



Environmental and Social Review Summary
Appraisal Stage
(ESRS Appraisal Stage)
World Bank Performance Standards (OP 4.03)

December 2024:

**BASIC INFORMATION****A. Basic Project Data**

Country	Region	Project ID	Parent Project ID (if any)
Project Name			
Practice Area (Lead)	Financing Instrument	Estimated Appraisal Date	Estimated Board Date
Borrower(s)	Implementing Agency(ies)		

Proposed Development Objective(s)

Financing (in USD Million)	Amount
Borrowing Country's Fin. Intermediary/ies	0.00
Montreal Protocol Investment Fund	0.00
Total Project Cost	0.00

B. Is the project being prepared in a Situation of Urgent Need of Assistance or Capacity Constraints, as per Bank IPF Policy, para. 12?**No****C. Project Abstract [including Project structure, components, activities, technical design, flow of funds, etc.]**

The Line 4 extension to Taboão da Serra is a groundbreaking project for Metro São Paulo as it marks the first expansion beyond São Paulo city boundaries. The project includes 3.5 kilometers of new underground tracks and two new stations to be implemented and operated by a private concessionaire through an ongoing Public-Private Partnership. Activities from Component 2 includes: Signaling, Power Electric Supply, Telecommunications and Auxiliary (safety and operational equipment such as escalators, elevators, ventilation, emergency lighting, and platform doors, along with comprehensive passenger control and monitoring systems). The Project aims to improve commutes by providing a quicker, more efficient public transport option, thereby easing traffic on congested roads, encouraging a shift from



private cars and diesel buses, and reducing greenhouse gas emissions. The project is at approval/licensing phase, and construction works have not been either contracted or started.

D. Scope of application of Performance Standards (PSs) [and Environmental and Social Standards (ESSs), if relevant]

Please indicate if both Performance Standards (PSs) and Environmental and Social Standards (ESSs) apply to the project. If so, indicate which components/activities/aspects of the project and the timing of private sector and public sector engagement.

São Paulo Metro Line 4 is currently managed under a public-private partnership (PPP) agreement. The implementation strategy involves delegating the project's execution to the private concessionaire, with oversight from Government of State of São Paulo (GoSSP), through Secretaria de Parcerias em Investimentos (SPI), except for resettlement activities which will have shared responsibilities between the GoSSP and the private concessionaire. Expropriations have been delegated to the private concessionaire in the PPP contract amendment but resettlement of vulnerable persons, including those who have no recognizable legal right or claim to the land or assets they occupy or use, if needed, will be carried out by the Borrower. Therefore, and in line with the criteria set out in OP/BP 4.03, the World Bank both Performance Standards (PSs) and the ESF apply to the Project. PS1, 2, 3, 4, 6 and 8 are expected to be applied for this project as well as ESS5.

E. Environmental and Social Overview

E.1. Project location(s) and salient characteristics relevant to the ES assessment [geographic, environmental, social]

The Metro Line 4 extension is located in the west zone of São Paulo (SP) Municipality. The project is within the domain of Atlantic forest Biome, however also in a densely urbanized zone distant from the original assemblies of natural habitats. The project is located within the Pinheiros river basin, and Pirajussara River subbasin predominantly crossing areas of alluvial plains. The area of Influence of the project is located within the sediments from the Cenozoic period of the sedimentary basin from SP, including three main groups of bedrock formations: (i) Crystalline basement Rocks (Precambrian period); (ii) Sedimentary rocks; and (iii) Alluvial deposits from Cenozoic. The Crystalline bedrock is a very old and settled formation, therefore no seismic hazards are expected for this project. The alluvial soils and sedimentary formations can pose some geotechnical challenges during construction, which must be managed following Good Industry Practice such as tunneling NATM construction method (New Austrian Tunnelling Method).

Initial estimations accounts to accommodate 80,000 additional travelers, primarily from the Vila Sônia District in SP and the neighboring city of Taboão da Serra. Vila Sônia's population stands at 123,748, which is roughly 1% of SP's total 11.5 million residents. Meanwhile, Taboão da Serra has a population of 273,542, growing annually at a rate of 0.94%—a pace that exceeds the national average of 0.52%. Taboão is even more densely populated than SP, with 13,416.81 people per square kilometer compared to SP's 7,528.26. Despite a rising GDP per capita of 6,400 USD in Taboão, it is still significantly lower than São Paulo's 12,300 USD per capita. The Human Development Index (HDI) reflects this disparity as well, with São Paulo scoring 0.805 (ranking 15th in the state of São Paulo) and Taboão scoring 0.769 (ranking 115th in the state). In 2021, only 23.3% of Taboão's residents were employed, earning on average 2.6 times the minimum wage, while in SP almost half of the population are employed, earning 4.3 times the minimum wage.

E. 2. Client's Organizational Capacity/Borrower's Institutional Capacity



The Borrower, the Secretaria de Parcerias em Investimentos (SPI), is a newly created Secretariat, which is focused on attracting investments and opportunities to generate employment and income for the State of São Paulo. As it has only been running since January 2023, the Secretariat does not have any previous experience with Safeguard Policies or the ESF. However, SPI is a result of a rearrangement of the States' organizational structure, therefore brings a legacy from pre-existing Secretariats. Therefore, the State has experience with IFC's Performance Standards, used in the concession of Lines 8 and 9 of CPTM's rail system, structured by IFC.

SPI's team is made of 9 staff that are directly or indirectly responsible for the environmental and social management of the projects and the PPPs managed by SPI. The main staff is an environmental engineer, who is responsible for ensuring compliance with the principles and guidelines of CETESB, São Paulo's environmental licensing agency, which is a reference in the country for environmental management and enforcement. Additionally, the team is formed by a civil engineer, one architect, two project planning and management professionals and four lawyers. The team has experience on carrying out expropriation processes for state-driven developments under the national and state regulations. In case there. Although SPI does not have previous experience with land acquisition that leads to involuntary resettlement of vulnerable persons, the State of São Paulo has a special agency (CDHU) within the Urban Development and Housing Secretariat with the required expertise to carry out such activities and applying SP Metro's Regulation for Resettlement of Families in a Vulnerable Situation Affected By Metro Expansion Works. CDHU shall be involved in the Project, in case eligible persons are identified in the census to be carried out in the scope of the Resettlement Action Plan(s), as described in the Resettlement Policy Framework (RPF).

Regarding its metro and rail PPPs, SPI follows the robust SP Metro's guidelines and policies for implementing expansion works and E&S management. SPI is primarily responsible for managing the São Paulo State Partnerships Program (PPI-SP), which currently has a portfolio of 24 active projects and an estimated investment of over R\$ 470 billion (USD 85 billion) in the coming years, demonstrating SPI's capacity and experience with PPPs. Following the PPP Contract Amendment, it will manage, supervise, and transfer resources to the Concessionaire. Today, SPI relies on the Concessions and Permissions Monitoring Committee (CMCP), an executive body monitoring all rail-based PPPs in São Paulo.

The Concessions and Permissions Monitoring Committee (CMCP), an entity affiliated with SPI, will be the governmental body responsible for monitoring and reporting on the project's progress and performance indicators. Comprising a team of specialists, CMCP is well-equipped to implement the Monitoring and Evaluation (M&E) plan. In this capacity, CMCP will also provide technical support in contract management, particularly by certifying key implementation milestones that will trigger government contributions, covering not only civil works and systems but also designs and required studies. Additionally, the Engineer mandated under the FIDIC contract will support SPI and CMCP as the project supervisor, ensuring adherence to technical and contractual standards. CMCP may soon be incorporated by ARTESP, which is a very well-established independent regulatory agency for the State of São Paulo, that currently oversees highways, roads, airports, and non-metropolitan bus services. A recently approved law determines that ARTESP will take over the regulation and oversight responsibilities of other infrastructure sectors, including metro-rail services. This will not affect the existing M&E arrangements.

Additionally, ViaQuatro, the private partner (concessionaire) running the existing section of Line 4, will be in charge of Line 4 extension construction and operation. They are also responsible for the completion and submission of all E&S studies, requesting and obtaining environmental licenses, carrying out consultations and preparing WB instruments. ViaQuatro is a Special Purpose Vehicle (SPV), and it is owned by CCR, one of Latin America's biggest infrastructure and mobility companies in Latin America, signatory of the United Nations' Global Compact, having a robust ESG strategy



and previous experience with the IFC's Performance Standards. Since 1999, the Group CCR has actively participated in Brazil's mobility infrastructure. In the early 2000s, CCR began its operation with highway concessions and, over the following years, expanded its activities to include airports and urban transportation.¹ The Company operates assets in 13 Brazilian states. ViaQuatro has hired a specialized consultancy company for the development of the Relatório Ambiental Preliminar and conduct the environmental licensing process with CETESB, the same consultancy company that has carried out a preliminary environmental and social study of the Line 4 extension in 2014-2015, which has established some important technical guidelines for the project.

II. SUMMARY OF POTENTIAL ENVIRONMENTAL AND SOCIAL (ES) RISKS AND IMPACTS

This assessment has been prepared based on review and analysis of ES documents that have been prepared by the Borrower and/or Project Participants (including Private Entities and Financial Intermediaries (FIs)), as indicated by PSSs and/or ESSs.

A. For ESSs: Environmental and Social Risk Classification – High, Substantial, Moderate and Low

Provide rationale for the risk classification

The Environmental and Social Risk classification is Substantial. The only Environmental and Social Standard relevant to this Project is ESS 5 - Land Acquisition, Restrictions on Land Use and Involuntary Resettlement because of the shared responsibilities between the SPI and ViaQuatro. The processes of expropriation and land acquisition have been assigned to the private entity (the concessionaire). However, should there be a need for involuntary resettlement of vulnerable populations, which remains uncertain at this stage, such resettlements will be conducted by the public entity (SPI), with the support of the State Housing Secretariat. To date, the locational alternatives studies indicate the need for land acquisition of 40 land plots, mostly of commercial use. The location of the substation is still being assessed but it will likely be located in the municipality of Taboão da Serra. The installing of the main construction site will require temporary land acquisition of municipal land in Taboão da Serra, and the institutional arrangements for such are currently underway. The impacts on land acquisition and resettlement, therefore, are medium in magnitude and/or in spatial extent.

The Borrower and ViaQuatro have experience in carrying out expropriation processes following national legal requirements, which are generally aligned with ESS5, in terms of providing timely compensation for loss of assets at replacement cost for persons who have formal legal rights or claims to land or assets recognized or recognizable under national law. The national process for economic displacement compensations is not fully aligned with ESS5, requiring the Borrower and ViaQuatro to change common practices and, therefore, increasing the social risk.

B. For PSSs: Environmental and Social Categorization - CATEGORY A, B, C, FI-1, FI-2 and FI-3

Provide rationale for the categorization

The Category A risk rating accounts for the inherent risks related to metro construction projects, including tunneling and civil works for the construction of the 2 new metro stations, 3 ventilation shafts, 1 Electrical substation and 3.5km of tunnel. Despite the robust institutional framework, CETESB's requirements and oversight capacity, lessons learned

¹ Today, CCR is Brazil's largest mobility infrastructure company, transporting 3 million people daily in its mobility services (subways, VLT, and ferries), boarding 43 million customers annually in its airports, and receiving more than 2 million vehicles daily on its highways. Overall, the Group responds to the management and maintenance of 3,615 kilometers of highways in 5 Brazilian states, 20 airports (17 in Brazil and 3 others in Latin America), and 124 stations (including subways, VLT, and ferries) in 3 Brazilian states (São Paulo, Rio de Janeiro, and Bahia).



from previous investments shows that PPP concessions brings some inherent higher E&S risks due to the performance pressures from concession contract. Moreover, high risk accounts also for traditional tunneling construction methods “drill and blast” since the use of Tunnel Boring Machine (TBM) was not found to be economically viable for a 3.5km metro extension project.

Key risks and impacts include geotechnical risks and ground stability supporting nearby buildings, water table lowering, impacts to nearby structures from vibrations from tunneling and civil works, risks of flooding of underground structures (stations, metro tunnel, Ventilation Shafts etc.), generation and disposal of excavated material, excavation and disposal of soil from contaminated sites, noise and dust emissions, heavy traffic of dump trucks and concrete mixers within densely populated urban areas and transport of heavy equipment. It also includes workplace hazards for the construction workers such as confined spaces, working at heights, hazardous atmospheres, lifting of heavy equipment, noise, vibrations, use of torch and welders, excavations, electrical hazards etc.

The Social risk category is A, for the inherent risks related to metro construction projects, located in a densely populated urban area. During the construction stage, the main social adverse social impacts and risks envisaged are: a) workers’ exposure to workplace hazards from confined spaces, blasting, work at heights, b) community health and safety risks as the associated construction works require the use of heavy machinery, occur in close vicinity with densely populated areas, and may cause temporary disturbances in the surroundings and permanent damages to nearby structures and properties, c) excavation and movements of earth that could interfere with cultural heritage, d) involuntary resettlement, economic displacement, potential temporary loss of access to formal businesses located in the vicinity of the project area and e) inadequate stakeholder engagement during project preparation and during construction works, as this kind of intervention usually generate a large number of complaints and f) the perception of safety of stakeholders, especially the surrounding communities, due to the major accident occurred in the previous phase of the Line 4 construction. There are no Indigenous Peoples present in the project area. On the positive impacts, the Metro extension will generate the revitalization of the areas around the metro stations through public space improvements and sustainable transit-oriented urban development interventions, such as bike parking; create employment throughout the various stages of the Project and provide access to employment to Taboão’s population in SP’s central area.

III. APPLICABLE STANDARDS

A. Performance Standards [and the Environmental and Social Standards]

PS1 Assessment and Management of Environmental and Social Risks and Impacts

Instruction to Staff: The assessment undertaken is proportionate to the potential risks and impacts of the project, and has assessed, in an integrated way, all relevant, direct, indirect and cumulative environmental and social risks and impacts throughout the project life cycle, including those specified in PSs. Please also summarize the scope of review.

ESMS Environmental and Social Management System

This project is an extension from exiting SP Metro line 4, currently connecting Luz station to Vila Sônia. The Environmental (and Social) Licensing of existing Metro Line 4 was supported by an ESIA (Paulista to Vila Sônia section of the line) , submitted in 1998 and, and an adendum (complementary study) that was submitted in 2009. A dedicated study (RAP – Relatório Ambiental Preliminar, in Portuguese) covering the extension of Line 4 from Vila Sônia to Taboão



da Serra (the Project) was submitted to CETESB (State Level Environmental Regulatory Agency) in 2024 and disclosed at ViaQuatro (the concessionaire) website².

To manage E&S risks and impacts from its operations Viaquatro has an established integrated management system covering the Environment and Quality assurance. The ESMS follows international management systems standards and has achieved ISO 14001 and ISO 9001 certification. There is an ESMS overarching policy that governs Viaquatro commitments with continuous improvement, customer satisfaction, safety, environmental protection. This includes the Promotion of a healthy and safe environment for the preservation of life, the elimination of hazards, the management and reduction of risks, the protection of the environment including pollution prevention, the sustainable use of resources and socially responsible action.

To manage OHS risks and hazards at workplace Viaquatro has completed a workplace Risk Management Plan, in accordance to national standard NR1, identifying all hazards and risks from all activities and job positions, and indicating the appropriate measures to reduce the risks to acceptable levels following the hierarchy of control measures.

Viaquatro has a system to monitor compliance with legal requirements and corrective action plans are in place to fulfill identified gaps. Every year Viaquatro defines E&S Objectives and targets to manage E&S aspects more efficiently, which includes specific targets for climate change (GHG emissions reduction), Energy consumption, increase of renewable energy consumption, forest restoration, workplace accidents reduction, worker's turn over, and so forth. These targets are linked to specific KPIs, which are monitored and consolidated at a corporate level by CCR (parent company). ESMS performance is consolidated by CCR and results are disclosed annually at CCR's Integrated Sustainability Report, following GRI (Global Reporting Initiative) Standard.

Identification of Risks and Impacts

To Identify and manage the Risks and Impacts from the Project, Viaquatro completed a Relatório Ambiental Preliminar (RAP) following a ToR provided by CETESB (State Level Environmental Agency). The RAP - Relatório Ambiental Preliminar is one type of Environment and Social Impact Assessment under CETESB's licensing framework, which are aligned with IFC's Performance Standards³. This document was completed by an independent consulting firm, and includes a description of the project, an alternative location analysis (Considering 7 alternatives), the area of influence of the project (Directly Affected Area, Area of Direct Influence, and Area of Indirect Influence), a detailed baseline assessment from the physical, biological and social environments. The RAP also includes the identification of project's impacts and appropriate measures to eliminate or mitigate the impacts from the project.

The socioeconomic assessment included in the Relatório Ambiental Preliminar has only broadly identified the presence/absence of vulnerable groups in the direct and indirect areas of influence and in the directly affected area, using the Índice Paulista de Vulnerabilidade Social (IPVS), a gap identified with the requirements of PS1. Therefore, the ESAP (Environmental and Social Action Plan) includes a requirement to identify individuals and groups that may be directly and differentially or disproportionately affected by the project because of their disadvantaged or vulnerable

² www.viaquatro.com.br/Media/InvestorRelations/Files/577a354e45ec4c09bc5c3dd9ea771fda_rap-consolidado-1-compactado-1.pdf

³ Manual for Preparation of Studies for Licensing with Environmental Impact Assessment:
<https://cetesb.sp.gov.br/licenciamentoambiental/wp-content/uploads/sites/32/2024/08/Manual-para-Elaboracao-de-Estudos-com-AIA.pdf>



status. Where individuals or groups are identified as disadvantaged or vulnerable, the client will propose and implement differentiated measures so that adverse impacts do not fall disproportionately on them, and they are not disadvantaged in sharing development benefits and opportunities.

Management Programs

The RAP also includes a preliminary ESMP (or PGA – Plano de Gerenciamento da Obra, in Portuguese) and a set of Environmental Control Plans (or PCA – Planos de Controle Ambiental da Obra) including:

- Air quality Management Plan
- Noise and Vibration Management Plan
- Ground Subsidence (settlement) plan
- Contaminated Areas management Plan
- Excavation Material Management Plan
- Ground Water Pumping and Wastewater Management Plan
- Waste Management Plan
- Runoff and Erosion Control Plan
- Traffic Control Plan
- Landscape Restoration Plan
- Emergency Preparedness and Response Plan
- Land/Bush Clearings Control Plan
- Bird Monitoring Plan
- Synanthropic and Domestic Fauna dispersion and proliferation control plan
- Social Communication Plan
- Land acquisition and compensation monitoring Plan
- Environmental Education Plan
- Cultural Heritage Management Plan, and
- Environmental Management Plan for the Operations phase.

Going Forward, ViaQuatro must submit the detailed ESMP to CETESB as a condition for obtaining the Environmental License for construction, and as set forth in the ESAP, Albeit existing PBA (ESMP in Portuguese) is a concept version of the Management Plans and programs, and therefore lays out general principles and guidelines to be followed, they are consistent with the objectives of the Performance Standards. Nevertheless, ViaQuatro must complete a detailed version of the PBA including binding standard requirements for contractors. The updated PBA/ESMP must abide to the following SP Metro Standards which are considered Good Industry Practice in Brazil, and must be incorporated into the ESMP and in the E&S contractual specifications for the EPC contractors:

- ET-9.00.00.00/3G1-001 - Jazidas, Armazéns e Bota-Fora
- ET-9.00.00.00/3G5-001 - Desmonte de Rocha com Explosivo
- ET-9.00.00.00/3D2-001 - Remanejamento de Utilidades Públicas
- ET-9.00.00.00/3H1-007 - Escavações a Céu Aberto
- ET-9.00.00.00/3I2-001 - Rebaixamento e Controle da Água Subterrânea
- NOR-09-205 – Manejo Arbóreo e Intervenção em Áreas de Preservação Permanente para Implantação de Empreendimentos de Expansão do Metrô



- IC-9.00.00.00/3C4-001 - Instalação de Canteiros de Obra
- IC-9.00.00.00/3C9-001 - Engenharia de Segurança e Medicina do Trabalho
- IC-9.00.00.00/3C9-003 - Segurança e Medicina do Trabalho em Obras Subterrâneas
- IC-9.00.00.00/3E4-001 - Perícias Cautelares e Indenizatórias
- ET-9.00.00.00-3I7-001 - Instrumentação
- IC-9.00.00.00/3N4-001 - Controle de Impactos ao Meio Ambiente
- AA1000SES - AccountAbility and Stakeholder Engagement Standard

Monitoring and Review

Metro Line 4 E&S performance oversight must occur at multiple levels. The initial line of supervision must be conducted internally under the contractor's own oversight capacity. Periodic field inspections must be carried out by a collaborative team comprising Environment and social, operational, Health, and Safety personnel. Additionally, all contractors are required to have and Health and Safety Committee (CIPA – Comissão Interna de Prevenção de Acidentes), which is tasked with conducting quarterly inspections at the workplace. Conversely, ViaQuatro (PIU) must conduct its own inspections as deemed necessary. Furthermore, Line 4 must rely on inspections conducted by supervising engineering firms to monitor the E&S performance of contractors (and sub-contractors). CETESB (São Paulo State Environmental Agency) commonly also conducts prescheduled site inspections at specific project milestones or in response to incidents as and when they occur.

Additionally, ViaQuatro has a system to monitor compliance with legal requirements and corrective action plans are in place to fulfill identified gaps. Every year ViaQuatro defines E&S Objectives and targets to manage E&S aspects more efficiently, which includes specific targets for climate change (GHG emissions reduction), energy consumption, increase of renewable energy consumption, forest restoration, workplace accidents reduction, worker's turn over, and so forth. These targets are linked to specific KPIs, which are monitored and consolidated at a corporate level by CCR (parent company). ESMS performance is consolidated by CCR and results are disclosed annually at CCR's Integrated Sustainability Report, following GRI (Global Reporting Initiative) Standard.

Organizational Capacity and Competency

ViaQuatro has a full team of specialists assigned to manage specific elements from the ESMS. The organizational structure of ESMS is made up as follows.

- IMS Manager;
- IMS Analyst;
- Occupational Safety Engineer;
- Occupational Physician;
- Environmental Analyst;
- Environmental Supervisor;
- Occupational Safety Supervisor;
- Occupational Safety Technicians
- Nursing Technicians;
- Occupational safety assistant;



- Environmental Assistant;
- Environmental Administrative Assistant;
- Quality Assistant;
- Work safety trainee.

Additionally, during preparation, ViaQuatro initiated a hiring process of a Social Specialist with experience in resettlement and community engagement activities.

During project implementation ViaQuatro will rely on the oversight support from the Supervising Engineer, and it must have at least one EHS (Environmental Health and Safety) specialist and a Social specialist assigned to the work of the project, to review the reports from contractor's and supervising engineer, provide guidance, and follow up with CETESB on a regular basis. The Project E&S team will be also responsible for collecting information and reporting on the project's performance to the Bank as agreed in the ESAP.

Stakeholder Engagement, information disclosure and consultations

The Relatório Ambiental Preliminar includes a Social Communication Plan (PCS, in Portuguese) which, at this stage describes the objectives, activities and timelines for the development of a detailed PCS in the scope of the Plano Básico Ambiental (PBA), to be finalized before the start of civil works. The PCS is essential for ensuring transparent communication and community participation throughout all stages of the project, from planning to operation. Key issues such as expropriations, vegetation removal, changes to the road system, and impacts on the daily routine of the population require clear and effective communication and engagement.

The primary objective of the PCS is to consolidate communication channels to publicize the project's actions and stakeholder engagement strategy. It also aims to provide an accessible platform for receiving grievances, suggestions, and other types of feedback. The program targets residents in the vicinity of the project as well as project workers, aiming to reduce anxiety, insecurity, and expectations among affected groups while fostering dialogue and participation. To achieve these objectives, the PCS is structured into two main stages. The first stage, which begins during the planning phase immediately after the Preliminary License (LP) is issued, focuses on collecting socioeconomic data from the affected population, identifying relevant social actors and institutions in the region, developing a detailed communication and engagement plan, and training communication and social interaction teams. The second stage, which starts during the project implementation phase, focuses on making necessary adjustments to the communication plan in response to the demands of the population and the municipalities, ensuring that the mitigating, compensatory, and enhancing measures achieve their objectives. During this phase, the PCS also emphasizes producing and distributing informative materials, such as pamphlets and folders, detailing the progress of the work and the expected impacts. Some essential activities of the PCS include creating a database to record actions, standardizing the project's information and images, implementing a toll-free telephone service ("0800"), holding events with social actors and the target audience, maintaining constant communication with the city government, defining joint activities with other environmental programs, disseminating information about expropriations and the work schedule, and establishing partnerships with the media.

In line with SP Metro's guidelines, that follow the international AA1000SES - Accountability and Stakeholder Engagement Standard and as part of the PCS, ViaQuatro will also establish specific channels for communication and



engagement with the communities surrounding the expansion works. This includes the implementation of relationship centers. These centers will carry out activities related risk and impact management actions in neighboring communities, especially those related to expropriations, resettlement, social communication and in response to impacts of construction works. These centers will report on a regular basis to the SPI and their activities will be closely monitored.

Within the scope of the environmental licensing process for Line 4's extension, CETESB requested that the Relatório Ambiental Preliminar be disclosed, and consultations be conducted, even though this is not a legal requirement of RAP licensing procedures. This request, promptly accepted by SPI and ViaQuatro, aimed to ensure greater transparency in the licensing process, as well as to foster closer engagement with the affected people. The Relatório Ambiental Preliminar was disclosed on ViaQuatro's website on June 20, 2024 and was also available in print during consultations. The concessionaire prepared a report that describes in detail the activities undertaken to hold two Public Meetings, one in Taboão da Serra and the other in São Paulo, to discuss the Project. The report includes: i) a description of the outreach activities undertaken in preparation for the Public Meetings, with evidence ii) photographs of the Public Meetings, iii) a transcript of the Public Meetings.

The outreach activities included publications in print, online and physical media, in addition to direct contact with the community:

- a) Print Media:
 - i) Newspaper Publications: Publication notices of the Public Meeting and Relatório Ambiental Preliminar disclosure were published in national, regional and local newspapers
 - Estadão (print and online): Publication on June 25, 26 and 27, 2024, with national circulation.
 - Jornal do Butantã (print): Publication on July 5 and 12, 2024, with local circulation in Butantã and Vila Sônia.
 - The notice was also published in other neighborhood newspapers of the Jornal do Butatã group, covering the surrounding regions of Pinheiros, Morumbi and Santo Amaro.
- b) Online Media:
 - i) News websites: Publication of the notice on news websites
 - Cidadão (online): Publication on July 3, 2024, aimed at the municipality of Taboão da Serra.
 - Taboanense (online): Publication from July 9 to 15, 2024, aimed at the municipality of Taboão da Serra.
- c) Physical Media:
 - i) Information banners: Installation of banners at strategic points close to the meeting locations, during the month of June 2024:
 - Vila Sônia: Due to São Paulo municipality's "Clean City" law, only one banner was installed inside the school where the meeting was held, with visibility for pedestrians on the street.
 - Taboão da Serra: Three locations with high circulation of people were chosen for the installation of the banners.
 - ii) Posters: Distribution of posters in 18 relevant locations within the area of influence.
- d) Direct Contact with the Community:
 - i) Visits to institutions and contact with leaders: the consultancy's social communications team visited institutions such as schools, churches and health facilities, talking to local leaders and requesting that the meetings be publicized in WhatsApp groups and other channels.
 - ii) Invitations via WhatsApp: invitations to the Public Meeting sent via WhatsApp to local leaders, including the person responsible for publicizing the actions of the Taboão da Serra City Hall, for wide dissemination.



- iii) Invitation letters to authorities: 95 invitation letters sent to representatives of the city of São Paulo and 33 to representatives of Taboão da Serra, including mayors, secretaries, councilors and the Management Board of the Chácara do Jockey Municipal Park. The letters were sent via email.

During the Public Meetings ViaQuatro and the consultancy company responsible for developing the Relatório Ambiental Preliminar presented the Project, the timeline, the methodology used to assess environmental impacts and proposed mitigation measures. In Taboão, approximately 70 people were present, and the community's concerns focused mainly on the location of the Taboão da Serra station, the impacts on water springs, on expropriations and the impacts on road system and traffic in the region. In São Paulo, where approximately 160 people attended, the community's concerns related to the methodology used for the environmental and social impact assessment, the expropriations, the consultation process for the selection of the location for the Chácara do Jockey Station and the community safety during the construction phase, because of the major accident occurred during in the Phase II of the line's implementation. As a result of the consultation process and feedback received, ViaQuatro carried out another locational analysis for Chácara do Jockey Station, changing decreasing the size of the station entrance in the Park and moving it to the corner of the Park where there is an underused structure, minimizing the need of vegetation suppression.

As part of the PCS, ViaQuatro will carry out a more comprehensive stakeholder mapping and will structure an expanded engagement strategy to be implemented during the execution of the work. This strategy must include specific axis of action for the different stakeholders, including affected parties, neighboring communities, potential future users of the line and with vulnerable groups to be identified in the social assessment required in the ESAP.

External Communications and Grievance Mechanisms

Passengers of Line 4 have access to interactive communication channels, such as the Ombudsman's Office, which receives grievances and suggestions via the email⁴, and the Contact Us page, hosted on the ViaQuatro website⁵. For personalized support, passengers can contact the Call Center at a toll-free number. The concessionaire also has official Facebook and Instagram profiles. The ViaQuatro website⁶ is accessible for People with Disabilities and discloses the operational conditions of other SP Metro Lines and CPTM (Companhia Paulista de Trens Metropolitanos) rail lines. This tool is added to other features on the ViaQuatro website, such as the route planner, which allows you to plot routes and obtain guidance on travel within the metropolitan transport system, and the mobile version, which allows access to services and key information via smartphones.

The Ombudsman's Office has a robust role in the operation of Line 4. In addition to receiving, processing and responding to the demands received, the Ombudsman's Office actively conducts focus groups activities and thematic campaigns, depending on the complaints that arise through the Ombudsman's channels, such as those on accessibility, bicycle parking, prevention and awareness against abuse, harassment and sexual exploitation, linked to the official channels of the state government. Regarding requests for information and complaints regarding the extension of Line 4, in addition to the official channels already established by ViaQuatro, the socio-environmental consultancy responsible for

⁴ ouvidoria@viaquatro.com.br

⁵ www.viaquatro.com.br/fale-conosco

⁶ www.viaquatro.com.br



the environmental studies has also opened a channel to receive requests (email and WhatsApp), to deal with specific issues related to the extension while the licensing process is being undertaken and has received requests for information mainly about expropriations. Until end of August 2024, 24 contacts had been made, 21 via email, 1 via the ombudsman and 2 individual meetings. The average response time is less than 24 hours - in July, the average response time was approximately 3 hours and 15 minutes. The requests are handled a highly qualified team of Senior Analysts, consisting of a Civil Engineer and a Lawyer, both with over 10 years of experience in E&S matters.

There is also an internal anonymous channel, linked to the compliance sector, for reports and complaints from direct and outsourced employees, managed by an external company and described in the PS2 section.

Ongoing Reporting to Affected Communities

As part of the Social Communication Plan (PCS), ViaQuatro will develop an information dissemination plan about the Project, including, inter alia, information on civil works schedules, interruptions on utility service provisions, expropriations, and E&S management. The PCS will also assess the need to establish partnerships with the different types of media to be defined at the beginning of the program, which may be – newspapers, radio stations, websites, among others – with local and regional reach, in addition to the implementation of the 0800 telephone service.

As part of the ESAP, ViaQuatro will be required to publish bi-annual reports on its website about ESHS and Stakeholder Engagement performance, as well as about the functioning of the Grievance Mechanism.

During Project Preparation the WB team has conducted field visits and reviewed the following documentation:

- Relatório Ambiental Preliminar – RAP Extensão Linha 4
- ESIA (2008) Linha 4
- Manual SGI - ViaQuatro
- Política SGI - ViaQuatro
- Relatório Técnico Informativo on the Line 4 Environmental Operation Licencings for 2023 - ViaQuatro
- Plano De Gerenciamento de Riscos 2024 – ViaQuatro
- Plano De Gerenciamento de Resíduos Sólidos PGRS – ViaQuatro
- Manual de SST Terceiros – ViaQuatro
- Apresentação de desempenho Mensal – ViaQuatro
- Plano de Controle Médico Ocupacional – ViaQuatro
- E&S Specifications for FIDIC contracts
- Certificados de conformidades com as normas de gestão ISO 14001 e ISO9001
- Relatório Integrado de Sustentabilidade – CCR
- Procedimento de Aquisição de Materiais e Serviços – CCR (which includes ESG assessment)
- Norma de Atração e Seleção – CCR
- Código de Conduta Ética – CCR
- Norma de Remuneração - CCR
- Norma de Segurança para Gestão de Terceiros – CCR
- Norma de Ambiente de Trabalho Positivo - CCR
- Política de Gestão De Consequências e Não Retaliação - CCR



ESS1 Assessment and Management of Environmental and Social Risks and Impacts

Instruction to Staff: The assessment undertaken is proportionate to the potential risks and impacts of the project, and has assessed, in an integrated way, all relevant, direct, indirect and cumulative environmental and social risks and impacts throughout the project life cycle, including those specified in ESSs 2-10. Please also summarize the scope of review.

Does not Apply

ESS10 Stakeholder Engagement and Information Disclosure

Does not apply

PS 2 Labor and Working Conditions

ViaQuatro abides to the robust Brazilian labor laws (summoned by the Brazilian Labor Code and the Consolidation of Labor Laws, or CLT). These laws are based on the principles of fair treatment, nondiscrimination and equal opportunity of workers as well as freedom of association and collective bargaining. They promote safety and health at work applying international standards for the protection of workers from OHS hazards related with their workplaces. They also prevent the use of all forms of forced labor and child labor (in Brazil, under the special terms of the Apprenticeship Law, a child under the age of 14 cannot be employed and children under the minimum age of 18 years cannot be employed in a manner that is likely to be hazardous or interfere with their education or harmful to their health or pphysical, mental, spiritual, moral or social development). Finally, they provide workers with accessible means to raise workplace concerns. Terms of emplyment are set forth in individual employment contracts including compensation, annual, sick and maternity leave, work shifts and overtime, termination of contract among other aspects. All workers covered under CLT are entitled to 30 days annual leave, sick leave, maternity leave, severence packadge, overtime compensation, and 30 days notice prior to termination of contract.

Workplace occupational health and safety risks and hazardous conditions os all SP ViaQuatro workers have been assessed and are systematically managed by mandatory OHS instruments as such the workplace Risk Prevention Plan (PGR in Portuguese),Occupational Health Amangement Program (PCMSO – Plano de Controle Médico Ocupacional, in Portuguese). ViaQuatro management system requires compliance with OHS regulations (ensuring legal comformity), the implementation of risk control measures and the establishment of emergency preparedness and response protocols.

ViaQuatro also requires that all contractors and service providers comply with CCR's corporate policy of Contractor's Safety Standards (Norma de Segurança para Gestão de Terceiros). This standard aim to ensure compliance by contractors and subcontractors, with legislation, normative instruments, and Contractual Specifications, referring to workplace environment safety and occupational health, along the length of the contract and execution of the services.

CCR's Code of Ethical Conduct establishes clear guidelines for employees, including a zero tolerance policy for any form of human rights violation among its employees or third parties who provide services, such as forced and/or slave-like labor, torture and/or degrading working conditions, child labor, disrespect, discrimination, moral and sexual harassment, intimidation, aggression, exploitation or prejudice due to race, color, religion, political affiliation, nationality, sex, sexual orientation, age or physical condition. Other than, CCR's NOR 052 – Attraction and Selection Standard establishes guidelines for hiring processes. According to this standard, diversity of people (gender, race,



sexual orientation, disability, social status, personality, education, experiences, among others) must always be considered in selection processes. Also, positions occupied by people with disabilities and that need to be replaced must be filled by people with disabilities, thus fulfilling the social role of diversity and inclusion and for leadership positions, Human Resources must deliver at least fifty percent of female finalists within the final list of the selection processes.

Additionally, ViaQuatro, through CCR, has established a Confidential Channel⁷ that deals with worker's transgressions, mainly on the following topics: discrimination; sexual harassment and moral harassment; conflict of interests; receipt or delivery of inappropriate gifts, entertainment and presents; fraud; theft, robbery and losses; corruption, bribery and inappropriate/irregular relations with the government; fraudulent financial statements; money laundering practices; anti-competitive practices; violations of privacy and confidentiality obligations; violations of intellectual property; violations of environmental laws and regulations; issues related to occupational health and safety and deliberate concealment of any of the matters previously described. The channel's procedures are detailed in the Política de Gestão De Consequências e Não Retaliação policy document, accepts anonymous complaints and is managed by a third-party company and is part of the CCR's Positive Work Environment Standard.

To deal with the exceptional hazards for tunneling construction by the means of drill-and-blast (NATM) method, Contractors will be required not only to meet Brazilian OHS standards (NR15 Confined Spaces, NR18 Construction, NR19 Explosives, NR1 Risk Management Plan) but also SP Metro Standards (ET-9.00.00.00/3G5-001 - Desmonte de Rocha com Explosivo; IC-9.00.00.00/3C9-001 - Engenharia de Segurança e Medicina do Trabalho; IC-9.00.00.00/3C9-003 - Segurança e Medicina do Trabalho em Obras Subterrâneas), which can be considered GIIP.

Metro Line 4 extension construction may include a variety of workplace hazards for workers (underground work - confined spaces, working at heights, electrical hazards, excavations, hot work hazards, blasting and use of explosives, exposure to hazardous agents, lifting of oversized equipment, etc.). To properly manage these hazards in accordance with GIIP, ViaQuatro has agreed to follow SP Metro safety Standards mentioned above at PS1 section.

The Relatório Ambiental Preliminar estimates that approximately 3,680 employees will be needed in total, approximately 25% directly involved in the construction works and 75% indirectly involved in the construction works.

ESS2 Labor and Working Conditions

Does not apply.

PS 3 Resource Efficiency and Pollution Prevention

Linha 4 extension construction may include the generation and disposal of construction wastes, pit borrow areas, excavation material disposal, treatment and disposal of soil from contaminated sites, noise and vibration emissions, use of chemicals, temporary lowering of the water table during underground works, pumping contaminated ground water, use of water and wastewater emissions.

In accordance with the overarching directives outlined in the project's Environmental and Social Management Plan (ESMP), known as Plano Básico Ambiental (PBA) in Portuguese, E&S Contractual Specifications (SP Metro Standards) and CESTESB requirements, all contractors are contractually obligated to develop and execute specific programs aimed

⁷ <https://canalconfidencial.com.br/canalconfidencialccr/>



at managing anticipated risks and impacts stemming from the project. Additionally, as set forth in ESAP, ViaQuatro must abide to SP Metro Standard of Environment Impacts (IC-9.00.00.00/3N4-001 - Controle de Impactos ao Meio Ambiente)

The RAP includes a preliminar ESMP, which must be further developed and submitted to CETESB approval before construction, including:

Waste Management Program: This program delineates the requisite procedures for the segregation, storage, transportation, and final disposal of various types of construction waste, including hazardous and non-hazardous materials (classified as Class II A - non Inert, and Class II B - Inert). Compliance with Brazilian Standards CONAMA 307/02, NBR 1004/04, and CONAMA 275/05 is mandated. Hazardous waste disposal must adhere to strict protocols, such as disposal at industrial landfills, recycling, incineration at certified facilities like cement kilns, decontamination prior to disposal, or other approved methods. Construction waste is managed through reuse, recycling, or disposal at dedicated landfills. Given the project's classification as a significant waste generator, contractors are required to be registered with AMLURB (Municipality Urban Waste Authority). Transport and disposal of construction waste must be undertaken exclusively by authorized companies, ensuring adherence to regulatory standards and environmental sustainability practices.

Management of Contaminated Areas: In accordance with the CETESB guidelines (Manual de Gerenciamento de áreas contaminadas), Metro Line 4 must undertake a systematic approach to address contaminated areas. This process involves a stepwise investigation method, beginning with the identification of potentially contaminated areas, known contaminated sites, and areas suspected of contamination. Subsequently, a preliminary assessment must be conducted to assess the extent and severity of contamination. Based on the findings from the preliminary assessment, further actions are initiated, including a confirmatory investigation, a detailed assessment, a risk evaluation, and the development of an intervention plan. Remediation measures are then implemented as necessary, followed by ongoing monitoring activities. A Preliminary assessment based on CETESB's database of contaminated sites found 20 contaminated sites within the area of influence of the project and within the underground water pumping/lowering zone. Additional confirmatory studies must be undertaken to define the best route of action for each site and a detailed plan must be submitted for CETESB's approval.

Excavation Material Management: In accordance with CETESB guidelines, all excavation soil undergoes screening and classification into four distinct categories:

1. Group I – Uncontaminated Excess Material: This category encompasses excess material free from any signs of contamination, predominantly comprising the largest volume.
2. Group II – Non-Hazardous, Non-Inert Excess Material: Excess material in this group is deemed non-hazardous and non-inert, eligible for recycling or future reuse.
3. Group III – Hazardous (Contaminated) Material: Excess material classified as hazardous due to contamination, requiring treatment or specialized disposal.
4. Group IV - Under Study: Material in this category is undergoing further assessment to determine its classification and potential contamination status.



Going Forward ViaQuatro must complete the classification of the soils, based on the findings of the investigation of contaminated sites, identify the appropriate disposal methods and approved sites, and submit final updated program for CETESB approval.

Water Table Management: In alignment with CETESB guidelines and mirroring the approach taken with soil management, ViaQuatro must conduct a screening within water table lowering zones to identify potential plumes of contaminated water prior to pumping. If necessary they must conduct treatment and remediation before pumping commences. All pumped water and construction wastewater must be treated before discharge into municipal stormwater gallery systems. Discharge processes must be closely monitored to ensure compliance with CETESB thresholds, as well as the water surface quality upstream and downstream from the discharge point. To promote sustainability, water reuse practices are encouraged for construction activities, such as truck washing.

Resource Efficiency – Metro Projects are by design meant to provide more efficient option for public transportation and reduce the consumption of fossil fuel along the private fleet, among other benefits. This project also is designed to improve Metro's own operation's efficiency (component 2) resulting in energy consumption efficiency. During Construction the PBA envisions several measures to improve the efficiency of the resources including re-use of water, wastes recycling, and energy consumption. Stations will be constructed based on secant pile shafts featuring side platforms. Building underground metro stations using secant pile shafts, rather than open-cut and cover methods, offers several advantages to the Project. It minimizes surface disruption, reduces environmental impact, and speeds up construction by limiting large-scale excavation.

ESS3 Resource Efficiency and Pollution Prevention and Management

Does not apply.

PS 4 Community Health, Safety and Security

Line 4 construction may result in geotechnical hazards for nearby buildings, traffic hazards from dump trucks, concrete mixers, transport and lifting of oversize equipment. Noise and dust emissions may also result in nuisance for nearby communities.

The tunnel construction will rely on Blast-and-Drill (NATM) standard construction method, which can result in excessive vibration and a hazard to the buildings in the Area of influence of the project. As set forth in ESAP, Via quatro must abide to SP Metro Standard for rock blasting (ET-9.00.00.00/3G5-001 - Desmonte de Rocha com Explosivo). The contractor is responsible for the blasting plans, ensuring compliance with limits for air displacement and vibrations affecting nearby structures. Monitored tests with small explosive charges should be conducted to determine parameters for the blasting plans and the preliminary "equation" for vibration propagation, which must be continuously adjusted during excavation. The blasting plans should be designed with appropriate explosive loads, delay times, and other parameters to minimize discomfort from detonations and ensure the safety of nearby buildings.

Limits for particle velocity (v) are set for different scenarios:



Discomfort: $v < 0.5$ cm/s (confined environment) and $v < 1.0$ cm/s (open environment);

Structural safety, with limits ranging from 1 to 5 cm/s, depending on the natural vibration frequency and the condition of the structures (whether intact or damaged).

Management of Environmental Noise and Vibration: The RAP includes an assessment background levels of noise and vibration, and based on these results, the setting of threshold levels for noise and vibration. The draft ESMP requires ongoing noise and vibration monitoring to ensure threshold limits (Background and regulatory) are not exceeded. Prior to commencing construction activities, contractors are mandated to identify noise and vibration sources and develop a comprehensive monitoring plan adhering to the requirements outlined in the ESMP. Likewise prior to commencement of operations, ViaQuatro must submit to CETESB approval a monitoring program and report results periodically.

Mitigation measures for noise and vibration emissions encompass various strategies, including the periodic maintenance and monitoring of equipment, the installation of sound barriers and enclosures, strategic positioning of equipment, adherence to environmental regulations and standards, targeted monitoring at specific locations, coordination with local authorities and stakeholders, and implementation of measures to minimize noise and vibration disturbances during nighttime operations.

Management of dust Emissions and Air Quality: Handling and storage of aggregates can lead to fugitive dust emissions (Particulate Matter), while the use of heavy equipment may generate black smoke and other particulate matter suspended in the airshed. To mitigate these impacts, Metro employs several measures.

Construction contractors must monitor emissions from trucks and heavy equipment, and implement mitigation measures such as humidifying soil before excavation, covering dump trucks, and washing vehicle tires before they leave construction sites. Additionally, construction contractors must conduct continuous air quality monitoring (PM10) near construction sites and install High Volume air samplers near borrow pits at all construction sites.

Contractors must be responsible for closely monitoring air quality emissions and reporting results monthly to ViaQuatro. ViaQuatro aggregates these results and reports them to CETESB, ensuring compliance with regulatory standards and effective management of dust emissions and air quality..

As set forth in the ESAP, ViaQuatro must follow Metro SP standard of Ground subsidence instrumentation and submit to CETESB the detailed Ground Subsidence and Tunnel Convergence Monitoring:

This program encompasses instrumentation and monitoring of tunnel wall convergence, ground subsidence, and distortion in areas along tunnel construction and surrounding new stations and shafts under construction. ViaQuatro has completed an internal Technical document, as part of the Detailed Designs (RT-4.22.01.00/617-001 - PROJETO EXECUTIVO – TÚNEL DE VIA – RELATÓRIO TÉCNICO – INSTRUMENTAÇÃO) defining the instruments (Thassometer, ground level landmark, Benchmark, Piezometer, water level indicator, Inclinator, Clinometer, Building Stud, Conversion Stud) and frequency of readings along the tunnel construction and nearby auxiliary structures (Stations and ventilation shafts). The monitoring must start before construction, then it goes on a daily basis during construction and gradually declines after construction.

As set forth in the ESAP, ViaQuatro must follow Metro SP standard of building inspections (IC-9.00.00.00-3E4-001 – Inspeções Cautelares e Indenizatórias) and conduct and document a baseline structural assessment of adjacent buildings (Auditorias Cautelares). If damaged resulting from ground subsidence or excessive vibrations is identified



during construction, than ViaQuatro must conduct a follow up inspection to identify the extension of the damage and define a compensation.

Traffic Control:

Stations will be constructed based on secant pile shafts featuring side platforms. Building underground metro stations using secant pile shafts, rather than open-cut and cover methods, offers several advantages to the Project. It minimizes surface disruption, reduces environmental impact, and speeds up construction by limiting large-scale excavation. This method enhances safety by providing better structural stability and allows for improved traffic management with less interference in urban areas.

As per the Project's Environmental and Social Management Plan (ESMP), it is mandatory for contractors to devise and execute site-specific Traffic Management Plans. These plans must incorporate strategies and protocols aimed at reducing disturbances to urban traffic, ensuring the safe transfer of materials, and mitigating environmental impact throughout the construction process.

Contractors are obligated to seek and secure necessary Permissions (Termo de Permissão para Ocupação de Vias – TPOVs) from the Municipal Transport Agency (Secretaria Municipal de Transportes), as well as Installation Permits (Alvará de Instalação) from the Department of Control and Use of Public Roads (Departamento de Controle e Uso de Vias Públicas - CONVIAS). Additionally, they must obtain approval from SPTrans for any alterations to public transportation routes or stops.

Key measures must be employed to minimize traffic disruptions during construction encompass:

- Implementing traffic diversions and detours to redirect traffic away from the construction zone.
- Providing clear signage and signalization to direct both drivers and pedestrians safely through the construction area.
- Coordinating closely with local authorities and transportation agencies to ensure seamless traffic flow and minimize disruptions.
- Employing temporary traffic control measures such as cones, barriers, and flaggers to manage traffic within and around the construction site.
- Introducing strategies to reduce noise, dust, and emissions resulting from construction activities.
- Conducting regular monitoring and inspections of traffic control measures to verify their effectiveness.
- Engaging in communication and coordination efforts with the public, including nearby residents and businesses, to disseminate information and updates regarding traffic disruptions and alternate routes.
- Ensuring full compliance with all relevant laws, regulations, and permits pertaining to traffic management during construction.
- Periodically reviewing and evaluating traffic management plans to identify areas for enhancement and implementing necessary adjustments.
- Collaborating with transportation agencies, contractors, and stakeholders to develop and deploy innovative solutions for minimizing traffic disruptions throughout the construction phase..

Emergency Response:



Within the framework of the Environmental and Social Management Plan (ESMP), contractors are mandated to craft site-specific Emergency Response and Preparedness Plans. These plans serve as a blueprint for effectively addressing emergencies and mitigating risks to safeguard the safety and welfare of individuals and the community.

The plan must encompass various critical elements including preparedness, response protocols, communication strategies, resource allocation, and recovery efforts. It underscores the imperative of proactive measures to preempt potential risks and stresses the necessity for a well-coordinated and efficient response during emergencies.

A more detailed framework of requirements for the emergency response plan must be developed and submitted for CETESB approval as a condition for the construction license.

ESS4 Community Health and Safety

Does not apply

PS 5 Land Acquisition and Involuntary Resettlement

Does not apply

ESS5 Land Acquisition, Restrictions on Land Use and Involuntary Resettlement

According to the limitations set forth in Operational Policy 4.03, paragraph 7(b), which states, "The World Bank Performance Standards do not apply to activities where the responsibilities for identifying, assessing, and managing environmental and social risks and impacts are shared between the Private Entity and the member country and cannot be clearly separated. In such cases, the World Bank Safeguard Policies apply in their entirety to such activities," the Environmental and Social Standard 5 (ESS5) – Land Acquisition, Restrictions on Land Use and Involuntary Resettlement will be applicable. This is because the Environmental and Social Framework (ESF) has taken over from the Safeguard Policies as of October 1, 2018. The processes of expropriation and land acquisition have been assigned to the private entity (the concessionaire). However, should there be a need for involuntary resettlement of vulnerable populations, including those who have no recognizable legal right or claim to the land or assets they occupy or use, which remains uncertain at this stage, such resettlements will be conducted by the public entity (SPI), with the support of the State Housing Secretariat. Therefore, due to the shared responsibilities in land acquisition and involuntary resettlement, ESS5 will be the standard utilized.

The Project will require land acquisition for the construction of the 2 stations (including a bus terminal in one of the stations) and 3 ventilation shafts/emergency exits for its 3.5km extension. The location for the required power substation has not been identified yet. The locational alternative analysis is part of the Relatório Ambiental Preliminar, as of CETESB's licensing standards, which analyzed 7 alternatives. The analysis includes technical aspects as well as expropriation impacts. This preliminary assessment indicates that 40 properties will be totally or partially affected and will need to be expropriated. Most of them have commercial use, but there are also vacant properties, residential units and an evangelical church. Additionally, some areas selected for the stations are located on public land (SP and Taboão municipal land). There will also be need for temporary use of municipal land in Taboão during construction works.



ViaQuatro is carrying out a land domain study to support the issuance of public utility decree that will allow the carrying out of the census survey and the expropriation processes.

In June, 2024, the SPI and the Municipality of Taboão da Serra have signed an agreement for the temporary and permanent use of municipal land in exchange of counterpart works as well as for other types institutional support needed for the Line 4 Extension implementation within the municipality (such as communication with neighboring properties during planning and construction phases and road traffic signaling and diversions). This agreement is valid for 5 years and establishes the responsibilities of each party and includes a Work Plan, the timeline, the description of the selected areas and the general guidelines for the counterpart works to be carried out by the State in favor of the Municipality of Taboão da Serra. Similarly, land acquisition of public land in São Paulo will also be needed. The arrangements for the construction of a pedestrian exit for Chácara do Jockey station within the municipal park are undergoing as the best location is still being assessed, considering technical aspects as well as the licensing process with CETESB and considerations raised during the public meeting held in July 2024. Two other public land plots are expected to be needed for Project implementation: one state-owned and one municipality-owned.

During preparation, the Expropriation Process Monitoring Program and its subprograms, part of the Relatório Ambiental Preliminar, has been assessed and gaps have been identified, especially in relation to economic displacement, which was not foreseen under the Program. Under national law, affected businesses and person who hold economic activities related to the land/asset they use/occupy can claim foregone profits and goodwill compensation caused by displacement, however it is not required to be actively offered to the affected person as party of the expropriation compensation. Thus, to meet the objectives set forth on ESS5, the Borrower was required to prepare a Resettlement Policy Framework (RPF) prior to Appraisal. This instrument aims to clarify resettlement principles, provide a legal gap analysis, organizational arrangements, and design criteria to be applied to expropriations, physical and economic displacement, and temporary use of land for Project implementation as, at this stage, the definitions of areas needed, which will allow for the issuance of the Public Utility Decree and the carrying out of a census survey are still undergoing. It is important to highlight that SPI will use SP Metro's Regulation for Resettlement of Families in a Vulnerable Situation Affected By Metro Expansion Works⁸, in case affected persons are eligible. The criteria set forth on this regulation is more stringent than ESS 5 in terms of the compensation offered to affected persons who have no recognizable legal right or claim to the land or assets they occupy or use. ESS5 establishes that this category of affected persons shall be provided arrangements to allow affected persons to obtain adequate housing with security of tenure and relocation assistance whereas the SP Metro's Regulation establishes the provision of a state social housing unit (to be owned by the affected person) or enough cash enough cash compensation to acquire housing in the market.

PS 6 Biodiversity Conservation and Sustainable Management of Living Natural Resources

The project is located in a densely populated urban area and no loss of habitats or impacts to natural or critical habitats are expected. There is one Urban Municipal Park, a former cottage from São Paulo Jockey Club, which has some wooded land that will be affected by the construction of a new station. This park is a modified habitat and it is not a protected area for conservation (it is not a PA covered by the national system of Protected Areas – SNUC, Sistema Nacional de Unidades de Conservação), whilst it has more urbanistic relevance as a leisure area for the population rather than for conservation. The RAP baseline study included a flora and fauna survey, but did not find any endangered or critically endangered species within the park, nor in the area of influence of the project. Nevertheless, the RAP/PBA (ESMP) does

⁸ https://governancacorporativa.metrosp.com.br/Documentos%20Compartilhados/regulamento_reassentamento_rev04.pdf



include a Bird Monitoring program and a wooded Land clearing management program with appropriate compensation measures for the loss of isolated trees (total of 81) in the area of influence of the project, including the Chácara Jockey Park. Nevertheless, the project design is being adapted to minimize the impacts to Chácara Jockey and the need of removal of trees, following the hierarchy of mitigation measures governing principle.

ESS6 Biodiversity Conservation and Sustainable Management of Living Natural Resources

Does Not apply

PS 7 Indigenous Peoples

There are no Indigenous Peoples present in the area of the Project. Although there are three Indigenous Lands within the municipality of São Paulo (Jaraguá, Tenondé Porã and Rio Branco), they are located at its Northwesternmost and Southernmost borders, far from the neighborhoods cut across by the extension of Line 4. Jaraguá is 23 kilometers away from Line 4's Vila Sônia Station, whereas Tenondé Porã and Rio Branco are approximately 50 kilometers away from Vila Sônia Station.

ESS7 Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities

Does not apply

PS 8 Cultural Heritage

Metro line 4 extension may have impacts on cultural heritage. A survey of assets protected by listing legislation in the directly affected area, as well as in the direct and indirect influence areas is requested by CETESB's licensing standards.

The comprehensive cultural heritage assessment indicates that there are five cultural heritage sites within the indirect influence area, two of them identified through the Archaeological Prospecting and Rescue Program, carried out during the implementation of Line 4 Phase II, in 2006, both defined as housing of undetermined occupation, dating from between the 19th and 20th centuries. The assessment also identified four archeological occurrences in the indirect influence area, three of them identified through the Archaeological Prospecting and Rescue Program for Phase II of Line 4. The assessment also identified 37 listed heritage, three listed collections and 16 monuments within the indirect influence area. Only one of the monuments is listed. Within the direct influence area, the assessment identified three listed assets: Marco Quilométrico Número 5, Parque Chácara do Jockey and part of Educandário Dom Duarte, all located in the Vila Sônia district. The Marco Quilométrico Número 5 is located within the directly affected Area, however, it is located above the current route of the underground tunnel and, therefore, shall not be impacted by the Project.

Consultations with the deliberative bodies at the federal (Iphan), state (CONDEPHAAT) and municipal levels (in the case of São Paulo, CONPRES) and/or culture departments of the cities involved are part of the cultural heritage studies carried out for the Relatório Ambiental Preliminar. At the state and municipal level, the affected areas have



been treated as “exempt from deliberation”, meaning no further action needs to be done. In relation to IPHAN, after all the initial steps provided for in its Normative Instruction No. 01/2015 were carried out, the body was favor of issuing its Preliminary License, and provided guidance on the preparation of an Archaeological Monitoring Proposal in order to obtaining the Installation License.

The impact assessment notes that during construction works, special attention shall be given to the Marco Quilométrico Número 5, as demolition activities of civil structures may generate vibrations, excavations and lowering of the water table may cause land settlements. In addition, the traffic of heavy vehicles and the movement of machinery and equipment during the works may also interfere with the historical heritage of the surrounding area. The assessment also notes the possibility of chance finds during the construction phase.

The Relatório Ambiental Preliminar includes a Cultural and Archaeological Heritage Management Program which aims to prevent and mitigate potential damage to cultural and archaeological heritage caused by Project activities. It also aims to assess new impacts on these assets that may be identified during the works and prepare proposals for measures to control these impacts, including:

- Presentation of Archaeological Monitoring Proposal, including the Entrepreneur's Commitment Term (TCE); CV of the coordinating archaeologist and field coordinating archaeologists, if applicable; declaration of participation of all members of the research team; detailed schedule for execution of works involving soil disturbance; methodology for carrying out Archaeological Monitoring compatible with the schedule for execution of works; schedule for presentation of partial and final reports of Archaeological Monitoring; polygon of the area covered by the monitoring proposal and map of the image on a compatible scale.
- Obtaining approval, through publication in the Official Gazette of the Union, of the Archaeological Monitoring Proposal.
- Execution of the Archaeological Monitoring defined in the proposal.
- Submission of partial reports of archaeological monitoring to IPHAN.
- In the event of archaeological chance findings, the coordinating archaeologist must order the suspension of the work in the relevant area, notify IPHAN recommending the measures to be adopted and await the agency's decision, within a maximum period of fifteen days, on the actions to be taken.
- Submission of the final archaeological monitoring report to IPHAN.
- Compliance with the requirements established by IPHAN and other heritage protection agencies.
- Periodically assess archaeological sites already known in the area of influence of the project, especially the monument Marco Rodoviário Número 5 located near the construction front of Chácara do Jockey Station, aiming to prevent and protect them from possible impacts, even indirect ones, due to the implementation of the project.

ESS8 Cultural Heritage

Does not apply

ESS9 Financial Intermediaries



Does not apply

B. Other Relevant Project Risks

C. Reliance on Borrower's policy, legal and institutional framework, relevant to the Project's specific ES risks and impacts. This is relevant only for components that apply the ESSs.

Is this project being prepared for use of Borrower Framework? No.

Explanation:

D. Common Approach (yes/no). This is relevant only for components that apply the ESSs.

Provide outline of Common Approach, identifying key substantive and procedural aspects.

This Project does not use a common approach.

E. Legal Operational Policies that Apply (to the Project)

OP 7.50 Projects on International Waterways No

Explanation:

OP 7.60 Projects in Disputed Areas No

Explanation:

III. CLIENT's ENVIRONMENTAL AND SOCIAL ACTION PLAN (ESAP)

Instruction to Staff: The ESAP sets out material measures and actions, any specific documents or plans, as well as the timing for each of these. The ESAP should include action items that directly correlate to a specific PS requirement gap



that the client needs to address to comply with the PSs. The ESAP also includes the client's Management Programs and any other E&S documents as described and presented in the ESRS.

Provide a summary of the actions required under the ESAP

	Description	Anticipated Completion Date
PS1 Assessment and Management of Environmental and Social Risks and Impacts		
	<p>ViaQuatro must carry out a social assessment to identify individuals and groups that may be directly and differentially or disproportionately affected by the project because of their disadvantaged or vulnerable status. This assessment must be used as baseline for the development of the ESMP (PBA in Portuguese).</p> <p>ViaQuatro must Revise the ESMP (PBA in Portuguese) and complete detailed management plans incorporating the requirements from SP Metro Standards:</p> <ul style="list-style-type: none"> • ET-9.00.00.00/3G1-001 - Jazidas, Armazéns e Bota-Fora • ET-9.00.00.00/3G5-001 - Desmonte de Rocha com Explosivo • ET-9.00.00.00/3D2-001 - Remanejamento de Utilidades Públicas • ET-9.00.00.00/3H1-007 - Escavações a Céu Aberto • ET-9.00.00.00/3I2-001 - Rebaixamento e Controle da Água Subterrânea • NOR-09-205 – Manejo Arbóreo e Intervenção em Áreas de Preservação Permanente para Implantação de Empreendimentos de Expansão do Metrô • IC-9.00.00.00/3C4-001 - Instalação de Canteiros de Obra • IC-9.00.00.00/3C9-001 - Engenharia de Segurança e Medicina do Trabalho • IC-9.00.00.00/3C9-003 - Segurança e Medicina do Trabalho em Obras Subterrâneas • IC-9.00.00.00/3E4-001 - Perícias Cautelares e Indenizatórias • ET-9.00.00.00-3I7-001 - Instrumentação • IC-9.00.00.00/3N4-001 - Controle de Impactos ao Meio Ambiente • AA1000SES - Norma de Engajamento com Partes Interessadas <p>Contractually require EPC contractors to abide to the RAP and PBA, to the above mentioned SP Metro Standards, and to establish an EHSS (Environmental Health And Safety and Social) unit to support the implementation Project's PBA.</p> <p>Contractually require the Supervising Engineer to conduct the oversight of contractual Environmental and Social requirements and have in place a qualified team of Specialists (including an Accredited OHS professional - Engenheiro de Segurança do Trabalho), an Environmental Specialist and a Social Specialist. The</p>	<p>Before completion of the ESMP (PBA)</p> <p>Before the beginning of works.</p> <p>Same as above</p> <p>30 days after effectiveness and before hiring the Supervising Engineer, whichever comes first</p>



	<p>Supervising Engineer must review Contractor's Monthly reports and conduct site inspections bi-weekly.</p> <p>ViaQuatro must report to the bank the progress of PBA implementation based on the reports from EPC and supervising Engineer.</p> <p>The Social Communication Plan (PCS, in Portuguese) must be adopted and implemented. As part of the PCS, ViaQuatro must conduct a more comprehensive stakeholder mapping, including affected parties, neighboring communities, potential future users of the line, and vulnerable groups, and structure an expanded engagement strategy to be implemented during the execution of the works.</p> <p>Adopt and implement the Environmental and Social Impact Assessment (Relatório Ambiental Preliminar RAP) from Metro Linha 4 extension, and corresponding Environmental and Social Management Plan (ESMP, or PBA in Portuguese), consistent with the relevant PSs.</p> <p>ViaQuatro must publish bi-annual reports on its website about ESHS and Stakeholder Engagement performance, as well as about the functioning of the Grievance Mechanism.</p>	<p>Bi-annually or following CETESB's reporting requirements, whichever is more stringent, throughout Project implementation.</p> <p>Before the beginning of works and throughout Project implementation.</p> <p>Throughout Project implementation.</p> <p>Throughout Project implementation.</p>
PS 2 Labor and Working Conditions		
	<p>Contractually require EPC contractor to follow National Standards Of Occupational Health and Safety (Normas Regulamentadoras do Ministério do Trabalho e Emprego, NRs) as well as SP Metro Health and Safety Standards for underground construction works (IC-9.00.00.00/3C9-003 - Segurança e Medicina do Trabalho em Obras Subterrâneas) as well as SP Metro Standard of Rock Blasting with Explosives (ET-9.00.00.00/3G5-001 - Desmonte de Rocha com Explosivo)</p> <p>Require EPC contractors to have in place an Occupational Health and Safety Oversight program, and report on a monthly basis the OHS performance indicators such as Accident rates, Severity Rates, Number of site inspections, found nonconformities, outstanding/unresolved non conformities, Training etc..)</p>	<p>As part of the bidding process for the EPC contractors and thereafter, throughout Project implementation.</p> <p>Same as above.</p>
PS 3 Resource Efficiency and Pollution Prevention		



	Adopt and implement the Project's Environmental Management Plan (PBA – Plano Básico Ambiental)	Throughout Project implementation.
PS 4 Community Health, Safety and Security		
	Adopt and implement the Project's Environmental Management Plan (PBA – Plano Básico Ambiental)	Throughout Project implementation.
PS 5 Land Acquisition and Involuntary Resettlement		
Does not apply		
PS 6 Biodiversity Conservation and Sustainable Management of Living Natural Resources		
	Adopt and implement the Project's Environmental Management Plan (PBA – Plano Básico Ambiental)	Throughout Project implementation.
PS 7 Indigenous Peoples		
Does not apply		
PS 8 Cultural Heritage		
	Adopt and implement the Cultural and Archaeological Heritage Management Program, part of the Project's Environmental Management Plan (PBA – Plano Básico Ambiental)	Throughout Project Implementation

IV. BORROWER'S ENVIRONMENTAL AND SOCIAL COMMITMENT PLAN (ESCP)

	DELIVERABLES against MEASURES AND ACTIONs IDENTIFIED	TIMELINE for DELIVERABLES
ESS1 Assessment and Management of Environmental and Social Risks and Impacts		
	Does not apply	
ESS10 Stakeholder Engagement and Information Disclosure		
Does not apply		
ESS2 Labor and Working Conditions		
Does not apply		
ESS3 Resource Efficiency and Pollution Prevention and Management		
	Does not apply	
ESS4 Community Health and Safety		



	Does not apply	
ESS5 Land Acquisition, Restrictions on Land Use and Involuntary Resettlement		
ESS6 Biodiversity Conservation and Sustainable Management of Living Natural Resources		
ESS7 Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities		
Does not apply		
ESS8 Cultural Heritage		
Does not apply		
ESS9 Financial Intermediaries		
Does not apply		

V. WORLD BANK ES OVERSIGHT

Corporate advice/oversight will be provided by an Environmental and Social Standards Adviser (ESSA) during project preparation

Yes

VI. CONTACT POINTS**World Bank**

Contact:

Title:

Telephone No:

Email:

Borrower/Client/Recipient**Implementing Agency(ies)****VII. FOR MORE INFORMATION CONTACT**



The World Bank

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Private Sector Entity Name

Address

Telephone

Email

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VIII. APPROVAL

Task Team Leader(s):

Environmental and Social Standards

Advisor (ESSA):

Practice Manager:

Country Director:

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