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NCKRI News and Announcements for 2022-02-03:

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Please contact the people and organizations listed below for more information, and feel free to share this message with anyone who may be interested.

The International Year of Caves and Karst: Join Us to Make the 2nd Year a Success!

We have entered the second month of the second year of the International Year of Caves and Karst. The most recently issue of the UIS Bulletin (<http://uis-speleo.org/wp-content/uploads/2022/01/uisb632.pdf>) has information and announcements to help you make this second year of the International Year as big a success as the first year. In the meantime, please continue your great work by:

- Recruiting new partners, especially from outside the cave community.
- Continue to organize more and new events.
- Make any in-person hybrid if possible to reach more people.
- Announce your events at <http://iyck2021.org/index.php/events/>.
- Post your event results (no matter how small or local) at <http://iyck2021.org/index.php/event-results/>.
- Don't forget we have a new International Cave Animal for 2022: the bat! Please help promote bat research and protection.

Contact managers of caves and karst and those who make land protection laws. Tell them about our success at UNESCO and elsewhere to prove the value of caves and karst. Ask them for continued and more support.

If you have questions or need support, please contact me.

For more information about the International Year, visit the website (www.iyck2021.org). Also like us at the UIS Facebook page (<https://www.facebook.com/uisspeleo>), UIS Twitter account (<https://twitter.com/uisspeleo>), and/or the UIS Instagram page (<https://www.instagram.com/uisspeleo/>).

George Veni
President, International Union of Speleology
Executive Director, National Cave and Karst Research Institute

New NCKRI Publications!

NCKRI has published two new Reports of Investigation, available at our its website, www.nckri.org, under the Publications tab:

- Report of Investigation 12: Toxicological Study on the Effects of Fluorescent Groundwater Tracing Dyes on Cave Bacteria. This study is made available as published in the journal *Groundwater*.
- Report of Investigation 13: Electrical Resistivity Survey of a Pseudokarst Sinkhole Hazard, Village of San Mateo, Cibola County, New Mexico. Study of a sinkhole in an unusual geologic situation is the subject of this investigation.

More information and improvements will continue. We hope you will bookmark www.nckri.org as one of your sources for cave and karst information.

Announcing the 29th International Karstological School "Classical Karst": Slovenia

Since 1993, the International Karstological School "Classical Karst" (IKS) has been organized continuously. The school offers a framework in which young and established karstologists from all over the world present new research in the field of karstology, socialize and get to know the Classical Karst. Each year we choose a leading topic, history and state of research of which are presented by invited lecturers, and other participants present their new findings in the forms of lectures or posters. The red thread of the school are afternoon and all-day excursions, where the leading theme is presented on the example of the Classical Karst. The last full-day excursion is entirely dedicated to the general presentation of the most important areas of the Classical Karst.

The 29th International Karstological School "Classical Karst": *Speleology*, will be from 13-17 June 2022 in Postojna, Slovenia. Abstracts in English are submitted upon registration.

More information is available in attachment and on <http://iks.zrc-sazu.si>

Online GeoModeling Course

The Swiss Institute for Speleology and Karst Studies is offering the GeoModeling N1 course online on 16-17 March 2022 in two 3-hour sessions. This course is dedicated to the learning of the construction of 3D geological models with the implicit approach. Participants will be briefly introduced in the theoretical aspects of 3D GeoModeling and will be guided through the construction of a 3D geological model in a folded/eroded/thrusted environment by using different geological data (maps, cross-sections, drillholes, galleries, faults, etc.). The course is dedicated to geologists/hydrogeologists working in complex areas. For more information visit <https://www.visualkarsys.com/>.

National Cave Rescue Commission Scholarships: USA

The next National Cave Rescue Commission (NCRC) course will be held in Virginia, USA, on 15-23 July 2022. If you need more info about the seminar, please check out <http://ncrc.info/>.

A handful of scholarships are available to cover half of the cost of tuition for the upcoming NCRC Nationals in Virginia held July 15th-23rd, 2022. To apply for a scholarship, before April 10th, 2022, send the following information to scholarships@ncrc.info. Decisions of who will receive a scholarship will be announced by mid-May; all applicants will be contacted at that time.

As NCRC classes tend to fill up, you are encouraged to sign up for the training and pay half of the registration fee to secure your spot. *Receiving a scholarship does not guarantee a spot for you in the class.*

Job Opportunity: Research Associate in Cavern Development in Carbonate Strata, United Kingdom

A position is available for a research associate in the Department of Earth and Environmental Science at the University of Manchester in the United Kingdom (UK). Following the successful award of a funded project into the genesis of hypogene karst in the Lower Carboniferous Limestone of the Derbyshire Platform, UK, this collaborative project is between the University of Manchester,

University of Bristol, and the British Geological Survey (BGS). The project duration is 27 months (1st April 2022 – 30th June 2024).

The project focuses on constraining the geological and hydro-geochemical conditions in which hypogene caves form by characterization of a range of non-strata bound caverns within Lower Carboniferous (Upper Viséan) limestone of the Derbyshire Platform, UK, and assessing the factors governing their genesis on the basis of their geological relationships and geochemistry. These observations and conceptual models will be developed in parallel with process-based modelling of hypogene karst formation alongside 3D simulations of heat and fluid flow, to be conducted by our project partners at University of Bristol. In totality, we aim to fully evaluate a range of conceptual models that can be used to interpret hypogene cavern formation.

For more information and to apply, visit:

<https://www.jobs.manchester.ac.uk/displayjob.aspx?isPreview=Yes&jobid=21579>

Job Opportunity: Interpretive Naturalist at Mystery Cave, USA

Mystery Cave State Park, Minnesota, USA, is filling four 80% permanent but seasonal interpretive positions. There is no housing provided but nearby towns include Preston, Spring Valley and Rochester, to name a few. Mystery Cave is Minnesota's longest cave (10+ miles) and located in the beautiful Driftless Area.

Apply at this link: <https://mn.gov/mmb/careers/search-for-jobs/>

Job ID: 52213

Job Class: Interpretive Naturalist 1

- Who May Apply: Open to all eligible applicants
- Date Posted: 01/20/2022
- Closing Date: 02/16/2022
- Hiring Agency/Seniority Unit: Natural Resources Dept
- Division/Unit: DNR Parks & Trails Reg 3 / PAT-R3 Forestville CaveStaff
- Work Shift/Work Hours: Rotating
- Days of Work: Varies
- Travel Required: No
- Salary Range: \$20.91 - \$30.24/hourly
- Classified Status: Classified
- Bargaining Unit/Union: 214- MAPE
- Work Area: Preston, MN
- Employment Condition: Seasonal, Part-Time

- FLSA: Non-Exempt
 - Connect 700 Program Eligible: Yes
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Brazilian Caves in Danger: Call for Help!

Dear cavers, speleologists, and cave lovers around the world,

The Brazilian Speleological Society (SBE), on behalf of the entire Brazilian speleological community, asks for your personal and institutional support to pressure the Brazilian authorities for the revocation of the Federal Decree N.o 10,935 that has just been published to facilitate the destruction of Brazilian caves.

Brazil's cave protection legislation was once a shining model to the world. The decree N.o 99,556, dated October 1st, 1990, provided relevant protection of natural cavities in the Brazilian territory. About two decades later, the Federal Decree N.o 6,640, dated November 7, 2008, weakened the protection of our caves. On that occasion, the few people from the speleological community who were called upon to give their opinion on studies promoted by the government, unfortunately, did not shared the SBE aims and did so on behalf of the mining companies, that is, in favor of the destruction.

Among other dubious points, such a decree established criteria for the classification of caves according to their degree of relevance (maximum, high, medium, or low). Since "detailed studies" could prove, for example, that a cave is of low relevance, it could be destroyed without any environmental compensation. However, caves were classified as of maximum relevance, and their area of influence had their protection guaranteed.

Despite this decree has been harmful to the Brazilian speleological heritage, on January 12, 2022, we were surprised and astonished by the publication of another one, the Federal Decree N.o 10,935, which revokes the previous one and makes the Brazilian speleological legislation even more fragile. Drafted "in secret" and without any dialogue with the speleological community and environmental civil bodies, it brings several setbacks to Brazilian speleological legislation, such as the possibility of a total or partial destruction of even caves classified as of maximum relevance, when the enterprise is considered of "public utility."

Another controversial point of this decree is that it gives the right to the Minister of Mines and Energy and the Minister of Infrastructure to interfere and modify the classification of a cave to facilitate the implementation of some enterprises without consulting the competent environmental agencies. Several other negative points are in this new decree. However, these two examples are enough to highlight why we say that Brazilian caves are in great danger.

At the beginning of the year 2022, we continue celebrating the International Year of Caves and Karst 2021, a worldwide project led by the *Union Internationale de Spéléologie* (UIS), which has the main purpose to teach the world about the importance and direct influence of caves and karst in the present and future of millions of people who live in karst areas and are supplied with groundwater. At a time when the whole world is embracing this cause and people are changing the way they see caves and karst, we cannot accept that Brazilian speleological legislation goes oppositely, placing commercial interests above the well-being of the population.

You who are receiving this letter written on behalf of the whole Brazilian speleological community, whether you are a UIS Delegate, current or past UIS Bureau member, a member of a speleological team or federation around the world, a student or professor at a university anywhere in some country, environmentalist, scientist or simply interested in caves and/or environment, please, we would appreciate you to join us in our struggle to have this decree revoked.

You can send a letter to the Brazilian authorities listed on the next page, stating your concern, disapproval, and repudiation with the Federal Decree N.o 10,935, dated January 12, 2022, which will contribute directly to destroying our speleological, geological, archaeological, paleontological, cultural, and historic heritage. You can either write your own text. An example letter to help you write your letter, and the list of government officials to send it to are provided at the bottom of this NCKRI news message.

For any question you may have, please, be free to contact us. Our many thanks in advance for your kind and important cooperation.

José Roberto Cassimiro
SBE President
presidente@cavernas.org.br

José Ayrton Labegalini
SBE and UIS Past President

ja.labegalini@uol.com.br

Nivaldo Colzato
SBE Past President/UIS Adjunct Secretary
nivaldo@karinaetiquetas.com.br

Public Meeting: Request to Protect Guadalupe Cave, USA

The Bureau of Land Management (BLM) New Mexico State Office announced today that the United States Forest Service is requesting that the Secretary of the Interior withdraw 28,513.30 acres of National Forest System (USFS) land at the Guadalupe Cave Resource Protection Area located on the Guadalupe Ranger District of the Lincoln National Forest. The withdrawal would prohibit location and entry under the United States mining laws, and leasing under the mineral leasing laws, subject to valid existing rights, for a period of 20 years.

The purpose of the requested withdrawal is to protect recreation use, the scenic integrity, and existing infrastructure in the Guadalupe Cave Resource Protection Area. Publication of the *Federal Register* notice starts a two-year segregation of the land from operation of the specified laws which allows the BLM to process the withdrawal application and announces an opportunity for the public to comment on the withdrawal application. The notice announces a 90-day public comment period, which ends April 25, 2022.

The USFS and the BLM will have a public meeting on February 23, 2022, at 5:30 PM (Mountain Time). For more information and to join the Teams virtual meeting on February 23 visit <https://www.fs.usda.gov/detail/lincoln/home/?cid=FSEPRD987256>.

Comments may be emailed to snaranjo@blm.gov or sent through the mail to: Bureau of Land Management, Attn: Sarah Naranjo, BLM New Mexico State Office, 301 Dinosaur Trail, Santa Fe, New Mexico 87508. Before including your address, phone number, e-mail address, or other personal identifying information in your comment, you should be aware that your entire comment – including your personal identifying information – may be made publicly available at any time. While you can ask in your comment to withhold your personal identifying information from public review, we cannot guarantee that we will be able to do so.

For further information about this withdrawal application, please contact Sarah Naranjo (BLM) at (505) 954-2200.

FSE Caves and Karst Art Contest: Extended Deadline

The European Speleological Federation's (FSE) Caves and Karst Art Contest is open for entries from all over the world until the extended deadline of 31 March 2022. Winners will be announced in early May 2022.

Caves and karst are unique resources on our beautiful earth. In order to make them more visible and also to better understand these phenomena, the global speleological community in a one grand project has named 2021/2022 as International Year of Caves and Karst. The European Speleological Federation (FSE) sincerely invites artists as well as art lovers to participate in this international celebration by holding a contest in all fields of art.

The contest will be conducted with particular themes in relation to the protection of caves and karst. The participants present their ideas, emotions and fantasies with different media in 5 Categories of:

- A. Painting, Sketching
- B. Ceramics and Sculpture
- C. Graphic Design, Mixing techniques, Textiles, Prints
- D. Art Performance, Art Video, Music, Sound
- E. Publications, Poetry

Up to 3 winners will be selected by an international jury in each category for a certificate of appreciation. A certificate will be sent to each of the selected artists per post.

The top three of each category will be awarded with a certificate and the winner of each category will receive a money-prize of 100 euros. And a main prize in the form of a Scurion lamp will go to an overall winner. This lamp is kindly provided by the FSE sponsor Scurion from Switzerland.

The selected art works will be presented on the website of the FSE Art Contest: <https://eurospeleoart.eu/> social media of the FSE.

To apply the contest please fill out the entry form which you can find on the website of the FSE Art Contest: <https://eurospeleoart.eu/>, attach photos of your

art works or links to a performance, video, music or sound and send it to the following email-address: art@eurospeleo.org

Taraneh Khaleghi
Head of the organizing team

You can find more information about Karst and Caves at
<http://www.iyck2021.org/>

Call for Abstracts: 7th Astyanax International Meeting for Cavefish

The next Astyanax International Meeting for Cavefish will be held February 27th through March 4th, 2022 in San Antonio, Texas, USA, as an in-person meeting. A virtual option to attend the talks will also be available.

We encourage attendance of researchers interested in a wide variety of questions related to cave adaptation or adaptation to extreme and changing environments in general.

For more information visit: <https://www.stowers.org/aim2022/home>.

International Conference on Geomorphology Karst Session: Portugal

We'd like to draw your attention to the session ICG2022-14 on Karst Geomorphology at the 10th IAG International Conference on Geomorphology (<https://www.icg2022.eu>) which is planned as an in-person event in Coimbra, Portugal, 12-16 September 2022.

The conference program includes several field excursion options, and thematic sessions on a wide range of geomorphological topics of interest.

Full details of the session and abstract submission are provided below. The abstract submission deadline is **March 14th 2022, 13:00 CET**.

Karst Geomorphology session information and abstract submission:
<https://meetingorganizer.copernicus.org/ICG2022/session/44352>

Abstract instructions:

https://www.icg2022.eu/scientific_programme/how_to_submit_an_abstract.html

Scholarships for Young Cavers to the 18th International Congress of Speleology: France

The European Speleological Federation (FSE) is offering five scholarships to young speleologists for attending the 18th International Congress of Speleology ICS in Le-Bourget-du-Lac, Savoie, France (see <http://uis2021.speleos.fr>).

The requirements are:

- a) Applicants must be affiliated to an organization that is a member of FSE or a karst research institute in Europe.
- b) Applicants must be 26 years of age or younger.
- c) Applicants are required to send an application form and a letter of recommendation to FSE.

Each scholarship is up to a maximum of EUR 500. Details, including the deadline, will be specified on the [downloadable application form](#). Please send your application form by e-mail as soon as possible to contact@eurospeleo.eu. The deadline for applying is 27th March 2022.

Reminder: the early booking fee for a reduced full access ticket on the ICS's website has been extended to 27th March 2022.

US National Speleological Society Convention Geology and Geography Session: Call for Abstracts

The NSS Section of Cave Geology and Geography is accepting abstracts for presentations at the Geology and Geography Session of the 2022 NSS Convention, to be held June 13 – 17, 2020 in Rapid City, South Dakota. Each year, the Geology and Geography Section of the NSS hosts talks featuring the latest research in geology, hydrology, speleogenesis, and many other topics related to caves and karst. All abstracts will be considered to be for oral presentations unless a poster presentation is specifically requested. At this time, we have not reserved poster space, but could accommodate a poster session if there is sufficient interest and enough advance notice is given to convention organizers. As we did last year, we also encourage interested researchers to bring posters from other conferences such as GSA, AGU, and ICS that may be of

interest to attendees at convention. This provides an additional opportunity to share your work with your colleagues.

Abstracts may be no more than 250 words in length (this limit must be strictly met). In addition to the text, the abstracts should contain the title of the paper, and the name(s), address(es), and email address(es) of the author(s). The abstracts should be informative summaries that include the conclusions, and not lists of topics that "...will be discussed." Bibliographies and references should not be given in the abstracts. Papers may be submitted for either oral presentation as a poster. Please specify your preference when submitting your abstract.

Please send any questions and your abstracts to:

Katherine Schmid

kschmid3@gmail.com.

The deadline for abstracts is March 29, 2022. Early submissions are encouraged. Confirmation notes will be sent to everyone sending an abstract. Details on presentations times, dates, and other information will be sent to all confirmed participants after the deadline. For online details about the convention, visit: <https://nss2022.caves.org/>. The talks are twenty minutes long and include time for questions.

Fort Stanton Cave Science Conference Call for Abstracts: USA

For those who may be interested in attending and/or presenting at the Fort Stanton Cave Science Conference being planned for April 7-9, 2022, here are a couple of links to that event. The conference will be held in Socorro, New Mexico, USA, at the New Mexico Institute of Mining and Technology.

Note that the conference is being held in conjunction with the New Mexico Geological Society's annual spring meeting. Thursday, April 7 will be focused on presentations regarding Fort Stanton Cave. Friday, April 8 will be presentations on cave and karst topics throughout New Mexico. Saturday, April 9 will be a Field Trip to the Fort Stanton Cave area.

The following link is a general invitation and call for abstracts for the entire conference. <https://nmgs.nmt.edu/meeting/>

This link is specific to a call for abstracts for the Fort Stanton Cave Science aspect of the conference. <https://geoinfo.nmt.edu/ftstanton/>. Finally, note that registration for the conference is not up yet.

List of Upcoming Cave and Karst Meetings

If you are interested in any of the following events, contact the organizers directly to learn if they are still planned as announced below.

- 1) 14th International Symposium on Pseudokarst, postponed to Spring 2022, <https://14pseudokarst.wonders4you.com/>
- 2) Astyanax International Meeting for Cavefish, 27 February – 4 March 2022 (San Antonio, Texas, USA), <https://www.stowers.org/aim2022/home>
- 3) European Geophysical Union Karst Sessions, 3-8 April 2022 (Vienna, Austria), <https://meetingorganizer.copernicus.org/EGU22/sessionprogramme#HS8.2>
- 4) Fort Stanton Cave Science Conference, 7-9 April 2022 (Socorro, New Mexico, USA), <https://geoinfo.nmt.edu/FtStanton/home.cfm>
- 5) Astrobiology Science Conference, 15-20 May 2022 (Atlanta, Georgia, USA), <https://www.agu.org/AbSciCon>
- 6) International Conference on Groundwater, Key to the Sustainable Development Goals, 18-22 May 2022 (Sorbonne University, Paris, France), <http://www.gw-sdg2022.fr/index.php/en/>
- 7) 36th Brazilian Congress of Speleology, 3-6 June 2022 (Brasilia, Brazil), <http://36cbe.org.br/>
- 8) 29th International Karstological School "Classical Karst": Speleology, 13-17 June 2022 (Postojna, Slovenia), <http://iks.zrc-sazu.si>
- 9) National Speleological Society Convention, 13-17 June 2022 (Rapid City, South Dakota, USA), <https://www.nss2022.caves.org/>
- 10) EuroKarst 2022: The European Congress on Karst Hydrogeology and Carbonate Reservoirs, 22-25 June 2022 (Málaga, Spain), <http://www.eurokarst.org/>
- 11) Climate Change, The Karst Record IX (KR9), 17-20 July 2022 (Innsbruck, Austria), <https://www.uibk.ac.at/congress/kr9/>
- 12) 25th International Conference on Subterranean Biology, 18-22 July 2022 (Cluj-Napoca, Romania), <https://www.25icsb.com/>.
- 13) 18th International Congress of Speleology, 24-31 July 2022 (Savoie Technolac, Le Bourget du Lac, Savoie, France), <http://uis2021.speleos.fr/>

- 14) 17th Multidisciplinary Conference on Sinkholes and the Engineering and Environmental Impacts of Karst, 27-31 March 2023 (Tampa, Florida, USA), <http://www.sinkholeconference.com/>
- 15) 19th International Congress of Speleology, 20-27 July 2025 (Belo Horizonte, Minas Gerais, Brazil), for preliminary information see volume 63-1 of the UIS Bulletin at <http://uis-speleo.org/wp-content/uploads/2021/07/uisb631.pdf>
- 16) Man and Karst Conference, 12-17 September 2022 (Sicily, Italy), <https://cirs-ragusa.org/blog/man-and-karst-2022/>

Brazilian Caves in Danger: Call for Help! Extra Information

Example text for support letter:

Dear Brazilian government officials,

After becoming aware of the publication of the Presidential Decree N.o 10,935, dated January 12, 2022, we hereby want to join the Brazilian Speleological Society (SBE) and the whole speleological and environmental community to demonstrate our deep concern for the future of the Brazilian caves. Such decree represents a setback in the Brazilian protectionist legislation, which once was a model shining to the world.

As long as this decree is valid, all Brazilian speleological Heritage, as well as all biological, archaeological, mineralogical, paleontological, geomorphological, scientific, cultural, and historic heritages in the Brazilian karst (cave) regions will be in danger because this decree is a tool with high potential to destroy them.

We recognize that good enterprises are necessary and important for the economic development and generation of jobs in any region or country. However, when commercial interests prevail over the well-being of the population and such enterprises are located in areas of priceless natural and cultural heritage, good legislation is necessary to avoid their destruction and to stimulate sustainable development. Therefore, with all due respect and consideration for the Brazilian authorities, we hereby declare our repudiation and total disapproval of Decree N.o 10.935, which we do expect to be revoked.

The Brazilian Speleological Society must be invited to help in the elaboration of a new law for the protection of caves and karst because they have the most competent Brazilian experts in this field with a very high international reputation. It is demonstrated by the fact that in 2025 Brazil will host the 19th International

Congress of Speleology, which is the most important speleological event in the world, where participants from more than fifty countries will land in Brazil to share the state of the art of speleology, as well as to discuss the protection of caves and karst.

We will be there, for sure, and hope to meet a Brazilian law that takes into account sustainable development, focusing on preservation, not on destruction.

*Sincerely,
[your name]*

List of Brazilian Authorities to Send Your Support Letter.

Names are listed continuously to make your work easier. That way, you can just copy and paste it into the "TO" field in your message. In case you have problems, the same list is in the body of our message to you.

Please, include a copy to: presidente@cavernas.org.br,
ja.labegalini@uol.com.br, nivaldo@karinaetiquetas.com.br.

FERNANDO WANDSCHEER DE MOURA ALVES / Secretário Executivo do Ministério do Meio Ambiente se@mma.gov.br; agendase@mma.gov.br; **DANIEL PICOLO CATELLI** / Secretário-Executivo Adjunto do Ministério do Meio Ambiente agendase.adjunto@mma.gov.br; **EDUARDO FORTUNATO BIM** / Presidente do Ibama presidencia@ibama.gov.br; **JÔNATAS SOUZA DA TRINDADE** / Diretor de Licenciamento Ambiental (DILIC) do Ibama dilic.sede@ibama.gov.br; **MARCOS DE CASTRO SIMANOVIC** / Presidente do ICMBio presidencia@icmbio.gov.br; **MARCOS AURÉLIO VENÂNCIO** / Diretor de Pesquisa, Avaliação e Monit. da Biodiversidade do ICMBio marcos.venancio@icmbio.gov.br; **JOCY BRANDÃO CRUZ** / Coordenador do Centro de Pesquisa e Conservação de Cavernas–CECAV jocy.cruz@icmbio.gov.br; **BENTO ALBUQUERQUE** / Ministro das Minas e Energia gabinete@mme.gov.br; **JOSÉ ROBERTO BUENO JÚNIOR** / Chefe de Gabinete do Ministro das Minas e Energia chefiagm@mme.gov.br; **MARISETE FÁTIMA DADALD PEREIRA** / Secretária-Executiva do Ministro das Minas e Energia secex@mme.gov.br; **BRUNO EUSTÁQUIO FERREIRA CASTRO DE CARVALHO** / Secretário-Executivo Adjunto do Ministério das Minas e Energia secexgab@mme.gov.br; **MARIA CEICILENE ARAGÃO MARTINS** / Chefe da Assessoria Especial de Meio Ambiente do Ministério das Minas e Energia aesa@mme.gov.br; **RITA ALVES SILVA** / Coordenadora-Geral de Articulação Institucional em Meio Ambiente do Ministério das Minas e Energia rita.silva@mme.gov.br; **VERÔNICA E. SILVA SOUSA** / Coordenadora-Geral de Avaliação Ambiental e Acompanhamento de Licenciamento do Ministério das Minas e Energia veronica.sousa@mme.gov.br; **PEDRO PAULO DIAS MESQUITA** / Secretário de Geologia, Mineração e Transformação Mineral do Ministério das

Minas e Energia sgm.gab@mme.gov.br; **FREDERICO BEDRAN OLIVEIRA** / Diretor do Departamento de Geologia e Produção Mineral do Ministério das Minas e Energia frederico.oliveira@mme.gov.br; **EDUARDO ROCHA PRAÇA** / Assessor Especial do Ministério da Infraestrutura eduardo.praga@infraestrutura.gov.br; **MARCELO DE CANOSSA MACEDO** / Assessor Especial do Ministério da Infraestrutura marcelo.macedo@infraestrutura.gov.br; **ALAN DE OLIVEIRA LOPES** / Chefe de Gabinete do Ministro das Minas e Energia chefiadegabinete@infraestrutura.gov.br; **FRANSLEY SOUSA BEZERRA** / Coordenador-Geral do Gabinete do Ministro das Minas e Energia fransley.bezerra@infraestrutura.gov.br; **IZABELA OLIVEIRA RODRIGUES** / Assessora do Ministro das Minas e Energia izabela.rodrigues@infraestrutura.gov.br; **SABA CORDEIRO DE MONTEIRO CHAGAS FILHA DE OLIVEIRA** / Chefe de Gabinete da Casa Civil agendacasacivil@presidencia.gov.br;