

Proposed 1600/1200mm Diameter Outlet Potable Water Pipelines from Nanyang Service Reservoir (NYSR) to Pan Island Expressway (PIE) - Environmental Impact Study (EIS)

Frequently Asked Questions (FAQ)

No	Questions	Reply
A	BACKGROUND	
A1	What is the purpose of this pipeline?	The current pipeline has a restricted outflow due to limitations of its existing outlet pipelines. We are building a new pipeline that can convey more water to meet increased water demand which will improve the resiliency of the water supply in the Western part of Singapore.
A2	When is the project expected to commence and complete?	Soil investigation and trial trenching works are forecasted to be carried out around 3Q/4Q 2021, before the calling of the construction tender. The pipe laying works is expected to be completed by 4Q 2025. A stretch of 600m of the proposed pipeline will be laid in the Bulim area and is scheduled to commence in 3Q 2021.
A3	Will additional maintenance works be required after the project completion? How often would this be necessary?	No maintenance works are required on a regular basis. Maintenance or repair works will only be carried out in the event of rare incidences such as pipe leaks.
A4	Where can I find the latest update on the project during its implementation?	The project updates can be found in PUB's website http://www.pub.gov.sg → Tenders & Contracts → Interactive Map.
B	CONSIDERATION AND ALIGNMENT OPTIONS	
B1	What is the overall construction timeline for the pipe laying works?	The overall construction timeline is scheduled from Q2 2022 to Q4 2025.

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B2	Will there be construction works every day? What are the daily construction hours?	Construction activities will take place from Mondays to Saturdays, from 8am – 6pm.
B3	What is the machinery involved in the construction?	Major machinery anticipated to be used by the contractor includes rigs for soil drilling, excavators, tipper trucks, mobile cranes, pipe jacking machines, silent pilers, power generators & air compressors.
B4	How will the construction machinery/vehicles be moved within the sites?	Machinery/Vehicles will travel within the approved working access areas only, at speeds of not more than 15km/hr.
C ENVIRONMENTAL IMPACT		
C1	Wild boars, pangolin and bamboo bats are frequently spotted at the two biodiversity sites. What are the plans in place to mitigate the impact to these animals?	<p><u>Wild Boars and Pangolins</u> We have implemented four levels of mitigation measures to reduce/eliminate fauna mortality or injury:</p> <ul style="list-style-type: none"> • Wildlife shepherding via directional clearance during site clearance phase; • Fauna inspections will be conducted before any tree-felling activity, • Fauna response protocol when fauna is encountered on site; and • Toolbox briefing to all on site personnel to ensure they know what to do if fauna is encountered. <p><u>Bamboo Bats</u> As bamboo bats are situated outside of the work boundary, they are not expected to be directly affected by construction works. However, we are exploring mitigation measures such as noise barriers and the use of quieter machinery to minimize the disturbance to these animals caused by noise and vibrations generated from the construction works.</p>
C2	Will this project impact any of the streams in the forested area?	The construction methods have been designed to minimise the impact to the natural streams in the forested area with the following measures:

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		<ul style="list-style-type: none"> • A waste management system will be implemented to avoid improper disposal of construction waste into the stream; • Erosion Control Measures (ECM) and emergency response will be put in place to prevent soil erosion and to handle accidental release of pollutants into the streams; and • All treated effluent and discharge from the work site will be directed towards the concrete canals instead of the earth streams.
C3	How will PUB minimise disruption to the students studying at the Nanyang Technological University (NTU)?	<p>PUB has put in place the following measures to minimise potential disruption to NTU students:</p> <ul style="list-style-type: none"> • Noise barriers will be set up to minimize noise disturbance to the students; • Noise enclosures will be provided for diesel engines and the diesel engines will be turned off when not in use; • Construction vehicles will be regulated in terms of speed and engines will be switched off by the Traffic Marshal when stationary; and • The construction working hours will also be planned in accordance with NEA requirements.
C4	How does PUB mitigate possible mosquito breeding within the two (2) biodiversity sites?	<p>PUB has put in place the following mitigation measures to prevent occurrences of mosquito breeding:</p> <ul style="list-style-type: none"> • The Environmental Control Officer for this project will check the sites daily for stagnant water; and • The sites will be designed with proper drainage to avoid water ponding. Vector control measures will be implemented during the construction phase.
C5	What will happen to critically endangered and vulnerable trees that are affected by the Works?	<p>PUB will work closely with NParks to ensure that in the event a critically endangered/vulnerable tree species is discovered, a Flora specialist engaged by the Contractor will go on site and tag the species that can be harvested and transplanted before</p>

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		site clearance. The harvested species will then be transplanted to a holding area for a few months, before being returned to the site or re-planted in an alternative, suitable location.
C6	What measures will be taken to address the environmental impact during construction?	<p>The control and mitigation measures to address potential impact at various stages of the construction are as follows:</p> <p><u>Pre-Construction Stage –</u></p> <ul style="list-style-type: none"> • The Contractor will only be allowed to carry out trial trenching and soil investigation (SI) at designated locations to minimize the need for vegetation clearance; • The Contractor will only be allowed to use hand tools (e.g. changkol, and shovel) for manual digging; • The Contractor shall appoint an arborist to a) identify and harvest any endangered/rare saplings that require conservation, ahead of any trial trenching and SI works, and b) provide nurseries to maintain these saplings for re-planting; and • A Tree Protection Zone (TPZ) will be installed by the Contractor to protect identified endangered trees that cannot be transplanted and may be potentially affected by the trial trenching and SI works. No trial trenching will be allowed within the TPZ. <p><u>During Construction Stage –</u></p> <ul style="list-style-type: none"> • A silt fence surrounding the worksite shall be installed by the Contractor; • All excavation spoil must be kept in jumbo bags for reuse as backfill or sent for proper offsite disposal; • All groundwater dewatering effluent shall be kept in containers and sent offsite for proper treatment. No discharge into any earth stream or water course is allowed; • The exhaust pipes for all drilling rigs will be installed with a noise silencer / muffler; and • A temporary noise barrier of at least 2m in height and sound transmission class (STC) 20 shall be installed by the Contractor around the drilling rig.

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		<p data-bbox="992 240 1339 272"><u>Post Construction Stage –</u></p> <ul data-bbox="1043 280 2190 552" style="list-style-type: none"> <li data-bbox="1043 280 2190 392">• The Contractor will cover any exposed soil immediately with either a 100% biodegradable erosion control blanket after completion of works, or turf the exposed area with cow grass; <li data-bbox="1043 400 2190 432">• All debris or investigation-derived waste shall be removed from the worksite; <li data-bbox="1043 440 2190 472">• The Contractor will replant any harvested saplings, where instructed; and <li data-bbox="1043 480 2190 552">• The Contractor will reinstate the worksite to its original condition upon completion of works.