



**FORTUNA**  
SILVER MINES INC.

CORPORATE OFFICE:  
Suite 650-200 Burrard Street  
Vancouver, BC Canada V6C 3L6

T: +1.604.484.4085  
F: +1.604.484.4029

MANAGEMENT HEAD OFFICE:  
Piso 5. Av. Jorge Chávez #154  
Miraflores, Lima – Perú

T: +51.1.616.6060, ext. 0

TRADING SYMBOL:  
NYSE: **FSM**  
TSX: **FVI**

info@fortunasilver.com  
[WWW.FORTUNASILVER.COM](http://WWW.FORTUNASILVER.COM)

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**BY EMAIL**

British Columbia Securities Commission (ccollins@bcsc.bc.ca)  
Alberta Securities Commission  
Financial and Consumer Affairs Authority of Saskatchewan  
Manitoba Securities Commission  
Ontario Securities Commission (comments@osc.gov.on.ca)  
Autorité des marchés financiers (consultation-en-cours@lautorite.qc.ca)  
Financial and Consumers Services Commission, New Brunswick  
Superintendent of Securities, Department of Justice and Public Safety, Prince Edward Island  
Nova Scotia Securities Commission  
Office of the Superintendent of Securities, Service NL  
Northwest Territories Office of the Superintendent of Securities  
Office of the Yukon Superintendent of Securities  
Nunavut Securities Office

Dear Sirs:

**Re: CSA Consultation Paper 43-401 –  
Consultation on National Instrument 43-101 – Standards of Disclosure for Mineral Projects**

We write in response to CSA Consultation Paper 43-401 (the “Consultation Paper”) which requested feedback on certain key provisions of NI 43-101 – Standards of Disclosure for Mineral Projects (“NI 43-101”), and pursuant to CSA Staff Notice 11-345 which extended the comment period for the Consultation Paper from July 13, 2022 to September 13, 2022.

As background on the commenter, Fortuna Silver Mines Inc. (“Fortuna” of the “Company), the Company is a Canadian precious metals mining company with operations and projects in Argentina, Burkina Faso, Mexico, Peru, and Côte d’Ivoire, and produces silver, gold and base metals. Fortuna is incorporated and domiciled in British Columbia, and its common shares are listed for trading on the New York Stock Exchange and the Toronto Stock Exchange.

Using the same numbering used in the Consultation Paper Letter, our responses to the Consultation Questions are as follows:

**A. Improvement and Modernization of NI 43-101**

The disclosure items in the Form have generally remained unchanged since NI 43-101 was adopted in 2001, with some reorganization for advanced stage properties in 2011.

1. Do the disclosure requirements in the Form for a pre-mineral resource stage project provide information or context necessary to protect investors and fully inform investment decisions? Please explain.

Yes. Pre-mineral resources are speculative in nature and rely on a wide variety of information sources which are set out and appropriately covered under 43-101 F1.

2. a) Is there an alternate way to present relevant technical information that would be easier, clearer, and more accessible for investors to use than the Form? For example, would it be better to provide the necessary information in a condensed format in other continuous disclosure documents, such as a news release, annual information form or annual management's discussion and analysis, or, when required, in a prospectus?

The Form provides an easy way for investors to review relevant technical information about a material property in a single document and this must be maintained to prevent confusion. However, we believe that to provide investors with updates to information contained in a Technical Report which are not material and do not trigger the filing of a new Technical Report, it would be helpful for producing issuers to provide investors with an annual update in summary format of certain technical information regarding each of its material properties as at the end of a financial year. We see this information as being provided within 90 days of the financial year end and included in annual information forms or disclosed by a news release which is signed off by a Qualified Person, and could include an updated summary of:

- life of mine at the financial year end
- exploration undertaken during the financial year
- drilling undertaken during the financial year
- updated mineral resources and mineral reserves as at the fiscal year end
- details of recoveries
- capital and operating expenditures
- environmental issues

Currently, investors might have to review several documents to obtain this information. A summary of an issuer's material properties would provide investors with a fulsome understanding of those properties in one document which should help them to make more informed investment decisions. This would be similar to the model in the United States.

Non-producing venture issuers could provide similar annual updates within 120 days of a financial year end in the form of a summary of exploration conducted on the property or on the progress of a project during the year. This again has the advantage of providing an investor with a snapshot of the material information about a project at a certain date, with links back to earlier disclosure for investors who wish further detail.

- b) If so, for which stages of mineral projects could this alternative be appropriate, and why?

Please see the response to question 2a) above.

3. a) Should we consider greater alignment of NI 43-101 disclosure requirements with the disclosure requirements in other influential mining jurisdictions?

Yes, but we understand that CRIRSCO is the steward for standardizing disclosure in other jurisdictions. If there are any misalignments in NI 43-101 disclosure requirements, we suggest that the CIM should interact with CRIRSCO to improve alignment.

b) If so, which jurisdictions and which aspects of the disclosure requirements in those jurisdictions should be aligned, and why?

Please see the response to Item 3a) above.

4. Paragraph 4.2(5)(a) of NI 43-101 permits an issuer to delay up to 45 days the filing of a technical report to support the disclosure in circumstances outlined in paragraph 4.2(1)(j) of NI 43-101. Please explain whether this length of time is still necessary, or if we should consider reducing the 45-day period.

We recommend that no change be made to the 45-day filing period.

In recent years, CSA staff have observed mining issuers making use of new technologies to conduct exploration on their properties, including the use of drones. During the COVID-19 pandemic, we received inquiries from qualified persons about the possible use of remote technologies to conduct the current personal inspection.

5. a) Can the investor protection function of the current personal inspection requirement still be achieved through the application of innovative technologies without requiring the qualified person to conduct a physical visit to the project?

In some cases, yes. If the site has been subject to a previous site visit from the QP but they are unable to attend a current visit they may be able to conduct via remote technology as long as the extent of the visit is described along with the limitations.

b) If remote technologies are acceptable, what parameters need to be in place in order to maintain the integrity of the current personal inspection requirement?

The QP must have previously visited and be familiar with the general appearance of the site.

## **B. Data Verification Disclosure Requirements**

Mineral projects commonly pass through the hands of several property holders, each generating exploration and drilling data. Using data collected from former operators prior to the current issuer's involvement in the project (**legacy data**) may be legitimate, but this data needs to be carefully verified, and transparently documented in technical reports. CSA staff see inadequate data verification disclosure at every project stage, from early stage exploration properties to feasibility studies.

Describing sample preparation, security, analytical procedures, and quality assurance/quality control (QA/QC) measures is critical to an understandable mineral resource estimate. Qualified persons must state their professional opinion on those processes, explain the steps they took to verify the integrity of the data, and state their professional opinion whether the data suits the purpose of the technical report. CSA staff emphasized these requirements in both CSA Staff Notice 43-309 *Review of Website Investor Presentations by Mining Issuers* and CSA Staff Notice 43-311 *Review of Mineral Resource Estimates in Technical Reports (CSA Staff Notice*

43-311).

Data verification as defined in section 1.1 and outlined in section 3.2 of NI 43-101 applies to all scientific and technical disclosure made by the issuer on material properties. For example, data verification:

- requires accurate transcription from the original source, such as an original assay certificate,
- is not adequate when limited to transcribing data from a previous technical report,
- is not limited to technical reports but also to other disclosure such as websites, news releases, corporate presentations, and other investor relations material, and
- is not limited to the drill hole database and must be completed for all data in a technical report.

6. Is the current definition of data verification adequate, and are the disclosure requirements in section 3.2 of NI 43-101 sufficiently clear?

We suggest that the current definition of data verification is regarded as adequate and sufficiently clear.

Item 12: Data Verification of the Form addresses a core principle of NI 43-101 and is a primary function of qualified persons. Mining Reviews demonstrate that disclosure in this item is often non-compliant. For example, we do not consider any of the following to be adequate data verification procedures by the qualified person:

- QA/QC measures conducted by the issuer or laboratory;
- database cross-checking to ensure the functionality of mining software;
- reliance on data verification by the issuer or other qualified persons related to previously filed technical reports; and
- unqualified acceptance of legacy data, such as disclosing that former operators followed “industry standards”.

In addition, qualified persons frequently limit data verification procedures to the drill hole data set, resulting in a general failure to meet the disclosure requirements of Item 12 of the Form, which apply to all scientific and technical information in a technical report.

7. How can we improve the disclosure of data verification procedures in Item 12 of the Form to allow the investing public to better understand how the qualified person ascertained that the data was suitable for use in the technical report?

We suggest that Item 12 of the Form include (or reference) an example of expectations regarding “industry standard verification” of the different data types to ensure that all areas are covered in the disclosure and the description is not focused on what the QP’s presently perceive to be the most important data requiring verification. This should include expectations that cover all areas of information commonly disclosed in the report such as permitting, geometallurgical, geotechnical, environmental etc. Further we suggest that Item 12 include examples of what is not considered as adequate data verification to provide clarity to the authors of the reports.

8. Given that the current personal inspection is integral to the data verification, should we consider integrating disclosure about the current personal inspection into Item 12 of the Form rather than Item 2(d) of the Form?

Details of the personnel inspection could be covered in either Item 2(d) or Item 12 of the Form. We suggest that Item 2(d) could be used to disclose a short statement listing the personal inspections conducted by each QP (dates, in person, remote etc), with Item 12 requiring a more detailed description of the activities performed by the QP during the personal inspections to validate the information disclosed in the report.

### **C. Historical Estimate Disclosure Requirements**

In spite of extensive guidance in the Companion Policy, CSA staff see significant non-compliant disclosure of historical estimates. We remind issuers that non-compliance with section 2.4 of NI 43-101 can trigger the requirement to file a technical report under subsection 4.2(2) of NI 43-101. Examples of non-compliance include:

- failure to review and refer to the original source of the historical estimate,
- failure to include the cautionary statements required by paragraph 2.4(g) of NI 43-101, or inappropriate modification of such statements,
- failure to include required disclosure of key assumptions, parameters and methods used to prepare the historical estimate, and
- inappropriate disclosure by an issuer of a previous estimate.

9. Is the current definition of historical estimate sufficiently clear? If not, how could we modify the definition?

We suggest that the current definition of historical estimate is sufficiently clear.

10. Do the disclosure requirements in section 2.4 of NI 43-101 sufficiently protect investors from misrepresentation of historical estimates? Please explain.

We suggest the disclosure requirements in section 2.4 of NI 43-101 are sufficient to protect investors from misrepresentation of historical estimates.

### **D. Preliminary Economic Assessments**

The disclosure requirements for preliminary economic assessments were substantially modified in 2011, resulting in unintended consequences requiring additional guidance published in CSA Staff Notice 43-307 *Mining Technical Reports – Preliminary Economic Assessments* in August 2012.

Mining Reviews continue to show that preliminary economic assessment disclosure remains problematic for issuer compliance and, more importantly, is potentially harmful to investors. While the inclusion of inferred mineral resources is a recognized risk to the realization of the preliminary economic assessment, CSA staff's view is that the broad, undefined range of precision of a preliminary economic assessment also contributes to that risk. This range of precision is incongruent with one of the core principles of NI 43-101, which is that investors should be able to confidently compare the disclosure between different projects by the same or different issuers. In addition, CSA staff see evidence of modifications to cautionary language required by subsection 2.3(3) of NI 43-101 that render this provision less effective.

11. Should we consider modifying the definition of preliminary economic assessment to enhance the study's precision? If so, how? For example, should we introduce disclosure requirements related to cost estimation parameters or the amount of engineering completed?

We suggest that the definition of a PEA described in NI 43-101 be amended to incorporate the guidance published by the CSA Staff Notice 43-307 *Mining Technical Reports - Preliminary Economic Assessments* dated August 2012 which denotes what is required in a PEA.

In addition, we note that a PEA is already defined in the “CIM Definition Standards for Mineral Resource and Mineral Reserves (2014)” and that any adjustments in the definition would need to be actioned by the CIM in this document and aligned with the instrument. We agree that the definition at present is vague and suggest greater clarity through the listing of expected technical studies that are required to be completed and an estimate of the degree of certainty, when applicable, for each level of study. For example, a PEA might expect the level of precision in cost assumptions to be within  $\pm 50$  percent, while a PFS might anticipate precision levels to improve to  $< \pm 25$  percent etc.

12. Does the current cautionary statement disclosure required by subsection 2.3(3) of NI 43-101 adequately inform investors of the full extent of the risks associated with the disclosure of a preliminary economic assessment? Why or why not?

No, however section 3.4(d) of NI 43-101 requires disclosure of the risks associated with the mineral resources disclosed in the PEA and therefore all applicable risks should be disclosed via this requirement.

13. Subparagraph 5.3(1)(c)(ii) of NI 43-101 triggers an independence requirement that may not apply to significant changes to preliminary economic assessments. Should we introduce a specific independence requirement for significant changes to preliminary economic assessments that is unrelated to changes to the mineral resource estimate? If so, what would be a suitable significance threshold?

We suggest that if there is a significant change to the financial provisions of the economic evaluation of the project, for example greater than  $\pm 50$  percent change in NPV, this would trigger the need for filing of a Technical Report by an independent QP.

In 2011, we broadened the definition of preliminary economic assessment in NI 43-101 in response to industry concerns that issuers needed to be able to take a step back and re-scope advanced properties based on new information or alternative production scenarios. In this context, the revised definition was based on the premise that the issuer is contemplating a significant change in the existing or proposed operation that is materially different from the previous mining study.

CSA staff continue to see considerable evidence of preliminary economic assessment disclosure, subsequent to the disclosure of mineral reserves, which is potentially misleading and harmful to investors. In many cases, issuers continue to disclose an economic and technically viable mineral reserve case, while at the same time disclosing a conceptual alternative preliminary economic assessment with more optimistic assumptions and parameters. In many cases, the two are mutually exclusive options.

14. Should we preclude the disclosure of preliminary economic assessments on a mineral project if current mineral reserves have been established?

No, there are numerous reasons why a PEA may be applicable to a project that has existing mineral reserves including definition of new resources on a producing property that could result in an expansion decision, or the evaluation of an underground option from an existing open pit.

In addition, this is an area where we believe there is a disconnect between the Form and what is being performed in practice. It is clear under the instrument that when reserves are established, only this material can be reported in the LOM and economic analysis unless it relates to a PEA. However, for accounting purposes under International Financial Reporting Standards (IFRS) it is reasonable for management to assign value to inferred resources. This is of particular relevance for underground mining operations where “drilling out” of inferred resources can be financial prohibitive due to access reasons, however management has a reasonable expectation and evidence that when additional development has been executed a percentage of this material will likely be upgraded and converted to reserves. To align what is being reported financially to what is being reported technically an alternative LOM and schedule is required that allows the inclusion of inferred resources as an alternative scenario to the primary evaluation that includes only reserves. This alternative scenario could be described under Item 24 of the Form with all necessary cautionary language defined as set out in section 2.3 (3) of the instrument, along with the proportion for each year of the LOM that is comprised of reserves and inferred resources. In this manner the report provides the reader a clear definition of the LOM and economic analysis based solely on reserves only as defined in Items 15, 16, 21, and 22, however, the reader also gains an insight into the potential when inferred material is considered. This can help during asset impairment testing and allow investors greater clarity on the internal evaluations that management are conducting in assessing the value of their assets.

In some cases, issuers are disclosing the results of a preliminary economic assessment that includes projected cash flows for by-product commodities that are not included in the mineral resource estimate. This situation can arise where there is insufficient data for the grades of the by-products to be reasonably estimated or estimated to the level of confidence of the mineral resource. We consider the inclusion of such by-product commodities in the preliminary economic assessment to be misleading.

15. Should NI 43-101 prohibit including by-products in cash flow models used for the economic analysis component of a preliminary economic assessment that have not been categorized as measured, indicated, or inferred mineral resources? Please explain.

We agree that by-products that have not been categorized as measured, indicated or inferred mineral resources should not be used in cash flow models for the economic analysis component of a preliminary economic assessment as this would be misleading to investors.

#### **E. Qualified Person Definition**

CSA staff have substantial evidence that the current qualified person definition is not well understood, and have seen an increase in practitioners with less than 5 years of experience as professional engineers or geoscientists acting as qualified persons in technical reporting. CSA staff have directed many comments to issuers informing them that the qualified person does not meet the requirements of NI 43-101 in the circumstance under review.

16. Is there anything missing or unclear in the current qualified person definition? If so, please explain what changes could be made to enhance the definition.

We believe that the current definition of Qualified Person in Section 1.1 of NI 43-101 is clear.

Currently, the qualified person definition requires the individual to be an engineer or geoscientist with a university degree in an area of geoscience or engineering related to mineral exploration or mining.

17. Should paragraph (a) of the qualified person definition be broadened beyond engineers and geoscientists to include other professional disciplines? If so, what disciplines should be included and why?

Yes – environmental/social/biological scientists are just some examples of experts that should be included as many of these professions are relied upon and contribute to writing a Technical Report and engineers/geoscientists should not be burdened with taking the responsibility for disclosure of technical information where their expertise is likely limited.

### ***Qualified person independence***

The gatekeeping role of the qualified person is essential for the protection of the investing public. CSA staff see evidence of issuers and qualified persons failing to properly apply the objective test of independence set out in section 1.5 of NI 43-101. The Companion Policy provides certain examples of specific financial metrics to consider. This list is not exhaustive. There are multiple factors, beyond financial considerations, that must also be considered in determining objectivity, including the relationship of the qualified person to the issuer, the proprietary vendor, and the mineral project itself.

18. Should the test for independence in section 1.5 of NI 43-101 be clarified? If so, what clarification would be helpful?

Yes, we suggest that the test for independence should be revised to become more prescriptive and clearly set out the meaning of independence. We suggest that independence be linked to when a person has a direct or indirect material relationship with the issuer. For example, an individual who is employed directly by the issuer, or receives compensation related to performance is not independent. This is the situation for other definitions of independence as set out in securities legislation. For example, National Instrument 52-110 - Audit Committees sets out the definition of when members of an Audit Committee of an issuer are independent. This same definition is also used in National Instrument 58-101 – Disclosure of Corporate Governance Practices when disclosing the independence of directors of an issuer.

### ***Named executive officers as qualified persons***

CSA staff are concerned that the gatekeeping role of the qualified person conflicts with the fiduciary duties of directors and officers. We have seen situations where the self-interest of such individuals in promoting an attractive outcome for the mineral project overrides their professional public interest obligation as a gatekeeper.

19. Should directors and officers be disqualified from authoring any technical reports, even in circumstances where independence is not required?

No, they should not. Many directors or officers of mining/exploration companies are the most experienced and qualified personnel available for authoring Technical Reports. Individuals who are unable to behave in an ethical manner should be reported to their professional organization and disciplined for not conducting their work in an unbiased manner. Do not let a few bad apples impact the many that work and report in an ethical manner.

## **F. Current Personal Inspections**



The current personal inspection requirement in section 6.2 of NI 43-101 is a foundational element of the qualified person's role as a gatekeeper for the investing public. It enables the qualified person to become familiar with conditions on the property, to observe the property geology and mineralization, and to verify the work done on the property. Additionally, it provides the only opportunity to assess less tangible elements of the property, such as artisanal mining or access issues, and to consider social licence and environmental concerns. The current personal inspection is distinctly different from conducting exploration work on the property; it is a critical contributor to the design or review, and recommendation to the issuer, of an appropriate exploration or development program for the property.

20. Should we consider adopting a definition for a "current personal inspection"? If so, what elements are necessary or important to incorporate?

It is not necessary to add more detail as it is clearly detailed in section 6.2 of NI 43-101.

CSA staff's view is that qualified persons must consider their expertise and relevant experience in determining whether they are suitable to conduct the current personal inspection. For example, geoscientists are generally not qualified to conduct elements of the current personal inspection related to potential mining methods or mineral processing. Similarly, engineers may not be qualified with respect to elements of the geoscience. In such cases, more than one qualified person may be required to conduct a current personal inspection, particularly for an advanced property.

21. Should the qualified person accepting responsibility for the mineral resource estimate in a technical report be required to conduct a current personal inspection, regardless of whether another report author conducts a personal inspection? Why or why not?

We believe that the QP responsible for the mineral resource should conduct a current personal inspection as this work is a fundamental building block to all subsequent evaluations and is often the source of the greatest retractions that can be most damaging to investors and stakeholders. Nothing replaces the ability to review core or other geological information in person and spend time discussing issues with the onsite technical staff.

22. In a technical report for an advanced property, should each qualified person accepting responsibility for Items 15-18 (inclusive) of the Form be required to conduct a current inspection? Why or why not?

It is our opinion that decision making regarding a current inspection by the QP's responsible for Items 15-18 lies solely with those QP's. It is clear in the 43-101 CP that a current inspection is not required if there is no new material scientific or technical information regarding the property. The QP is responsible for deciding if significant changes have occurred in the sections of the report for which they are taking responsibility. If significant changes have occurred, they should be required to conduct a current inspection to verify those changes, if no significant changes have occurred, they should not be required to make a visit.

We expect issuers to consider the current personal inspection requirement in developing the timing and structure of their transactions and capital raising. Subsection 6.2(2) of NI 43-101 does allow an issuer to defer a current personal inspection in limited circumstances related to seasonal weather, provided that the issuer refiles a new technical report once the current personal inspection has been completed. However, this provision has been used infrequently since it was adopted in 2005. In rare circumstances where issuers do rely on this provision, CSA staff see significant non-compliance with the refiling requirement.

23. Do you have any concerns if we remove subsection 6.2(2) of NI 43-101? If so, please explain.

No, we have no concerns if subsection 6.2(2) of NI 43-101 is removed but with the proviso that a remote site inspection can be conducted in lieu of in person and that the QP has previously visited the site.

### **G. Exploration Information**

CSA staff continue to see significant non-compliant disclosure of exploration information, including inadequate disclosure of:

- the QA/QC measures applied during the execution of the work being reported on in the technical report,
- the summary description of the type of analytical or testing procedures utilized, and
- the relevant analytical values, widths and true widths of the mineralized zone.

24. Are the current requirements in section 3.3 of NI 43-101 sufficiently clear? If not, how could we improve them?

Yes, we suggest that the current requirements in section 3.3 of NI 43-101 are sufficiently clear.

### **H. Mineral Resource / Mineral Reserve Estimation**

In CSA Staff Notice 43-311 published in June 2020, a comprehensive review of disclosure in technical reports identified several areas of inadequate disclosure of mineral resource estimates.

#### ***Reasonable prospects for eventual economic extraction***

CIM Definition Standards guidance states that a qualified person should clearly state the basis for determining the mineral resource estimate and that assumptions should include metallurgical recovery, smelter payments, commodity price or product value, mining and processing method, and mining, processing and general and administrative costs. Revisions to the CIM Definition Standards in 2014 and CIM Best Practices Guidelines in 2019 emphasized the requirement for the practitioner to clearly articulate these assumptions and how the estimate was developed.

Mining Reviews provide evidence of technical reports that lack adequate disclosure on metal recoveries, assumed mining and processing methods and costs, and constraints applied to prepare the mineral resource estimate to demonstrate that the mineralized material has reasonable prospects for eventual economic extraction.

25. Should Item 14: Mineral Resource Estimates of the Form require specific disclosure of reasonable prospects for eventual economic extraction? Why or why not? If so, please explain the critical elements that are necessary to be disclosed.

Yes, we believe it should and the specific disclosure requirements can be cross referenced with what is recommended as set out in the CIM best practice guidelines (2019). It is important for an investor to understand how a resource has been assessed to confirm potential economic viability as this can vary widely by practitioner from applying a simple cut-off to the application of stope and NPV optimizers. By requiring a clear disclosure an investor has the opportunity to weigh the risk associated with the methodology and prevent the reporting of over inflated mineral resources that are too distal or of insufficient width to be economic. There are various software tools that can perform an evaluation quickly to confirm potential economic viability so that reported resources are constrained within identified potentially mineable shapes,

with the requirement to disclose the parameters used to establish potential economic viability (e.g. – proposed mining method, minimum mining widths or SMU sizes, costs, metal prices, recoveries).

### ***Data verification***

Disclosure of a mineral resource estimate is a significant milestone for an issuer. CSA Staff Notice 43-311 noted that disclosure of data verification procedures and results was one of the weakest areas in the mineral resource estimate review, stating that in technical reports reviewed by CSA staff, more than 20% had incomplete disclosure concerning the qualified person's data verification procedures and results.

26. a) Should the qualified person responsible for the mineral resource estimate be required to conduct data verification and accept responsibility for the information used to support the mineral resource estimate? Why or why not?

Yes, we believe they should for the data that directly impacts the reported resources. They are responsible for the resource estimate and the data supporting the estimate is fundamental to the evaluation. Therefore, they should be sufficiently comfortable that an appropriate level of due diligence has been conducted to verify all the underlying information used for estimation is reliable.

- b) Should the qualified person responsible for the mineral resource estimate be required to conduct data verification and accept responsibility for legacy data used to support the mineral resource estimate? Specifically, should this be required if the sampling, analytical, and QA/QC information is no longer available to the current operator. Why or why not?

Yes, we believe they should. Legacy data could be fundamental to the reported numbers and by allowing the QP to absolve themselves of responsibility of historical data could open the door to significant harm for stakeholders. There are numerous activities that a QP can perform to help validate historical data to allow them to feel comfortable in the accuracy of the information. We believe that in such cases where historical data cannot be verified the QP should decide if this information is discarded, or the classification is adjusted downward to reflect the risk the data poses on the estimate.

### ***Risk factors with mineral resources and mineral reserves***

Paragraph 3.4(d) of NI 43-101 requires issuers to identify any known legal, political, environmental and other risks that could materially affect the potential development of the mineral resources or mineral reserves. In addition, Items 14(d) and 15(d) of the Form require the qualified person to provide a general discussion on the extent to which the mineral resource or mineral reserve estimate could be materially affected by any known environmental, permitting, legal, title, taxation, socio-economic, marketing, political or other relevant factors.

Many technical reports only provided boilerplate disclosure about potential risks and uncertainties that are general to the mining industry. Failure to set out meaningful known risks specific to the mineral project make mineral resource and mineral reserve disclosure potentially misleading.

27. How can we enhance project specific risk disclosure for mining projects and estimation of mineral resources and mineral reserves?

We suggest that meaningful known risks specific to the mineral project could be set out in a risk matrix. A risk assessment matrix would require an issuer to identify and prioritize the most severe environmental,

permitting, legal, title, taxation, socio-economic, marketing, political or other risks that may affect an issuer's mineral resources and mineral reserves. This is done by ranking the probability of the occurrence of a risk against the potential impact of the risk. The product of the probability (rare, unlikely, possible, likely, almost certain) multiplied by the impact (minor, moderate, major, severe) provides a value which defines the overall severity of the risk. The risk matrix can also be colour coded and include numbers denoting the severity of the risk in each box. Accordingly, the information in the matrix would allow investors to easily pinpoint significant risks to the issuer.

## **I. Environmental and Social Disclosure**

In recent years, CSA staff have seen an increase in public and investor awareness of environmental and social issues impacting mineral projects. Item 4: Property Description and Location and Item 20: Environmental Studies, Permitting and Social or Community Impact of the Form allow for disclosure of relevant environmental and social risk factors for the mineral project. However, these disclosure requirements related to environmental and social issues have remained largely unchanged since NI 43-101 was adopted in 2001.

28. Do you think the current environmental disclosure requirements under Items 4 and 20 of the Form are adequate to allow investors to make informed investment decisions? Why or why not?

We suggest that the current environmental disclosure in Item 4 of the Form is sufficient, given that the amount of disclosure will vary based on the stage of advancement of the property subject to the Report which is set out in greater detail in Item 20 of the Form.

We suggest that Item 20 which relates to a discussion on environmental studies, permitting and social or community impact could be divided into further subsections to provide stakeholders with additional information on these topics, such as:

1. Institutional and regulatory framework
2. Environmental and social baseline
  - (a) Physical environment
  - (b) Biological environment
  - (c) Social environment
3. Environmental and social management
  - (a) Environmental management
  - (b) Community management

29. Do you think the current social disclosure requirements under Items 4 and 20 of the Form are adequate to allow investors to make informed investment decisions? Why or why not?

Please see the response to Item 28 above.

30. Should disclosure of community consultations be required in all stages of technical reports, including reports for early stage exploration properties?

We would suggest that the level and frequency of community consultations will depend upon the local laws of the jurisdiction in which the property is located, and this will dictate the different stages of consultation that is required.

Where community consultations are required under local laws, we suggest that a company should disclose whether it is in compliance with any required community consultation procedure.

## **J. Rights of Indigenous Peoples**

We recognize Indigenous Peoples to include First Nations, Inuit and Métis Peoples in Canada. We also recognize that issuers have projects in jurisdictions outside of Canada, and those jurisdictions will have Indigenous Peoples.

The unique legal status of Indigenous Peoples has received national and international recognition. For many projects, the rights of Indigenous Peoples overlap with legal tenure, property rights and governance issues. We believe that disclosure of these rights, and the Indigenous Peoples that hold them, forms an essential part of an issuer's continuous disclosure obligations.

Item 4 of the Form requires disclosure of the nature and extent of surface rights, legal access, the obligations that must be met to retain the property, and a discussion of any other significant factors and risks that may affect access, title, or the right or ability to perform work on the property. We are interested in hearing whether other disclosures should be included in the Form, or the issuer's other continuous disclosure documents, that relate to the relationship of the issuer with Indigenous Peoples whose traditional territories underlie the property.

31. What specific disclosures should be mandatory in a technical report in order for investors to fully understand and appreciate the risks and uncertainties that arise as a result of the rights of Indigenous Peoples with respect to a mineral project?

Disclosure as to whether rights of Indigenous People have been officially recognised by the Government in the jurisdiction in which the property is located would be informative to an investor. However, this subject is complex and is based on national laws, international laws, regulations and conventions many of which are applied differently in different countries. Further, this is an area that has seen an increase in activism and litigation and interpretation of laws can be uncertain. As a result of the complexity of this subject, we suggest that this subject is not within the expertise of a Qualified Person as defined in NI 43-101.

32. What specific disclosures should be mandatory in a technical report in order for investors to fully understand and appreciate all significant risks and uncertainties related to the relationship of the issuer with any Indigenous Peoples on whose traditional territory the mineral project lies?

We suggest that any specific disclosure about significant risks and uncertainties related to the relationship of the issuer with any Indigenous Peoples on whose traditional territory the mineral project lies be more properly included in the issuer's Annual Information Form. As a result of the complexity of the rights of Indigenous Peoples, we suggest that this subject is not within the expertise of a Qualified Person as defined in NI 43-101.

33. Should we require the qualified person or other expert to validate the issuer's disclosure of significant risks and uncertainties related to its existing relationship with Indigenous Peoples with respect to a project? If so, how can a qualified person or other expert independently verify this information? Please explain.

We suggest that a Qualified Person as defined under NI 43-101 does not have the necessary qualifications and experience to validate an issuer's disclosure of significant risks and uncertainties related to its existing relationship with Indigenous Peoples. We are not sure how it is possible to validate an issuer's relationship with Indigenous Peoples.

### **K. Capital and Operating Costs, Economic Analysis**

Capital and operating costs assumptions are integral to the financial and economic analysis of mineral projects. We see longstanding evidence, including industry-based case studies, of significant variance between disclosed cost estimates in technical reports and actual costs as projects are developed. This variance can have negative impacts on investors who rely on financial disclosure in technical reports.

#### ***Capital and operating costs***

34. Are the current disclosure requirements for capital and operating costs estimates in Item 21 of the Form adequate? Why or why not?

It is our opinion that, although Item 21 is general in its requirements for summarizing estimated capital and operating costs, the CIM best practice guidelines (2019) provides clear guidance on expectations regarding this evaluation work for a project. The generalized nature of the requirement in Item 21 does provide the QP with flexibility to describe the methodology and provide justification for the estimated costs, which can vary considerably depending on the project level.

35. Should the Form be more prescriptive with respect to the disclosure of the cost estimates, for example to require disclosure of the cost estimate classification system used, such as the classification system of the Association for the Advancement of Cost Engineering (AACE International)? Why or why not?

We believe that adopting a cost estimate classification system would be reasonable and provide clarity to investors to the level of accuracy the QP is applying regarding costs, whether this be first principle, vendor quotation or actual. The classification system would need to take into account PEA stage projects where information regarding costs may be limited.

36. Is the disclosure requirement for risks specific to the capital and operating cost assumptions adequate? If not, how could it be improved?

It is our opinion that requirements regarding the disclosure of specific risks relating to capital and operating cost assumptions can benefit from greater clarification. However, the incorporation of a cost estimate classification system, as mentioned above, would go along way in addressing the quantification of risk associated with cost assumptions for investors. This and the adoption of requirements specific to all risks, as suggested in the response to question 27, should provide investors with sufficient disclosure regarding risk.

#### ***Economic analysis***

As stated above, a core principle of NI 43-101 is to require disclosure that will allow investors to be able to confidently compare the disclosure between different projects by the same or different issuers. Standardized disclosure is fundamental to this principle.

37. Are there better ways for Item 22 of the Form to require presentation of an economic analysis to facilitate this key requirement for the investing public? For example, should the Form require the disclosure of a range of standardized discount rates?

We believe the requirements as set out under Item 22 is satisfactory. Standardizing discount rates would remove flexibility from the analysis which the QP requires when reporting the risk associated with a project. This can vary based on geographical location, where political or economic risk are much lower in developed countries, requiring the application of lower discount rates, as opposed to developing countries where a much higher rate is likely applicable. The QP should be given the flexibility to decide on the level of risk that needs to be conveyed to the investor through this mechanism.

**L. Other**

38. Are there other disclosure requirements in NI 43-101 or the Form that we should consider removing or modifying because they do not assist investors in making decisions or serve to protect the integrity of the mining capital markets in Canada?

We have no additional suggestions.

Please do not hesitate to contact the undersigned with any questions or concerns about the comments provided above.

Kind Regards,

**Eric Chapman**

Senior Vice President of Technical Services, Fortuna Silver Mines Inc.

**Linda Desaulniers**

Corporate Counsel & COO, Fortuna Silver Mines Inc.