



Port of Tauranga

Connecting New Zealand and the World

Bulk Solid Materials Standard Operating Procedures

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Purpose and Responsibilities

1. Background

- 1.1. These Bulk Solid Material Standard Operating Procedures (**the Procedures**) stipulate the standard operating procedures that Port Users should follow when operating within the Port of Tauranga Operational Area. These procedures form part of the Port Industry Area Dust Management Plan (DMP), as required by Rule AREA2-R1 (Interim Permitted Activity Rule (IPAR) for Existing Activities in the Mount Maunganui Airshed) of the Bay of Plenty Regional Natural Resources Plan.

2. Scope

- 2.1. These Procedures cover the physical area of the Port of Tauranga Operational Area (as detailed in Schedule 1).
- 2.2. The Procedures apply to:
All Bulk Solid Material (BSM) stevedoring and transporting activities/operations associated with ship unloading undertaken within the Port of Tauranga Operational Area (**Bulk Cargo Operations**), namely:
 - The collection and transfer of BSM from a ship's hold to a hopper or other receiving receptacle,
 - The storage and holding of BSM in a hopper or other receiving receptacle,
 - The collection and transfer of BSM into a truck or other means of transport,
 - The movement and/or operation of trucks (including empty trucks) used to transport BSM,
 - The management, cleaning and housekeeping of the stevedore's work area.

References in the Procedures to **Bulk Cargo Operators** means any party undertaking the activities identified above.

- 2.3. For the purposes of the Procedures, Bulk Solid Materials are granular cargo materials unloaded at the Port of Tauranga Operational Area, however, excludes materials loaded or unloaded in a way where the material is completely enclosed, such as packaged, bagged or containerised. Bulk Solid Materials include:
 - Agricultural animal protein feeds
 - Gravel

- Quarried rock
 - Fertiliser
 - Coal
 - Cement
 - Flour
 - Rock aggregate
 - Grains
 - Compost
 - Woodchip
 - Clinker
 - Wood pallets
 - Gypsum
 - and any other qualifying cargo handled, unloaded within the Port of Tauranga Facility in a process the same or similar to those materials listed above.
- 2.4. The Procedures detail the operational procedures that should be followed. Additional mitigation measures to those detailed in the procedures can be applied to Bulk Cargo Operations. These can be applied in addition to those required by the Procedures, however, can only replace the measures detailed in the Procedures if an exemption is provided by Port of Tauranga Limited (POTL) (as per Section 7).
- 2.5. POTL will monitor conformance with the Procedures, however, POTL is not responsible for the conformance of other Bulk Cargo Operators, this is the responsibility of the Bulk Cargo Operators.

3. Bulk Cargo Operator documentation

- 3.1. Stevedore companies undertaking Bulk Cargo Operations may also hold an Environmental Management Plan (EMP), or equivalent document, which details how their Bulk Cargo Operations will align with the Procedures as well as include any other additional mitigation measures that may be employed.
- 3.2. POTL may require a party undertaking Bulk Cargo Operations, or any other activities associated to Bulk Cargo Operations, to hold an EMP in respect to their activities.

4. Responsibilities of parties

- 4.1. POTL will maintain the Procedures and DMP and will provide access to the current versions at <https://www.port-tauranga.co.nz/health-and-safety/procedures-and-compliance/>
- 4.2. POTL will provide wind speed monitoring infrastructure within the Port Operational Area. POTL will also provide relevant wind speed information to parties undertaking Bulk Cargo Operations in order for these parties to manage operations in compliance with wind speed limits (as detailed in Section 5.5).
- 4.3. The provision of wind speed data shall be made available to Bulk Cargo Operators primarily via the visual wind speed display lights located at berths 7 and 8. In instances where these lights are not visually available to Bulk Cargo Operators, wind speed data will be made available via online web page <https://www.port-tauranga.co.nz/operations/harbour-conditions/>.
- 4.4. The stevedore undertaking the Bulk Cargo Operation shall monitor that activities undertaken within the stevedore's Work Area conform with the Procedures and undertake actions to correct non-conformances should they be identified.
- 4.5. All parties undertaking Bulk Cargo Operations must monitor their activities for conformance with the Procedures and any EMP required by Section 3.2, and undertake actions to correct non-conformances should they be identified,
- 4.6. All Bulk Cargo Operators and the Bulk Cargo Owners must train staff and contracted parties so that they are familiar with any applicable EMP required by Section 3.2 and the sections of the Procedures applicable to their activities.
- 4.7. POTL will undertake routine monitoring of Bulk Cargo Operations to check for non-conformances with the Procedures (in addition to the supervision of the parties undertaking the activities, detailed in Section 4.4). This may be achieved by in field observations (where possible) and via CCTV. If POTL identify non-conformance, actions should be taken by POTL to address the non-conformance.



Operating Procedures

5. Activities in the stevedore's working area

- 5.1. The Bulk Cargo Operations of stevedores and other parties operating in the stevedore's working area shall incorporate the following as standard operation (unless exemption has been granted as per Section 7).
- 5.2. The stevedore and other parties undertaking the Bulk Cargo Operation shall monitor that activities undertaken within the stevedore's work area conform with the Procedures and undertake actions to correct non-conformances should they be identified.

Prior to operations commencing

- 5.3. Prior to the Bulk Cargo Operation commencing:
 - a) The stevedore's work area should be of a 'clean state' and be free of any foreign particulate matter or other material, examples of what is considered a clean standard and free of foreign particulate matter as demonstrated in Figures 1 and 2 below.

Note: _____ If the work area does not meet this standard, POTL Port Control shall be contacted on 07 572 7544 immediately so a cleaning programme can be arranged.
 - b) Save-alls should be correctly positioned against the hull of the vessel, where possible to reduce the volume of material which can accumulate around nib walls and other wharf infrastructure obstructions.
 - c) Grabs and hoppers should be tested and working correctly (i.e. grabs and hoppers are closing completely and not leaking BSM),

Note: _____ If a hopper(s) is not operating correctly, contact POTL Port Control on 07 572 7544 to arrange repair. Do not use the hopper(s) if it is not operating correctly
 - d) For high risk/dusty BSM operations (as per Section 8), a suitable vacuum sweeper should be present on site and ready to commence operations,
 - e) Wind speed information should be available for monitoring for the stevedores. Wind speed should primarily be monitored via the visual wind speed display lights located at berths 7 and 8 where possible, if this is not possible, it can be monitored via online web page
<https://www.port-tauranga.co.nz/operations/harbour-conditions/>

- f) Wind speed conditions should be within the limits as detailed in Section 5.5.



FIGURE 1. EXAMPLE OF A WHARF APRON IN A 'CLEAN STATE'



FIGURE 2. EXAMPLE OF A WHARF EDGE IN A 'CLEAN STATE'

During operations - Wind conditions and airborne particulate/dust

- 5.4. The stevedore should visually monitor the extent of visible airborne particulate and wind speed throughout the Bulk Cargo Operation.

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- 5.5. BSM shall only be transferred from the ship's hold to a hopper, or from a hopper to a truck when a green light or a green and orange light combination is displayed on the visual wind speed display lights located at berths 7 and 8 or on the online web page <https://www.port-tauranga.co.nz/operations/harbour-conditions/>. A description of the different light statuses is provided below.

Green light

1. 15-minute average wind speed is less than 12 knots at both berth 8 and berth 10 wind speed stations and no gust speed triggers (status 5-7) are being exceeded.

Green light and Orange light

2. 15-minute average wind speed is greater than 12 knots but less than 15 knots and no gust speed limits are being exceeded at either the berth 8 or 10 wind speed stations, or
3. A red light has been displayed within the last 15 minutes.

Red light

4. 15-minute average wind speed is greater than 15 knots or has been within the last 10 minutes at either the berth 8 or 10 wind monitoring stations, or
 5. Three or more 5 second max gust measurements have exceeded 19.4 knots within a 60 second rolling period and there has not been a period of 15 minutes without gust triggers (status 5-7) being exceeded, or
 6. Two or more 5 second max gust measurements have exceeded 20.4 knots within a 60 second rolling period and there has not been a period of 15 minutes without gust triggers (status 5-7) being exceeded, or
 7. A 5 second max gust measurement has exceeded 21.4 knots and there has not been a period of 15 minutes without gust triggers (status 5-7) being exceeded.
- 5.6. When a red light is displayed on the visual wind speed display lights located at berths 7 and 8 or on the online web page <https://www.port-tauranga.co.nz/operations/harbour-conditions/> the following should occur:
- No further BSM shall be transferred from the ship's hold to the hopper
 - Product should only be transferred from a ship's hold with the approval of the POTL Environmental Manager or their delegate.
 - No product should be emptied from hoppers unless:

- it is raining or it is considered likely to rain, or,
 - if product levels need to be lowered below the top of the hopper to reduce windblown product coming off the pile, in this instance, the level should only be reduced the bare minimum to prevent windblown product coming off the hopper pile, or
 - it is determined that a complete operation shut down should occur due to weather conditions. For avoidance of doubt, a complete operation shut down example would be the termination of a work shift.
- 5.7. Bulk Cargo Operations should not cause the generation of visible airborne particulate/dust that travels greater than 100 metres from the stevedore's work area (as detailed in Schedule 2), or into or above the harbour. If this occurs, the operation should stop until this standard can be achieved.

Grabs and hopper management

- 5.8. Grabs capable of gradual or slow release, such as hydraulic grabs or slow-release mechanical grabs, should be used and operated with slow/gradual release
- 5.9. Grabs should be positioned as close as possible to the BSM product level in a hopper prior to opening to reduce the falling distance of the product as much as is practicable.
- 5.10. Hoppers shall be kept as 'full' as is practicable throughout the Bulk Cargo Operation to reduce the falling distance of product that is released from a grab. More information on what is considered full is provided below.

250 tonne hoppers (Hopper A and B)

- 5.11. A full 250 tonne hopper, Hopper A and B, which do not have grizzlies (cross members or grids at the top of the hopper) are considered to be full when product levels reach 1 to 2 meters below the top of the hopper wall, as per Figure 3.



FIGURE 3. MAXIMUM FILL HEIGHT OF A HOPPER WITHOUT A GRIZZLY, HOPPERS A AND B

Other hoppers (Hoppers C to J)

- 5.12. All other hoppers which have grizzlies, Hoppers C to J, are considered to be full when 1 to 2 grabs worth of product extend above the top of the hopper walls and grizzly, as per Figure 4 below



FIGURE 4. MAXIMUM FILL HEIGHT OF A HOPPER WITH A GRIZZLY, HOPPERS C TO J

- 5.13. Hoppers should be, where practicable, returned to a 'full' state before product is emptied from the hopper into a truck. Efforts should be made to place product released from the grab onto the product pile in the hopper rather

than dropping the product from the grab at height onto the pile, wherever practicable.

- 5.14. Any equipment used to handle, store or transport BSM, including, but not limited to, grabs and hoppers, should be operated free of leaks of BSM.
- 5.15. Hopper operators should ensure that truck bins are not overfilled to prevent the excessive spillage of material from the truck bin, including when the truck levels the BSM.
- 5.16. If BSM is spilled on the ground in the stevedore's work area, the stevedore should undertake an appropriate action to recover the spill as soon as practically possible.

A spill of product does not include general fugitive dust deposition which occurs on the ground during an operation, rather it refers to losses of greater volumes of product such as accidental losses of products from hoppers, trucks or grabs.

Site housekeeping and cleaning

- 5.17. Levelling of cargo undertaken by trucks operating in the stevedore's work area should not result the generation of airborne particulate/dust that is visible and travels greater than 15 metres from the truck bin.
- 5.18. When undertaking a Bulk Cargo Operation for BSM with higher risk of airborne particulate/dust generation, as listed in Section 8, a vacuum sweeper truck suitable to collect the BSM should be operating throughout the entire Bulk Cargo Operation.

The vacuum sweeper truck should be operated to keep the ground in the stevedore's working area, and any affected and accessible adjacent ground areas, free of accumulations of BSM as much as is practicable.

- 5.19. Areas where BSM accumulate during the Bulk Cargo Operation that are not accessible to a vacuum sweeper truck, including, fenders, fender plates, bollards, save-alls, nib walls, areas immediately adjacent to building walls and the base of the hopper, should be manually cleaned at least once per shift. This cleaning should not result in the generation of airborne particulate/dust that is visible and travels greater than 15 metres from the cleaning site.

Note: _____ *This may entail moving the BSM from these areas into an area a sweeper truck can access for collection. This may be achieved by sweeping or careful use of a blower.*

At the completion of operations

5.20. At the completion of the BSM unloading:

- a) The stevedore's work area and any affected and accessible adjacent ground areas should be left in a 'clean standard' and be free of any foreign particulate matter or other material, examples of what is considered a clean standard and free of foreign particulate matter is demonstrated in Figure 1 and Figure 2 in Section 5.3.
- b) Hoppers should be emptied as far as is practicable and with jaws left closed.

Note: A hopper may be considered empty for operational purposes when all free-flowing material has been discharged, even if minor residual amounts of material remain adhered to the internal walls or surfaces of the hopper. These residual traces do not constitute a filled or partially filled state

6. Bulk Solid Materials transport operators

- 6.1. Trucks undertaking Bulk Cargo Operations should adhere to the Port of Tauranga approved traffic management plan provided for the operation.
- 6.2. Trucks should travel at or below the designated speed limits. These are sign posted and detailed in Schedule 3.
- 6.3. Trucks operating in the stevedore's work area should travel at speeds of 10 kilometres per hour or less.
- 6.4. The levelling of cargo by trucks should be undertaken within the stevedore's work area adjacent to the ship's side and should not result the generation of airborne particulate/dust that is visible and travels greater than 15 metres from the truck bin.
- 6.5. Overweight trucks are to tip of material in an area as directed by POTL.
- 6.6. Bulk trucks should have their bins completely covered in all areas of the Port of Tauranga Facility, with the exception of the stevedore's working area. This includes when the bins are empty.
- 6.7. Trucks heavily coated with BSM should be cleaned as soon as practicable within the stevedore's working area or at an appropriate enclosed offsite facility, such as an appropriate BSM storage facility. If cleaning is undertaken within the stevedore's work area, it should not cause generation of airborne

particulate that is visible and travels greater than 15 metres from the cleaning site.

Administration

7. Exemptions to the Procedures and alternative handling equipment

- 7.1. An application for exemption from any part of the Procedures must state what paragraph/section the exemption is sought from, why, for how long and any additional or alternative dust control measures proposed instead. Applications are to be made to the POTL Environmental Manager prior to operations commencing. A list of approved exemptions will be maintained by the Port of Tauranga in M-Files, document ID 108155.

POTL reserves discretion to apply any reasonable conditions to a granted exemption, or to decline or revoke it.

- 7.2. A stevedore undertaking a Bulk Cargo Operations may verbally request from the POTL Environmental Manager (contactable via Port Control on 07 572 7544) approval to continue to operate at times when wind conditions exceed the limits stipulated by Section 5.5. Any approval granted will only be granted if the cargo being handled is not causing visible airborne particulate/dust generation beyond the stevedore's work area. This approval may be retracted by the POTL at any time and is valid only to that Bulk Cargo Operation. Request are recorded in a POTL record system.

- 7.3. POTL reserves discretion to approve or decline any request made as per Section 7.1.

- 7.4. Changes to equipment:

- Any party wishing to use new or alternative equipment (type or technology) for any Bulk Cargo Operation activity must seek prior approval from POTL. This includes any alternative to the standard equipment type and technology used on site as of in the 12-months ending on 12 February 2024.
- In assessing the proposal POTL will consider:
 - a. The degree of mitigation of environmental effects and the reliability of the mitigation provided by the equipment compared to current equipment or future planned equipment;

- b. Potential environmental effects both within and beyond the Port Industry area associated with the equipment or technology, including potential impacts on compliance with any relevant legislation or regulation;
- c. Potential logistical issues associated with the equipment or technology that may directly affect POTL infrastructure, operation or procedure, or the operations and procedures of other port users, and
- d. Any potential additional infrastructure requirements or constraints that may occur as a result of the new equipment or technology.

7.5. The assessment will be recorded in Vault (or similar)

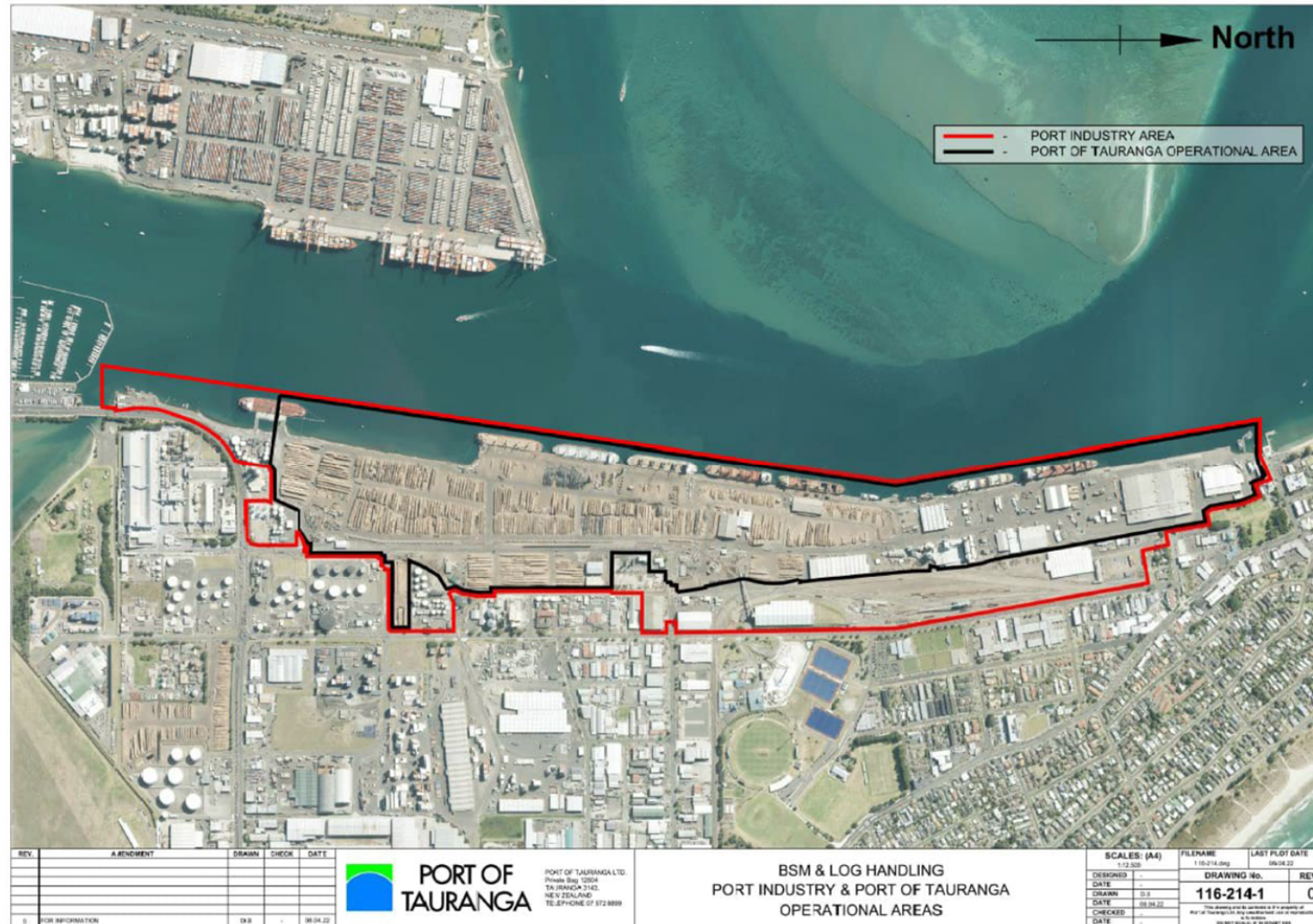
7.6. POTL reserves the right to apply any reasonable conditions to such proposals or to decline the request for approval if it is considered that the effects/impacts outweigh the benefits for the matters listed above.

Note: _____ Logistical aspects that are relevant are the effects on: site weight limits/wharf loadings, equipment transport, cleaning, operational and storage space requirements, space or timing effects on services to other Port Users

8. High risk/dusty bulk solid materials

- 8.1. For the purposes of the Procedures, the following BSM are considered as likely to have higher risk of airborne particulate/dust generation during Bulk Cargo Operations:
 - Agricultural animal protein feeds, including but not limited to, Palm Kernel Expeller, Soya Bean Meal, Tapioca, Dried Distillers Grain, Cotton Seed, Corn Gluten, Canola Meal
 - Phosphate Rock,
 - Clinker
- 8.2. POTL reserves the right to determine any other BSM as having a higher risk of airborne particulate/dust generation during Bulk Cargo Operation, and effectively be added to the list detailed in Section 8.1.
- 8.3. Exemptions may be granted for certain BSM listed in Section 8.1, applications for exemptions will be managed by the process detailed in Section 7.

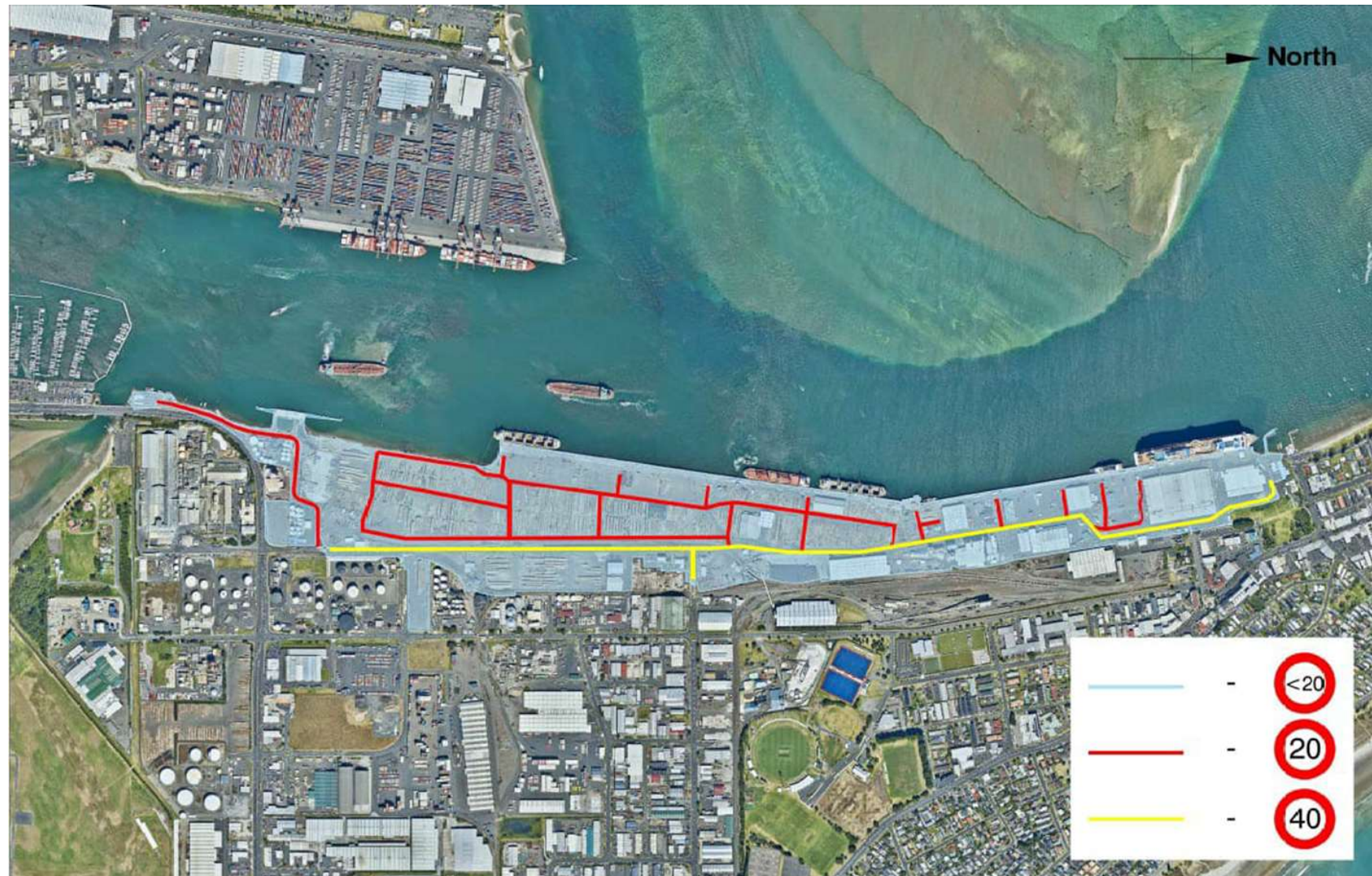
Schedule 1 – Port of Tauranga Operational Area



Schedule 2 – Stevedore’s Work Areas



Schedule 3 – Speed Limits within Port of Tauranga Facility



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