of the two sites (to the south-east of the company) and for only one of the four days.³³² The report notes that measured values of TSP and PM_{10} at each of the four sites approached but did not exceed maximum permissible levels.³³³ In conclusion, the air quality was found to be predominantly average, but very close to poor³³⁴ according to the Metropolitan Air Quality Index (*Índice Metropolitano de la Calidad del Aire—Imeca*). Imeca describes health risks at each air quality level. The average level corresponds to “possible discomfort experienced by children, older adults, and persons with respiratory or cardiovascular ailments,” while the poor level corresponds to “possible adverse health effects, particularly in children, older adults, and persons with respiratory or cardiovascular ailments.”³³⁵ The report makes various recommendations for decreasing the company’s particle emissions, and includes photos showing vegetation covered with a white blanket of particulate matter.³³⁶

IN BRIEF
 SSa-Chiapas found that the age group most affected by the quarry’s air emissions in Cahuaré is children ages 5 to 9, followed by teens ages 10 to 14.

Table 11. Studies and reports issued in relation to public health

Date	Description	Author
May 2010	Analysis of incidence of respiratory diseases	Cofepris
May 2011	Health study	SSa-Chiapas
October 2011	Medical report on company employees	Private physician
October 2013	Epidemiological study	SSa-Chiapas
August 2014	Sanitary report	SSa-Chiapas
September 2014	Epidemiological study	SSa-Chiapas

121. On 17 May 2010, the Federal Commission for Protection against Sanitary Risks (*Comisión Federal para la Protección contra Riesgos Sanitarios*—Cofepris) notified the Chiapas State Director of Public Health that the incidence of acute respiratory infections and asthma in the localities of Chiapa de Corzo had not shown an increase during the period 2000–2009. Cofepris recommended that a more complete study be conducted (see Table 11).³³⁷
122. In May 2011, SSa-Chiapas performed a health assessment with a view to establishing whether there exists a direct relationship between the operations of Cales y Morteros and the types of health problems exhibited by the population. The study, based on surveys of the 157 households in Ribera Cahuaré, found that 43% of the population suffered from some type of disease and that of these, 47% corresponded to respiratory ailments. More specifically, 25.5% of the population of Ribera Cahuaré exhibited allergic rhinitis (78 cases), 20.6% showed acute respiratory infection (63 cases) and 0.7% were diagnosed with bronchial asthma (two cases). Of the respiratory ailments, 26.2% are allergic and 20% were infectious. The second most common disease category was skin diseases: 71 people (comprising 23.2% of persons exhibiting any health problem, and 10% of the total population) had dermatitis.
123. The SSa-Chiapas report found that the most affected age group is 5–9 years old, followed by the 10–14 year age group; that is, “children are sicker than the rest of the population.” It also stated that “limestone dust is present in all the dwellings, and white powder covers the trees of the region. According to the residents who responded, every day they sweep an average of 500 g of limestone dust out of their houses,” and continued, “limestone dust in the environment is an important factor in the development of respiratory ailments. Associating this factor with the distribution of cases of the diseases in question leads us to believe that the genesis of these diseases is directly related” to the company’s operations. SSa-Chiapas relayed this assessment to Semavi and asked it to address the environmental problems created by Cales y Morteros.³³⁸
124. In September 2011, a specialist in occupational medicine conducted—on behalf of the company—medical exams on 99 company employees and concluded that, according to its results, none of the company’s employees exhibited occupational pathology.³³⁹
125. The EPJ issued in September 2012 (see section 3.1.3 *supra*) notes that the northwest wind moves the total suspended particles from the quarry operations towards SCNP and that they are deposited on the vegetation, affecting and even killing its growth, and making it toxic for the animals that eat it. It also states that the suspended dust particles affect the health of the residents of the neighboring communities, who suffer from respiratory ailments.³⁴⁰
126. In November 2012, the Geophysical Institute of UNAM reported that dust and smoke emissions from the company cause damage to human health and flora and fauna. The report notes that a blanket of white dust covers the vegetation, damaging the flora and making it toxic to the fauna that eat it. It further states that due to the dust and smoke they inhale, children and adults frequently suffer from respiratory ailments, conditions, and allergies such as allergic rhinitis, bronchial spasms, bronchitis, asthma, burning eyes, and skin irritation.³⁴¹
127. A May 2013 technical opinion by an expert commissioned by the CNDH mentions that soot-like particles were observed on the floors of some buildings in Ribera Cahuaré and that these deposits may have their origin in limestone combustion by Cales y Morteros. It states that organic aerosols such as soot may increase the incidence of bronchitis and other respiratory diseases, and can exacerbate the effects of cardiovascular disease. The expert noted that in five interviews with residents, respondents mentioned problems related to diseases of the respiratory tract; for this reason, the expert suggested that an epidemiological study be conducted.³⁴²

128. In October 2013, SSa-Chiapas conducted a new epidemiological study. It made visits to all the dwellings in the localities of Ribera Cahuaré (pop. 513) and Santa Cruz (pop. 740) and found that 40% of the residents stated they suffered from one or more diseases and that 26% exhibited comorbidity with acute respiratory infection. The study indicates that the observed acute respiratory infections are 95% associated with possible allergic reactions. It states that limestone dust was observed on the roofs of all the dwellings and in the nearby trees during the early hours of the day. The study concludes that “the scattered presence of limestone in the dwellings is a determining environmental risk factor for the development of acute respiratory diseases.”³⁴³
129. In August 2014, SSa-Chiapas produced another health assessment covering 57.3% of the total population and stating that 15.7% of the Ribera Cahuaré population exhibits respiratory disease, 12.3% dermatitis, and 9% diarrheal symptoms. These three disease categories have been linked to limestone pollution, although few cases of bronchitis and pneumonia were found.³⁴⁴ The study does not specify the distribution of cases by age group. It also notes that 22.3% of the population uses wood-burning stoves, which can affect respiratory health,³⁴⁵ and that the pollution of water by limestone affects water hardness but does not pose a health risk.³⁴⁶ The study concludes that “from a health standpoint, it cannot be conclusively stated whether pollutant emissions from Cales y Morteros are affecting the health of local residents.”³⁴⁷
130. In September 2014, SSa-Chiapas conducted a new epidemiological study using methodology similar to that of the October 2013 study, but this time including only the locality of Ribera Cahuaré (pop. 513). The study notes that medical exams conducted during the first half of 2014 by the local front-line health care provider yielded a 12.6% incidence of acute respiratory infection, a 4.6% incidence of diarrheal disease, and a 3.5% incidence of dermatosis. These ailments constituted the top three most frequent reasons for visiting the clinic. It also notes that 25% of the respondents exhibited coughing, 23.1% sneezing, 23% runny nose, 22% sore or burning throat, and 21% stuffed nose. This study showed that acute respiratory infections are the primary cause of morbidity, accounting for 12.6% of cases, and that “coughing, sneezing, sore or burning throat, and stuffed nose are the most frequent clinical manifestations of respiratory ailment in the residents of Ribera Cahuaré,” since an average of 96.9 persons (18.8% of the population) presented with at least one symptom of respiratory pathology, which “constitutes a serious health problem in the locality.” Furthermore, “limestone dust was observed throughout much of the structure of the dwellings and vegetation situated near the company.”³⁴⁸
131. Finally, the Submitter provided copies of various medical documents and prescriptions for six residents of Ribera Cahuaré, mainly children, in support of its assertion that the minors in the locality suffer from chronic respiratory and skin diseases and from symptoms of chronic allergic rhinitis or acute rhinitis, asthma, dyspnea, throat infection, coughing, and presence of smoke and limestone dust in the lungs.³⁴⁹ A 2010 news story noted that at least 20 people suffer from these ailments.³⁵⁰

IN BRIEF

Almost one fifth (18.8%) of the population of Ribera Cahuaré suffers from at least one symptom of respiratory disease.

6.2.2 Whether the production activities of Cales y Morteros are compatible with the declaration of the site as a protected natural area, as well as with the corresponding management plan, the environmental zoning plans, the applicable NOMs, and other legal instruments

i. Compatibility with the PNA declaration and the management plan

132. The executive order of 8 December 1980 that created the Sumidero Canyon National Park establishes its objectives:

That with a view to contributing to the fulfillment of the goals of the national policy on human settlements, and to facilitate the protection, conservation, and cultural and natural reaffirmation of this area of relevant natural beauty, as well as to foster scientific research thereupon, it is seen fit to declare as a national park the previously delimited geographic area, so that it is incorporated into and forms a part of the system of National Parks for Recreation, with a view to adopting multidisciplinary approaches as well as regulation and control standards to prevent the alteration of the ecosystem and to allow for the use of the site for purposes of recreation, placing special restrictions on visitor entry, for educational, cultural, and recreational purposes; all of which shall be without prejudice to the adequate use of the region's water resources to generate electric power, which is also a clear public good.³⁵¹

133. The PNA declaration is an instrument regulated by RANP Articles 48–61 and LGEEPA Articles 57 and 60. These provisions came into force subsequent to the creation of SCNP. Mexico notes that the 1960 Forests Act (*Ley Forestal*) was the applicable legal framework at the time when Sumidero Canyon National Park was declared in 1980.³⁵² Given that this act focuses on forest resources, the Forest Act does not prescribe the contents of such a PNA declaration other than its forestry aspects and unlike current legislation, nor does it contemplate the creation of buffer zones.³⁵³
134. Article 66 of the Forests Act provides that “where a national park is established and land is included that is not national property, the Federal Executive Branch shall state in the order the grounds of public utility serving as a basis for the expropriation thereof so that the nation may acquire dominion thereover.” The order in question does not specify why the land occupied by the limestone quarries was included in SCNP, stating only, as referenced above, that establishing the area as a national park “shall be without prejudice to the adequate use of the region's water resources.”
135. Articles 69 and 70 of the Forests Act respectively establish that “the performance of any profit-making activity within the national parks shall be subject to the prior permission of the forestry authority” and that “permits issued by the forestry authority in accordance with the preceding article shall specify the term for which they are issued, the obligations incumbent on the permit holders, any limitations on their activities, and the grounds for cancellation.”
136. Concerning the management plan, the Submitter asserts that Semarnat has not published a management plan for SCNP, “nor have the residents of Cahuaré, or Comité Pro-Mejoras [the Submitter]” been invited to a meeting for the purposes of drafting such a plan in accordance with LGEEPA Article 65.³⁵⁴
137. Mexico states in its response that at the time the order was issued the Forests Act was applicable, and it “did not establish the obligation to produce a management plan for the national parks created thereunder, since ... this legal instrument [i.e. the management plan] was not contemplated in the Mexican legal system until eight years after the creation of SCNP.”³⁵⁵

IN BRIEF

The applicable law at the time when the SCNP declaration was issued did not establish an obligation to produce a management plan, but did require that a regulation be issued. However, to the knowledge of the Secretariat, no such regulation has been made.

138. While the legislation in force when SCNP was created did not provide for the establishment of a management plan, Article 72 of the Forests Act of 1960 did provide that “for each national park, the corresponding regulation shall be issued.” To the knowledge of the Secretariat, no such regulation has been issued for SCNP.
139. The Party maintains that it is taking measures to address various problems currently plaguing the Park, including the growth of irregular human settlements in the municipalities of Tuxtla Gutiérrez and Chiapa de Corzo, the expansion of agriculture and rock quarrying inside the park boundaries by Cales y Morteros. Mexico has committed to amending the declaration that created the Park in order to lay the technical and legal groundwork for the issuance of the corresponding management plan.³⁵⁶ Before any of these actions can be finalized, Mexico has informed the Secretariat that under RANP Article 64, Conanp must produce a prior study (the EPJ). An EPJ was indeed published subsequent to Mexico’s response to the Submission. Mexico contends that any amended park declaration must provide for the modification of the Park area to address certain park use inconsistencies, establish zoning and subzoning to provide for regulation of the Park’s activities and to conserve the Park’s ecosystems, and establish modalities and limitations on natural resource use pursuant to LGEEPA Article 50.³⁵⁷ Finally, the Party indicates that, pursuant to RANP Article 47, once the EPJ is completed, it must be made available for public review for a period of 30 calendar days, and that any comments and observations made by the Submitter during the public consultation will have to be considered by Semarnat.³⁵⁸
140. According to the information gathered by the Secretariat, the EPJ was completed in September 2012,³⁵⁹ while the notice informing the public of the EPJ was published on 27 November 2012.³⁶⁰ Cales y Morteros submitted its written comments on the EPJ; see section 3.1.3 of this factual record.³⁶¹ As stated in that same section, the current status of the draft amendment to the declaration, the step preceding the issuance of the corresponding management plan, is unknown.

ii. Compatibility with the environmental zoning plans

141. LGEEPA distinguishes four types of environmental zoning plans, which must be mutually consistent: general, regional, local and maritime. The following table (Table 12) describes those relevant to the PNA in question.³⁶²

Table 12. Types of environmental zoning plans

Scope	Level of government and legal basis	Subject matter
General: POEGT*	Federal, LGEEPA Article 20	“Environmental guidelines and strategies for the preservation, protection, restoration, and sustainable use of natural resources, as well as for the siting of production activities and human settlements.” ³⁶³
Regional: POERT**	State, LGEEPA Article 20 bis 2 ³⁶⁴	“Environmental regulatory criteria for the preservation, protection, restoration, and sustainable use of the natural resources located in the region in question, as well as for the conduct of production activities and the siting of human settlements.” ³⁶⁵
Local: POELT***	Municipalities, LGEEPA Article 20 bis 4	“Regulate land uses outside of population centers, with a view to protect the environment and preserve, restore, and provide for the sustainable use of natural resources... in connection with production activities and the siting of human settlements, and to establish environmental regulatory criteria for the protection, preservation, restoration, and sustainable use of natural resources within population centers.” ³⁶⁶

* General Environmental Zoning Plan.
 ** Regional Environmental Zoning Plan.
 *** Local Environmental Zoning Plan.

142. LGEEPA Article 20 provides that Semarnat shall establish the general ecological zoning plan (*programa de ordenamiento ecológico general del territorio—POEGT*), while LGEEPA Article 20 *bis* 2 notes that the states shall prepare and issue regional ecological zoning plans (*programas de ordenamiento ecológico regional del territorio—POERT*), with the participation of Semarnat in the event that the plan includes part or all of a PNA. LGEEPA Article 20 *bis* 4 also provides that the municipalities shall issue local environmental zoning plans (*programas de ordenamiento ecológico local del territorio—POELT*).
143. The POEGT, published in the DOF on 7 September 2012 by Semarnat,³⁶⁷ situates SCNP within biophysical environment unit (*unidad ambiental biofísica—UAB*) 78, “Sierras of Northern Chiapas” and UAB 81, “Chiapas Highlands.” The POEGT assigns specific ecological guidelines and strategies to each UAB. The anticipated scenario for UAB 78 for the year 2033 is “unstable to critical,” the environmental land use policy is “restoration and sustainable use,” and the action priority is “high.”
144. In the case of UAB 81,³⁶⁸ the environmental status predicted for the 2033 horizon is “highly critical,” the environmental policy is “restoration, preservation, and sustainable use,” and the action priority is “very high.”
145. The Chiapas regional plan (POERT), published 7 December 2012, situates SCNP within environmental management unit (*unidad de gestión ambiental—UGA*) 53, meaning that the “recommended conditional uses” are ecotourism, agriculture, tourism, and infrastructure, and the “non-recommended uses” include mining activities.³⁶⁹
146. There is no existing local plan (POELT) that includes all or part of SCNP.³⁷⁰ It appears that the company’s quarrying activities are not considered, pursuant to Article 2 of the Mining Law, as mining activities (see section 5.2). This is important because both the POEGT and POERT make reference only to mining activities and not to quarrying operations.

iii. Compatibility with the applicable NOMs and other legal instruments

147. RANP Article 81 states that “[i]n protected natural areas, shall be permitted only those natural resources uses which generate benefits for local inhabitants and which conform with... Mexican Official Standards and other applicable legal provisions.” A plain reading of this article suggests that any provision applicable to natural resource use in a PNA could be considered. Rather than attempting to address the whole legal framework applicable to the company’s activities in SCNP, the Secretariat identified three relevant provisions, in respect of which the Submitter asserted a failure to effectively enforce:
 - LGEEPA Article 50, in relation to the activities permitted within a PNA, and
 - LGEEPA Article 64, in relation to the granting of permits for the use of resources in a PNA.
148. LGEEPA Article 50 determines the activities permitted within protected natural areas, which include “activities related to the protection of their natural resources, the increase of their flora and fauna and, in general, the preservation of their ecosystems and the components thereof, as well as research, recreation, tourism, and environmental education.” The Submitter asserts that the activities of Cales y Morteros are not on the list of activities permitted by LGEEPA Article 50.³⁷¹
149. Mexico asserts that this provision merely establishes a catalogue of activities permitted within protected natural areas and is not, therefore, a provision that can be applied directly.³⁷² Mexico did not, in the information it provided to the Secretariat, provide a legal basis under which limestone quarrying in SCNP is permitted to continue, and, as noted below, the company does not have a permit specifying that it may operate in a PNA.

150. LGEEPA Article 64 provides that the granting of permits, licenses, concessions, and approvals in general for the use of natural resources (e.g. quarrying) in protected natural areas must comply with the applicable laws, declarations, and management plans. LGEEPA Article 64 further provides that the applicant must demonstrate its technical and economic capacity to engage in the activity in question without negatively affecting ecological stability. The Submitter asserts that, instead,³⁷³ the company is causing “the destruction of this area [by the limestone quarry and] is irreversibly altering the habitat for the fauna and flora [of SCNP].”³⁷⁴ In response to this assertion, Mexico notes the enforcement measures that it has taken with respect to Cales y Morteros, but does not specifically address the alleged alteration of habitat.³⁷⁵
151. In relation to the enforcement of LGEEPA Article 64, the Secretariat notes that Cales y Morteros holds the following licenses and permits:
- operating permit no. 0702700199, issued 24 May 1999³⁷⁶ and updated 22 April 2009;³⁷⁷
 - Semarnat registration as a hazardous waste generating company, classified as a small generator (code no. 0702729100071899 and environmental registry no. CMG740702711);
 - general permit no. 1634-CHIS for the purchase and use of explosives, issued by Sedena; and
 - Semarnat approval exempting Cales y Morteros from channeling the emissions from 16 of its machines through ducts or stacks.³⁷⁸
152. On 2 May 2002, the SCNP administration filed a public complaint against Cales y Morteros, alleging land use changes, tropical forest clearing, and pollution.³⁷⁹ On 28 January 2003, an inspection visit found that the company lacked both land use change approval and environmental impact approval to engage in rock quarrying within a PNA.³⁸⁰ On 27 February 2004, the Park administration filed another public complaint³⁸¹ alleging environmental harm stemming from pollution of the Grijalva River, land use change, and tropical forest clearing within SCNP.³⁸² This complaint was consolidated with the one already in progress. On 29 July 2004, Profepa issued a notice of decision and deadline for response, opening administrative proceeding no. CH.SJ/VI-001/2003. With this proceeding, it ordered various safety measures, including suspension of quarrying until environmental impact and land use change approvals were obtained.³⁸³ However, as noted by the Party, further to a motion by the company, Profepa voided this act and terminated the proceeding on 12 November 2004 because the land occupied by the company was outside the PNA boundaries, and because Cales y Morteros had commenced operating years before the entry into force of the environmental impact legislation, which cannot be applied retroactively.³⁸⁴ According to Mexico, the legislation in question is applicable to any expansion or modification that the company might wish to make; it was for this reason that inspection and surveillance continued, resulting in another administrative proceeding that remains pending.³⁸⁵
153. Mexico states in its response that during an inspection visit on 25 May 2012, conducted by Profepa as part of another administrative proceeding, Mexico observed that the Company had not complied with the corrective measures imposed in the abovementioned administrative ruling.³⁸⁶ Consequently, on 17 September 2012 another administrative ruling was issued. The penalties imposed included a fine of 623 thousand pesos, the total permanent closure of the lots affected by the change in land use, and an order to restore the affected site.³⁸⁷
154. As previously noted, consistent with the EPJ, Conanp is planning to issue a management plan for the Park.

IN BRIEF

In 2004, Profepa found that the company was allegedly situated outside the PNA boundaries.

7. Continuing commitment to transparency

155. Factual records provide detailed information regarding asserted failures to effectively enforce environmental law in Canada, Mexico or the United States that may assist submitters, the NAAEC Parties, and other interested members of the public in following up on the matters addressed. This factual record draws no conclusions regarding Mexico's alleged failures to effectively enforce its environmental law, nor does it draw conclusions regarding the effectiveness of Mexico's enforcement efforts.
156. In accordance with NAAEC Article 15(3), this factual record is "without prejudice to any further steps that may be taken" in regard to submission SEM-11-002 (*Sumidero Canyon II*).
157. In 2014, the Council of the CEC stated that each year, the NAAEC Parties will provide updates on actions taken in connection with submissions concluded in the past year (including those on which a factual record has been prepared).³⁸⁸

Twenty years ago, North American leaders made a commitment that trade and economic growth would go hand-in-hand with effective trilateral cooperation and protection of the environment across the continent.

[...]

This year, we implemented a new reporting approach for submissions on enforcement matters (SEM) as part of our continued commitment to transparency and to the SEM modernization process. Following a proposal by the Joint Public Advisory Committee, each country provided an update on actions taken in connection with submissions concluded in the past year.

[...]

158. In order to facilitate any follow-up that the public or the competent authorities in Mexico may wish to carry out, the following paragraphs provide relevant information on the matters raised in the submission and addressed in this factual record.
159. In accordance with Council Resolution 14-05, this factual record presents relevant factual information concerning the Submitters' assertions in regard to: i) noise emissions by the company; ii) the definition of acceptable rates or limits of change and carrying capacities for Sumidero Canyon, and iii) the extent to which the company's activities generate benefits for the local residents and whether these activities are compatible with the applicable legal framework. In addition, it provides relevant factual information concerning the activities of the company Cales y Morteros and their alleged impact on the health of the residents of Ribera Cahuaré and on Sumidero Canyon.
160. As regards noise emissions, Semahn presented information concerning a proceeding begun in 2002 that confirmed the existence of noise-related violations by Cales y Morteros, resulting in a fine as well as an obligation for the company to submit a technical alternative designed to mitigate the noise. For its part, Cales y Morteros submitted noise mitigation alternatives as well as information on its noise control investments, including the construction of enclosures for noise-generating equipment. The company asserts that it has plans to invest in additional noise control equipment.
161. As regards the definition of acceptable rates or limits of change and carrying capacities governing the use of natural resources and other uses taking place in the Park, Mexico submitted information in support of its conclusion that these provisions do not apply because the activities of Cales y Morteros are incompatible with the declaration of SCNP as a protected natural area. In addition, since limestone quarrying is not considered mining in Mexican law, this activity is under state and not federal jurisdiction.

162. As to the alleged benefits being generated by the company's activities and their compatibility with the applicable legal framework, the Submitters assert that, on the contrary, there are no benefits for local residents, and that the activities of Cales y Morteros are harming the community due to allegedly high levels of air pollution caused by limestone particulates, and due to noise pollution caused by the company's equipment. In this regard, the company contends that it has given assistance to the locality of Ribera Cahuaré and that it provides direct employment for more than 120 residents.
163. Concerning vibrations caused by the blasting, the available studies come to different conclusions. Chiapas State Civil Protection produced a risk assessment and concluded that the cracks appearing in local houses are caused by differential settlement, lateral forces on bearing walls, the construction of some houses on uncompacted backfill, and the construction of additions to older structures. Conanp commissioned a study which concluded that the activities of Cales y Morteros are damaging one wall of Sumidero Canyon. Furthermore, the EPJ produced and published by Conanp mentions the risk of damage to Sumidero Canyon. The documentation also states that blasting by the company has accelerated natural processes of fracturing, instability, and cavity formation in rocks and soils near the limestone quarry. By contrast, Cales y Morteros commissioned two reports rejecting the conclusion that the blasting has any impact on the walls of Sumidero Canyon. According to one geological report, the cracking corresponds to the geological periods of formation of the canyon and that the results of measurements of particle velocities induced by the blasting demonstrate that the vibrations are not causing damage to Sumidero Canyon. To summarize: the Secretariat found reports with contradictory conclusions as to the impact of the blasting on the east wall of Sumidero Canyon. In any event, blasting by the company Cales y Morteros ceased in December 2013.
164. With respect to particulate matter emissions, air quality monitoring information from Semavi —now Semahn— reveals that values were predominantly “average” but very close to “poor” according to the Imeca Index. Information provided by SSa-Chiapas with respect to the relationship between the activities of Cales y Morteros and the type of diseases detected among the population, reveals that 18.8% of the inhabitants of Ribera Cahuaré have presented with at least one symptom of respiratory pathology and that the most affected age group is 5–9 years old, followed by the 10–14 year age group, and that “children are sicker than the rest of the population.” Similarly, the EPJ makes a direct connection between particles from quarry operations and damages to flora and fauna located in the Sumidero Canyon National Park, as well as documenting other respiratory diseases suffered by residents of nearby communities.
165. The Mexican Government has plans to prepare and implement a management plan for Sumidero Canyon National Park as reflected in the 2012 *Prior Study to Amend the Declaration of the “Sumidero Canyon National Park” Protected Natural Area* or EPJ.

Notes

Except as otherwise indicated, all official documents cited herein are in the Secretariat's archives. Page references to the submission and the response in this factual record correspond to the original Spanish versions of these documents.

(Endnotes)

- 1 Full details regarding the various stages of the process as well as previous submissions filed with the CEC Secretariat can be found on the "Submissions on Enforcement Matters" page of the CEC website at <<http://www.cec.org/submissions>>.
- 2 SEM-11-002 (*Sumidero Canyon II*) Article 14(1) Submission (29 November 2011), available at <<http://goo.gl/Gjifw>>, p. 1 [Original Submission]. It should be noted that on 25 February 2010, the Submitter filed a submission with the Secretariat asserting failures of environmental law enforcement in relation to alleged damage to SCNP caused by Cales y Morteros. After the Secretariat requested a revised version of the *Sumidero Canyon* submission and the Submitter failed to respond, the Secretariat gave notice that the processing of SEM-10-001 had been terminated. See the record of the *Sumidero Canyon* submission processed in 2010, on the CEC website: <<http://goo.gl/MdTMGM>>.
- 3 SEM-11-002 (*Sumidero Canyon II*) Article 14(1) Determination (10 May 2012), available at <<http://goo.gl/9HIG3q>> [Article 14(1) Determination]. The registry of the submission is available at: <<http://goo.gl/KImNmX>>
- 4 SEM-11-002 (*Sumidero Canyon II*) Revised Article 14(1) Submission (11 June 2012), available at <<http://goo.gl/aUXmrB>> [Revised Submission].
- 5 SEM-11-002 (*Sumidero Canyon II*) Article 14(1)(2) Determination (6 September 2012), available at <<http://goo.gl/lKuFWd>> [Article 14(1)(2) Determination].
- 6 SEM-11-002 (*Sumidero Canyon II*), Article 14(3) Response of Mexico (23 November 2012), available at <<http://goo.gl/I0HZ8e>> [Response].
- 7 SEM-11-002 (*Sumidero Canyon II*) Article 15(1) Notification (15 November 2013), available at <<http://goo.gl/FkLGsP>> [Notification].
- 8 *Ibid.*, §§ 71-80.
- 9 *Ibid.*, §§ 81-87.
- 10 *Ibid.*, §§ 88-94.
- 11 *Ibid.*, §§ 95-100.
- 12 *Ibid.*, §§ 101-109.
- 13 *Ibid.*, §§ 110-120.
- 14 *Ibid.*, §§ 121-125.
- 15 SEM-11-002 (*Sumidero Canyon II*) Council Resolution 14-05 (10 June 2014), available at <<http://goo.gl/qW5nNC>> [Council Resolution 14-05].
- 16 Reasons for Council Instructions regarding Submission SEM-11-002 (*Sumidero Canyon II*) (10 June 2014), available at <<http://goo.gl/iTvC0O>>.
- 17 Council Resolution, note 15 *supra*, p. 2.
- 18 Conanp, *Estudio previo justificativo para modificar la declaratoria del área natural protegida Parque Nacional "Cañón del Sumidero"* (Prior study to amend the declaration of the "Sumidero Canyon National Park" protected natural area), Chiapas, Mexico, September 2012 [SCNP-EPJ], pp. 7, 26.
- 19 SCNP-EPJ, note 18 *supra*, pp. 7, 26, and CNDH, Second Investigative Division (*Visitaduría General*), Expert Services Unit (*Coordinación de Servicios Periciales*), file no. 811/11/12, containing the technical opinion of an environmental expert designated by the CNDH to intervene in file no. CNDH/2/2011/5702/Q (30 May 2013) [CNDH Technical Opinion], p. 13.
- 20 SCNP-EPJ, note 18 *supra*, p. 43.
- 21 *Ibid.*, p. 13.
- 22 *Ibid.*, p. 7.
- 23 *Ibid.*, p. 43.

- 24 *Decreto por el que se declara Parque Nacional, con el nombre de Cañón del Sumidero, el área descrita en el Considerando Quinto, y se expropia a favor del Gobierno Federal una superficie de 217,894,190 m², ubicada en el estado de Chiapas* (Order declaring the area described in the Fifth Preamble Clause a national park named “Sumidero Canyon,” and expropriating to the federal government an area of 217,894,190 m² located in the state of Chiapas), published in the DOF on 8 December 1980 [SCNP Declaration], available at <<http://goo.gl/1iocT>> (viewed 9 February 2015).
- 25 SCNP-EPJ, note 18 *supra*, pp. 7, 47.
- 26 SCNP-EPJ, note 18 *supra*, pp. 34, 37, 45, 48. Further information on the various species listed in Table 1 may be found in this document.
- 27 *Ibid.*
- 28 *Ibid.*, p. 45.
- 29 *Ibid.*, p. 47.
- 30 *Ibid.*, p. 10.
- 31 SCNP Declaration, note 24 *supra*.
- 32 SCNP-EPJ, note 18 *supra*, p. 15.
- 33 *Ibid.*
- 34 *Ibid.*
- 35 *Ibid.*
- 36 *Ibid.*, p. 7. See also: Conabio, RTP-141 La Chacona-Cañón del Sumidero, undated document, available at <<http://goo.gl/0DQAfo>> (viewed 11 May 2015) and Conabio, AICA SE-46 Corredor Laguna Bélgica-Sierra Limón-Cañon Sumidero, undated, available at: <<http://goo.gl/yxm9R9>> (viewed 11 May 2015).
- 37 *Ibid.*, p. 10. Convention on Wetlands of International Importance especially as Waterfowl Habitat, adopted at Ramsar (Iran) on 2 February 1971, published in the DOF on 29 August 1986 and amended by: i) the Protocol to the Convention on Wetlands of International Importance especially as Waterfowl Habitat, adopted at Paris, France on 3 December 1982, and ii) the Amendments to Articles 6 and 7 of the Convention on Wetlands of International Importance especially as Waterfowl Habitat, adopted at Regina, Canada on 28 May 1987. The list of Wetlands of International Importance produced under Article 2.1 of the Convention is available at <<http://goo.gl/q4iUEx>> (viewed 9 February 2015).
- 38 SCNP-EPJ, note 18 *supra*, p. 10.
- 39 *Ibid.*, pp. 8, 14.
- 40 *Ibid.*, p. 14.
- 41 *Ibid.* The proposal by the former Semarnap was titled, “Desincorporación de Áreas Suburbanas Irregulares del Parque Nacional Cañón del Sumidero” (Removal of Irregular Suburban Areas from Sumidero Canyon National Park).
- 42 Semarnat office in Chiapas, Management for Environmental Protection Division (*Subdelegación de Gestión para la Protección Ambiental*), Environmental Management Unit (*Unidad de Gestión Ambiental*), file no. SDGPA/UGA/DMIC/003/03 (9 January 2003) and SCNP-EPJ, note 18 *supra*, p. 14.
- 43 SCNP-EPJ, note 18 *supra*, p. 10. This agreement was titled “Acuerdo de Coordinación entre el Poder Ejecutivo Federal y el Poder Ejecutivo del Estado de Chiapas, mediante la reubicación de los asentamientos humanos irregulares” (Coordination Agreement between the Federal Executive Branch and the Executive Branch of the State of Chiapas for Relocation of Irregular Human Settlements).
- 44 Revised Submission, note 4 *supra*, pp. 3-4.
- 45 SCNP-EPJ, note 18 *supra*.
- 46 *Ibid.*, pp. 8, 11, 14, 17-19, 41.
- 47 *Notice to the general public that public access has been granted to a study performed to justify the issuance of the Order modifying the area of the Sumidero Canyon National Park protected natural area, located in the State of Chiapas and declared via publication on 8 December 1980*, published in the DOF on 27 November 2012, available at <<http://goo.gl/oq6nFw>> (viewed 9 February 2015).
- 48 Cales y Morteros, unnumbered letter to Conanp with the heading, “Challenge to the Notice to the general public that public access has been granted to a study performed to justify the issuance of the Order modifying the area [of SCNP]...” (18 December 2012) [Observations of Cales y Morteros on SCNP-EPJ]. In its 1999 operating permit application, the company observed that it is situated in “a rugged and unused area, which is not occupied by agriculture, silviculture, or ranching.” See: Cales y Morteros, unnumbered document with operating permit application form attached (3 March 1999) [Operating Permit Application-1999], p. 8. The operating permit (*licencia ambiental única*) is applicable to industrial facilities listed in LGEEPA Article 111 *bis* and is issued by Semarnat.

- 49 Conanp, Southern Border, Isthmus, and Southern Pacific Region, file no. F00.-DRFSIPS/423/2013, response to the observations of Cales y Morteros on the SCNP-EPJ (2 July 2013), pp. 2, 4-6, 8.
- 50 Cales y Morteros, unnumbered document filing a motion for review against Conanp file no. F00.-DRFSIPS/423/2013 (26 August 2013).
- 51 Conanp, Regional Operations Branch (*Dirección General de Operación Regional*), file no. 01060 resolving the motion for review filed by the company on 26 August 2013 (1 November 2013).
- 52 A. Jiménez Franco and I.A. Romero Galindo, *Impacto sobre las paredes del Cañón del Sumidero y análisis del peligro y riesgo que representan para el turismo y la población aledaña a la actividad de la empresa Cales y Morteros del Grijalva, S.A. de C.V.*, Universidad Nacional Autónoma de México (UNAM), Geophysical Institute, Mexico, November 2011 [UNAM Geophysical Study Commissioned by Conanp], p. 6.
- 53 SSa-Chiapas, Institute of Health, Health Risks Protection Division (*Dirección de Protección contra Riesgos Sanitarios*), Public Health Emergencies Coordinating Unit (*Coordinación de Atención a Emergencias Sanitarias*), unnumbered document, “Diagnóstico sanitario para determinar daño a la salud en la población de Ribera Cahuaré por la emisión de contaminantes por la empresa Cales y Morteros del Grijalva, S.A. de C.V.” (August 2014) [Cahuaré Public Health Study-2014], p. 3.
- 54 The distance is 800 meters according to IHNE, file no. IHNE/DG/000108/2003, decision on administrative file no. UAJ/006/002 (13 February 2003) [IHNE Noise Decision-2003], p. 2 (based on an inspection performed in November 2002).
- 55 *Ibid.*, p. 3.
- 56 INEGI, Historical Archive of Localities, download of information corresponding to geostatistical locality no. 070270011 named Cahuaré or Caguaré, available at <<http://goo.gl/oZiY7Y>> (viewed 9 June 2015).
- 57 Residents of Ribera Cahuaré and a municipal officer, unnumbered document and attached petition asking the Municipal Council of Chiapa de Corzo to recognize the locality of Cahuaré (15 September 2013). A document by the Ribera de Cahuaré Municipal Agency also states that “our village was founded in the year 1944 when the state governor of the day, Rafael Pascasio Gamboa, acting by the secretary of government, gave a portion of land to 20 peasant heads of households from this place”; see S. Anaya Ruiz, municipal officer *et al.*, unnumbered document (16 April 2009).
- 58 Municipal Council of Chiapa de Corzo, unnumbered document, certificate of recognition of Ribera Cahuaré as part of the municipality of Chiapa de Corzo (29 November 2013).
- 59 INEGI, Census of Population and Housing 2010, Principal results by locality for 2010, Chiapas, available at <<http://goo.gl/HjvxIR>> (viewed 9 February 2013).
- 60 SCNP-EPJ, note 18 *supra*, p. 79.
- 61 *Ibid.*, p. 10.
- 62 Cahuaré Public Health Study-2014, note 53 *supra*, p. 3. However, the UNAM Geophysical Study Commissioned by Conanp note 52 *supra*, p. 6, mentions that the population of Ribera Cahuaré is approximately 2000.
- 63 Interview with company representatives, 2 October 2014.
- 64 UNAM Geophysical Study Commissioned by Conanp, note 52 *supra*, p. 6.
- 65 SSa-Chiapas, unnumbered document, “Estudio epidemiológico de la situación de salud de la localidad Ribera Cahuaré, Municipio de Chiapa de Corzo, Chiapas, México” (October 2013) [Cahuaré Epidemiological Study-2013], p. 4. Another document provides a slightly different breakdown: SSa-Chiapas, unnumbered document, “Estudio epidemiológico de la situación de salud de la localidad Ribera Cahuaré, Municipio de Chiapa de Corzo, Chiapas, México” (September 2014) [Cahuaré Epidemiological Study-2014], p. 5.
- 66 Cahuaré Public Health Study-2014, note 53 *supra*, pp. 5, 11.
- 67 Cahuaré Epidemiological Study-2014, note 65 *supra*, p. 5.
- 68 INEGI, Historical Archive of Localities, download of information corresponding to geostatistical locality no. 070270011 named either Cahuaré or Caguaré, available at <<http://goo.gl/06ocPx>> (viewed 9 February 2013). However, it only provides data up to 1980, since for the 1990 census the “locality was removed.” The most recent data were obtained from the SSa-Chiapas, file no. 5003/4502 to Semavi with attached document “Diagnóstico de salud: Localidad Rivera Cahuaré, Municipio de Chiapa de Corzo” (13 May 2011) [Cahuaré Public Health Study-2011].
- 69 Image prepared with Google Earth.
- 70 UNAM Geophysical Study Commissioned by Conanp, note 52 *supra*, p. 5.
- 71 Coordinates obtained through Google Earth: <<https://www.google.com/earth/>>.

- 72 UNAM Geophysical Study Commissioned by Conanp, note 52 *supra*, p. 5.
- 73 INEGI, satellite image of the localities neighboring the limestone quarry, 2013; State Civil Protection System (*Sistema Estatal de Protección Civil*), State Institute of Civil Protection for the Comprehensive Management of Disaster Risks (*Instituto de Protección Civil para el Manejo Integral de Riesgos de Desastres*), file no. IPCMIRD/DG/DIAR/OD-029/2012, risk report for Cales y Morteros (19 April 2012) [Cales y Morteros Risk Report-2012], p. 4.
- 74 Cales y Morteros, unnumbered document, “Presentación de información para la elaboración del expediente de hechos relativo a la petición SEM-11-002” (4 August 2014) [Information Submitted by Company to Secretariat], p. 4.
- 75 CNDH Technical Opinion, note 19 *supra*, p. 14; SCNP-EPJ, note 18 *supra*, p. 19.
- 76 According to measurements made by the company in Google Earth Pro, based on satellite images of the limestone quarry area in 2013.
- 77 Image prepared with Google Earth: <<https://www.google.com/earth/>>.
- 78 Information Submitted by Company to Secretariat, note 74 *supra*, p. 3.
- 79 Interview with company representatives, 2 October 2014. According to a different source dated 4 August 2014, prior to the interview, there were over 120 workers: Information Submitted by Company to Secretariat, note 74 *supra*, p. 10.
- 80 Information Submitted by Company to Secretariat, note 74 *supra*, p. 3.
- 81 F. Falconi Alegría, notary public no. 55, unnumbered document, notarization of public instrument no. 88 dated 22 November 1965, formalizing the constitution of the company (19 July 1977). This document indicates that the shareholder Abel Torres Rizo contributed two properties to the company’s share capital, together forming a single lot with an area of 9.3661 ha.
- 82 On 5 June 1991, Domingo Muguira Revuelta and another person sold the 452 m² suburban lot called “Cahuaré subdivision” to the company. On 6 June 1991 they sold the suburban property called “Cahuaré, Calera Annex” (1,350 m²) as well as the suburban property called “Cahuaré subdivision” (50 ha). These three properties, which taken together constitute a topographic unit, had been purchased from Abel Torres Rizo and Adalberto Hotzen Hueper on 31 December 1975 and 20 January 1976.
- 83 Information Submitted by Company to Secretariat, note 74 *supra*, p. 4.
- 84 Submitter, unnumbered letter to the President of the Republic, the Governor of the state of Chiapas, and the Mayor of Chiapa de Corzo (28 June 2013) [Submitter’s Letter to the President of the Republic], p. 1. Cahuaré Public Health Study-2014, note 53 *supra*, p. 1.
- 85 Email from Cales y Morteros representative to Secretariat’s Legal Officer (12 February 2015).
- 86 SCNP Declaration, note 24 *supra*, p. 5.
- 87 Interview with company representatives, 2 October 2014.
- 88 Interview with legal director of Conanp, 21 January 2015.
- 89 Information Submitted by the Company to the Secretariat, note 74 *supra*, pp. 4-5.
- 90 *Ibid.*, p. 5. R. Hernández Rodríguez, Notary Public office no. 13, entry no. 19499, notarization of decision on motion for revocation of 9 April 1987 (21 October 2004).
- 91 Information Submitted by the Company to the Secretariat, note 74 *supra*, p. 7.
- 92 *Ibid.*, p. 7. Ministry of Human Settlements and Public Works (*Secretaría de Asentamientos Humanos y Obras Públicas—SAHOP*), Real Property and Urban Works Section (*Subsecretaría de Bienes Inmuebles y Obras Urbanas*), Real Property Control and Federal Zone Branch (*Direction General de Control de Bienes Inmuebles y Zona Federal*), Federal Public Registry of Property Division (*Direction del Registro Público de la Propiedad Federal*), folio real no. 2810, property registrations for land situated in the Sumidero Canyon PNA in the Federal Public Registry of Property (5 January 1981).
- 93 Information Submitted by the Company to the Secretariat, note 74 *supra*, pp. 5, 7.
- 94 SCNP-EPJ, note 18 *supra*, p. 19; Conanp, file no. DAJ/474/2014 (4 August 2014), p. 2, and Conanp, Southern Border, Isthmus, and Southern Pacific Region, file no. DIR/REG/RFSIPS/428/2012 (13 July 2012) [Conanp Response to Submitter], p. 4.
- 95 Semarnat office in Chiapas, file no. DF/SGPA/UARRN/3546/2013 (4 September 2013), p. 1. In 2003, Semarnat was in the process of determining whether the company’s quarrying operations were situated inside SCNP boundaries. At that time, Semarnat indicated that it was unaware of the existence of any amparo action by the company against the Park declaration and recommended requesting a copy thereof from the company; see Semarnat office in Chiapas, unnumbered document titled “Nota informativa Cales del Grijalva” (24 February 2003) [Semarnat Memo], p. 2.

- 96 Profepa office in Chiapas, unnumbered document, administrative decision in file no. CH.SJ/VI-001/2003 (12 November 2004), p. 3 [Profepa administrative decision November 2004].
- 97 Meeting of the CEC Executive Director, the CEC representative in Mexico and the CEC Legal Officer with the Legal Director of Conanp and an employee of the Legal Affairs Coordinating Unit (*Unidad Coordinadora de Asuntos Jurídicos*) of Semarnat, 21 January 2015.
- 98 Cales y Morteros, unnumbered document, diagram identifying noise-emitting equipment (8 October 2014) [Noise Sources Diagram]. Cales y Morteros, unnumbered document, prior study to justify special characteristics for ducts and stacks (14 July 2011), pp. 3-4; Cales y Morteros, unnumbered document titled “Estudio Justificativo para no canalizador a través de ductos o chimeneas de descarga 16 equipos de la empresa” (Study to justify the absence of channeling of emissions through ducts or exhaust stacks for 16 of the company’s machines) (27 January 2012), Table 2 [Study to justify non-channeling of 16 machines]; Cales y Morteros, unnumbered document with attached additional information for the application to update the operating permit in response to Semarnat file no. SDGPA/UGA/0267/09 (1 April 2009) [Additional Information for Update of Operating Permit-2009], pp. 8-13. Operating Permit Application-1999, note 48 *supra*, p. 12; Grupo Eréndira de Proyectos Industriales, S.A. de C.V., unnumbered document titled “Cales y Morteros del Grijalva, S.A. de C.V., Informe de resultados de emisión de ruido en fuente fija de acuerdo a la norma oficial mexicana NOM-081-SEMARNAT/1994” (April 2012) [Grupo Eréndira Noise Report-April 2012], p. 5.
- 99 Modified from Noise Sources Diagram, note 98 *supra*.
- 100 Photo taken by the Secretariat’s Legal Officer during a field trip.
- 101 INEGI, satellite image showing the distribution of equipment at the limestone quarry, 2014 (image provided by the company).
- 102 Cales y Morteros, unnumbered document, satellite image of gravel area with outline of quarrying area in 1980 and 2011 (July 2014).
- 103 CNDH Technical Opinion, note 19 *supra*, p. 13.
- 104 Cales y Morteros, unnumbered document including a satellite image of the gravel area with an outline of the quarrying area in 1980 and 2011 (July 2014).
- 105 CNDH Technical Opinion, note 19 *supra*, p. 14. SCNP-EPJ, note 18 *supra*, p. 19.
- 106 Measurements made by the company in Google Earth Pro, based on satellite images of the limestone quarry area in 2013.
- 107 Information Submitted by the Company to the Secretariat, note 74 *supra*, p. 1; Sedena, 31st Military Zone, headquarters, file no. S1-M4/0975 certifying that the company has ceased to consume explosives (15 January 2014).
- 108 Semahn, file no. SEMAHN/1004/2014, response to the Secretariat’s request for information of 7 July 2014 (11 August 2014), pp. 1, 2 [Semahn’s response to the Secretariat].
- 109 Submitter, unnumbered document asking the Profepa office in Chiapas to enforce the environmental law vis-à-vis the company (29 January 2009) [Submitter’s letter to Profepa, 29 January 2009].
- 110 Interview with company representatives, 2 October 2014.
- 111 Observations of Cales y Morteros on the SCNP-EPJ, note 48 *supra*, p. 14.
- 112 Image prepared with Google Earth
- 113 Photos taken on 2 October 2014 by the Secretariat’s Legal Officer.
- 114 Information Submitted by the Company to the Secretariat, note 74 *supra*, p. 2; Triturados y Concretos de Sureste, S.A. de C.V., and Cales y Morteros, unnumbered document, private contract for purchase of rock material (31 December 2013); Sedena, 31st Military Zone, headquarters, file no. S1-M4/0975 certifying that the company has ceased to consume explosives (15 January 2014).
- 115 Revised Submission, note 4 *supra*, p. 7.
- 116 Submitter’s Letter to the President of the Republic, note 84 *supra*, p. 2.
- 117 Submitter, unnumbered documents dated 20 May 2012, p. 2, 22 February 2013, p. 3.
- 118 Submitter’s Letter to the President of the Republic, note 84 *supra*, p. 2; Submitter, Letter to the Governor of Chiapas dated 15 April 2009, p. 2.
- 119 Submitter’s Letter to the President of the Republic, note 84 *supra*, p. 2.
- 120 Municipal Council of Chiapa de Corzo, Municipal Agency of Ribera Cahuaré, unnumbered document including the minutes of a meeting held in relation to the issues between Ribera Cahuaré and the company (13 February 2003), p. 1 [Commitments by the Municipal Council of Chiapa de Corzo, 13 February 2013].
- 121 Semarnat office in Chiapas, file no. SDGPA/UGA/DMIC/0280/08, response to the company’s request for the requirements for operating a new limestone quarry on the “La Encañada” property (25 April 2008).

- 122 Cales y Morteros, “Estudio técnico justificativo para la autorización de cambio de utilización de terrenos forestales, proyecto Extracción y Beneficio de Materiales Pétreos en el Predio “La Encañada”, Municipio de Suchiapa, Estado de Chiapas” (Technical study to justify the forested land use change approval, project titled Quarrying and Processing of Rock Material on the “La Encañada” property, municipality of Suchiapa, state of Chiapas) (no date).
- 123 Cales y Morteros, “MIA-particular ‘Extracción y beneficio de materiales pétreos en el predio La Encañada’” (April 2014) [Suchiapa Project EIS].
- 124 Cales y Morteros, “Informe preventivo de impacto ambiental modalidad ‘Extracción y beneficio de materiales pétreos en el predio La Encañada’, a ubicarse en el km 31 de la Carretera Interestatal 133 Tuxtla Gutiérrez-Villaflores, en el Municipio de Suchiapa, Chiapas, México” (April 2014) [Suchiapa Project Preventive Report].
- 125 Cales y Morteros, document titled “Presentación de información adicional para la elaboración del expediente de hechos relativo a la petición SEM-11-002” (14 November 2014) [Additional Information Submitted by Company to Secretariat], p. 2.
- 126 Suchiapa Project Preventive Report, note 124 *supra*, p. 6.
- 127 Suchiapa Project EIS, note 123 *supra*, ch. I, p. 2.
- 128 *Ibid.*, pp. 18, 27.
- 129 Municipal Council of Suchiapa, Chiapas, Change in land use permit (5 March 2015).
- 130 Semarnat-Chiapas, Acknowledgment of receipt of the environmental impact statement (25 August 2015); Semarnat-Chiapas, Acknowledgment of receipt of change of forested land use (25 August 2015).
- 131 An initial interinstitutional working group to address the issue of the environmental impacts caused by the company, composed of Semarnat, Profepa, IHNE, and SSa-Chiapas, was formed in 2002: Government of the State of Chiapas, Institute of Natural History and Ecology (IHNE), Environmental Protection Division, file no. IHNE/DPA/484/2002 (4 December 2002) [IHNE, 4 December 2002].
- 132 Commitments by the Municipal Council of Chiapa de Corzo, 13 February 2013 note 133 *supra*.
- 133 *Ibid.*
- 134 Undertaking by Civil Protection during a meeting held 9 February 2009 with the participation of Semavi: Semavi, minute no. DRA/002/2009 of the meeting held further to the Submitter’s complaints against the company (9 February 2009). Civil Protection reiterated this undertaking during a meeting held 25 March 2009 to follow up on the Submitter’s complaints. Meeting mentioned in: Municipal Agency of Ribera de Cahuaré et al., unnumbered document addressed to Profepa (18 May 2009). The visit took place in April 2009: Government of the State of Chiapas, Ministry of Safety and Civil Protection (*Secretaría de Seguridad y Protección Ciudadana*), Civil Protection Branch (*Subsecretaría de Protección Civil*), “Evaluación de riesgos: Predios,” Doc. No. SSyPC/SSPC/DCMCS/ER0019/09 (23 April 2009) [SSyPC Risk Assessment, 2009].
- 135 Semavi monitored air quality in the company’s area of influence from 17 to 21 March 2009: Semavi, file no. SEMAVI/SMA/DPA/390/09, report of air quality monitoring results (26 June 2009) [Semavi Air Quality Report-2009].
- 136 Further to meetings held on 16 February 2009 with the participation of Semavi, Conanp and the SCNP administration, the latter sent additional information to Profepa to conduct an inspection, reiterating days later (on 23 April) its request by filing a complaint against Cales y Morteros with respect to change in land use, clearing and for conducting unauthorized activities. Meeting mentioned in: Conanp Response to Submitter, note 64 *supra*, p. 3.
- 137 On 25 March 2009, a meeting was held between representatives of Civil Protection, Semavi, Profepa, Conanp, FEPADA, Semarnat, the Municipal Council of Chiapa de Corzo, and the SSa-Chiapas, quoted in: Ribera de Cahuaré municipal agency et al. (18 May 2009).
- 138 Undertaking by Profepa during a meeting on 4 December 2009 with the participation of the Submitter and Grupo Escala, Montañismo y Exploración A.C: Profepa office in Chiapas, unnumbered document, agreement recorded in the minutes (4 December 2009).
- 139 Undertaking by the SSa-Chiapas during a meeting held 24 May 2011 with the participation of Semarnat, Semahn, the Government of the State of Chiapas, Profepa and Conanp: Various bodies, unnumbered document, minutes (24 May 2011).
- 140 Undertaking by the Semarnat office in Chiapas and SSa-Chiapas in: Minute of the meeting with attendance of Semarnat, Semavi, the Ministry of Government, Profepa, Civil Protection, and the SSa-Chiapas. (25 September 2009), p. 1
- 141 *Idem.*
- 142 Response, note 6 *supra*, pp. 19-20.

- 143 Complaint recorded under no. D.Q.113/02 and mentioned in: Profepa office in Chiapas, Complaints Department (*Departamento de Denuncias y Quejas*), unnumbered document in re: "Notice to complainant" (19 September 2002).
- 144 Response, note 6 *supra*, pp. 20-2.
- 145 Complaint received by Profepa on 5 November 2008, recorded under no. PFPA/CHIS/DQ/78/0031/2008, quoted in: *Ibid.*, p. 20.
- 146 *Ibid.*, pp. 22-4.
- 147 This proceeding is being processed by the General Administration of Pollution Source Inspection (*Dirección General de Inspección de Fuentes de Contaminación*) of the Industrial Inspection Branch (*Subprocuraduría de Inspección Industrial*)...
- 148 Response, note 6 *supra*, p. 10.
- 149 *Ibid.*, pp. 37-8, 47-8.
- 150 Cales y Morteros, unnumbered document, amparo motion against the notice of decision and deadline for response dated 29 July 2004 (4 October 2004) [Cales y Morteros, amparo motion 4 octubre 2004].
- 151 Profepa administrative decisión November 2004, note 96 *supra*. Response, note 6 *supra*, p. 38.
- 152 Public complaint received by Profepa on 5 November 2008, recorded under file no. PFPA/CHIS/DQ/79/0240/2008, cited in: Response, note 6 *supra*, p. 39.
- 153 Public complaint received by Profepa on 23 April 2009, recorded under no. PFPA/14.7/2C.28.2/0120-09, cited in: Response, note 6 *supra*, p. 39.
- 154 Public complaint received by Profepa on 28 April 2009, recorded under file no. PFPA/14.7/2C.28.2/0162-09: Profepa office in Chiapas, Department of Environmental Complaints, General Complaints, and Social Participation, decision no. PFPA/14.7/2C.28.2/0391/09, resolution in the complaint file no. PFPA/14.7/2C.28.2/0120-09 (28 October 2009), p. 2. CNDH Technical Opinion, note 19 *supra*, p. 22.
- 155 Public complaint recorded under no. PFPA/14.7/2C.28.2/0161-09. The complaint was referred to Profepa on 18 May 2009 by the General Coordinating Unit for Public Liaison (*Coordinadora General de Atención Ciudadana*) of the Government of the State of Chiapas through an official communication dated 20 April 2009. See: Profepa office in Chiapas, Department of Environmental Complaints, General Complaints and Social Participation, Decision no. PFPA/14.7/2C.28.2/0388/09, resolution in the file of complaint no. PFPA/14.7/2C.28.2/0161-09 (28 October 2009), p. 1.
- 156 Public complaint no. PFPA/14.7/2C.28.2/0120-09 (28 October 2009), p. 2 quoted in: CNDH Technical Opinion, note 19 *supra*, p. 22.
- 157 Response, note 6 *supra*, pp. 8, 50.
- 158 *Ibid.*, pp. 4, 48.
- 159 Public complaint 0702688 recorded under file no. PFPA/14.7/2C.28.2/00052-14: Profepa office in Chiapas, Legal Division, Department of Environmental Complaints, General Complaints and Social Participation, decision no. PFPA/14.7/2C.28.2/00113/14, admissibility decision of a complaint (4 April 2014). [Profepa admissibility decision on complaint no. PFPA/14.7/2C.28.2/00052-14]
- 160 Profepa office in Chiapas, Legal Division, Department of Environmental Complaints, General Complaints and Social Participation, decision no. PFPA/14.7/2C.28.2/00278/14, resolution complaint no. 0702688, under the file PFPA/14.7/2C.28.2/00052-14 (8 August 2014), p. 1, [Profepa resolution file no. PFPA/14.7/2C.28.2/00052-14].
- 161 *Ibid.*, p. 3.
- 162 *Ibid.*
- 163 Public complaint by the SCNP administration dated 20 July 2007 in regard to land use change, recorded under no. PFPA/CHIS/DQ/79/0096/2006. On 20 February 2008, a decision on the complaint was issued, concluding that no environmental violations had been found, quoted in: CNDH Technical Opinion, note 19 *supra*, p. 21.
- 164 Regarding public complaints by the Submitter and others, dated dated 31 May 2011, recorded under no. PFPA/14.1/8C.17.5/0874-11 and 28 June 2013 recorded under no. PFPA/5.3/2C.28.5.1/00141-11 (letter by the Submitter to the President, note 84 *supra*), Profepa responded by stating that the problem was already being addressed with proceedings related to environmental impact, land use change, and air emissions. Profepa also stated that the issues of impacts caused by the use of explosives, public health harms, noise, and rock quarrying approval were under the jurisdiction of other bodies; in: Profepa office in Chiapas, Legal Division, Environmental Complaints, General Complaints and Social Participation Branch, file no. PFPA/14.1/8C.17.5/0874-11 and and, by the same body, file no. PFPA/5.3/2C.28.5.1/10127 and Profepa (file no. PFPA/14.7/8C.17.5/00768/13 sent to the complainants but with a different file no.: PFPA/14.7/8C.17.5/00001-13.

- 165 Public complaint by the Submitter dated 27 November 2008 in regard to noise: CNDH Technical Opinion, note 19 *supra*, pp. 22-3. By virtue of a decision determining absence of jurisdiction, the complaint was referred to the municipality of Chiapa de Corzo (date unknown).
- 166 Public complaint by the Submitter dated 29 January 2009 in regard to air emissions, noise, and water pollution; another complaint dated 23 May 2011 requesting the relocation of the company; another dated 16 December 2013 in regard to damage to the canyon walls, fugitive emissions and noise, deforestation, pollution of the Grijalva River, and environmental impact.
- 167 Semahn, response to the Secretariat, note 134 *supra*, pp. 1-2.
- 168 Information Submitted by Company to Secretariat, note 74 *supra*, p. 1; Triturados y Concretos del Sureste, S.A. de C.V., and Cales y Morteros, unnumbered document, private contract for purchase of rock material (31 December 2013);
- 169 Omitted here are complaints filed with international organizations such as the Inter-American Commission on Human Rights and the United Nations, and complaints filed with non-governmental organizations such as the Fray Bartolomé de las Casas Human Rights Center.
- 170 Complaints by Profepa, date unknown; quoted in: Conanp Response to Submitter, note 93 *supra*, p. 3.
- 171 Complaint by Conanp dated 8 February 2012, quoted in: Conanp Response to Submitter, note 93 *supra*.
- 172 Namely, criminal investigations nos. PGR/CHIS/TGZ-III/297/2010 (concerning the Profepa complaint) and no. PGR/CHIS/TGZ-III/108/2012 (concerning the Conanp complaint).
- 173 Submitter, unnumbered document (6 January 2003).
- 174 Semarnat office in Chiapas, file no. SDGPA/UGA/DMIC/003/03 (9 January 2003).
- 175 Submitter, unnumbered documents dated 2 March 2009, 11 August 2009, and 20 July 2010; Semarnat office in Chiapas, file nos. SGPA/UGA/DMIC/03514/09 (13 August 2009) ;
- 176 Submitter, unnumbered documents dated 23 May 2011, 31 January 2012, 25 April 2012, 20 May 2012, 22 February 2013, and 17 August 2013.
- 177 Submitter, unnumbered documents dated 13 September 2002, 3 March 2009, and 8 February 2012;
- 178 Sedena, VII Military Region Headquarters, unnumbered document (8 October 2002).
- 179 Sedena, VII Military Region Headquarters, file no. 035164 (6 November 2012); Sedena, VII Military Region Headquarters, file no. 35595 (10 November 2012).
- 180 Submitter, unnumbered document (22 November 2012).
- 181 Submitter, unnumbered documents dated 13 September 2002, 3 March 2009, 11 March 2010, 3 March 2011, 25 March 2011, 19 May 2011, 1 October 2013, 29 January 2014 and 10 June 2014, all mentioned in: SSa-Chiapas, file no. DSP/7502/2014 (30 June 2014); and in file no. DSP/SE/DVE/CSP/5003/1019/2014 (19 September 2014).
- 182 Cahuaré Public Health Study-2011, note 68 *supra*.
- 183 Cahuaré Epidemiological Study-2013, note 65 *supra*, pp. 4-6. Letter from the SSa-Chiapas to the Submitter in reference to its request of 10 June in an attachment to file no. DSP/7502/2014 dated 30 June 2014.
- 184 Cahuaré Public Health Study-2014, note 53 *supra*, pp. 6-8, 11.
- 185 Cahuaré Epidemiological Study-2014, note 65 *supra*, communicated by the SSa-Chiapas to the Submitter in file no. DSP/SE/DVE/CSP/5003/1019/2014 (19 September 2014).
- 186 Submitter, unnumbered documents dated 28 November 2002; Director of the Lic. Benito Juárez primary school, unnumbered document (2 December 2002) [Submitter letter date 21 January 2008].
- 187 Semarnat Memo, note 95 *supra*, p. 1.
- 188 Submitter letter date 21 January 2008, note 186 *supra*, p. 1.
- 189 *Ibid.*
- 190 Submitter, unnumbered document (23 March 2009).
- 191 SEMAHN is the successor agency to Semavi, which in turn succeeded IHNE.
- 192 Submitter, unnumbered documents dated 30 September 2002 and 10 October 2002, IHNE Response to Submitter's request of 10 October 2002 to assess the impacts caused by the company, quoted in: Institute of Natural History and Ecology (IHNE), file no. IHNE/DPA/464/2002 (4 December 2002).
- 193 The administrative proceeding is no. UAJ/006/002.
- 194 IHNE, unnumbered document, noise-related verification record in re the company Cales y Morteros (29 October 2002); [Noise-inspection record IHNE] and IHNE Noise Decision-2003, note 54 *supra*.

- 195 Submitter, unnumbered documents dated 20 November 2008 and 27 January 2009. Grupo Escala Montañismo y Exploración, A.C., unnumbered document (16 April 2009).
- 196 Ministry of the Environment of the state of Chiapas, file no. SEMAVI/SMA/DPA/33/09 (27 February 2009). Semavi, Minute no. DRA/002/2009 of the meeting held to follow up on the Submitter's complaints against the company (9 February 2009), p. 2.
- 197 Municipal Agency of Ribera de Cahuaré et al., unnumbered document addressed to Profepa (18 May 2009).
- 198 Semavi Air Quality Monitoring-2009, note 135 *supra*.
- 199 Submitter, unnumbered documents dated and 23 May 2011.
- 200 Semahn, file no. SEMAHN/SMA/DPA/324/2011 (14 July 2011). Proceeding under file no. SEMAVIHN/UAJ/AAA/031/2010.
- 201 Response, note 6 *supra*, pp. 41-2. Semahn, file no. SEMAHN/1004/2014, response to the Secretariat's request for information dated 7 July 2014 (11 August 2014), p. 3; Decision of the file SEMAVIHN/UAJ/AAA/031/2010 whereby Semahn fined the company the equivalent of 10,000 times the daily minimum wage in the state of Chiapas (9 August 2011).
- 202 Submitter, unnumbered documents (30 November 2010), 21 May 2011 and 1 October 2012; FEPADA, file no. PGJE/FEPADA/MT-4/0029/2011 (19 January 2011) and Conanp Response to Submitter, note 93 *supra*, p.2.
- 203 The record no. is 139/FEPADAM4/2010.
- 204 FEPADA, file no. PGJE/FEPADA/MT-4/0029/2011 (19 January 2011).
- 205 Conanp Response to Submitter, note 93 *supra*, p. 2;
- 206 Grupo Escala Montañismo y Exploración, A.C., unnumbered document (16 April 2009); Submitter, unnumbered document (26 October 2011).
- 207 Submitter, unnumbered document, public complaint (24 January 2013), p. 6. Conanp Response to Submitter, note 33 *supra*, p. 3.
- 208 Submitter, unnumbered documents dated 7 October 2002 and 15 April 2009. Submitter's Letter to the President of the Republic, note 84 *supra*, and Movimiento Salvemos al Cañon del Sumidero, unnumbered document (9 October 2013).
- 209 Governor's Private Secretary (*Secretaría Particular del C. Gobernador*), Public Liaison Coordinating Unit (*Coordinación General de Atención Ciudadana*), file no. R.S. CAC: 5811/01/01/2009 (20 April 2009).
- 210 Municipal Council of Chiapa de Corzo, residents of Ribera Cahuaré, Cales y Morteros del Grijalva, S.A. de C.V., unnumbered document, minutes of the public hearing in file no. UJSM/128/02 (11 July 2002).
- 211 Municipal Council of Chiapa de Corzo, residents of Ribera Cahuaré, Cales y Morteros del Grijalva, S.A. de C.V., unnumbered document, minutes of the public hearing in file no. UJSM/128/02 (26 August 2002).
- 212 Submitter, unnumbered document (20 November 2008).
- 213 The file no. is UJSM/128/02.
- 214 Commitments by the Municipal Council of Chiapa de Corzo, 13 February 2013, note 138 *supra*.
- 215 Submitter, unnumbered documents dated 3 December 2002 and 23 May 2011, and Submitter's Letter to the President of the Republic, note 84 *supra*.
- 216 Submitter, unnumbered documents dated 17 December 2002 and 13 November 2008.
- 217 The complaint gave rise to file no. CNDH/2/2011/5702/Q.
- 218 CEDH, guidance record no. CEDH/OJ/1561/2011 (24 May 2011). Further to this record, on 11 July 2011 the CNDH requested information from Semarnat on the matter raised by the complaint (file no. V2/44639). Semarnat provided information on 19 July 2011 (file no. DGGIMAR.710/004917), as well as on 26 August 2011 (file no. DFCHS/UJ/3702/2011, p. 1), indicating the existence of air quality problems in the vicinity of the company. On 8 May 2012, the CNDH asked Semarnat to elaborate on the information related to the complaint (file no. V2/34993), and sent a reminder on 15 June 2012 (file no. V2/49420). Semarnat's response to this request is unknown.
- 219 Alianza por el Derecho a un Ambiente Sano, unnumbered document, petition to the CEDH (14 December 2011); Submitter, unnumbered document, petition to the CNDH (20 August 2012).
- 220 CEDH, file no. CEDH/VARAAM/662/2014, referring file no. CEDH/1269/2011 to the CNDH (25 August 2014).
- 221 Revised submission, note 4 *supra*, p. 14.
- 222 *Ibid.*, p. 12.

- 223 NOM-081-SEMARNAT-1994. Establishing the maximum allowable limits for noise emissions from fixed sources and the corresponding measurement method.
- 224 See: Official Gazette of the State of Chiapas (*Periodico Oficial*) no. 151, third section (18 March 2009). Article 216 of the Environment Act for the State of Chiapas prescribes the penalty for noncompliance: a fine of 100 to 5000 times the state daily minimum wage.
- 225 Noise Sources Diagram, note 98 *supra*.
- 226 Modified from: Noise Sources Diagram, note 98 *supra*.
- 227 Sengpiel Audio, Loudness comparison chart, available at <<http://goo.gl/79IhQQ>> (viewed 9 June 2015).
- 228 Nitroex, S.A. de C.V., unnumbered document dated 10 September 2011, conclusions to the blasting report at the working face of the company's mining operation to determine the impact of the vibrations and noise on local residents, [Nitroex Blasting Report-2011], letter accompanying the report.
- 229 Submitter, document Profepa (29 January 2009) note 109, *supra*.
- 230 Additional Information for Update of Operating Permit-2009, note 98 *supra*, p. 4; IHNE Noise Decision 2003 note 54 *supra*, p. 2.
- 231 Response, note 6 *supra*, p. 27.
- 232 Noise Sources Diagram, note 98 *supra*.
- 233 Additional Information for Update of Operating Permit, note 98 *supra*, p. 16.
- 234 Grupo Eréndira de Proyectos Industriales, S.A. de C.V., unnumbered document explaining to the company the results of the measurements of noise emitted by the company with reference to NOM-081-SEMARNAT-1994 (29 July 2014) [Grupo Eréndira Noise Monitoring Results-July 2014], p. 1.
- 235 IHNE Noise Decision-2003, note 54 *supra*, p. 3.
- 236 Noise Sources Diagram, note 98 *supra*.
- 237 Additional Information for Update of Operating Permit, note 54 *supra*, p. 16.
- 238 Cales y Morteros, unnumbered document in response to IHNE file no. IHNE/DG/000108/2003 of 13 February 2003 (10 March 2003), p. 2.
- 239 IHNE Noise Decision-2003, note 54 *supra*, p. 3.
- 240 Noise Sources Diagram, note 98 *supra*.
- 241 Additional Information for Update of Operating Permit, note 98 *supra*, p. 16.
- 242 Noise Sources Diagram, note 98 *supra*.
- 243 Additional Information for Update of Operating Permit, note 54 *supra*, p. 16.
- 244 Grupo Eréndira Noise Report-April 2012, note 98 *supra*, pp. 7, 11, 14; Grupo Eréndira de Proyectos Industriales, S.A. de C.V., unnumbered document titled "Cales y Morteros del Grijalva, S.A. de C.V., Informe de resultados de emisiones de ruido en fuente fija de acuerdo a la Norma Oficial Mexicana NOM-081-SEMARNAT-1994" (November 2013) [Grupo Eréndira Noise Report-November 2013], pp. 7, 11, 15 Grupo Eréndira de Proyectos Industriales, S.A. de C.V., unnumbered document titled "Cales y Morteros del Grijalva S.A. de C.V., Informe de resultados de emisiones de ruido en fuente fija de acuerdo a la Norma Oficial Mexicana NOM-081-SEMARNAT/1994" (May 2014) [Grupo Eréndira Noise Report-May 2014], p. 1., and Grupo Eréndira Noise Report-July 2012, note 234 *supra*, p. 1.
- 245 Grupo Eréndira Noise Report-May 2014, note 244 *supra*, pp. 12, 18.
- 246 Additional Information for Update of Operating Permit, note 98 *supra*, p. 16.
- 247 IHNE Noise Inspection Record, note 194 *supra*.
- 248 Response, note 6 *supra*, pp. 27-8.
- 249 Nitroex Blasting Report-2011, note 228 *supra*.
- 250 Grupo Eréndira Noise Report-April 2012, note 98 *supra*.
- 251 SCNP-EPJ, note 18 *supra*, p. 20.
- 252 Grupo Eréndira Noise Report-November 2013, note 244 *supra*.
- 253 Grupo Eréndira Noise Report-May 2014, note 244 *supra*.
- 254 Grupo Eréndira Noise Report-May 2014, note 244 *supra* and Grupo Eréndira Noise Monitoring Results-July 2014, note 234 *supra*.
- 255 Secretariat of the Commission for Environmental Cooperation, unnumbered document titled "Request for information for preparation of a factual record concerning submission SEM-11-002 (*Sumidero Canyon II*)" (7 July 2014), available at <<http://goo.gl/0DyWBj>> [Secretariat's Request for Information], p. 3.

- 256 Response, note 6 *supra*, p. 25.
- 257 *Ibid.*, p. 26. This document at pp. 25-31 also describes actions undertaken by authorities with respect to noise emissions from Cales y Morteros.
- 258 Response, note 6 *supra*, pp. 25-29.
- 259 See also section 3.7 of this factual record.
- 260 Submitter's request of 10 October 2002 to assess the impacts caused by the company's noise emissions, mentioned in: IHNE, file no. IHNE/DPA/464/2002 (4 December 2002). Response, note 6 *supra*, p. 26.
- 261 See paragraph 75 of this factual record. IHNE Noise Inspection Record, note 194 *supra*.
- 262 Response, note 6 *supra*, pp. 25-26.
- 263 IHNE Noise Decision-2003, note 54 *supra*. See also section Public complaints, proceedings, and other steps taken in relation to Cales y Morteros of this factual record.
- 264 The measure proposed to control noise emissions from the crusher was the construction of an enclosure for the hopper and the crusher (jaw crusher). In regard to noise emissions from the kilns, it is stated that the kiln blowers and exhausters have already been enclosed within brick structures and that the possibility of erecting a structure to cover the parts that generate noise and dust is being studied.
- 265 Cales y Morteros, unnumbered document in response to IHNE file no. IHNE/DG/000108/2003 of 13 February 2003 (10 March 2003).
- 266 Cales y Morteros, unnumbered document, information additional to its document of 13 October 2003, in response to file no. IHNE/DG/000618/2003, Photos of the measures taken to control noise emissions (16 October 2003).
- 267 Cales y Morteros, unnumbered document in response to IHNE file no. IHNE/DG/000899/2003 of 15 December 2003, concerning progress on the enclosures project (26 February 2004).
- 268 The structures mentioned are an enclosure, a duct, and a dust collector hopper for the gravel area, windows, ventilation lines and doors, new anchoring for the kiln exhausters, enclosure of the feed hoppers of the five kilns, and an enclosure and a spraying system for the crusher.
- 269 *Ibid.*, pp. 30-1.
- 270 According to information reported in the Operating Permit Application-1999, note 48 *supra*, pp. 20-21, 30, the hydration phase, a dust collector and a gas scrubbing process were installed on the packing process, the mill and kiln outlets. This information is inconsistent with data on the Additional Information for Update of Operating Permit, note 54 *supra*, p. 98 where most of the equipment started operations after 1999, with the exception of the dust collector which started operations in 1997.
- 271 Semarnat office in Chiapas, file no. SGPA/UGA/DMIC/04728/12, decision on company's application for an exemption on the channeling of emissions through discharge ducts or stacks for 16 of the company's machines (17 September 2012), pp. 4-5.
- 272 See "Enfrentan una dura competencia algunas empresas chiapanecas: Invierte en Chiapas, pese a obstáculos, Cales y Morteros del Grijalva," *El Heraldo de Chiapas*, 7 September 2009; Cales y Morteros, unnumbered document, table indicating the date each emission control device was installed (no date). Additional Information for Update of Operating Permit, note 54 *supra*, p. 26.
- 273 Cales y Morteros, unnumbered document in response to IHNE file no. IHNE/DG/000108/2003 of 13 February 2003 (10 March 2003), p. 1.
- 274 *El Heraldo de Chiapas*, September 2009.
- 275 Cales y Morteros, unnumbered document asking Profepa to lift the temporary partial closing order of 6 December 2002 contained in file no. CH.SJ/VI-004/02 (16 July 2004); Cales y Morteros, unnumbered document in response to IHNE file no. IHNE/DG/000899/2003 of 15 December 2003, in re progress on the enclosures project (26 February 2004). Cales y Morteros, unnumbered document "Actions for noise control/reduction", unknown date [Cales y Morteros, Actions to counter noise], p. 1.
- 276 Cales y Morteros, unnumbered document notifying Semarnat of the installation of an automatic packing machine (13 April 2005) and Cales y Morteros, unnumbered document asking Profepa to lift the temporary partial closing order of 6 December 2002 contained in file no. CH.SJ/VI-004/02 (16 July 2004);
- 277 Additional Information for Update of Operating Permit, note 54 *supra*, p. 26.
- 278 Submitter, unnumbered document, petition to Semarnat office in Chiapas (2 March 2009).
- 279 Cales y Morteros, Actions to counter noise, note 275 *supra*.

- 280 Cales y Morteros, unnumbered document, including a table that indicates the date each emission control device was installed (no date).
- 281 *Ibid.* Macwill, S.A. de C.V., unnumbered document including four invoices for cyclones (3 October 2012, 31 January 2013, 31 May 2013).
- 282 Study to justify non-channeling of 16 machines, note 98, *supra*, table 1. These machines are for the gravel area (hopper, screen, mill, belt conveyors), the primary crusher (hopper, jaw crusher, belt conveyor, vibrating screen, feed hoppers), and the production equipment (stone hopper, coke weighfeeders, limestone and coke conveyors, and four silos).
- 283 Semarnat-Chiapas, Official document no. SGPA/UGA/DMIC/04728/12 (17 September 2012).
- 284 *Ibid.*, Condition 2.
- 285 Additional Information for Update of Operating Permit, note 54 *supra*, p. 26. Macwill, S.A. de C.V.; unnumbered document including four invoices for cyclones (3 October 2012, 31 January 2013, 13 May 2013); Cales y Morteros, unnumbered and undated document, including a table that indicates the date each emission control device was installed.
- 286 Photos taken from: Cales y Morteros, Actions to counter noise, note 275 *supra*, p. 7 (left); and by the CEC Secretariat Legal Officer (right).
- 287 Email from Cales y Morteros representative to CEC Secretariat Legal Officer (29 January 2015).
- 288 Email from Cales y Morteros representative to CEC Secretariat Legal Officer (12 February 2015).
- 289 *Ibid.*
- 290 Revised submission, note 4 *supra*, pp. 4-5.
- 291 *Idem.*
- 292 Regulation published in the DOF on 30 November 2000.
- 293 Response, note 6 *supra*, p. 34.
- 294 *Ibid.*, p. 32.
- 295 Conanp, Legal Affairs Division (*Dirección de Asuntos Jurídicos*), file no. DAJ/474/2014 (4 August 2014).
- 296 *Sumidero Canyon National Park, Programa de uso público*. Conanp, Mexico, 2013. This public use plan is situated in the context of a management plan for the area. It specifies that rock mining or quarrying is not permitted in the public use portion. In regard to one of the subzones (the Momotus and Venados cycling paths), it specifies that the site was formerly used for rock quarrying and crushing of limestone and that there is evidence of disturbance by these activities.
- 297 Response, note 6 *supra*, pp. 34-35.
- 298 Revised submission, note 4 *supra*, pp. 4-5.
- 299 *Ibid.*, p. 1.
- 300 LGEEPA, Article 3: paragraph XI defines Sustainable Development as:
The process, measurable through environmental, economic and social criteria and indicators, that helps to improve living standards and productivity of persons, based on appropriate measures to preserve the ecological equilibrium, environmental protection and use of natural resources, in a way that does not compromise the ability of future generations to meet their own needs.
- 301 LGEEPA Articles 47 bis and 47 bis 1; RANP Articles 49 et 50.
- 302 LGEEPA Article 47 bis paragraph II, and RANP Article 49 paragraph II (emphasis added). It should be noted that buffer zones may contain subzones in which sustainable natural resource use is allowed. In such subzones, pursuant to LGEEPA Article 47 bis paragraph II(c) and RANP Article 49 paragraph II(b), “all production activities must be carried out under schemes of sustainable resource use” (emphasis added). Similarly, the *chapeau* of RANP Article 56 states that “the purpose of subzones for the sustainable use of natural resources shall be the conduct of production activities under schemes of sustainability...” (emphasis added). However, such a subzone would not apply to limestone quarrying, since the only activity permitted in the subzone in question is the use of renewable natural resources (LGEEPA Article 47 bis paragraph II(c); RANP Article 56 paragraph I).
- 303 LGEEPA Article 57.
- 304 LGEEPA Article 60 paragraph II.
- 305 LGEEPA Article 65.
- 306 RANP Article 72.

- 307 RANP Article 74.
- 308 See Notification, note 7 *supra*, §124.
- 309 LGEEPA Article 3 paragraph XXIII.
- 310 LGEEPA Article 19 paragraph VI.
- 311 *Ibid.*, pp. 5, 10-11.
- 312 Information Submitted by Company to Secretariat, note 74 *supra*, p. 10. In previous years (2002 and 2003), the total number of company employees was as high as 172, according to the annual operating report for industrial establishments under federal jurisdiction for the year 2002, signed in July 2003 by Cales y Morteros and received by Semarnat on 25 September 2003, p. 2, and also according to the annual operating report for the year 2003, signed in April 2004 by Cales y Morteros and received by Semarnat on 30 April 2004, p. 2.
- 313 Director of “Antonio de Mendoza” kindergarten, unnumbered documents dated 25 March 2003 and 2 July 2011 thanking the company for its support. The classroom was built in collaboration with Cales y Morteros; unnumbered document, PowerPoint presentation, “Señalamientos de la comunidad de Cahuaré” (no date), p. 13.
- 314 Municipal officer of Ribera Cahuaré, unnumbered documents dated 15 April 2008, thanking the company for its support.
- 315 Director of the Lic. Benito Juárez primary school, file no. 005/2011/2012, thanking the company for its support for the school (7 September 2011).
- 316 Cales y Morteros, unnumbered document in response to Submitter’s complaint to the Semarnat office in Chiapas (16 November 2011), p. 3.
- 317 Semarnat Memo, note 95 *supra*, p. 1.
- 318 Explosivos del Istmo, S.A. de C.V., unnumbered document, report on blasting and seismographic monitoring conducted on the company’s premises on 30 September 2006 (15 October 2006) [Explosivos del Istmo Blasting Report-2006], pp. 2, 6. International Regulatory Standard RI 8507 on Vibration Control of the US Bureau of Mines was used as a reference.
- 319 SSyPC Risk Assessment, 2009, note 134 *supra*. Risk assessment submitted to the Director of Environmental Protection of Semavi in response to the undertaking ensuing from the meeting held 25 March 2009 to follow up on the Submitter’s complaints.
- 320 E. de J. Orantes Lescieur, unnumbered document titled “Dictamen geológico estructural del paquete de rocas de la pared de la margen derecha del Cañón del Sumidero en la zona que comprende el puente Ángel Albino Corzo a 1,500 metros aguas abajo del río Grijalva” (August 2011) [Geological Report on Sumidero Canyon commissioned by Cales y Morteros].
- 321 Geortec, S.A. de C.V., unnumbered document titled “Dictamen estructural de las instalaciones de áreas de oficinas, mantenimiento, fábrica, almacén, viviendas y área de hornos, de la empresa Cales y Morteros del Grijalva, S.A. de C.V.” (Structural report on the facilities in the offices, maintenance, plant, warehouse, housing, and kilns areas of Cales y Morteros del Grijalva, S.A. de C.V.) (September 2011).
- 322 Nitroex Blasting Report-2011. However, it should be noted that the company offices are located 1500 meters from the extraction bank, and the urban zones are 700 meters from the same bank: Sedena, unnumbered document, inspection record for Cales y Morteros (23 May 2003), p. 1.
- 323 SCNP-EPJ, note 18 *supra*, p. 20.
- 324 UNAM Geophysical Study Commissioned by Conanp, note 52 *supra*, pp.8, 77, 84; Report to the Submitter of 12 June 2013 further to its petition: Conanp, Southern Border, Isthmus, and Southern Pacific Region, file no. FOO.-DRFSIPS/353/2013 (12 June 2013).
- 325 Source: Photo log from submission SEM-11-002 (*Sumidero Canyon II*).
- 326 CNDH Technical Opinion, note 19 *supra*, pp. 10, 12, 15, 30-33.
- 327 J. F. Lermo Samaniego, *Impacto de las voladuras provocadas por la empresa Cales y Morteros del Grijalva S.A. de C.V., en los puntos que se consideren vulnerables, como son las viviendas más cercanas y afloramientos de roca caliza – Reporte técnico*, Universidad Nacional Autónoma de México (UNAM), Institute of Engineering, Mexico, November 2013, 4, 6, 13 [UNAM Blasting Impact Study Commissioned by Cales y Morteros].
- 328 Submitter, document Profepa (29 January 2009) note 109, *supra*
- 329 SCNP-EPJ, note 18 *supra*, p. 21.
- 330 These were the Lic. Benito Juárez primary school, 260 m to the south, and technical secondary school no. 134, 1,130 m to the northwest of the company.

- 331 The points from which the measurements were taken were a house 280 m to the southeast, and another 190 m to the east of the company.
- 332 Semavi Air Quality Report, note 135 *supra*, p. 14.
- 333 *Ibid.*, p. 12.
- 334 *Ibid.*
- 335 See “Interpretación de los resultados monitoreo de la calidad del aire 2009” (Interpretation of air quality monitoring results-2009), no author or number (26 June 2009).
- 336 Semavi Air Quality Report, note 135 *supra*, pp. 16-17.
- 337 Cofepris, file no. CEMAR/0088/2010, results of analysis of the incidence of acute respiratory infections and asthma in certain localities of Chiapa de Corzo between 2000 and 2009 (17 May 2010).
- 338 Cahuaré Public Health Study-2011, note 68 *supra*.
- 339 M.A. Cortés Núñez, physician specializing in occupational medicine, unnumbered document, results of medical exams performed on 99 company employees, 23-28 September 2011 (3 October 2011).
- 340 SCNP-EPJ, note 18 *supra*, pp. 20-1.
- 341 UNAM Geophysical Study Commissioned by Conanp, note 52 *supra*, p. 8.
- 342 CNDH Technical Opinion, note 19 *supra*, pp. 16-18, 34.
- 343 Cahuaré Epidemiological Study-2013, note 65 *supra*, pp. 1-2, 6.
- 344 Cahuaré Public Health Study-2014, note 53 *supra*, pp.3, 7.
- 345 *Ibid.*, p. 6.
- 346 *Ibid.*, p. 9.
- 347 *Ibid.*, p. 11.
- 348 Cahuaré Epidemiological Study-2014, note 65 *supra*, 4-5, 8-9.
- 349 A child aged 4 in 2014, has suffered from respiratory ailments since the age of 18 months; a child aged 12 in 2013, suffers from asthmatic crises, dyspnea, and cyanosis; a child aged 11 in 2011, suffers from throat infection; a child aged 18 months in 2010, suffered from cough for a month; an adult suffered from chronic allergic rhinitis in 2012, and another adult was diagnosed in 2002 by the *Instituto Mexicano del Seguro Social* (IMSS) with smoke or limestone dust in the lungs. Information presented by the residents of Ribera Cahuaré to the Secretariat’s Legal Officer during a field trip.
- 350 Oscar Gutiérrez, “Denuncian contaminación en Cañon del Sumidero,” *El Universal*, 6 February 2010. This article mentions Candelaria Hernández Martínez, an adult who has suffered from acute rhinitis for three years, and Mariana and Sofia Xóchitl, diagnosed with asthma and acute rhinitis.
- 351 SCNP Declaration, note 24 *supra*, sixth preamble clause.
- 352 Response, note 6 *supra*, pp. 52-3. See also: SCNP Declaration, note 24 *supra*, first paragraph.
- 353 LGEEPA Article 47 bis paragraph II and Article 60 paragraph II; RANP Article 49 paragraph II. Although Article 69 of the Forestry Law does not refer to material extraction, it does allow other for-profit activities: “Construction of accommodation, recreational centers, businesses, restaurants and in general any for-profit activity inside national parks will be subject to permitting by the forestry authority.”
- 354 Revised Submission, note 4 *supra*, p. 3.
- 355 Response, note 6 *supra*, pp. 52-3.
- 356 *Ibid.*, p. 54.
- 357 *Ibid.*, pp. 54-5.
- 358 *Ibid.*, p. 55.
- 359 SCNP-EPJ, note 18 *supra*.
- 360 *Aviso por el que se informa al público en general que está a su disposición el estudio realizado para justificar la expedición del Decreto por el que se pretende modificar la superficie del Área Natural Protegida Parque Nacional Cañón del Sumidero, ubicada en el estado de Chiapas y decretada mediante publicación el 8 de diciembre de 1980*, published in the DOF on 27 November 2012, available at <<http://goo.gl/O33NmQ>> (viewed 18 February 2015). State and federal bodies and the general public may view this document for a period of 30 calendar days, from the day following its publication.
- 361 Observations of Cales y Morteros on SCNP-EPJ, note 48 *supra*.

- 362 LGEEPA Article 19. In addition, when a regional or local environmental zoning plan includes a protected natural area under federal jurisdiction, the plan must be prepared in conjunction with Semarnat, State governments, and the Federal District and municipalities where the natural protected area is located: LGEEPA Article 20 bis 2, third paragraph, and Article 20 bis 5 paragraph V.
- 363 LGEEPA Article 20 paragraph II (emphasis added).
- 364 LGEEPA Article 20 bis 2 specifies that where this regional plan includes a protected natural area under federal jurisdiction or a part thereof, the plan must be prepared in conjunction with Semarnat, State governments, Federal District and Municipalities.
- 365 LGEEPA Article 20 bis 3 paragraph II (emphasis added).
- 366 LGEEPA Article 20 bis 4 paragraphs II and III (emphasis added).
- 367 *Acuerdo por el que se expide el Programa de Ordenamiento Ecológico General del Territorio*, published in the DOF on 7 September 2012, available at <<http://goo.gl/inIg9B>> (viewed 18 February 2015) [POEGT], pp. 244-245 paragraph UAB 78.
- 368 POEGT, note 367 *supra*, pp. 188.
- 369 *Programa de Ordenamiento Ecológico del Territorio del Estado de Chiapas*, published in Official Gazette (*Periodico Oficial*) no. 405, p. 173, on 7 December 2012, available at <<http://goo.gl/GOZfqN>> (viewed 18 February 2015), p. 260. It should be mentioned that the technical study produced by the company in support of its application for a forested land use change approval in 2013 asserts that Chiapas does not have a state environmental zoning plan: Cales y Morteros Technical Study-2013, note 122 *supra*, p. 129.
- 370 Semarnat, “Programas de Ordenamientos Ecológico expedidos con o sin la participación de Semarnat” (Environmental zoning plans issued with or without Semarnat participation), map, October 2014, available at <<http://goo.gl/0jfizi>> (viewed 18 February 2015).
- 371 Revised Submission, note 4 *supra*, p. 4.
- 372 Response, note 6 *supra*, pp. 33-34.
- 373 Revised submission, note 4 *supra*, p. 5.
- 374 *Ibid.*, p.12.
- 375 Response, note 6 *supra*, pp. 40-42.
- 376 Semarnat office in Chiapas, file no. SMA/DNIA/0075/99 whereby operating permit no. 0702700199 is issued to the company (24 May 1999).
- 377 Semarnat office in Chiapas, file no. SDGPA/UGA/DMIC/01556/09, decision on application to update the company’s operating permit (22 April 2009). It should be noted that on 20 January 2003 the company applied for an amendment to the operating permit to allow for three new emissions sources. Semarnat responded on 6 July 2004 that the company had to follow the procedure for obtaining the comprehensive environmental license (file no. SDGPA/UGA/DGIMAR/0287/04). Follow-up to this letter, if any, is unknown.
- 378 The company is registered with Semarnat as a hazardous waste generator in the category of small generators (no. 0702729100071899 and log-book 07/EW-0173/01/09); it is listed in the environmental registry (no. CMG740702711), and holds a general permit to purchase and use explosives issued by Sedena (no. 1634-CHIS). On 17 September 2012, Semarnat granted approval to exempt 16 machines from the requirement to channel their emissions through ducts and stacks: Semarnat office in Chiapas, file no. SGPA/UGA/DMIC/04728/12 (17 September 2012).
- 379 The complaint was recorded under no. D.Q.049/2004, quoted in: Response, note 6 *supra*, p. 37.
- 380 Inspection record no. E07.SIV/026/149/2003, cited in: Cales y Morteros, amparo motion 4 October 2004, note 150 *supra*, p. 12.
- 381 Public complaint no. DQ/049/2004: Response, note 6 *supra*, p. 37.
- 382 *Ibid.*
- 383 *Ibid.*, pp. 37-8.
- 384 Profepa administrative decisión November 2004, note 96 *supra*.
- 385 Response, note 6 *supra*, p. 38.
- 386 Response, *supra* note 6, Appendix 8: Profepa, verification report no. PFPA/027/186/2012 (25 May 2012).
- 387 Response, *supra* note 6 at 7-8, and Appendix 9: Profepa, administrative ruling no. 0307/2012 (17 September 2012).
- 388 CEC Council, CEC Ministerial Statement – 2014, Twenty-first Regular Session of the CEC Council, Yellowknife, Northwest Territories, Canada (17 July 2014), available at <<http://goo.gl/u5TqsN>>.

APPENDICES



APPENDIX 1

Council Resolution 14-05

10 June 2014

COUNCIL RESOLUTION: 14-05

Instruction to the Secretariat of the Commission for Environmental Cooperation regarding submission SEM-11-002 (*Sumidero Canyon II*) in connection with the assertions that Mexico is failing to effectively enforce Articles 28, sections X, XI and XIII; 47 *bis*, section II, paragraph h); 50; 64; 65; 111 *bis*; 155; 156 and 170 of the General Ecological Balance and Environmental Protection Act (*Ley General del Equilibrio Ecológico y la Protección al Ambiente—LGEEPA*); 17 and 17 *bis*, paragraph G), section II, of the Regulation to LGEEPA respecting Air Pollution Prevention and Control (*Reglamento de la LGEEPA en Materia de Prevención y Control de la Contaminación de la Atmósfera—RPPCA*); 18 of the Regulation to LGEEPA respecting the Pollutant Release and Transfer Register (*Reglamento de la LGEEPA en Materia del Registro de Emisiones y Transferencia de Contaminantes—RRETC*); 80; 81; 88, section XIII, and 94 of the Regulation to LGEEPA respecting Protected Natural Areas—*Reglamento de la LGEEPA en Materia de Áreas Naturales Protegidas* (RANP); section 5.4.2 of Mexican Official Standard (*Norma Oficial Mexicana*) NOM-025-SSA1-1993; and NOM-081-SEMARNAT-1994

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;

ACKNOWLEDGING the important role of the Secretariat, as the administrator of the Submissions on Enforcement Matters (SEM) process, in facilitating information-sharing among members of the public and their governments on matters concerning the effective enforcement of environmental law;

AFFIRMING that one of the objectives of the NAAEC, as indicated in Article 1, is the promotion of transparency;

CONSIDERING the revised submission filed on 11 June 2012 by the “Comité Pro-Mejoras de la Ribera Cahuaré” (the “Submitter”), represented by Fernando Guillermo Velázquez Pérez, Raúl Amparo Guerrero Borraz, María Alejandra Aldama Pérez and Angélica Espinosa Interiano, and the response provided by the Government of Mexico on 27 November 2012;

HAVING REVIEWED the 15 November 2013 Notification by the Secretariat recommending the development of a factual record with respect to certain assertions made by the Submitter;

REAFFIRMING that Article 14(3)(a) of the NAAEC provides that “the Party shall advise the Secretariat...whether the matter is the subject of a pending judicial or administrative proceeding, in which case the Secretariat shall proceed no further”;

MINDFUL that pursuant to Article 14(1) of the NAAEC and Guideline 1.1 of the *Guidelines for Submissions on Enforcement Matters under Articles 14 and 15 of the North American Agreement on Environmental Cooperation* (the “Guidelines”), a factual record should be prepared on assertions that a Party is failing to effectively enforce an environmental law; and

TAKING INTO ACCOUNT Guideline 10.4, which requires the Council to provide its reason(s) for factual record instructions in writing to be placed in the SEM Registry.

HEREBY UNANIMOUSLY DECIDES:

TO INSTRUCT the Secretariat to prepare a factual record in accordance with Article 15(4) of the NAAEC and the Guidelines, regarding the assertions that Mexico is failing to effectively enforce its environmental law, exclusively in connection with the following:

- a) Article 155 of the LGEEPA and NOM-081-SEMARNAT-1994 in connection with noise emissions derived from the operation of the company “Cales y Morteros del Grijalva,” S.A. de C.V., pursuant to the Article 15(1) Notification;
- b) Article 80 of the RANP, exclusively in connection with the definition of acceptable rates, limits of change or carrying capacities of the Sumidero Canyon National Park related to the use and enjoyment of natural resources within the same;
- c) The *chapeau* of Article 81 of the RANP, exclusively in connection with the extent to which the productive activities of the company, “Cales y Morteros del Grijalva,” S.A. de C.V., generate benefits for the local inhabitants and whether these are compatible with the ANP declaration, the ANP management program, land-use programs, NOMs and other applicable legal instruments.

TO FURTHER DIRECT the Secretariat:

- a) to post the Council’s reasons for its vote in the SEM Registry;
- b) to conclude the preparation of the draft factual record as provided in Guideline 19.5, and submit it to the Council in accordance with Article 15(5) of the NAAEC;

- c) to provide the Council with its overall work plan for gathering the relevant facts, to keep the Council informed of any future changes or adjustments to such plan, and to promptly contact the Council in connection with any clarification required with respect to the scope of the factual record hereby authorized.

APPROVED BY THE COUNCIL:

Dan McDougall
Government of Canada

Enrique Lendo Fuentes
Government of the United Mexican States

Jane Nishida
Government of the United States of America

Reasons for Council Instructions Regarding Submission SEM-11-002 (*Sumidero Canyon II*)

Pursuant to its commitment to transparency and in its capacity as the governing body of the Commission for Environmental Cooperation responsible for overseeing the implementation of the North American Agreement on Environmental Cooperation (“NAAEC”), the Council of the Commission of Environmental Cooperation (the “Council”), hereby makes public its reasons for the instructions to the Secretariat for the preparation of a factual record regarding submission SEM-11-002 (*Sumidero Canyon II*).

1. The Secretariat’s Article 15(1) Notification

In its Article 15(1) Notification issued on 15 November 2013, the Secretariat recommended to the Council that the development of a factual record was warranted in connection with the assertions of alleged failures to effectively enforce:

- (i) Article 111 *bis* of the General Ecological Balance and Environmental Protection Act (*Ley General del Equilibrio Ecológico y la Protección al Ambiente*—LGEEPA) with respect to air emissions permitting;
- (ii) Article 155 of LGEEPA and Mexican Official Standard (*Norma Oficial Mexicana*) NOM-081-SEMARNAT-1994 (“NOM-081”) in relation to the noise emissions caused by the activities of the company Cales y Morteros del Grijalva, S.A. de C.V.;
- (iii) Article 28, section XI, of LGEEPA in relation to the requirement to file an environmental impact assessment and obtain an environmental impact authorization for the alleged modifications to, and expansions of, sources of environmental pollution between 1999 and 2002;
- (iv) Article 170 of the LGEEPA respecting the issuance of emergency measures, specifically those related to the prevention of damage to natural resources, air pollution and public health;
- (v) Articles 50 and 64 of LGEEPA in relation to the activities permitted in the Sumidero Canyon National Park and the setting of limits or acceptable rates of change or carrying capacities;
- (vi) Articles 80 and 81, section II, paragraphs b) and c), of the Regulation to LGEEPA respecting Protected Natural Areas (*Reglamento de la LGEEPA en Materia de Áreas Naturales Protegidas*—RANP), in relation to establishing restrictions on the Company’s natural resources use and enjoyment activities; and
- (vii) Article 65 of LGEEPA respecting the issuance of a management program for Sumidero Canyon National Park.

2. The Council's Instruction to the Secretariat

In the attached Council Resolution 14-05, the Council unanimously instructs the Secretariat to prepare a draft factual record exclusively in connection with the asserted failure to enforce the following:

- a) Article 155 of the LGEEPA and NOM-081 in connection with noise emissions derived from the operation of the company Cales y Morteros del Grijalva, S.A. de C.V., pursuant to the Article 15(1) Notification;
- b) Article 80 of the RANP, exclusively in connection with the definition of acceptable rates, limits of change or carrying capacities of the Sumidero Canyon National Park, related to the use and enjoyment of natural resources within the same; and
- c) The *chapeau* of Article 81 of the RANP, exclusively in connection with the extent to which the productive activities of the company Cales y Morteros del Grijalva, S.A. de C.V. generate benefits for the local inhabitants and whether these are compatible with the ANP declaration, the ANP management program, land use programs, NOMs and other applicable legal instruments.

Reasons of Canada and Mexico

1. Explanation Regarding whether the Party “is” failing to effectively enforce Environmental Laws according to Article 14(1) of the NAAEC

Article 14(1) of the NAAEC states that, “The Secretariat may consider a submission from any non-governmental organization or person asserting that a Party *is* failing to effectively enforce its environmental law.” In its response, Mexico indicated the current enforcement actions being taken with respect to Article 28 section XI and Article 111 *bis* of the LGEEPA (see Party Response, sections VI.B, pages 36-42, and III.B.4, pages 18-24, respectively). Being aware of these current enforcement actions by the Government of Mexico, Canada and Mexico are of the view that a factual record on enforcement actions with respect to Article 111 *bis* of the LGEEPA between 2002 and 2009; Article 28 section XI of the LGEEPA between 1999 and 2002, is not warranted.

2. Explanation Regarding Pending Judicial and Administrative Proceedings Pursuant to Article 14(3)(a) of the NAAEC

Article 14(3)(a) of the NAAEC clearly states that “the Party shall advise the Secretariat...whether the matter is the subject of a pending judicial or administrative proceeding, *in which case the Secretariat shall proceed no further.*” Accordingly, Canada and Mexico are of the view that when Mexico advised the Secretariat in its response that matters in the submission relating to Article 28 section XI, Article 111 *bis*, and Article 170 of the LGEEPA were the subject of pending judicial and administrative proceedings as set forth in Article 45(3)(a) of the NAAEC, the Secretariat ought to have proceeded no further.

3. Explanation Regarding the Secretariat's Request for New Information

In its 6 September 2012 Article 14(1) and (2) Determination, the Secretariat asked the Party for “only information relating to the criteria for preservation of ecological stability in the Park at the time of issuance of the authorization” with respect to Articles 50 and 64 of the LGEEPA. Mexico provided this information in its response. However, in its Article 15(1) Notification, the Secretariat states that central questions of fact remain open on issues which were not previously identified by the Secretariat, including:

- (i) how the use of limestone resources in Sumidero Canyon National Park is in compliance with LGEEPA Article 50, second paragraph (§106); and
- (ii) if indeed the company Cales y Morteros del Grijalva, S.A. de C.V., did not demonstrate the technical and financial capacity to conduct natural resources exploration, exploitation and use activities in the Sumidero Canyon National Park without causing environmental deterioration (§107).

Canada and Mexico are of that view that it is beyond the Secretariat's mandate within the Submissions on Enforcement Matters (SEM) process to shift or alter its analysis with respect to issues that are central to the submission, particularly where the Party has not had an opportunity to provide information as part of its Party response.

4. Explanation regarding the Secretariat's Request for Redundant Information

Canada and Mexico are of the view that in its Party Response, the Government of Mexico provided all of the relevant information regarding its current actions concerning the effective enforcement of Article 65 of the LGEEPA, including working towards the development of a management program for the Sumidero Canyon National Park. The Council, therefore, considers that the development of a factual record with respect to this issue would be unnecessary.

Reasons of the United States

The United States agrees with Canada and Mexico that the specific issues mentioned in the instructions to the Secretariat in Council Resolution 14-05 should be included in the factual record. However, the United States would have also supported a broader scope for the factual record.

In taking this position, the United States wishes to stress that its views in this case do not reflect a judgment on the part of the United States as to whether Mexico is failing to effectively enforce its environmental law or a judgment as to whether the matters raised by the government of Mexico in its response to the SEM are judicial or administrative proceedings within the meaning of Article 14(3)(a) of the NAAEC. The position of the U.S. in this case is based on a long-standing policy in favor of promoting openness and transparency in the SEM process. This policy is reflected in Executive Order 12915 of May 13, 1994, which requires the United States, to the greatest extent practicable, to vote in favor of a factual record being prepared when recommended by the CEC Secretariat.

APPENDIX 2

Revised submission SEM-11-002 (*Sumidero Canyon II*)

**TO THE COUNCIL OF THE COMMISSION FOR ENVIRONMENTAL
COOPERATION OF NORTH AMERICA**

The undersigned are members of **Comité Promejoras de la Ribera Cahuaré**, in the municipality of Chiapa de Corzo, state of Chiapas, representing its residents and attesting to our identity with voter identification cards issued by the Federal Electoral Institute (*Instituto Federal Electoral*) in Mexico.

1 BACKGROUND

Our town of Ribera de Cahuaré currently has a population of approximately 2000. It is situated on the banks of the Grijalva River at a site known to all as the gateway to Sumidero Canyon National Park. The settlement was established in 1900 with a population of 82 and grew to a population of 812 in 1980 (INEGI 2011, see Appendix 1). Ribera de Cahuaré currently sits within the municipality of Chiapa de Corzo. We have modest incomes, with most of us earning a living from wage labor and/or the informal sector.

In 1963, the company Cales y Morteros del Grijalva, S.A. de C.V. began operating a quarry here from which rock materials are mined and processed into slaked lime, caliche, gravel, screenings, and other materials used in construction. In 1966, 50 hectares (30 hectares in practice) were purchased from Adalberto Hotzen Hueper and Abel Torres Rizo (see Appendix 2, diagram showing the boundaries of the property).

2 ORDER DECLARING THE NATIONAL PARK

The company Cales y Morteros del Grijalva, S.A. de C.V. is located on land belonging to Sumidero Canyon National Park, a protected natural area (PNA) declared and published in the Official Gazette of the Federation (*Diario Oficial de la Federación*—DOF) on 8 December 1980, pursuant to Article 61 of the Mexican Environmental Protection Act (*Ley General del Equilibrio Ecológico y la Protección al Ambiente*—LGEEPA)¹.

¹<http://www.diputados.gob.mx/LeyesBiblio/pdf/148.pdf>

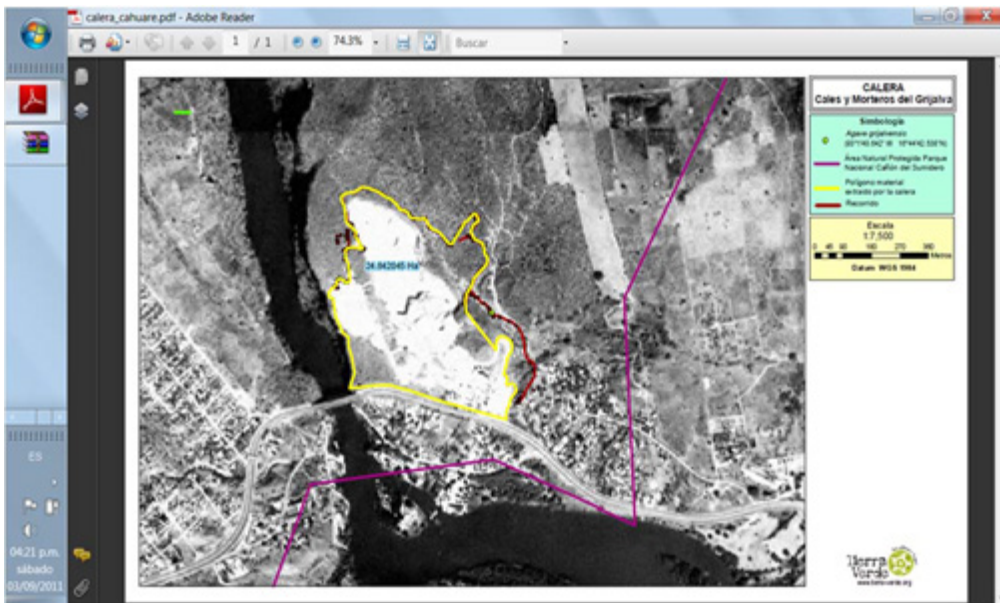


Fig. Location of Cales y Morteros del Grijalva S.A. de C.V. mine and boundaries of Sumidero Canyon PNA. Source: Tierra Verde.
 [Legend: Limestone mine, Legend, Sumidero Canyon National Park Protected Natural Area, Mine area, Scale].

Under LGEEPA Article 44, the establishment, regulation, administration, and enforcement of PNAs are powers of the federation. Various government departments have been in charge of the administration of this PNA, beginning with the Ministry of Human Settlements and Public Works (*Secretaría de Asentamientos Humanos y Obras Públicas—SAHOP*) and subsequently the Ministry of Environment, Natural Resources and Fisheries (*Secretaría de Medio Ambiente, Recursos Naturales y Pesca—Semarnap*), now the Ministry of Environment and Natural Resources (*Secretaría de Medio Ambiente y Recursos Naturales—Semarnat*).² This department, acting by the Protected Natural Areas Commission (*Comisión Nacional de Áreas Naturales Protegidas—CONANP*), “organizes and administers protected natural areas and supervises the work of conservation, protection, and enforcement of such areas...”³

This site was declared a PNA by virtue of the need to conserve and protect its scenic beauty, its scientific, educational, recreational, and historical value, its flora and fauna, and its tourism development potential, in addition to its status as a component of the Sumidero Canyon-Selva El Ocote biological corridor. The importance of this corridor resides in the fact that it allows for the continuation of functional ecological processes and natural gene spread. The National Biodiversity Commission (*Comisión Nacional para el Uso y Conocimiento de la Biodiversidad*) identifies the park as a priority terrestrial region (RPT 141) and an important bird conservation area (AICA SE-46). Likewise, due to the importance of the hydrological and ecological processes

²(<http://www.conanp.gob.mx/anp/consulta/EPJ-PNCS.pdf>)

³(<http://www.Semarnat.gob.mx/queesSemarnat/Pages/quehacemos.aspx>)

taking place here and the biological diversity they support, it is a Ramsar site for the protection of wetlands of international importance (CONANP, 2007).⁴

The conservation status of the PNA is further reflected by the presence of various species listed in NOM-059-SEMARNAT-2001 as threatened, endangered, or subject to special protection (CONANP, 2007), with a real conservation opportunity favoured in some cases by the mountainous topography, which renders access difficult and rules out any other land use.

The purpose of the order is to facilitate the protection and conservation of this area of natural beauty as well as to stimulate scientific research and adopt regulatory and control standards to prevent alteration of the ecosystem.⁵ The expropriation order includes and applies to the structures and facilities found on the land in question (Article 3). Pursuant to LGEEPA Article 62, once a PNA is established, its extent and, as applicable, permitted land uses as well as any other provisions relating to it may only be amended by the establishing authority, obeying the same formalities set out in the LGEEPA as for the issuance of the original declaration.

2.1 *PARK MANAGEMENT*

Pursuant to LGEEPA Article 65, within the year following the publication of the corresponding declaration in the DOF, Semarnat shall draft a management program for the PNA in question, affording opportunities for participation in the process by residents, owners, and occupants of lots included within the PNA's boundaries as well as competent agencies, state governments, municipal governments as applicable, community, public, and private organizations, and other interested persons.

We have not found a published management plan for the park, nor have the residents of Cahuaré or the members of Comité Promejoras been invited to any meeting for the purpose of drafting the management plan for the park. In 2007, CONANP published on the Internet a study purporting to justify an amendment to the PNA declaration⁶ on the grounds of encroachments by irregular habitation. In that document the mine is zoned as a "recovery subzone." The primary purpose of this designation is to halt the deterioration of the resources and restore the area, so that it can be rehabilitated and eventually return to its original state, thus ensuring the continuity of the natural processes occurring therein. It is located in that part of the PNA where the natural resources have been severely altered or modified (LGEEPA Article 47 Bis paragraph II subparagraph h). The area of this subzone is 12,781 hectares.

⁴<http://www.conanp.gob.mx/anp/consulta/EPJ-PNCS.pdf>

⁵(<http://www.conanp.gob.mx/sig/decretos/parques/Sumidero.pdf>).

⁶<http://www.conanp.gob.mx/anp/consulta/EPJ-PNCS.pdf>

Figure 2: Subzoning proposed by CONANP for Sumidero Canyon National Park. Source: CONANP, 2007.

In September 2008, the Sumidero Canyon Watershed Committee was formed to address the water pollution problem in Sumidero Canyon. In 2009, the National Waters Commission (*Comisión Nacional del Agua*), in conjunction with the state water institute, published the *Comprehensive Management Plan for the Sumidero Canyon Watershed*. This plan cites hydrometeorological phenomena, misuse of forest resources, contamination of water bodies, soil, and forests, incipient agricultural development, inadequate drinking water and sewer services, and harm to the sociocultural habitat as the major factors leading to the deterioration of natural resources and productive capacity in the Sumidero Canyon Watershed.

2.2 OPERATING PERMIT

LGEEPA Article 50 provides that the only activities permitted in national parks are those related to the protection of their natural resources, the increase of their flora and fauna and, in general, the preservation of the ecosystems and their components as well as ecological research, recreation, tourism, and education. Limestone mining does not fall into any of these categories and thus should not be permitted.

Furthermore, LGEEPA Article 64 requires applicants for permits or licenses covering the exploitation or use of natural resources within protected natural areas to demonstrate to the competent authority their technical and economic capacity to carry out this activity without causing environmental degradation. Semarnat, on the basis of technical and socioeconomic studies, may ask the competent authority to cancel or revoke the corresponding permit, license, concession, or approval where the exploration, exploitation, or use of resources results in or could result in harm to ecological stability.

Article 80 of the Protected Natural Áreas Regulation to the LGEEPA provides that for use or exploitation of resources within protected natural areas, the Ministry shall establish the corresponding rates of change, proportions, acceptable limits, or carrying capacities in accordance with the relevant methods and studies. Article 81 provides that in protected natural areas, only those natural resource uses that generate benefits for the local residents and conform to the principles of sustainable development, the relevant declaration, the PNA management program, the environmental land use plans, the applicable Mexican official standards, and other applicable legal provisions may be permitted.

Article 88 paragraph XIII of the same regulation provides that Ministry approval is required in order to engage in mineral exploration and mine operation within protected natural areas, with adherence to the established zoning and without prejudice to the applicable legal provisions.

Article 94 of the Regulation provides that in order to engage in mineral exploration and mining within PNAs, the interested parties shall apply to

CONANP for the approval contemplated in the Mining Act (no prescribed form), providing the following information:

- I. Applicant's name or corporate name.
- II. Location, area, and boundaries of the lot in question, duly georeferenced.
- III. Physical and biological characteristics of the lot.
- IV. Relevant information about the nature of the construction/work to be carried out and the manner in which it will be carried out.

While the mine in question was established before the publication of the LGEEPA and its regulation, we contend that the mine should be obligated to adhere to the provisions of the LGEEPA as from the date of establishment of the park, and that renewal of the license should not be approved until the mine is in compliance with the LGEEPA.

As established in the Fifth Transitory Article of the Protected Natural Areas Regulation, economic activities occurring in PNAs prior to the issuance of the order declaring the PNA may continue provided that they comply with the applicable environmental laws and regulations. We submit that the mine is not in compliance with Mexican standards in regard to particulate air pollution emissions and noise emissions; that it is disrupting the ecological stability of the flora, fauna, and geology of the national park; that it is causing harm to the health of neighboring residents, and that it is not operating in accordance with sustainable development principles, as discussed below.

In 2003, Semarnat did not receive any written application from the company in question for a renewal of the operating license or permits (SDGPA/UGA/DMIC/003/03, Appendix 3). It can be concluded that by failing to make the necessary renewal application, the company has allowed its operating license to lapse since that date, yet it continues to operate illegally. Nor has Semarnat set acceptable limits or rates of change or corresponding carrying capacities for the specific case of the park.

2.3 ENVIRONMENTAL IMPACT ASSESSMENT

LGEEPA Article 28 requires prior environmental impact assessment of works and activities that may cause ecological instability or exceed the limits and conditions set out in the applicable provisions for the protection of the environment and for the preservation and restoration of ecosystems, with a view to preventing or minimizing the negative impacts of such activities on the environment. The following paragraphs are applicable to the case at hand: paragraph XI, "works and activities in protected natural areas under federal jurisdiction," as well as paragraph X, "works and activities in wetlands, mangrove ecosystems, lagoons, rivers, lakes, and salt marshes,..." and paragraph XIII, which reads: "works or activities corresponding to matters under federal jurisdiction that may cause grave or irreparable ecological instability, or harm to public health or ecosystems, or that exceed the limits and conditions set out in the legal provisions for the preservation of ecological stability and the protection of the environment," and finally paragraph VII, "Land use changes in forested areas as well as in rain forests and arid zones."

The representatives of Ribera Cahuaré, by means of a letter sent 9 June 2009 to the Ministry of Environment and Housing (*Secretaría de Medio Ambiente y Vivienda*—Semavi) of the state of Chiapas (Appendix 4), and another letter of 20 July 2010 to Semarnat, requested copies of the environmental impact statement filed by Cales y Morteros del Grijalva, S.A. de C.V. They received a response, file no. D.F./SGPA/UGA/3194/10, dated 5 August 2010, from Luis Fernando Torres García, the Semarnat official in Chiapas, stating that the request had been referred to the Semarnat Liaison Unit pursuant to Article 28 paragraph IV of the Federal Access to Information Act (*Ley Federal de Transparencia y Acceso a la Información Pública Gubernamental*), but to date no response has been received from that unit (see Appendix 5).

We demand that the Park Expropriation Order, published in the DOF on 8 December 1980, and the LGEEPA and its Regulation, enacted in 1988, be considered applicable as of their date of entry into force.

3 COMPLAINTS FILED WITH STATE AND FEDERAL AUTHORITIES

Some of the already obsolete machinery, which had design defects from the outset and has been operated improperly, produces fugitive air pollution emissions. The inspection of the company in 2002 by the Office of the Federal Attorney for Environmental Protection (*Procuraduría Federal de Protección al Ambiente*—Profepa), reported in file no. D.Q. 113/2002 (Appendix 6), uncovered irregularities in which the company was engaged. An environmental impact-related administrative proceeding was brought against the company.

In 2002 we filed an initial complaint with Profepa for air pollution emissions, with the Ministry of National Defence (*Secretaría de la Defensa Nacional*—Sedena), for the company's irresponsible use of explosives, with the Ministry of Health (*Secretaría de Salud*—SSA) for health impacts on the population, with the Institute of Natural History and Ecology (*Instituto de Historia Natural y Ecología*—IHNE) for noise emissions, with Semarnat for environmental impact and destruction of the non-renewable limestone resource, with the Civil Protection Branch (*Subsecretaría de Protección Civil*) for damage to housing structures, with the National Institute of Anthropology and History (*Instituto Nacional de Antropología e Historia*—INAH) for damage to local cave paintings, and with the National Human Rights Commission (*Comisión Nacional de los Derechos Humanos*—CNDH) for violation of our basic right to live in a healthy environment. From the Chiapas state government we requested the relocation of the company, while from the mayor (*presidente municipal*) of Chiapa de Corzo we requested the relocation of the company and the repair of the harm caused (Appendix 7, with minutes of decision and meeting), all in the state of Chiapas.

The Ministry of Environmental Protection (*Secretaría de Protección al Ambiente*), after inspecting the company Cales y Morteros del Grijalva, S.A. de

C.V., brought three administrative proceedings in connection with environmental impact, land use changes, and hazardous waste management. As part of these proceedings it produced decisions issuing warnings and imposing sanctions, fines, and a total temporary and partial suspension of the company's activities, and in so doing terminated the process and closed the complaint file, which was requested but was not delivered to Comité Promejoras.

Finally, on 28 November 2007, Profepa terminated the process and closed the citizen complaint file due to force majeure (*por causas sobrevenidas*) (Appendix 8, termination decision, file DQ/113/02).

On 20 November 2008 a new complaint was filed with Semavi, defining the respective responsibilities of the agencies in question, these being Semarnat and Profepa (Appendix 9). On 12 January, Profepa issued a notice of proceedings declaring land use change-related irregularities on the part of the company further to the inspection and referring the matter to the Legal Affairs Branch of the Profepa office. However, there was no satisfactory response due to the fact that the incumbent Federal Attorney was replaced (Appendix 10, Profepa files).

The community of Ribera Cahuaré is not the only party to have filed complaints: in October 2009, the Director of Sumidero Canyon National Park, Edda C. González del Castillo, a biologist, filed a complaint with Profepa because of logging activities, impacts on vegetation from air pollutant emissions, and probable explosion damage to the east wall of the park, as noted in the Profepa decision of 28 October 2009. This complaint has yet to be resolved by Profepa (Appendix 11).

3.1 AIR POLLUTION

LGEEPA Article 111 BIS provides that Semarnat approval is required for the operation of fixed sources under federal jurisdiction emitting or potentially emitting odors, gases, or solid or liquid particles into the atmosphere. For the purposes of the LGEEPA, limestone mining is a fixed source under federal jurisdiction.

Article 17 of the Air Pollution Prevention and Control Regulation to the LGEEPA provides that persons responsible for fixed sources under federal jurisdiction emitting or potentially emitting odors, gases, or solid or liquid particles into the atmosphere shall:

- I.- Employ equipment and systems to control air emissions so that they do not exceed the maximum permissible levels set out in the applicable environmental technical standards.
- II.- Compile an inventory of their air pollution emissions in the format determined by the Ministry.
- III.- Install sampling platforms and ports.
- IV.- Measure their air pollutant emissions, record the results in the format determined by the Ministry, and submit the records to the Ministry where the latter so requests.

V.- Conduct perimeter monitoring of their air pollutant emissions, where the source in question is located in an urban or suburban area, where it borders a protected natural area, or where due to its operational characteristics or raw materials, products or subproducts, it may in the opinion of the Ministry cause serious harm to ecosystems.

VI.- Keep an operating and maintenance log for their process and control equipment.

VII.- Give advance notice to the Ministry of the resumption of their processes in the event of planned downtime, or immediate notice in the event of contingency downtime where pollution may result.

VIII.- Immediately notify the Ministry in the event of failure of control equipment, where the failure may cause pollution, so that the Ministry may take the necessary measures.

IX.- Take any other measures prescribed by the Act and the Regulation.

The limestone mine falls under Article 17 BIS paragraph G) II) of the Air Pollution Prevention and Control Regulation to the LGEEPA, due to the production of limestone as a fixed source under federal jurisdiction.

We submit that Semarnat, the body responsible for air quality compliance in this case (concerning a fixed source in the limestone industry), has not taken any steps related to air quality monitoring or an emissions log as required by the Regulation to the LGEEPA, nor has any record or log been published.

Article 18 of the Pollutant Release and Transfer Regulation to the LGEEPA provides that federal reportable substances, reporting thresholds, and technical criteria for the inclusion and exclusion of substances shall be determined in the relevant Mexican Official Standard, which shall contemplate air, water, soil and subsoil contaminants, hazardous materials and wastes, persistent organic compounds, greenhouse gases and ozone depleting substances.

Semavi NOM-025-SSA1-1993 conducted air quality monitoring during 17–21 March 2009, assessing air quality, PM10 particles pursuant to NOM-025-SSA1-1993,⁷ and also the Metropolitan Air Quality Index (IMECA), which includes measurement of ozone, sulfur dioxide particles, nitrogen dioxide, and carbon monoxide. All PM10 levels exceeded the level recommended by the 2005 World Health Organization air quality guide,⁸ which is a 25-hour average of 50 μm^3 . The 19 March measurement by the mobile unit, 150 μm^3 , exceeded the 24-hour average established by Mexican regulation (NOM-025-SSA1-1993) of 120 μm^3 , while the 18 and 20 March 24-hour measurements were near the maximum permissible levels at 111.95 and 101.7 μm^3 , respectively. The IMECA results found the average air quality to be “moderate” at 51-100, which means “possible nuisance to children, seniors, and persons with respiratory or cardiovascular disease.”⁹ On 19 March a mobile unit measured “poor” air quality, meaning “possible adverse health effects in persons with respiratory or

⁷<http://www.salud.gob.mx/unidades/cdi/nom/025ssa13.html>

⁸http://whqlibdoc.who.int/hq/2006/WHO_SDE_PHE_OEH_06.02_eng.pdf

⁹<http://www.sma.df.gob.mx/simat2/index.php?opcion=24>

cardiovascular disease,” particularly children and seniors. However, there were data missing from the study that were not reported in the monitoring results, such as the data recorded 20 March at a “private home” (see Appendix 12 for the response from Semavi and Appendix 13 for the analysis of the results and comparisons with WHO and Mexican standards).

Paragraph 5.4.2 of NOM-025-SSA1-1993¹⁰ states that “in order to verify observance of this standard, a minimum of data in one year will be required; this minimum is determined based on the quantity of valid 24-hour samples obtained in each of the four quarters of the year 2009. For validation of the year, at least three valid quarters with the above-specified number of valid samples are necessary; if this data is lacking, compliance with the standard for that year cannot be assessed.” To comply with this standard, Semarnat must perform this analysis and take at least three air quality measures per year, measuring pollutant levels in the area of influence of the factory in question, which has not been done.

On 22 March 2009, several entities met to follow up on the Comité Promejoras complaints in connection with the rock mining activities of Cales y Morteros del Grijalva, S.A. de C.V.; the decision was made that each federal and state entity would produce a technical report on the matters within its jurisdiction in response to the situation created by the company’s activities; Semavi would be responsible for compiling the resulting reports and convening a meeting on 29 April 2009 to ascertain whether sufficient evidence was available to file the applicable criminal complaint (Appendix 14). However, the meeting was never held because of the H1N1 flu outbreak.

On 13 July 2011, the Ministry of Environment and Natural History (its new name) of the state of Chiapas sent a letter stating that on 5 November 2010, “an auditing visit was made to the lot owned by the company, during which it was observed that rock mining was taking place, which gave rise to an administrative proceeding; in addition, further to various meetings held with other bodies of the federal government, these latter are also taking various kinds of legal action with a view to pursuing the processing of your request” (Appendix 15). However, there has been no conclusion nor any concrete response as to the status of the complaint.

3.2 PUBLIC HEALTH IMPACT

On 25 July 2002, the village of Cahuaré requested a medical examination of the residents due to the severe particulate air pollution that is affecting public health (Appendix 16). No response came, and seven years later, on 3 March 2009, the village reiterated its request (Appendix 17). A year later, on 11 March 2010, it did so again (Appendix 18). The following year, on 3 March 2011, the village filed another request (Appendix 19). This last request finally led to visits by the Ministry of Health on 6–7 April 2011 to 306 persons, with the results being

¹⁰<http://www.salud.gob.mx/unidades/cdi/nom/025ssa13.html>

relayed to Semavi on 13 May 2011 (Appendix 20). Semavi did not disclose these results to the residents. It was only when the residents staged a protest in May 2011, putting pressure on the government with concrete action, that the results were released. As noted, and as attested by a document appended hereto, the results of the exams are highly worrying. It was found that the local children are sicker and in more delicate health than the rest of the residents. Morbidity rates indicate that the most affected age group is children ages 5–9, followed by children ages 10–14. In general, the main cause of illness is respiratory disease, of which 26.2% of cases are allergic and 20% more are infectious, followed by skin diseases. The health brigades thus determined that

3. Airborne lime dust is an important factor in the development of respiratory diseases.

4. The association of this factor with the various disease cases encountered suggests to us that the origin of these diseases is directly related.”

3.3 DAMAGE TO BUILDINGS

The company uses dynamite as a blasting agent in its limestone and gravel mining operations, and this is causing land shifts which have, over the years, cracked the walls, roofs, and floors of the houses.

In September 2002 and March 2003, Sedena informed us that the explosions are under its supervision, yet it is the environmental authorities that are responsible for determining whether the use of the explosive is harming the environment and natural resources and deciding whether the company’s explosives permit should be renewed (Appendix 21). In March 2009, the explosives approval was renewed; however, no response was obtained (Appendix 22).

In November 2008, the Civil Protection Branch of Chiapas conducted a technical study to assess the risks and quantify the harm to the Lic. Benito Juárez primary school, which has been condemned as posing a risk to students and teachers. As a result of this study, the school was demolished and rebuilt that same year. A new risk assessment has been issued (Appendix 23) in regard to 35 of 69 damaged houses. The report concludes that an “inadequate construction system” and “poor quality materials” are being used.

3.4 NOISE POLLUTION

LGEEPA Article 155 prohibits emissions of noise, vibrations, heat and light energy, and generation of visual pollution, where they exceed the limits set out in any Mexican official standards issued by Semarnat for such purpose, considering the maximum permissible environmental contaminant concentration values for human beings as determined by the Ministry of Health. The federal or local authorities, according to their spheres of jurisdiction, shall take measures to prevent these limits from being exceeded and, as applicable, shall apply the corresponding sanctions.

LGEEPA Article 156 provides that the Mexican official standards on noise, vibrations, heat and light energy, odors, and visual pollution shall establish the procedures for the prevention and control of such pollution and shall set the corresponding emission limits. The Ministry of Health shall conduct the tests, studies, research, and monitoring necessary to identify the origin or source, nature, degree, magnitude and frequency of the emissions so as to determine when they produce health harms.

On 4 December 2002, IHNE conducted noise monitoring and detected noise levels of up to 80–89 decibels, exceeding Mexican Official Standard NOM-081-ECOL-1994,¹¹ which establishes a daytime maximum of 68 decibels and a nighttime maximum of 65 decibels (Appendix 24). Therefore, the mine is in violation of Mexican noise standards and the Ministry of Health is not conducting the analyses, studies, research, and monitoring required by law.

3.5 ENVIRONMENTAL RISKS

Forty-five years of mining have left a 30-hectare crater down to a depth of 40–50 m (see video in appendix). If we make a comparative analysis of the number of hectares impacted, it corresponds to the size of the mine area; that is, *even before* the existence of the park boundaries, they had already exhausted the resource on their own property and now they are in actual fact invading park property (Appendix 25, mine boundaries).

The destruction of this area is irreversibly altering the habitat for flora and fauna, the nonrenewable limestone resource, the health of residents and their homes.

On 16 April 2009, Grupo Escala Montañismo y Exploración, A.C., through its legal representative, filed a complaint of ecocide with CONANP (Appendix 26).

The east wall of Sumidero Canyon National Park, where the activity is taking place, is severely damaged by cracks caused by this activity. Furthermore, only 20 m away is the Belisario Domínguez International Bridge, an important road link between our country and Central America.

¹¹<http://www.ceamamorelos.gob.mx/secciones/ambiente/prevencionYcontrol-delacontaminacion/normayotros/NOM-081-Semarnat-1994.pdf>



Figure 3: Cracks in the wall of Sumidero Canyon on the side where Cales y Morteros de Grijalva, S.A. de C.V. is operating. Source: Our photo.

Pursuant to LGEEPA Article 170, where there exists an imminent risk of ecological instability or of damage to or deterioration of natural resources, or in cases of contamination with dangerous consequences for ecosystems, their components or public health, the Ministry may, with due justification, order safety measures including the temporary partial or total closing of pollution sources.

3.6 OTHER COMPLAINTS AND RESPONSE FROM STATE AND MUNICIPAL AUTHORITIES

The state government led by Pablo Salazar Mendiguchía convened a meeting with representatives of all the institutions involved, including the complainants, with a view to finding a solution to the problems in question. No follow-up meeting was held despite our insistence (Appendix 27).

On 9 August, Comité Promejoras de la Ribera de Cahuaré delivered a complaint to Javier Hernández Valencia, Representative of the UN Human Rights Office in Mexico, and Mónica Bucio, UNICEF Representative in San Cristóbal, for violations of the International Covenant on Economic, Social and Cultural Rights; the Convention on the Rights of the Child; the American Convention on Human Rights; the OAS Charter, as amended by the Protocol of Buenos Aires, and the Universal Declaration of Human Rights (Appendix 28). No response has been received.

On 30 November 2010 and 21 May 2011, a complaint was filed with the Special Attorney for Environmental Crimes (*Fiscal Especializado para la Atención a Delitos Ambientales*) in the state attorney general's office. The public prosecutor in the Special Attorney's office drew up an official record of the facts. Statements were taken and a forensic medical examination of 17 residents of Ribera Cahuaré was performed, as well as a forensic inspection of 9 cracked houses. At this time, the complaint is at the stage of an administrative proceeding, and it has not been raised to the status of a criminal investigation (Appendix 29).

Finally, on 8 September, a motion was filed in Second District Court of Tuxtla Gutiérrez, Chiapas, but it was dismissed (Appendix 30).

WHEREAS:

The MISSION of Semarnat is to work to incorporate criteria and instruments guaranteeing the optimal protection, conservation and use of our natural resources into all spheres of society and the public service, thus devising a comprehensive and inclusive environmental policy within the framework of sustainable development.

The MISSION of Profepa is to deliver environmental justice by means of strict law enforcement, uncovering impunity, corruption, indolence, and failure to exercise authority, involving all sectors of society and the three levels of government in this work, in accordance with the fundamental principles of equity and justice.

WE HEREBY SUBMIT to the Council the existence of failures to enforce the environmental law in Mexico and Chiapas, in particular the LGEEPA, applicable in protected natural areas under federal jurisdiction, in that the authorities are allowing the destruction of a protected natural area of biological and geological importance in both the domestic and international ambits, and allowing air pollution, land use changes, hazardous waste management, mining-induced cracking of the east wall of Sumidero Canyon National Park and houses in Cahuaré, noise pollution, and the use of dynamite without a declared and published management plan for the park, an operating licence, or an approved environmental risk and/or impact study, thus making Semarnat and Profepa responsible for these failures to enforce.

This company has been an obstacle to traditional tourism and ecotourism development. When it began operating this was an uninhabited area; now there are more than 11 urbanized communities with around 15,000 inhabitants whose presence in the area is no longer justified and is incompatible with the conservation of wildlands. We request the immediate relocation or definitive closing of these settlements and the restoration of the area.

We are appending photographs of the impacted area (Appendix 31), copies of local and national news stories (Appendix 32), a DVD (Appendix 33) with testimonials and images illustrating and complementing the submission, a

document presenting the sequence of complaints filed with the environmental authorities in Chiapas, Mexico (Appendix 34), and the website that we built at <http://sites.google.com/site/denunciacalera/historia> to publicize the wave of destruction sweeping over this reserve.

Thank you for your attention to this matter, in which we hope you will take a particular interest and that the outcome of this submission will be favorable to the environment and the natural resources that are our legacy to present and future generations.

“RESOLVING THE PRESENT, BUILDING THE FUTURE”

Sincerely,
COMITE PRO MEJORAS

[Original signed]

APPENDIX 3

Environmental law in question

SEM-11-002 (Sumidero Canyon II)
Environmental law in question

General Law on Ecological Balance and Environmental Protection

Article 155. Noise emissions, vibrations, thermal and light energy, and the generation of visual pollution are prohibited when such exceed the maximum limits established in the Official Mexican standards, which the Ministry issues to this end, taking into consideration the maximum permissible concentration values of pollutants in the environment for human health, as determined by the Ministry of Health. In accordance with their respective jurisdictions, the federal or local authorities shall adopt measures to prevent the transgression of said limits and, where so required, shall enforce the appropriate penalties.

Preventive and corrective actions shall be implemented during the construction of works or installations that generate thermal or light energy, noise or vibrations, as well during the operation or functioning of existing installations, to avoid the harmful effects of such pollutants on the ecological balance and on the environment.

Regulation to the General Law on Ecological Balance and Environmental Protection respecting Protected Natural Areas

Article 80.- Regarding uses and exploitation of resources within protected natural areas, the Ministry shall authorize the respective rates thereof and specify the corresponding magnitudes and limits of acceptable change or carrying capacities, in accordance with the respective methods and studies.

In order to elaborate the methods and studies required to establish the magnitudes and limits of acceptable change or carrying capacities, the Ministry may request the collaboration of other agencies of the Federal Executive, as well as that of public or private organizations, universities, research institutes or any person with the requisite experience and technical training.

Article 81.- In protected natural areas, shall be permitted only those natural resources uses which generate benefits for local inhabitants and which conform with sustainable development models, the corresponding declaration of enactment, the corresponding management program, environmental land use planning programs, official Mexican Standards and other applicable legal provisions.
[...]

Official Mexican Standard NOM-081-SEMARNAT-1994 *Which specifies the maximum permissible limits of noise emissions from fixed sources and the corresponding measurement methods.*



Commission for Environmental Cooperation

393, rue St-Jacques Ouest, bureau 200
Montreal (Quebec)
H2Y 1N9 Canada
t 514.350.4300 f 514.350.4314
info@cec.org / www.cec.org