EXECUTIVE SUMMARY: SCOPING REPORT
EXPANSION OF THE MANGANESE HANDLING FACILITY AT SALDANHA MULTI-PURPOSE TERMINAL, PORT OF SALDANHA

NOVEMBER 2021 SRK PROJECT NUMBER: 569243

1. INTRODUCTION

Transnet Port Terminals (TPT), a division of Transnet SOC Ltd (Transnet), currently operates a bulk Iron Ore Handling Facility (IOHF) and a Multi-Purpose Terminal (MPT) for the export of various other commodities at the Port of Saldanha (the port – see Figure 1) approximately 120 km NNW of Cape Town, along the West Coast of South Africa. The MPT currently has capacity to store 90 000 tonnes (t) of manganese in two storage warehouses at the Manganese Handling Facility. TPT proposes to increase the manganese storage capacity to 450 000 t in designated areas within the terminal, to achieve a throughput of 8 million tonnes per annum (Mtpa) (the project). Additional manganese will initially (Phase 1) be stored in open stockpiles at the MPT prior to the construction of an additional manganese storage warehouse (Phase 2).

SRK Consulting (South Africa) Pty Ltd (SRK) has been appointed by TPT to undertake a Scoping and Environmental Impact Reporting (S&EIR, also referred to as Environmental Impact Assessment [EIA]) process). The EIA process, which is being undertaken in accordance with the EIA Regulations, 2014 is required to inform an application for Environmental Authorisation (EA) in terms of the National Environmental Management Act 107 of 1998 (NEMA).

See page 6 for details on how you can participate in the process.

2. GOVERNANCE FRAMEWORK

Sections 24 and 44 of NEMA make provision for the promulgation of regulations that identify activities which may not commence without an EA issued by the competent authority, in this case, the National Department of Forestry, Fisheries and the Environment (DFFE).

Listing Notice (LN) 1 and LN 3 list activities requiring a Basic Assessment (BA) process to be followed, and LN 2 lists activities requiring S&EIR.

SRK has determined that the proposed project triggers activities listed in terms of LN 2 as described in Table 1. Consequently, TPT is obliged to apply for EA for the project and will submit an EA application to DFFE.

A process in support of an application for an Atmospheric Emission Licence (AEL) in terms of the National Environmental Management: Air Quality Act 39 of 2004 (NEM:AQA) will also be required.

Table 1: Listed activities triggered by the project

No	Description
LN2 (requiring S&EIR)	
6	The development of facilities or infrastructure for any process or activity which requires a permit or licence or an amended permit or licence in terms of national or provincial legislation governing the generation or release of emissions, pollution or effluent.

3. ENVIRONMENTAL PROCESS

The EIA Regulations, 2014 define the detailed approach to the S&EIR process, which consists of two phases: Scoping Phase and the Impact Assessment Phase (see Figure 2).

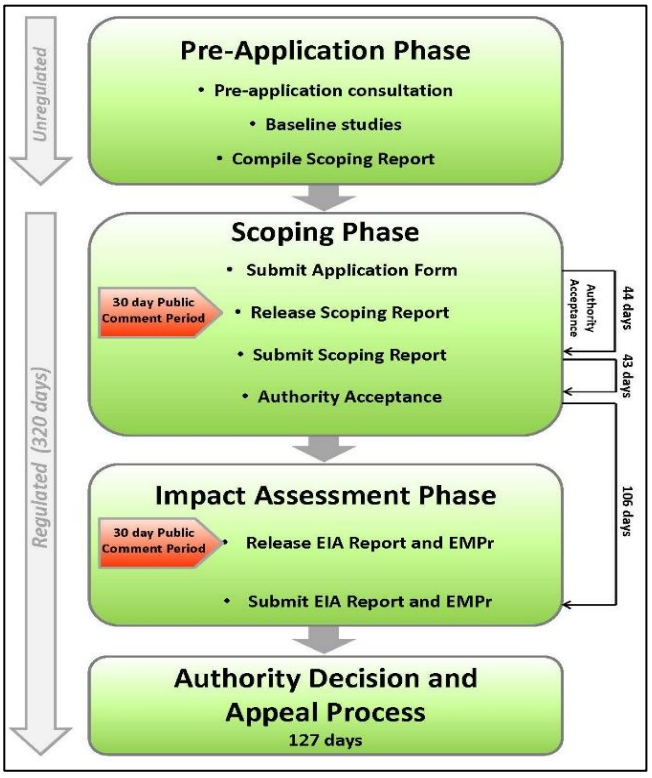
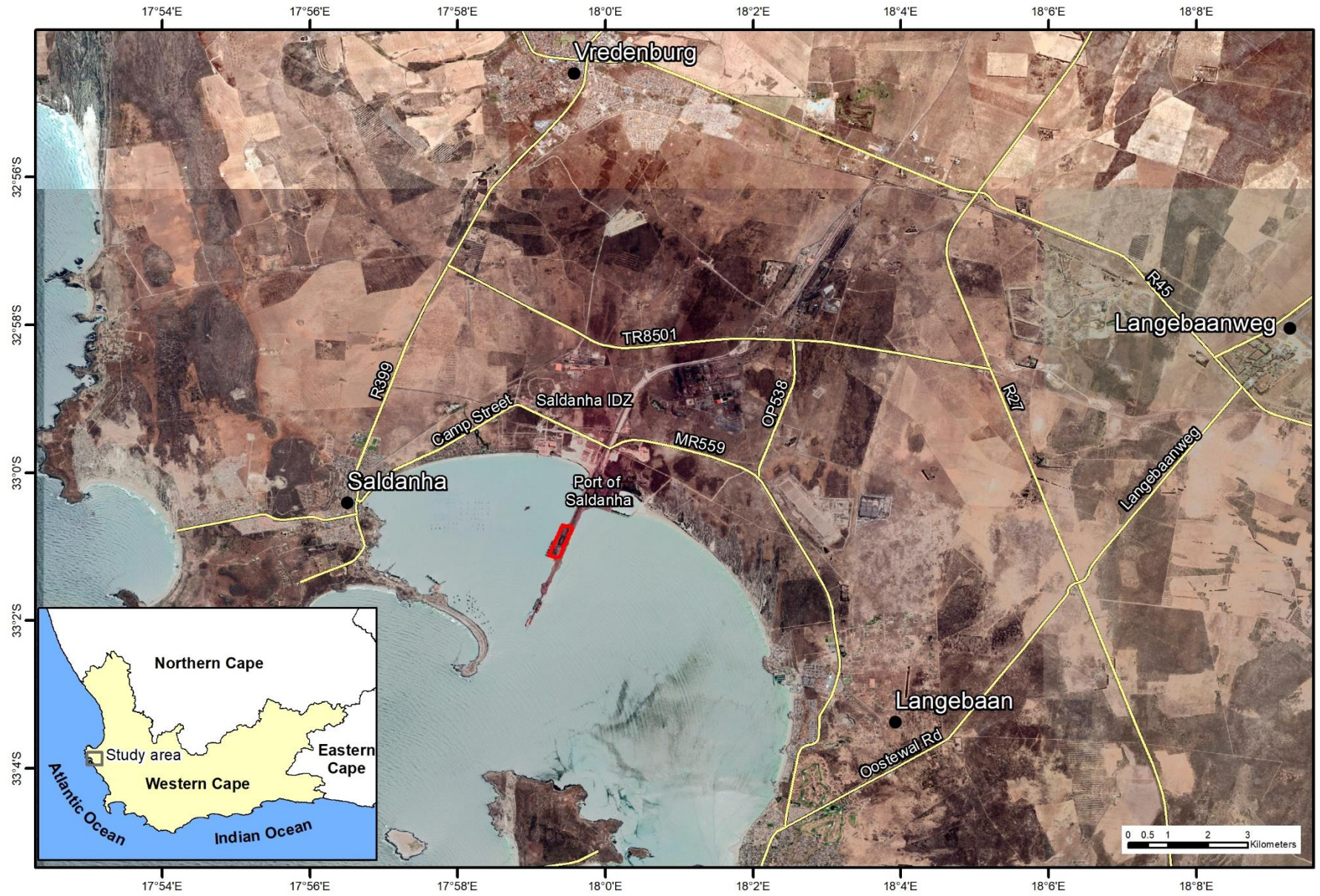


Figure 2: S&EIR Process

***Note:** EMPr = Environmental Management Programme*

The objectives of the Scoping Phase are to:

- Identify stakeholders and inform them of the proposed activity, feasible alternatives and the S&EIR process;
- Describe the affected environment and potential environmental issues and benefits arising from the proposed project that may require further investigation in the Impact Assessment Phase;



N

Legend

- Town
- Roads
- Saldanha Manganese Handling Facility

Data Source: ESRI Basemap Imagery	
Scale 1:140 000	
Projection: No projected	Datum: HH94
Central Meridian/Zone: No projected	
Date: 30/09/2021	Compiled by: DUSS
Project No. 569243	Fig No. 1

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EXPANSION OF MANGANESE HANDLING FACILITY

LOCALITY MAP

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Revision: A Date: 19 11 2021

- Develop terms of reference for specialist studies to be undertaken in the Impact Assessment Phase;
- Provide stakeholders with the opportunity to participate in the process and identify any issues or concerns; and
- Produce a Scoping Report for submission to the relevant authorities.

Once the Scoping Phase has been completed, the Impact Assessment Phase will commence, in which the significance of potential impacts will be assessed and measures to avoid and /or mitigate negative impacts and enhance benefits will be determined.

4. DESCRIPTION OF THE SITE AND ENVIRONMENT

The project will occur within the existing boundaries of the MPT at the Port of Saldanha. The MPT, with a footprint of ~36.8 ha, was built on reclaimed land and is thus considered entirely transformed. It comprises an open storage slab, two manganese storage warehouses, four berths, a railway line and access roads (Figure 3).

The MPT, IOHF and associated facilities form the main operations at the port, operating 24 hours per day, seven days a week and for 365 days per year. Other port activities include an oil tank quay, Liquefied Petroleum Gas (LPG) import terminal, a port control centre, docking areas and a yachting marina.

Figure 3:Open storage slab, loading vehicles and berthed vessels

The Saldanha Bay Industrial Development Zone (SBIDZ), which the MPT forms part of, extends inland of the port and includes various other industrial facilities. A number of farms also lie in the region surrounding the port.

The port is located within the Saldanha Bay Local Municipality and is surrounded by several residential and tourist areas.

The air quality of the region is affected by the existing industrial, mining, agricultural and transport activities, with dustfall rates, Particulate Matter (PM_{10} and $PM_{2.5}$), and Nitrogen dioxide (NO_2) exceeding guideline limits closer to certain industrial facilities and roads.

The noise levels in the area are generally below guideline levels for the respective land use categories (urban and mixed industrial) during the day and at noise guideline level at night-time.

The Langebaan Lagoon, a wetland of international importance and a registered Ramsar site, is located 7 km to the south-east of the port at the southern extent of the Saldanha Bay – Langebaan Lagoon system. A number of marine protected areas are located in and around the bay. The West Coast National Park and the SAS Saldanha Contractual Nature Reserve are located to the south and west of the site respectively.

Saldanha Bay provides favourable conditions for the aquaculture industry (mostly mussels and oysters) which has been established in the bay for decades. In 2018 a 884 ha sea-based Aquaculture Development Zone (ADZ) was authorised in the bay (Figure 4).

Figure 4: Harvesting of mussels within the Saldanha Bay ADZ

Current, water and sediment quality in the bay have been affected by past and current anthropogenic disturbances. These have in turn affected the diversity and abundance of marine species in the bay.

A number of alien species have been identified in Saldanha Bay and / or Langebaan Lagoon, the majority of which are considered invasive.

Tourism is an important income source in the area. Numerous recreational activities attracting tourists are water-based and take place in Saldanha Bay and Langebaan Lagoon (e.g. sailing, kiting, kayaking and recreational fishing).

5. PROJECT BACKGROUND AND MOTIVATION

The Port of Saldanha was identified as suitable for export of iron ore from the Northern Cape in September 1976. TPT now operates a bulk IOHF at the port, along with the MPT, which handles a variety of cargo, such as steel coils, pig iron, iron ore, lead, zircon and rutile and more recently manganese. Cargo is imported and exported using a variety of modalities, including road and rail and quayside loading/discharge equipment. TPT currently has capacity to

store 90 000 t of manganese at the MPT (~2 Mtpa), in two storage warehouses.

Long-term projections for manganese demand will require that the manganese export corridor (country wide) accommodates up to 18 Mtpa in the short term with a long-term projection to increase to up to 22 Mtpa after capital infrastructure projects are completed.

Manganese is currently exported through the manganese ore terminal in the Port of Port Elizabeth (PE) that has capacity to handle up to 6 Mtpa of manganese ore. The existing facility at the PE Port will be decommissioned shortly once the new proposed Ngqura Manganese Ore Export Facility is completed.

Due to financial constraints, development of the Ngqura Manganese Ore Export Facility was temporarily suspended, which triggered an investigation into a multi-channel approach due to the urgency to increase manganese exports and to close the PE bulk handling terminal. This necessitated the urgent need to increase the manganese export capacity at the Port of Saldanha.

Manganese is not one homogenous product and is separated (for storage) by client, grade and sizing. Infrastructure at the MPT is capable of handling additional volumes of manganese, but is hampered by storage capacity constraints, lack of adequate storage capacity to store products separately, as well as the absence of relevant environmental licences and permits to increase the manganese storage and handling capacity. This has hampered the efficiency of manganese handling at the port, leading to loss of revenue.

6. PROJECT AND PROCESS DESCRIPTION

TPT proposes to increase manganese storage by 360 000 t to achieve a storage capacity of 450 000 t in designated storage areas at the Manganese Handling Facility, to achieve a throughput of 8 Mtpa. The proposed increase in manganese storage and handling capacity at the MPT will largely utilise existing infrastructure and facilities at the MPT, although construction of a third manganese storage warehouse with a storage capacity of 200 000 t is proposed (Figure 5**Error! Reference source not found.**).

Figure 5: Proposed third warehouse

Manganese is predominantly transported to the port from the Northern Cape to the MPT railway siding. On arrival of the rail wagons at the MPT, manganese water is sprayed onto the manganese to reduce dust during offloading. Wagons are offloaded into tipper trucks, which transport the manganese from the train to the warehouses – a distance of 50 - 300 m – for storage.

In the storage warehouse the manganese is separated by grade, size and clients. During this sorting water is once again sprayed onto the manganese to suppress dust.

Once a vessel arrives in the port the manganese is loaded into bins, which are transported to the quayside by truck. The manganese is either loaded onto the vessels using cranes to hoist and empty the bins or by the use of one of the two mobile shiploaders (Figure 6).

Figure 6:Loading of the manganese onto the vessel

This manganese handling process will continue to be implemented with the increase in manganese storage, however the manganese will initially (Phase 1) be stored in open stockpiles at the MPT prior to the construction of the additional manganese storage warehouse (Phase 2). Once the additional warehouse has been constructed a total of 290 000 t of manganese will be stored in warehouses, with the remainder in open stockpiles in the designated stacking area.

Currently three (manganese) trains, each with 208 wagons, are received at the port each week. The number of manganese trains arriving at the port is expected to increase from three to 10 per week.

7. ALTERNATIVES

Appendix 2 Section 2 (h)(i) of the EIA Regulations, 2014, requires that all S&EIR processes must identify and describe feasible and reasonable alternatives.

The limited manganese export capacity at the Port of PE necessitated the review and implementation of alternative export solutions via other ports. TPT has considered five ports as potential solutions and considers the Saldanha MPT to be the only feasible location alternative currently, as it:

- Forms part of an existing manganese corridor, with existing road and rail infrastructure;

- Has the capacity to handle increased volumes (to 8 Mtpa) of manganese without infrastructure upgrades;
- Has a lifespan of 70 years, is underutilised and has low berth occupancy; and
- Would allow an immediate increase in management volumes handles (pending authorisation).

Alternative project and phasing alternatives considered to facilitate the storage of the increased manganese include:

- **Option 1:** Open stockpiles of additional volumes of manganese in the designated stacking area at the MPT;
- **Option 2:** Construction of a warehouse to the east of berth 204 for the storage of manganese for a period 5 to 8 years and shared with other commodities thereafter; and
- **Option 3**: Combination of Options 1 and 2 (as currently proposed) initially storing manganese in open stockpiles until a (third) storage warehouse is constructed.

Option 3 is the preferred option as it addresses the immediate demand for additional storage capacity, with the longer-term intention to store additional manganese in a warehouse. Options 1 and 2 will therefore not be assessed in detail.

The No Go alternative will be considered in the EIA in accordance with the requirements of the EIA Regulations, 2014. The No Go alternative entails no change to the *status quo* in other words there would be no increase in the manganese storage and handling capacity at the MPT, and TPT would continue handling manganese at the Port of Saldanha at the current volumes. This would however make the project unviable and could result in significant forgone revenue and/or profits for mines and taxation paid to the South African fiscus for a period of ~5 years until a manganese export facility is developed at another port.

8. POTENTIAL ENVIRONMENAL AND SOCIAL IMPACTS

The potential impacts of the project are mostly linked to the sensitivity of the marine environment, potential risks to socio-economic activity (notably the aquaculture sector), the extent or footprint and nature of the development, expected emissions (and associated nuisance impacts) and stakeholders' perceptions.

The following key environmental issues – potential negative impacts and potential benefits – have been identified:

- **Air Quality** - localised deterioration of ambient air quality, potential nuisance and health implications to sensitive receptors and potential impacts on fauna and flora;
- **Noise –** increased noise levels and/or duration and/or frequency and/or intensity;
- **Marine Ecology –** deterioration of marine water quality in turn affecting marine ecology and aquaculture; and
- **Socio-economic** - deterioration of air quality, marine water quality and increased noise may impact quality of life/well-being and tourism of the surrounding communities. Macro-economic benefits may result from job creation, investment in the local economy and the expansion of South Africa's manganese export capacity.

9. STAKEHOLDER ENGAGEMENT

Stakeholder engagement is a key component of the S&EIR process and is being undertaken in accordance with Chapter 6 of the EIA Regulations, 2014. The stakeholder engagement activities are summarised in Table 3 below.

Relevant local, provincial and national authorities, conservation bodies, local forums and surrounding landowners and occupants have been notified of the S&EIR process and the release of the Scoping Report for comment.

Table 3: Stakeholder Engagement during Scoping

Activity	Date
Release Scoping Report to the Public	2 December 2021
Comment period	2 December 2021 – 24 January 2022
Public open day	18 January 2022
Compile Issues and Responses Summary and Final Scoping Report	February 2022

10. PLAN OF STUDY FOR THE IMPACT ASSESSMENT

To address the potential issues and associated with the project, the following **specialist studies** are proposed:

- Air Quality Impact Assessment (including Health Screening Assessment);
- Noise Impact Assessment;
- Marine Impact Assessment; and
- Socio-Economic Impact Assessment.

The specialists will be required to provide detailed baseline information and to identify and assess the potential impacts of the proposed project. In addition, the specialist will be required to identify practicable mitigation and optimisation measures to avoid or minimise potential negative impacts and/or enhance any benefits. SRK's standard impact rating methodology will be employed in the assessment of impacts.

Once specialist studies have been completed, the results will be collated into an EIA Report and EMPr. The EIA Report and EMPr will be released for public comment through

notifications to registered Interested and Affected Parties (IAPs). Key authorities will also be consulted as part of the process.

All comments received will be incorporated into a Comments Report which will be appended to the EIA Report. The EIA Report and EMPr will then be submitted to the DFFE for their consideration in decision-making.

HOW YOU CAN PARTICIPATE

The Scoping Report is not a final report and can be amended based on comments received from stakeholders. Issues and concerns identified in the Scoping Study will assist in focussing the EIA and will be used to refine the terms of reference for specialist investigations. Stakeholders are therefore urged to participate:

REVIEW THE REPORT

The complete Scoping Report is available for public review on SRK's website: www.srk.co.za – click on the 'Knowledge Centre' and then 'Public Documents' links.

Copies of this report are also available for review at the following public libraries:

- Saldanha;
- Vredenburg; and
- Langebaan.

ATTEND A PUBLIC OPEN DAY

Date: 18 January 2022
Time: between 14:00 and 18:00
Location: Malgas Conference Venue, Saldanha Bay Hotel

Please register your interest in attending the public open day by completing the online form via the link on SRK's website.

*Strict COVID-19 protocols will be implemented, and **no** access will be allowed without a mask. Should COVID-19 restrictions increase, SRK may be required to cancel the public open day at short notice. In this event, SRK will notify the registered stakeholders via email.*

The public open day will be held between **14:00 and 18:00** on **18 January 2022** in the Malgas Conference Venue at the **Saldanha Bay Hotel**, providing stakeholder with an opportunity to discuss the project with the Project Team. Note that public open day will **not** include a formal presentation and stakeholders are invited to visit the open day at any time during the above timeslot.

IAPs are invited to submit comments on the Scoping Report and/or send relevant details (see below) so that SRK can register you on the project database (if you are not registered already). IAPs must provide their comments and/or request to register on the project database together with their name, contact details (preferred method of notification, e.g. email), and an indication of any direct business, financial, personal or other interest which they have in the application, to the contact person below, by **24 January 2022.**

REGISTER OR PROVIDE YOUR OPINION

Register on the project database, for the public open day or submit comments via the following link:

https://forms.office.com/r/B5cn7WdqU1

Or contact **Kelly Armstrong, SRK Consulting**

Postnet Suite #206, Private Bag X18, Rondebosch, 7701

Email: ctpp@srk.co.za; Tel: + 27 21 659 3060; Fax: +27 21 685 7105

Comments must reach SRK no later than **24 January 2022** to be included in the Final Scoping Report. Only registered IAPs will be notified of future opportunities to provide comments.