

Resettlement Plan

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Papua New Guinea: Urban Water Supply and Sanitation Security and Resilience Investment Project

Port Moresby Water Supply and Sanitation System (Outputs 1 and 2)

Prepared by Water Papua New Guinea (WPNG) for the Asian Development Bank (ADB).

CURRENCY EQUIVALENTS

(as of 1 July 2025)

Currency Unit	–	Papua New Guinea Kina (PGK)
PGK 1.00	=	USD \$0.24
USD \$1.00	=	PGK 4.13

ABBREVIATIONS

ADB	Asian Development Bank
AP	Affected Person
CBO	Community-Based Organization
CLO	Community Liaison Officer
DLPP	Department of Lands and Physical Planning
DPR	Detailed Project Report
FSV	Family Sexual Violence (Unit)
GRM	Grievance Redress Mechanism
GRC	Grievance Redress Committee
IA	Implementing Agency
IC	Individual Consultant
ICT	Information and Communications Technology
LIR	Landowner Identification Report
LRO	Local Requisition Order
M&E	Monitoring and Evaluation
MOA	Memorandum of Agreement
NGO	Non-Governmental Organization
NCD	National Capital District
NPC	National Project Coordinator
PPA	Project Procurement Arrangements
PMU	Project Management Unit
PPP	Public-Private Partnership
PSC	Project Steering Committee
SOP	Standard Operating Procedure
SPS	Safeguard Policy Statement
SIA	Social Impact Assessment
TAP	Technical Assistance Program
TASF	Technical Assistance Special Fund
TWG	Technical Working Group
WBG	World Bank Group
WPNG	Water PNG Limited

GLOSSARY

Affected Person	Refers to any person, household, a firm or a private land holder, or a landowning group, or a part of such a landowning group who, on account of the execution of the project, or any of its components such as sub-projects or parts thereof would have their; right, title or interest in any house, land (including residential, agricultural, grazing land and land owned in common by a customary landowning group) or any other fixed or moveable asset acquired or possessed, in full or in part, permanently or temporarily, or business, occupation, work, place of residence or habitat adversely affected, or standard of living is adversely affected.
Assistance	Means support, rehabilitation, and restoration measures extended in cash and/or kind over and above the compensation for loss of assets and displacement. <i>Refer to</i> Involuntary resettlement assistance below.
Compensation	Means payment in cash or in kind to replace losses of land, housing, income and other assets caused by a project. Payment in cash at the current market value or in kind for an asset or a resource that is obtained or affected by a project, in which the affected people are entitled to replace their lost property or income that they lost during project execution.
Customary landowners	Means persons or group who have an interest in the land held under the traditional land tenure system. This system recognizes land as collectively owned by clans or kinship groups, with rights passed down through generations according to customary practices. Under customary principles in Papua New Guinea, land is held at the clan level for communal use, not at individual level although they may have user rights over piece of land handed to them through hereditary means.
Cut-off date	Means the date after which people will not be considered eligible for compensation, i.e., they are not included in the list of APs as defined by the date after census and valuation of loss of assets has been conducted. Normally, the cut-off date is the date of the detailed measurement and the inventory of loss survey completion.
Displaced Person	In the context of involuntary resettlement, displaced persons are those who are physically or economically displaced (relocation, loss of residential assets, access to assets, income sources, or means of livelihoods) as a result of (i) involuntary acquisition of land, or (ii) involuntary restrictions on land use or on access to legally designated parks and protected areas.
Economic Displacement	Is the loss of assets, income sources or loss of livelihoods due to (i) involuntary acquisition of land, (ii) involuntary restrictions on land use or restricting access to legally designated parks and protected areas. It can occur with or without physical relocation.
Fair and Just Compensation	Means that the use of land and land use restrictions in terms of crops and trees, vegetation growing on the land or other improvement structures of the habitat that are part of the rights and entitlements of the landowner or land user is removed from

	their use or possession. The compensation paid will be assessed as fair according to the custom norms and land valuation standards using valuer general rates (VGR) at current market price for the permanent or temporary loss of assets.
Involuntary Resettlement Assistance	Refers to the support provided to individuals and communities who are displaced from their homes or land due to projects or actions they cannot refuse, such as infrastructure development or compulsory land acquisition. This assistance aims to mitigate the negative impacts of the displacement and ensures the resettled population are able to restore or improve their livelihoods
Land Acquisition	Means the process whereby a person or group of persons is compelled by a land laws and regulations to alienate all or part of the land (they, she or he) own or possess to the ownership or possession of the state, for public purposes in return for fair compensation. In essence, land acquisition refers to the process where the government, or an authorized body, acquires land, often for public purposes, from customary landowners or other private land holders
Replacement Cost	Means the value determined to be fair compensation for the replacement cost of houses, structures, or land with same characteristic as before, or productive capacity for land, (current fair market price for building materials and labor without depreciation or deductions for salvaged building material), and same applies to the value of crops, trees and other commodities according to the Valuer-General's Compensation Schedule for Trees and Plants.
Resettlement	Means all impacts associated with the loss of physical and nonphysical assets, including homes, communities, productive land, income-earning assets and sources, subsistence, resources, cultural sites, social structures, networks and ties, cultural identity, and mutual help mechanisms.
Vulnerable Groups	Means individuals who might suffer disproportionately or face the risk of being marginalized from the effects of resettlement including: (i) female-headed households with dependents;(ii) disabled household heads; (iii) poor households that fall on or below the poverty line (within the meaning given previously); (iv) landless; (v) elderly households with no means of support; (vi) households without security of tenure; and (vii) households of indigenous population or ethnic minority.

NOTE

In this report, "\$" refers to United States dollars unless otherwise stated.

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EXECUTIVE SUMMARY

The Port Moresby component of the Urban Water Supply and Sanitation Security and Resilience Investment Program (UWSSSRIP) aims to enhance water and sanitation services for approximately 500,000 residents in the National Capital District of Papua New Guinea. The program focuses on three subprojects: optimizing water treatment systems, reducing non-revenue water while expanding storage and distribution infrastructure, and rehabilitating the Waigani sewerage system. These upgrades promote climate resilience, sustainability, and inclusive access, particularly for vulnerable populations in informal settlements.

This Resettlement Plan (RP) has been prepared for the UWSSSRIP, financed by the Asian Development Bank (ADB) and implemented by Water PNG Limited (WPNG).

Project scope and land requirements. The project includes three key subprojects in Port Moresby:

- (i) Optimization and resilience building of water source and treatment systems,
- (ii) Non-revenue water reduction, storage and distribution expansion,
- (iii) Rehabilitation of the Waigani Sewerage System.

Infrastructure works will include construction of new reservoirs, upgrades to existing water treatment facilities, pipeline extensions, and sewerage pond rehabilitation. The design prioritizes use of existing state land and utility easements to minimize resettlement impacts. Two new reservoir sites—at 8 Mile and 9 Mile—require land acquisition.

Involuntary resettlement impacts. The project is classified as Category B for involuntary resettlement under ADB's Safeguard Policy Statement (2009). Impacts are limited and manageable. Limited physical displacement of households or residential structures is anticipated. Economic impacts are minor and mostly temporary, such as:

- (i) Access restrictions during construction,
- (ii) Disruption to informal vendors and roadside gardens,
- (iii) Limited disturbance of gardens and informal fishing around the Waigani Sewerage Ponds.

Socioeconomic context. Port Moresby is a fast-growing city marked by a high prevalence of informal settlements, limited access to services, and socioeconomic vulnerabilities including food insecurity, gender-based violence, and underemployment. Informal livelihoods are widespread and particularly sensitive to construction-related disruptions.

Stakeholder consultation and participation. Meaningful consultations were conducted with national and local stakeholders, including community representatives, informal settlers, landholders, and vulnerable groups. A Stakeholder Engagement Plan outlines continued consultation during implementation to ensure inclusive participation, transparency, and responsiveness to community feedback.

Grievance redress. A project-level grievance redress mechanism (GRM) has been established to manage and resolve complaints efficiently. The system is designed to be accessible, culturally appropriate, and inclusive, with the following features:

- (i) A GRM Focal Point has been appointed during project preparation, transitioning to a dedicated officer during implementation.
- (ii) A Grievance Redress Committee (GRC), composed of WPNG, NCDC, DLPP, and NGO representatives, will handle high-risk or unresolved grievances.

- (iii) Grievances may be submitted verbally, in writing, or via community liaison officers, and must be acknowledged within 24 hours.

All grievances will be tracked and documented in a centralized grievance register, with regular reporting to the PMU and ADB.

Legal and policy framework. This RP is guided by Papua New Guinea's legal framework, including the Land Act 1996, and ADB's Safeguard Policy Statement 2009. Where gaps exist between national legislation and ADB requirements, the RP adheres to ADB policies to ensure full safeguard compliance.

Compensation and entitlements. The project adopts a rights-based approach to resettlement in line with ADB's Safeguard Policy Statement (2009). All affected persons (APs)—regardless of legal title—will be eligible for compensation, assistance, and livelihood support.

Temporary economic impacts will be addressed through cash compensation, livelihood restoration assistance, and relocation support where needed. Loss of income due to disruption of vending or small-scale farming will be compensated based on documented income levels or replacement cost. Vulnerable households will receive additional assistance, including livelihood training and priority access to support services. All compensation will be timely, fair, and transparent, based on a valuation process undertaken by the Department of Lands and Physical Planning (DLPP).

Institutional arrangements. The RP will be implemented by Water PNG's Project Management Unit (PMU) in collaboration with the Department of Lands and Physical Planning (DLPP), National Capital District Commission (NCDC), and other stakeholders. A Grievance Redress Mechanism (GRM) is established to manage complaints and disputes in a transparent and timely manner.

Livelihood restoration and support measures. Mitigation strategies include:

- (i) avoiding displacement,
- (ii) providing compensation where losses occur,
- (iii) supporting affected vendors with transitional assistance,
- (iv) ensuring special attention to vulnerable households.
- (v) where economic impacts are unavoidable, compensation and livelihood restoration measures will be provided in line with ADB guidelines.

Budget and financing. The total program cost is USD 64.5 million, including USD 0.6 million earmarked for resettlement implementation. Land acquisition and compensation costs are integrated into the broader investment plan and will be financed by the government.

Monitoring and reporting. WPNG PMU will carry out regular internal monitoring and report on resettlement implementation progress, with support from safeguard specialists. External monitoring will be conducted if needed.

Conclusion. This Resettlement Plan confirms that the Port Moresby subprojects are designed to minimize adverse social impacts while delivering substantial improvements to urban water and sanitation services. Implementation will follow a participatory, transparent, and safeguard-compliant approach, ensuring that all affected persons are adequately informed, consulted, and supported throughout the project lifecycle.

I. PROJECT DESCRIPTION

1. The Urban Water Supply and Sanitation Security and Resilience Investment Program (UWSSSRIP) aims to significantly enhance water and sanitation services in Port Moresby and Vanimo, with a strong emphasis on inclusion, climate resilience, and sustainability. It prioritizes equitable and safe access for vulnerable communities—particularly those living in informal settlements—through integrated technical and institutional measures.

2. The Port Moresby intervention, part of the Program, aims to enhance the resilience, sustainability, and inclusiveness of the city’s urban water supply, treatment, and sanitation systems. The project is expected to directly benefit approximately 500,000 residents in the National Capital District, where many currently lack access to adequate or reliable water and sanitation services. The intervention in Port Moresby is structured around three key subprojects: (i) water source and treatment system optimization and resilience building; (ii) nonrevenue water (NRW) reduction, augmentation, and expansion of storage and distribution systems; and (iii) Waigani Sewage System Rehabilitation.

A. Scope of Works

3. The POM Water Supply and Sanitation Subproject is designed to enhance the resilience and adaptive capacity of water supply services in the NCD, ensuring safe and reliable piped water access for the population, including targeted informal settlements. It also aims to improve wastewater treatment to ensure that treated effluent is safely discharged into the environment without posing public health risks. Key infrastructure investment components of the subproject include the optimization of the POM water source and treatment system (Output 1B), expansion of water storage and distribution networks (Output 1C), and rehabilitation of the Waigani sanitation system (Output 2B). This integrated approach in investment is envisaged to strengthen the capacity of WPNG to more effectively deliver water and sanitation services in meeting increasing demand in the NCD.

B. Subproject Components

4. POM subproject components are summarized in Table 1, illustrated in Figure 1 and detailed in the succeeding subsections.

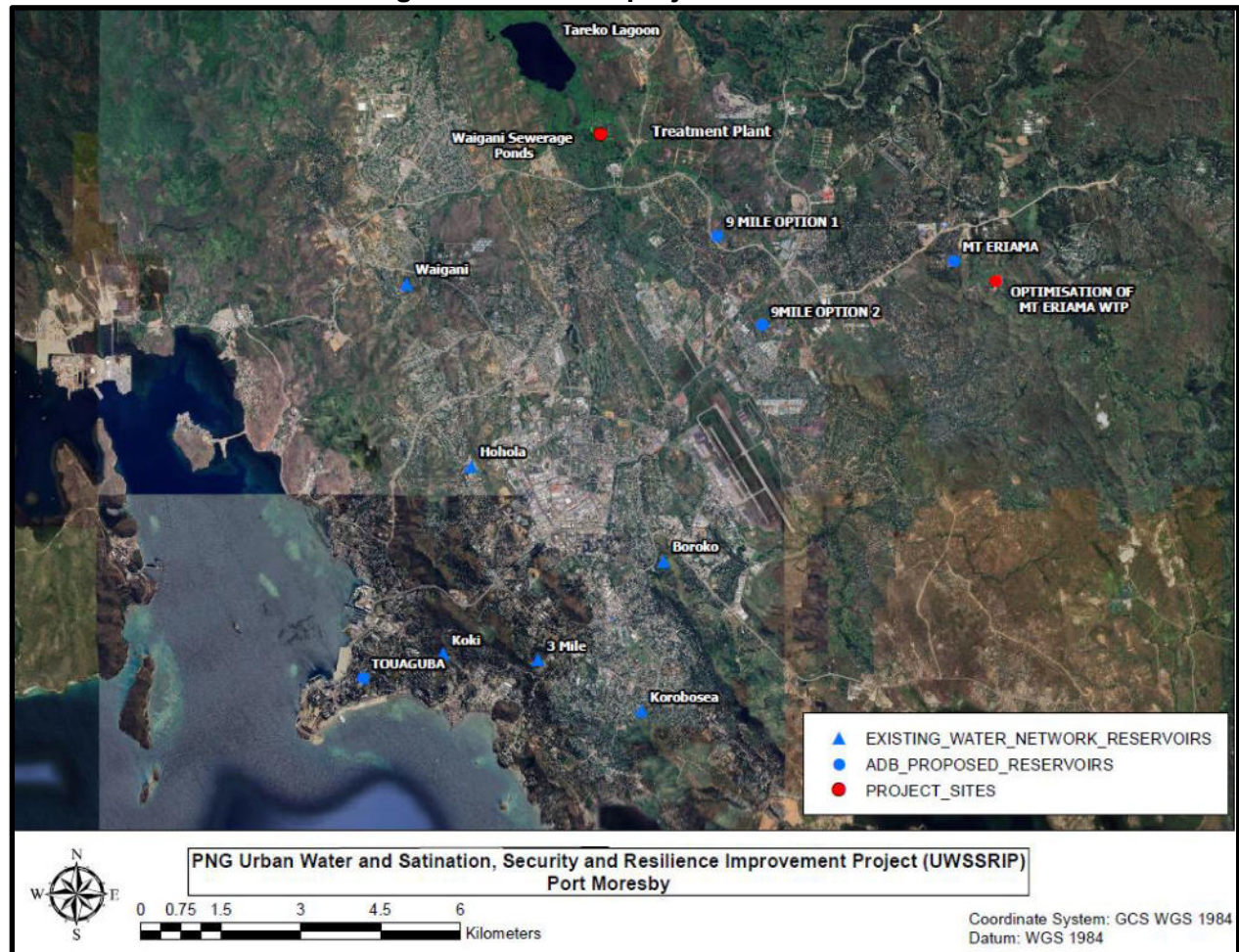
Table 1: POM Subproject Components

No.	Scope	Components
Output 1B	Port Moresby Water Source and Treatment System	Optimization of the Mt. Eriama WTP, including equipment replacement, electrical automation and communications, instrumentation upgrades, process improvements, and laboratory supply equipment.
Output 1C	Port Moresby NRW reduction, augmentation, and expansion of storage and distribution systems	<p>NRW reduction and augmentation: Supply and installation of monitoring equipment and provision of leakage detection services.</p> <p>Expansion of storage and augmentation of distribution system:</p> <ul style="list-style-type: none"> • Construction of three new reservoirs: <ul style="list-style-type: none"> i. Mt. Eriama Reservoir serving three DMAs – POM 35, POM 14 (including Bushwara and Morobe settlements), and POM 11. ii. 9-Mile Reservoir serving seven DMAs – POM 12 (including 8-Mile settlements), POM 52, POM 57,

No.	Scope	Components
		POM 58, POM 08, POM 09 and POM 61. iii. 8-Mile Reservoir serving three DMAs – POM 36 (including ATS and Saiwara settlements), POM 11 and POM 60. <ul style="list-style-type: none"> • Rehabilitation of Touaguba Reservoir • Installation and augmentation of branch mains and distribution mains
Output 2B	Waigani sanitation system rehabilitation	The rehabilitation works includes: <ul style="list-style-type: none"> • Removal of vegetation from Ponds 1 to 5 • Removal and disposal of sludge from Ponds 1 to 4 (disposal site to be confirmed) • Refurbishment of Ponds 1 to 4 • Construction of Pond 6 • Refurbishment of inlet works

Notes: WTP – Water Treatment Plant; POM – Port Moresby; NRW – nonrevenue water; DMA – distribution metering area.

Figure 1: POM Subproject Locations



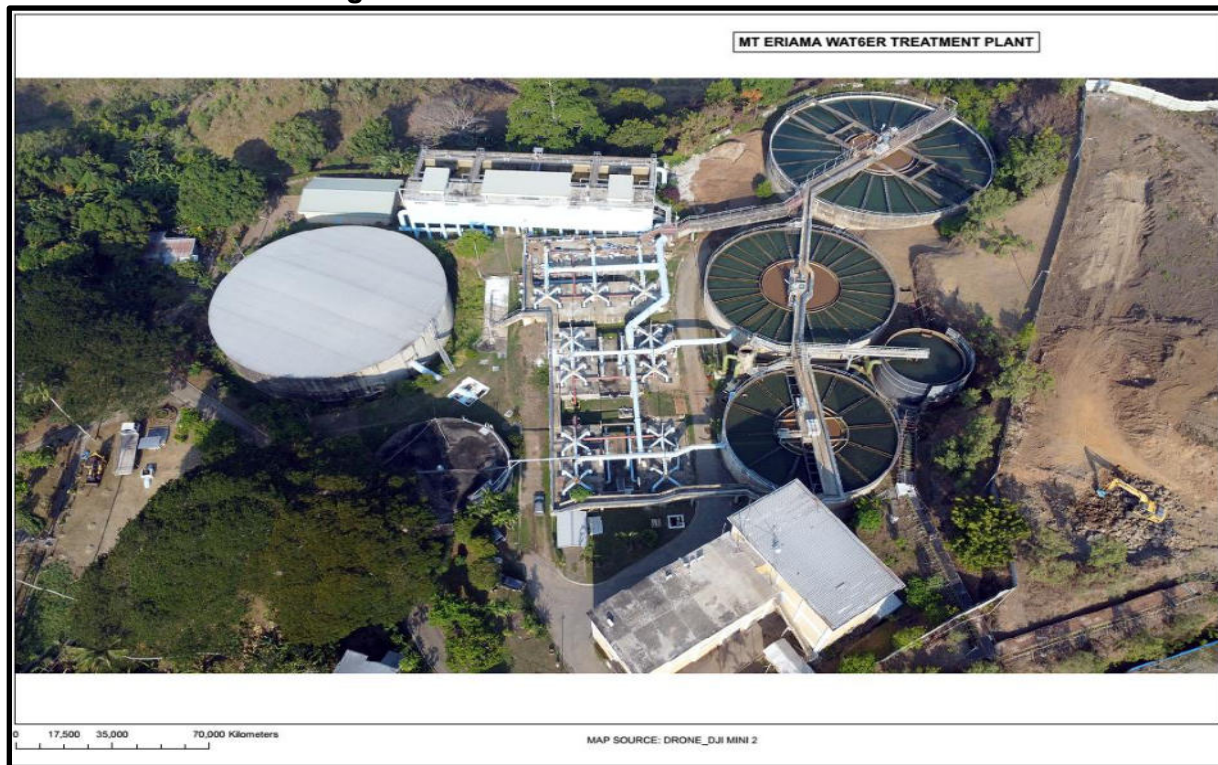
1. Port Moresby Water Source and Treatment System Optimization (Output 1B)

5. **Existing condition.** The Mt. Eriama Water Treatment Plant (WTP) is a critical infrastructure facility located near Bomana, in the NCD (**Error! Reference source not found. 2Error! Reference source not found.**). It plays a vital role in supplying safe and clean drinking water to the city by treating water sourced from Laloki River. Water is extracted through a network of channels that direct flow from Rouna Ponds. In these ponds, the raw water undergoes initial sedimentation, allowing larger particles and debris to settle before further treatment.

6. The treatment process at Mt. Eriama WTP follows a conventional method comprising several key stages that includes raw water delivery and storage, clarification, filtration, chlorine contact, and treated water storage facilities. Each stage is designed to progressively eliminate contaminants and ensure compliance with health and safety standards. The facility is equipped with treated water storage tanks and advanced monitoring systems to maintain continuous regulatory compliance. Routine maintenance and periodic upgrades are essential to sustaining optimal performance and reliability.

7. Originally constructed in 1965 with a capacity of 27 million liters per day (MLD), the Mt. Eriama WTP underwent several expansions. In 1968, a second clarifier was added, increasing capacity to 68 MLD. A third clarifier unit was installed in 1977, raising the total capacity to 136 MLD. Further enhancements in 2002, including the installation of Lamella tubes in the clarification units, enhanced the plant's performance and raised its capacity to 184 MLD. This remains the current design capacity, and the facility typically operates at or near this maximum on most days. However, due to its location within the saddle of Mt. Eriama, space for future expansions is limited.

Figure 21: Mt. Eriama Water Treatment Plant



8. **Proposed works.** WTP will undergo refurbishment to restore essential functionality and enhance system resilience. Planned upgrades include converting standby filters and a future clarifier into active-duty process units, which will increase treatment throughput capacity by approximately 10 MLD. Additionally, prioritized processes will be automated to improve operational efficiency. To strengthen the raw water transmission system, inspection and critical repairs of the existing raw water mains will also be carried out. These improvements will enable the expansion of water services to currently unserved informal settlements, contributing to broader access to safe drinking water.

9. The existing units operate continuously throughout the week with and currently lack redundancy, posing a risk to operational reliability. To address this, WPNG is currently installing a new clarifier 4 to serve as a backup to clarifier 3, thereby enhancing redundancy within the clarification process and ensuring more reliable and uninterrupted service delivery. It is noted that the construction of clarifier 4 is not part of the ADB financed subprojects.

2. Expansion of Storage and Distribution Systems (Output 1C)

10. The POM subproject also includes the construction of three new storage reservoirs and rehabilitation of one existing reservoir along high-pressure trunk mains to improve the water supply, reduce losses, and enable efficient redistribution. The distribution network will be expanded downstream of selected distribution metering area (DMA) boundaries to serve approximately 60,000 additional customers. Service delivery will be institutionalized for all citizens, including those in informal settlements, supported by extensive non-revenue (NRW) reduction programs, digitalized billing and customer management systems, and strengthened community engagement.

a. Storage Reservoir

11. The NCD faces serious water supply challenges due to rapid population growth and insufficient infrastructure, resulting in daily water rationing in revenue-generating zones and widespread reliance on illegal connections in informal settlements. To address these issues, the proposed construction of three new reservoirs and refurbishment of one existing reservoir will increase storage capacity, helping to stabilize supply during peak demand periods and improve overall system reliability. These reservoirs will also support more equitable water distribution, particularly in underserved areas, and reduce dependence on illegal connections by formalizing access to clean water. In addition, improved management of stored water resources is expected to enhance public health and support inclusive service delivery across the city.

12. **Mt. Eriama Reservoir (new).** As illustrated in Figure 3, the proposed reservoir site is located on a hill near the Bomana turnoff roundabout, approximately 100 masl . To the south, at the base of the hill, is a guard dog security base, while a quarry site occupies the opposite end. The Mt. Eriama WTP is situated roughly 900m north of the proposed location. The site itself lies within the operational area of an active quarry managed by an international construction company.

13. **Surrounding** the proposed site are several houses and food gardens, primarily cultivated by local settlers. These gardens mainly grow peanuts. There is no flora or fauna of concern in the area based on the International Union for Conservation of Nature (IUCN) red list. Human settlement has led to the migration of most wildlife. The local vegetation is dominated by red grass, with scattered rain trees around the Bomana settlement.

14. **9-Mile Reservoir (new).** The proposed site for the 9-Mile Reservoir is located south of the McGregor Police Barracks and adjacent to the Gerehu–9 Mile Road as illustrated in

15. **Figure 434.** It is situated on a hill that rises approximately 85 masl. Near the site are three telecommunication towers, and an access road connects the hilltop to the existing Gerehu–9 Mile Road.

16. The area features several food gardens along the slope, primarily cultivating peanuts and bananas, with multiple residents in the vicinity. The dominant vegetation consists of red grass (*Themeda triandra*), interspersed with patches of rain trees (*Samanea saman*) and Neem trees. During the assessment, no flora or fauna of concern listed by the IUCN were identified. Bird calls were rarely heard, and no wild animals were observed in the area, aside from domesticated animals.

17. Due to the site's location on a slope, there is a potential risk of landslips and erosion during the construction of the reservoir. Additionally, several houses located downslope of the proposed site may be affected. The access road will also require maintenance and possible upgrades to accommodate construction activities.

Figure 32: Proposed Location of Mt. Eriama Reservoir

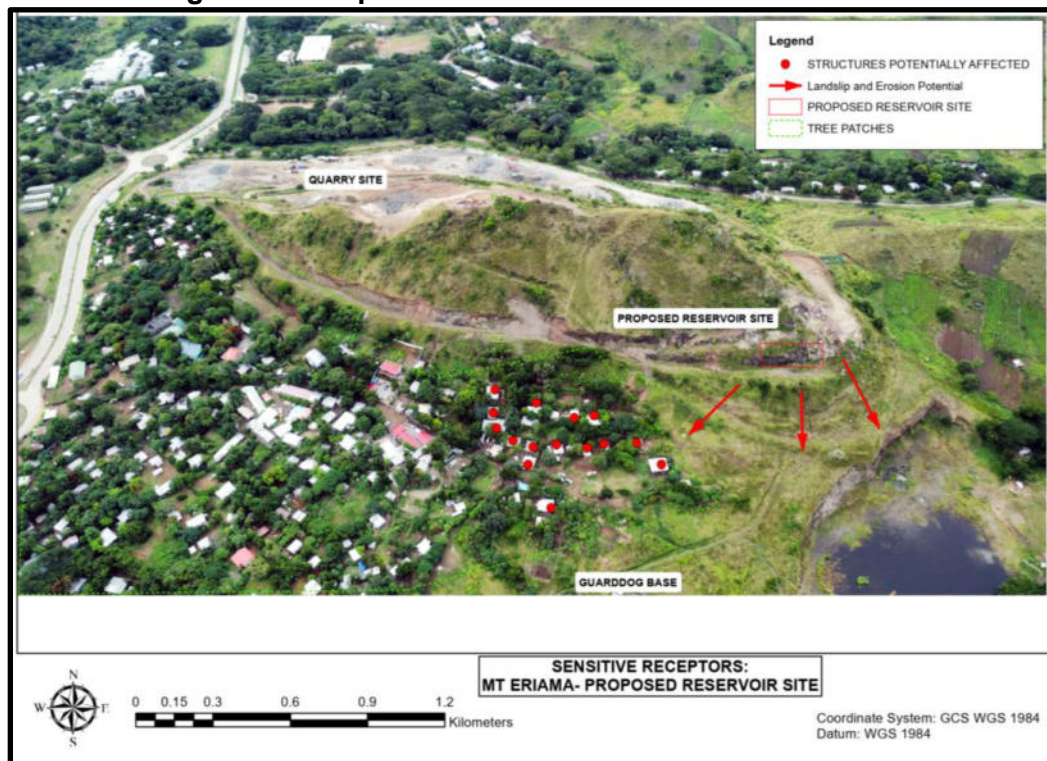
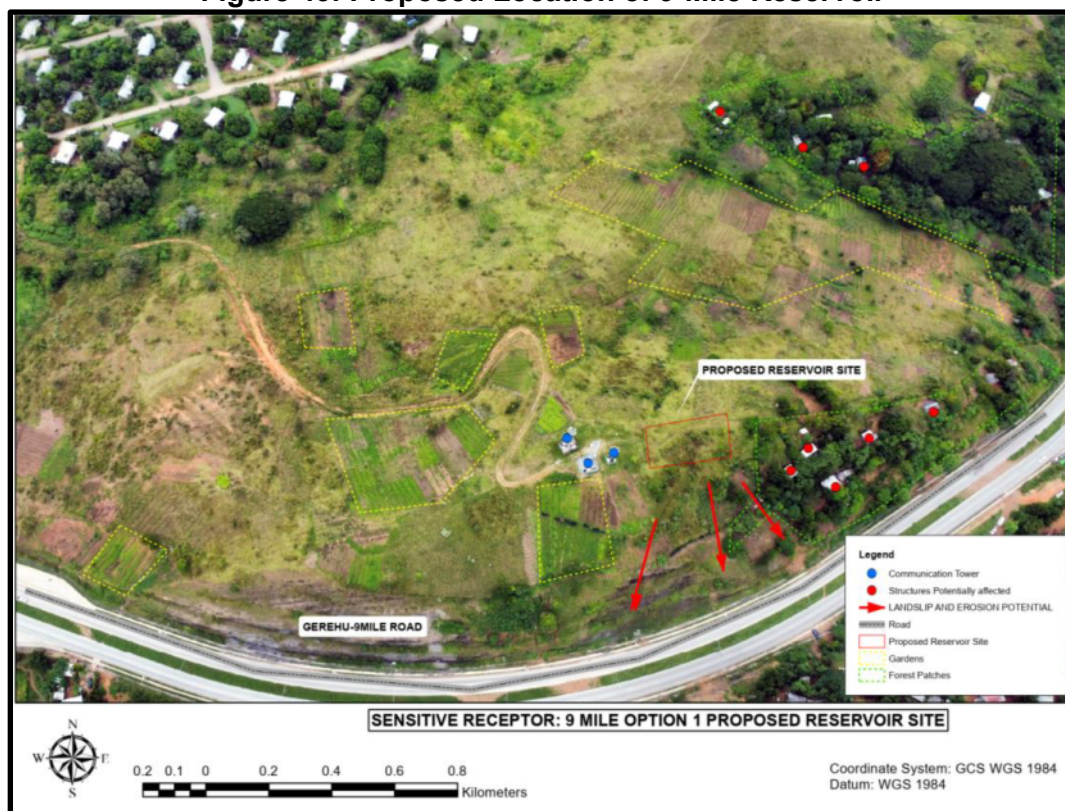


Figure 43: Proposed Location of 9-Mile Reservoir



18. **8-Mile Reservoir (new).** The proposed 8-Mile Reservoir site is located east of the 8-Mile roundabout along the Hubert Murray Highway, at an elevation of approximately 90 masl (Figure 55). To the east of the site are the Carpenter's Logistics Warehouse and Carpenter's Estate. No significant flora or fauna were identified during the site visits and no birds were observed. Ongoing development in the area has contributed to the migration of wildlife. Vegetation is primarily composed of red grass, with several Neem trees and rain trees planted within residential zones for shade.

19. The installation of the reservoir is expected to impact several nearby structures and patches of vegetation. Additionally, there is an increased risk of landslip or slope erosion if the hillside is significantly disturbed during construction

20. **Touaguba Reservoir rehabilitation.** The Touaguba Reservoir, which was previously decommissioned, is now planned for rehabilitation under the subproject, and is located on Touaguba Hill in Downtown Port Moresby (Figure) at an elevation of approximately 90 masl. It has a storage capacity of 16,000 cubic meters and is currently non-operational due to disrepair. The surrounding area is primarily composed of residential homes and office buildings. No flora or fauna of concern, as classified by the IUCN, were identified during the site assessment. Wildlife presence was minimal, with only domesticated animals observed in the vicinity. Vegetation includes Neem trees and Rain Trees, which have grown both within and around the site.

Figure 5: Proposed Location of 8-Mile Reservoir

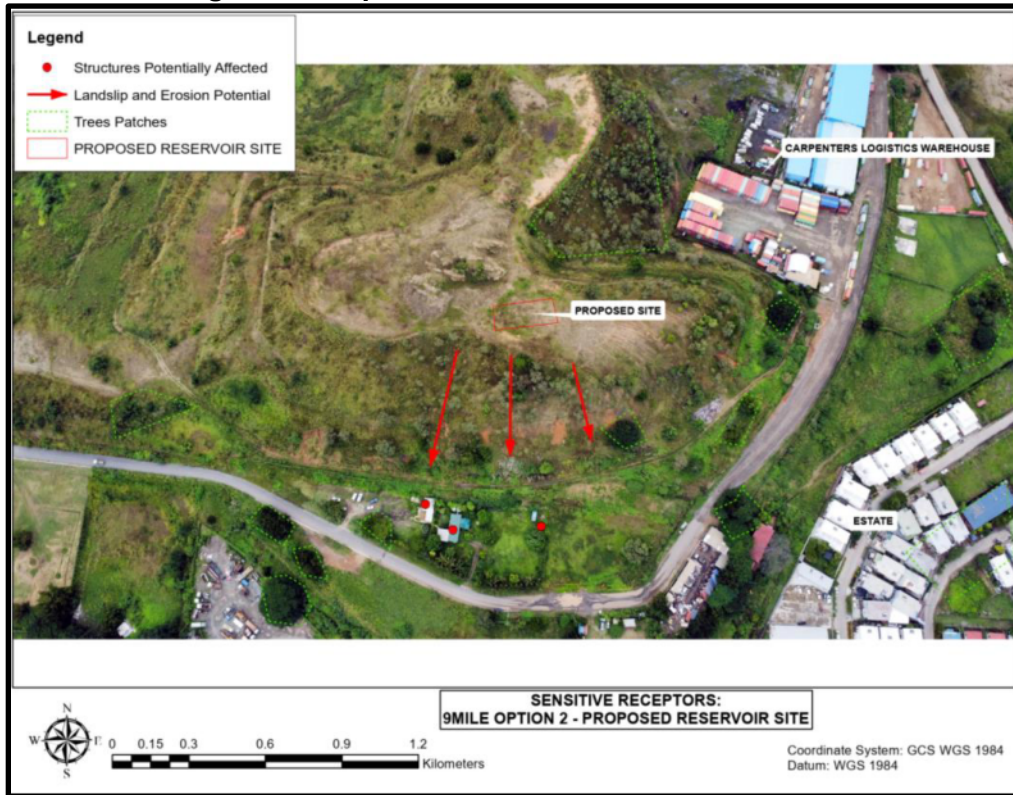
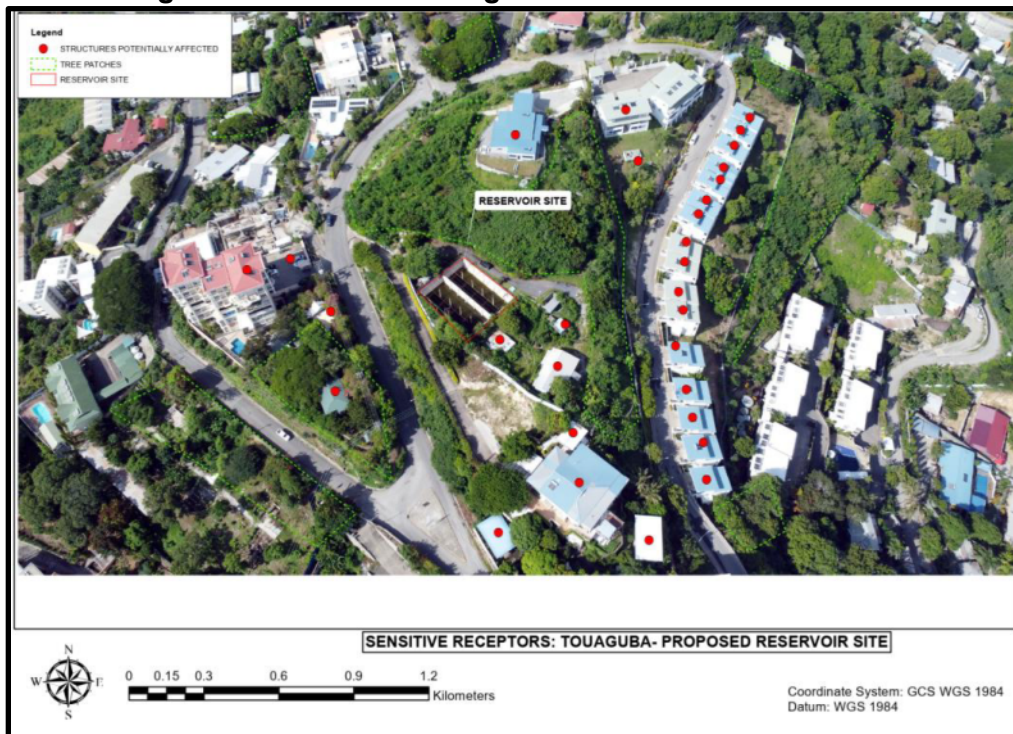


Figure 6: Location of Tougoba Reservoir Rehabilitation



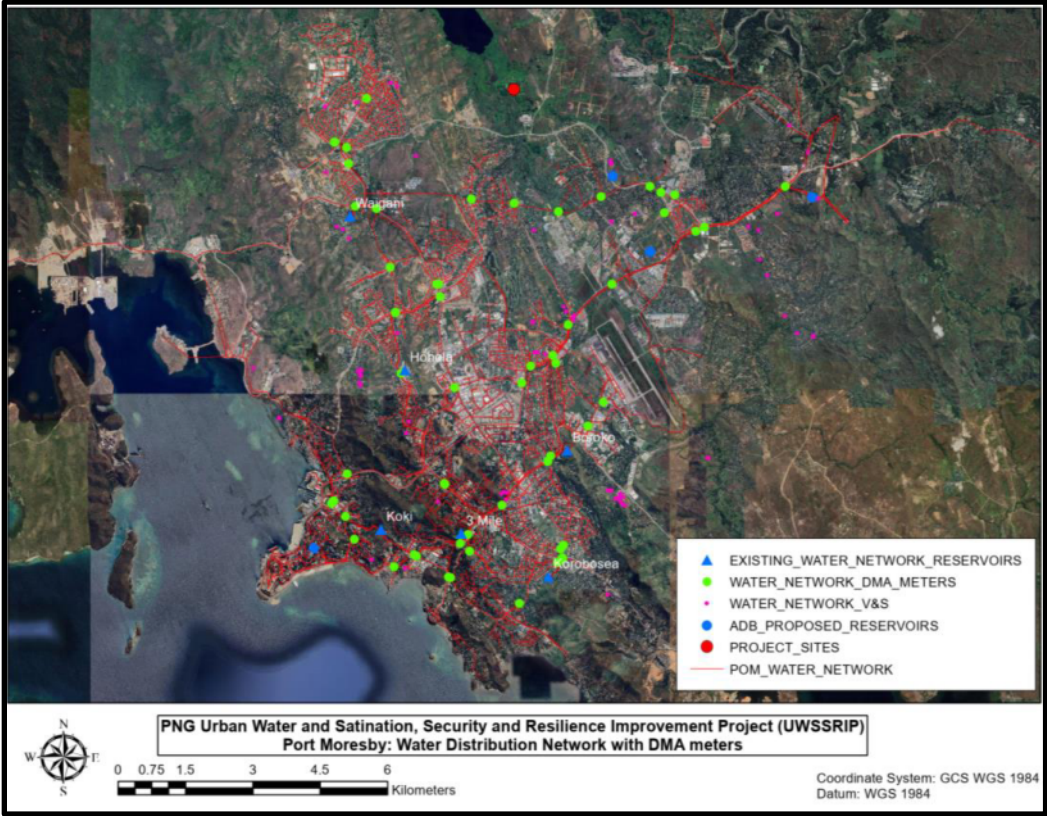
b. Distribution System

21. Treated water from the Clear Water Reservoir (CWR) at Mt. Eriama WTP is distributed via two main trunk lines, which branch off at various points (Figure **77Error! Reference source not found.**). These trunk lines primarily supply six major reservoirs located in the city center. In some segments, multiple pipelines have been installed in parallel, up to five in certain areas, indicating that additional lines were added over time to meet growing demand and enhance supply to specific storage reservoirs.

22. Although the trunk lines were originally designed to serve storage reservoirs, new off-takes have been introduced over time to directly supply areas along the route. Currently, there are approximately 18 direct District Metered Area (DMA) off-takes from the trunk lines, delivering treated water to adjacent regions or command areas that lack dedicated storage reservoirs. The total estimated outflow from these DMA off-takes is around 50 MLD per day.

23. Pressure regulating valves are installed at the DMA inlets and are remotely controlled—activated during the day to supply water and deactivated at night to allow reservoir refilling. Because these off-takes are directly connected to DMAs, the system experiences peak demand on the trunk mains during daytime hours. During the rehabilitation process, careful management is essential to protect sensitive receptors, particularly nearby residential communities that may be exposed to dust, noise, and odor nuisances during construction. However, such impacts are expected to be minimal, as the rehabilitation works will be carefully planned and managed to mitigate these risks.

Figure 7: POM Water Distribution Network

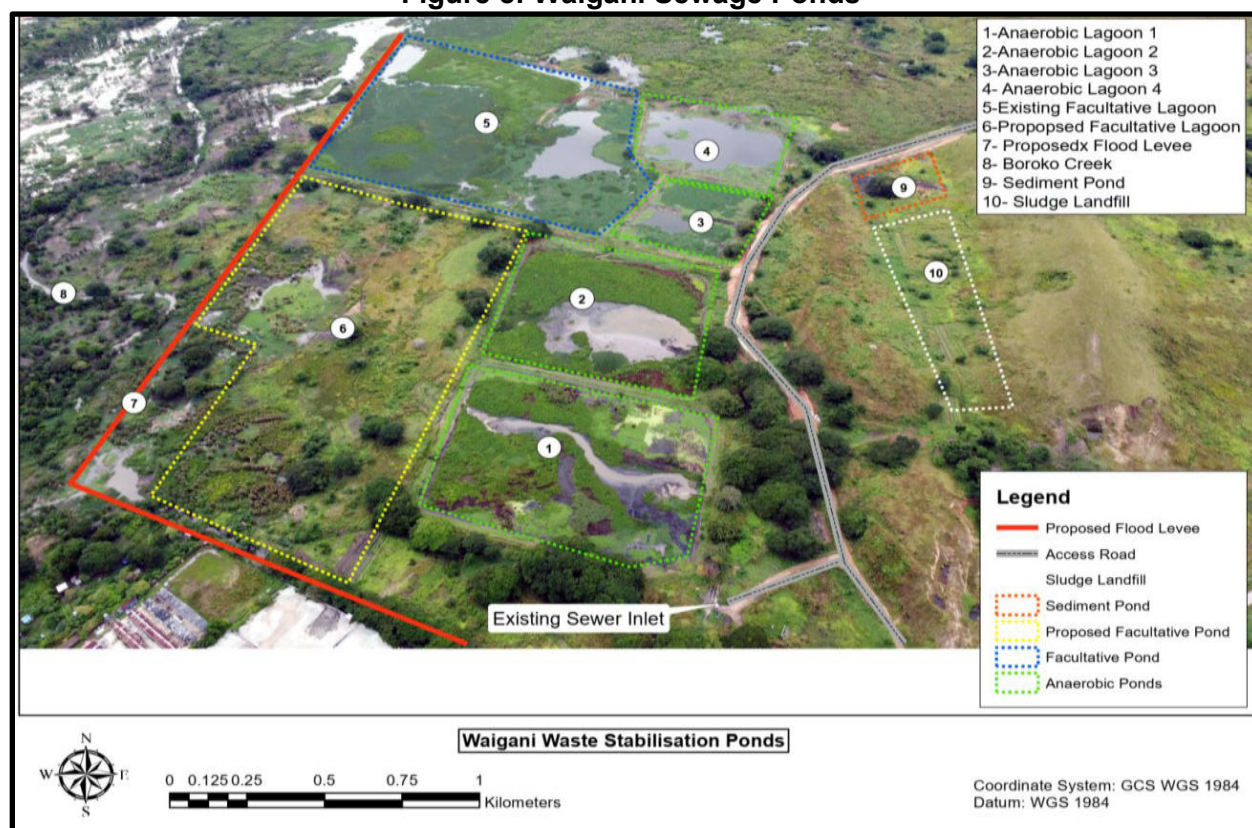


3. Refurbishment of the Waigani Waste Stabilization Ponds (Output 2B)

24. **Existing condition.** The Waigani sanitation ponds are a vital component of the NCD’s wastewater management infrastructure, designed to treat sewage through natural processes prior to discharge. However, the aging facilities require substantial rehabilitation to address several issues, including diminished treatment efficiency, structural deterioration, and capacity limitations. If left unaddressed, these challenges could lead to environmental pollution and pose significant public health risks.

25. **Proposed works.** The refurbishment of the Waigani sewage ponds as illustrated in Figure 8 is a critical initiative to improve wastewater treatment and environmental protection in the NCD. These ponds are essential for managing sewage and industrial effluents, ensuring treated water meets environmental standards before discharge into surrounding ecosystems, particularly the Tereko Lagoon.

Figure 8: Waigani Sewage Ponds



26. The project includes both immediate repairs and long-term upgrades. Urgent actions involve temporary repairs of Ponds 4 and 5 and restoration of the outlet weir from Pond 5. These steps are vital to prevent leakage, contamination, and backflow from Tareko Lagoon, which could compromise water quality and disrupt local ecosystems. Restoring the outlet weir also enables dewatering for effective desludging operations. Following these repairs, the removal of inert sludge from Ponds 3 and 4 will enhance treatment efficiency and operational capacity. During refurbishment, wastewater will be diverted to Ponds 3, 4, and 5 to maintain continuous treatment operations.

27. Upgrades will also be carried out to Ponds 1 and 2 to improve functionality and extend their lifespan. Additionally, a new facultative pond (Pond 6) will be constructed to increase treatment capacity and provide flexibility in managing varying inflow volumes. To safeguard the facility from flooding, a protective levee will also be built around the site. This is essential to prevent overflow during heavy rainfall or storm surges. Furthermore, the inlet works will be upgraded to ensure effective removal of solids and grit before water enters the downstream ponds, protecting the integrity of Ponds 3 through 6.

28. The project is estimated to cost USD 63.9 million and will be financed through a mix of concessional and ordinary capital loans from the Asian Development Bank (ADB), accompanied by technical assistance to support institutional reforms and the upgrade of digital systems.

29. Implementation is scheduled from January 2026 through February 2031 and will be overseen by national agencies including the Department of National Planning and Monitoring, the Department of the Treasury, Kumul Consolidated Holdings, and Water PNG. A dedicated Project Management Unit within Water PNG will oversee procurement, capacity-building, construction, and governance, with technical support from both international and local consultants.

Figure 9: Consolidated Water Supply Infrastructure Map

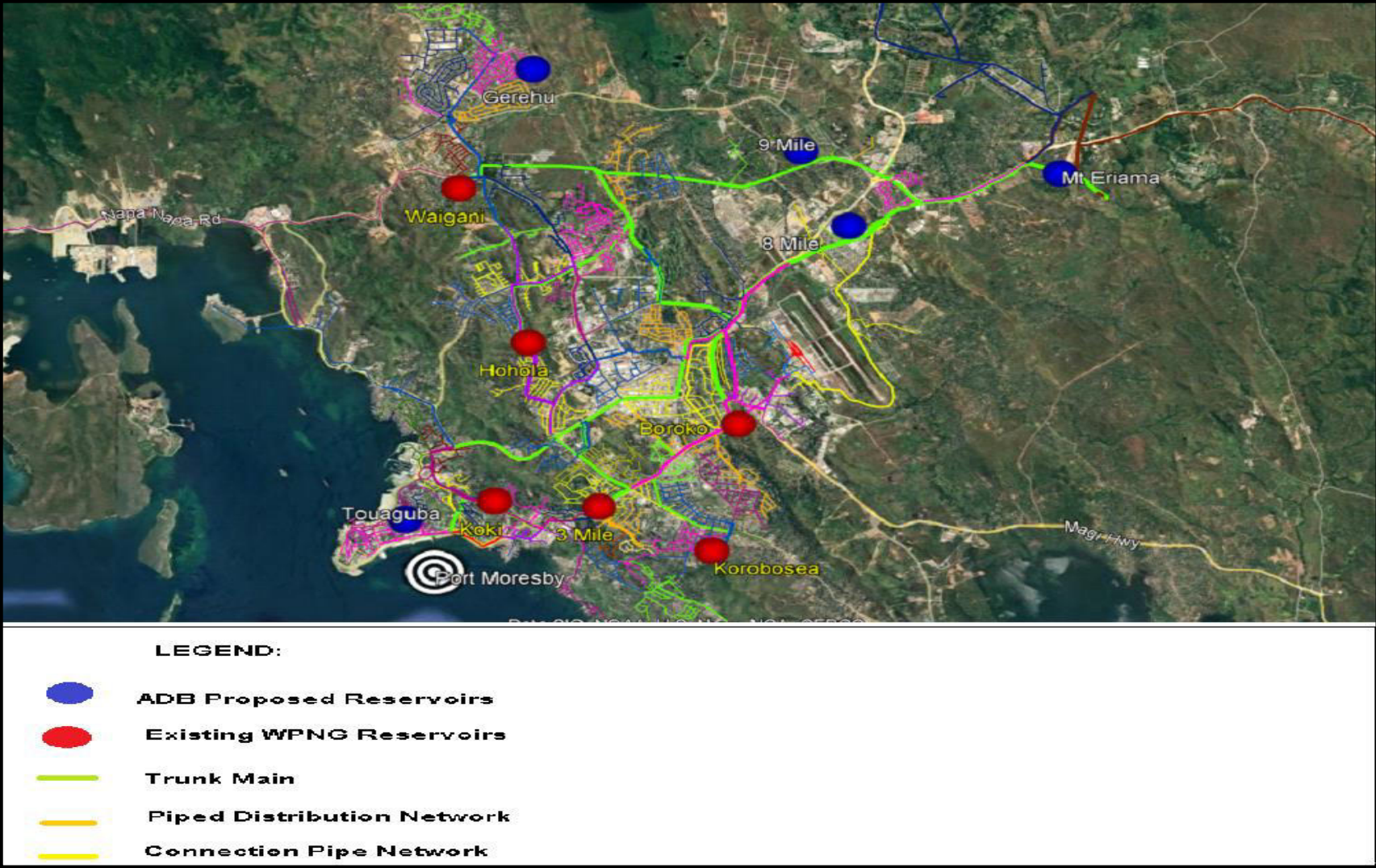
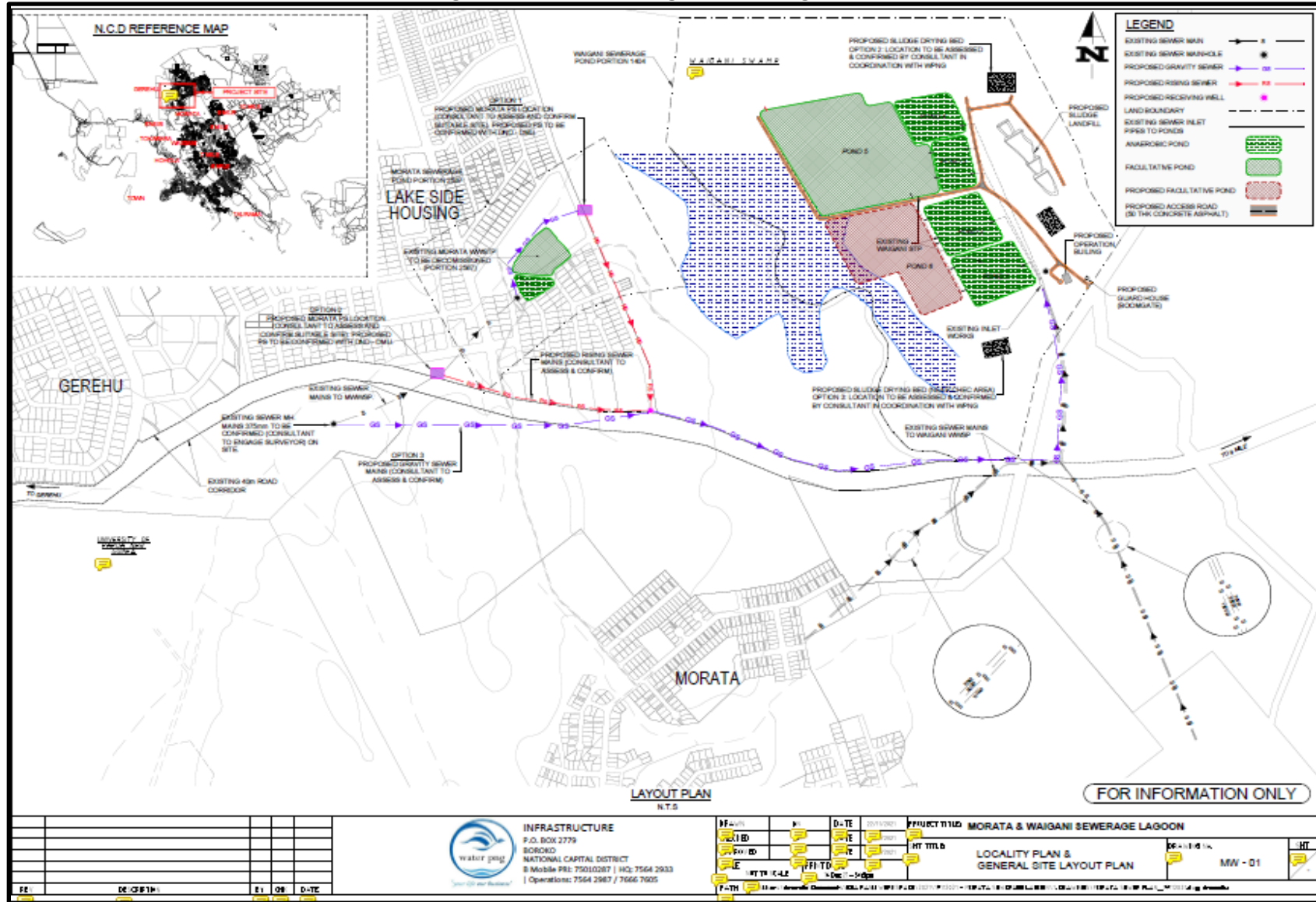


Figure 10: Map of Waigani Sewerage Ponds



II. SCOPE OF LAND ACQUISITION AND RESETTLEMENT

A. Physical Displacement

30. Potential impacts related to land use and infrastructure development include minor land acquisition and temporary disruptions during construction activities at selected sites for new reservoirs, treatment units, rehabilitation of Waigani sewerage ponds and network extensions. Careful site selection prioritizes existing public land and avoids displacement of dwellings or structures, aligning with best practices for minimizing resettlement impacts. Where land acquisition may be necessary, measures will be implemented to ensure environmentally and socially responsible management, with a focus on mitigating adverse effects on affected communities and assets.

1. Relocation of Residential Structures

31. Based on thorough site visits and baseline surveys conducted since 2024 by safeguards consultant and WPNG, it has been confirmed that there are no residential structures on the proposed new reservoir storage sites at 8 Mile and 9 Mile, nor along the trunk mains and distribution network routes. The planned pipeline upgrades are situated close to existing WPNG distribution easements along road reserves in Port Moresby, and do not encroach upon any residential areas.

32. At the proposed Mt Eriama reservoir storage site, situated within WPNG's water treatment facility, there are four staff houses at the hilltop and six staff residences at the foot of the treatment plant. However, the surrounding land is spacious and allows the new Mt Eriama Water Storage tank to be installed on an available vacant area or for staff houses to be relocated within the existing facility premises. Similarly, the Touaguba Hill Storage Reservoir is located within an existing, run-down WPNG reservoir on WPNG's property. The planned works involves only the rehabilitation of this existing reservoir tank. Overall, these arrangements ensure that there will be no physical or economic impacts on residents or residential structures. At the Waigani Sewerage Ponds there are no residential structures, hence no displacement of household residences here as well. Overall, there is no need to relocate any residential structures as part of the Port Moresby sub-projects portfolio.

2. Displacement of Commercial or Informal Enterprises

33. The Port Moresby sub-project components and related works do not displace commercial and business premises, small businesses, or informal vendors. However, during construction, there may be temporary impacts such as restricted access for pedestrians and commuters trying to reach these facilities. These impacts would occur around areas like 8 Mile and the pipe network construction zones within the central business district of Port Moresby, where businesses, shops, gas stations, commercial residences, shopping centres, and offices are located.

3. Impact on Public or Community Land

34. Civil works under the components of the sub-projects under Output 1 and 2 of the UWSSSRIP in Port Moresby will not impact indigenous lands, as these activities will take place within the city limits of Port Moresby on state lease. Additionally, the works will not affect municipal or public lands such as recreation areas and sports grounds like Varirata and 14 Mile amusement parks, Port Moresby Botanical Gardens, sports fields like Port Moresby Rugby League Oval and

Bisini Football Grounds, or Kone Tigers Oval, as these public lands are located outside the vicinity of the impact zones and are further away.

4. Disruption to Local Infrastructure

35. Construction activities may temporarily disrupt roads, footpaths, utility services, and access to businesses and government offices within Port Moresby's central business district, where infrastructure such as trunk mains and pipeline distribution will be constructed. These disruptions could affect movement and daily activities in the area.

B. Economic Displacement

1. Potential Impacts on Informal Settlements and Livelihoods

36. Residents living in informal settlement clusters, particularly at 8 Mile and 9 Mile, are not expected to experience significant economic impacts or physical displacement, even where pipeline construction aligns with road reserves adjacent to their homes. This is because the pipeline network follows existing WPNG easements along road reserves where pipelines are already in place. Field surveys and site visits confirm that there are no anticipated disturbances to residential structures. However, informal livelihood activities—such as small-scale vending, roadside market stalls, and personal gardens within road reserves—may be temporarily affected.

2. Loss of Income from Affected Businesses

37. Vendors operating along the pipeline route—especially between the 8-Mile Reservoir and the nearby 9-Mile settlement—may face reduced access for customers during construction. This could necessitate temporary relocation or suspension of operations, potentially resulting in loss of income for affected households.

3. Agricultural or Livelihood Disruptions

38. No gardens were observed at the proposed 8-Mile Reservoir site during site visits, although several eucalyptus trees were noted. At the 9-Mile Reservoir location, gardens are situated at the base of the hill where the storage tank will be installed. These may be impacted by soil movement and earthworks during cut-and-fill construction activities. A road access will be constructed to reach the reservoir site in 9-mile hill-top and any impacts on food gardens and other improvements will be assessed and mitigation measures implemented prior to civil works.

39. In Block 6, an informal hamlet located approximately 200–300 meters from the Waigani Sewerage Ponds, settlers engage in fishing and harvesting of wild spinach as part of their subsistence and income-generating activities. Tilapia, a common and widely consumed freshwater fish, is found in the ponds. Residents fish for tilapia to supplement household food needs and to sell locally. Additionally, wild spinach grows along the edges of the ponds—particularly around Pond 5—and is harvested for consumption and sale. Although the ponds are owned by WPNG, rehabilitation works in Pond 5 are conducted during daylight hours, temporarily restricting access. Settlers continue to access the pond at night, and while the works may intermittently affect spinach harvesting, access remains generally possible throughout the construction period.

4. Livelihood Impacts on Vulnerable Groups

40. While most informal settlements are situated away from direct project works, parts of the 8-Mile distribution network will pass through informal areas where squatter residents engage in small-scale vending. Although a detailed household-level assessment of vulnerable groups was not conducted, data from the National Statistics Office indicates that Port Moresby, particularly its informal settlements, has high concentrations of vulnerable populations. These include individuals living in substandard housing, those at risk of forced eviction, food insecurity, and gender-based violence. These factors intersect to heighten the vulnerability of households, making them particularly sensitive to disruptions such as construction-related impacts.

41. Informal vending is a primary source of income for many residents in these settlements. Therefore, when market stalls or shelters in the 8-Mile area are affected by construction, household incomes may be temporarily or permanently reduced—particularly if structures are displaced and not restored. Such impacts can have lasting consequences for already vulnerable households.

5. Increased Costs or Economic Burden

42. The project has been designed to avoid displacement of residential dwellings and formal business premises. As a result, no relocation-related costs are expected for affected households or businesses. This proactive approach minimizes social and financial disruption and avoids imposing additional burdens on affected communities.

43. Mitigation strategies outlined in the Resettlement Plan focus on avoiding displacement wherever possible. In instances where economic impacts are unavoidable, the plan commits to fair and timely compensation for affected individuals and households. Additional support measures—such as alternative livelihood opportunities, skills training, and access to income-generating resources—will be provided to help restore livelihoods and ensure affected communities experience minimal disruption.

C. Land Requirements, Status, and Acquisition

44. In line with best practices, the project design incorporates measures to minimize land acquisition and avoid displacing dwellings or structures where feasible. Land parcels for new storage reservoirs and infrastructure upgrades have been carefully selected to align with existing land use and avoid significant resettlement impacts. During construction, minor land disturbances and asset impacts are anticipated, but strong commitments are in place to manage these impacts through environmentally and socially responsible procedures. The project's phased approach ensures the systematic improvement of both sanitation and water supply systems, ultimately contributing to improved public health, environmental sustainability, and urban resilience in Port Moresby.

Table 2: Acquisition Status of Water and Sanitation Infrastructure Sites

Component	Location and status description	Land Ownership / Lease Details	Current use	Next Steps
9-Mile Storage Reservoir	Portion 3595 Miliwans Granville, NCD Reserved Land under Section 49 of the Land Act 1996; not available for allocation	Lease / Occupancy: Land Certificate No. 02/2024, for Special Services Division's Police Officers: CAO held by RPNGC	Located near McGregor Royal PNG Constabulary Barracks; site near two mobile telecom stations; collocated with telecom infrastructure	WPNG to seek RPNGC and NCDC consent to install reservoir and associated infrastructure
8-Mile Storage Reservoir	Allotment 1, Section 27, Town of Bomana, NCD Legally described property; leased to W or Cara Persoers (Properties) Limited	State Lease Volume 42 Folio 94; lease approved for the site: held by WR Carpenters	Existing leasehold; no further issues reported	WPNG to work with DLPP as compulsory acquisition process maybe required. WR Carpenters has a Master Plan to develop the land, and potentially reluctant to release the land. The land is current vacant.
Mt Eriama Storage Reservoir	Portion 2461 Millinch of Granville, Fourmil of Moresby; Inside existing WPNG Water Treatment Facility Located within WPNG facility; leasehold held by WPNG	State Leasehold held by WPNG (formerly Eda Ranu)	Existing Water Treatment Facility and staff houses	No further action required, within existing WPNG facilities. Refer to Appendix 3A for the land title held by WPNG (formerly Eda Ranu)
Touaguba Storage Reservoir	Lot 21, Section 14, Port Moresby NCD Land appears to belong to WPNG; physical infrastructure present	State Leasehold held by WPNG (formerly Eda Ranu)	Infrastructure includes an existing rundown reservoir, pump station, staff residence; site accessible via tar-sealed road	Title for Section 14, Lot 21, has been surrendered for reissuance to Section 14, Lot 23, following the subdivision of the land. (Refer Appendix 3-B for copy of Title held by WPNG, formerly Eda Ranu)
Waigani Sewerage Ponds	Portion 1404, Millinch of Granville, Fourmil NCD WPNG owned existing Sewerage Ponds 1-6, STP, Sludge Landfills and Operation Building (Proposed)	State Leasehold held by WPNG	Infrastructures include 6 sewerage ponds and relative infrastructures	No further action required, within the existing WPNG facility and land. Refer to Appendix 3:C for the land title that is held by WPNG (formerly Eda Ranu)
Distribution Network/Trunk Mains	All within existing road reserves	Independent State of PNG	WPNG has an existing network installed by Eda Ranu	WPNG to confirm the connection from storage reservoirs to connecting points has no impact on new lands/improvements

1. Land Acquisition and Ownership

45. Water PNG intends to acquire two new sites for the construction of reservoir tanks—one at 8 Mile and another at 9 Mile. For the 9 Mile site, WPNG will formally request the National Capital District Commission (NCDC) and the Royal Papua New Guinea Constabulary (RPNGC) to relinquish a portion of land currently held under a Certificate of Occupancy by RPNGC. This arrangement currently prevents direct allocation of the land to WPNG by the DLPP. The site also hosts existing public utility infrastructure, including telecommunications towers operated by Digicel, Vodafone, and Telikom, which were permitted to use the land by RPNGC and NCDC (refer to Figure 4 and Figure 5).

46. The 8 Mile site is privately owned by WR Carpenters. During a site visit, a company representative advised that WR Carpenters has a master plan to develop a housing estate and supporting facilities on Allotment 1, Section 27, Bomana—an area that includes the proposed reservoir site (refer to Figure 5)

47. Each reservoir site requires approximately 40 meters by 40 meters, or 1,600 square meters. Beyond the acquisition of these two parcels, no further land acquisition is necessary, as all other infrastructure—such as pipelines, rehabilitation sites, and sanitation works—is located on existing state land and easements already under WPNG control.

2. Land Ownership and Status

48. All lands designated for the Project are situated on state land. This includes distribution networks, reservoir sites, and the Waigani Sewerage Ponds. Land within Port Moresby's Central Business District (CBD) is primarily state-owned and managed by DLPP in coordination with NCDC.

49. Although legally vested in the state, land management in the CBD has been subject to complexities stemming from historical lease arrangements, overlapping claims, and the need for compliance with statutory land administration processes. The project team has proactively engaged DLPP, NCDC, and other stakeholders to confirm land titles, lease statuses, and compliance requirements. Ongoing consultations aim to maintain transparency and ensure community support—both critical to the project's long-term success. Substantial endorsement has already been received from key stakeholders. For more details, see Appendix 4 (Land Status Reports for 8 Mile and 9 Mile Reservoir Sites).

3. Next Steps in Land Acquisition

50. The Project team—including WPNG's Project Management Unit (PMU), Department of Lands and Physical Planning, and external safeguards consultants—will focus on securing consent from the private landowners (RPNGC and WR Carpenters), finalizing land negotiations and formalizing land use agreements. This will involve confirming compensation requirements, securing legal titles, and ensuring customary land rights are acknowledged and respected where applicable.

51. Ongoing stakeholder engagement remains a priority. Regular meetings and updates will be held with community members, private property owners and key institutions to maintain transparency and trust. In parallel, coordination with environmental agencies will ensure that the project meets ecological compliance requirements and secures all necessary permits.

52. This Resettlement Plan outlines procedures for engaging affected communities and landowners and establishes GRM. It also emphasizes the importance of consistent monitoring and documentation to track progress, promptly address issues, and ensure transparency and accountability.

53. WPNG PMU will work closely with DLPP to formally initiate the land acquisition process. However, before proceeding, land use authorizations must be secured from NDCD for both reservoir sites: Portion 3596 (9 Mile site) and Allotment 1, Section 27 (8 Mile site). These approvals require the consent of RPNGC and WR Carpenters, respectively.

54. WPNG has formally requested DLPP's assistance in carrying out field investigations and assessments at the 8 Mile and 9 Mile sites. These investigations cover land valuations and land status reviews, including assessments along the distribution network road easements. DLPP assigned officers to this task, and field surveys were carried out and completed in June 2025.

55. DLPP is currently finalizing the following reports, expected to be delivered to WPNG by end July 2025:

- (i) Certified Valuation Reports detailing land replacement costs and market values of losses and/or improvements at the 8 Mile and 9 Mile storage reservoir sites and elsewhere along the distribution network where similar losses will be experienced.
- (ii) Comprehensive Case Report from the Chief Physical Planner's Office accompanied by necessary planning application fee costing for Port Moresby.

56. These reports will guide the subsequent steps in the land acquisition and development process.

III. SOCIOECONOMIC INFORMATION AND PROFILE

A. Source of Data

57. The data presented has been obtained from primary sources through surveys, focus groups, and fieldwork. It has been complemented with secondary sources obtained from documents prepared by the ADB, such as poverty, social and gender analysis, previous resettlement records, publications, and official public data from sources including the PNG Government, United Nations Agencies, and other international organizations.

B. Geography and Weather

58. Port Moresby is located on the southern coast of Papua New Guinea, approximately 9.25° south of the equator. It falls within the National Capital District (NCD), which is distinct from, though entirely surrounded by, Central Province. The terms "Port Moresby" and "National Capital District" are often used interchangeably.¹

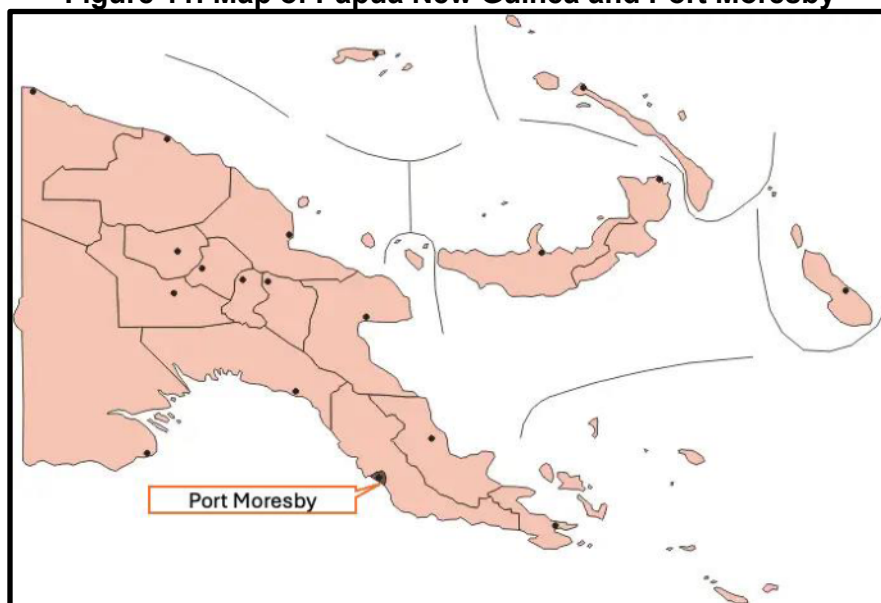
59. The western coastline features low-lying marshes and depositional landforms. In this area, the mountain ranges lie over 20-km inland, and the coastal plain is divided by meandering estuaries. In contrast, the eastern coastline is characterized by rocky headlands, sandy beaches, and lagoons along a narrow strip backed by rugged terrain. Located in a geophysical active zone,

¹ Port Moresby, Papua New Guinea – Climate Change Vulnerability Assessment, United Nations Human Settlements Program (UN-Habitat). 2013.

Port Moresby is vulnerable to natural hazards such as earthquakes, tsunamis, volcanic eruptions, and landslides.²

60. Although no major rivers run directly through the city, Port Moresby lies within the catchment areas of the Vanapa and Brown Rivers. The Loloki River runs along the city's periphery, and smaller watercourses such as Waigani and Boroko Creeks are located within the urban area.

Figure 11: Map of Papua New Guinea and Port Moresby



61. Port Moresby has a tropical savanna climate (classified as Aw under the Köppen-Geiger system), with an average annual temperature of 25.8 °C and relative humidity ranging from 74% to 86%. The city experiences a distinct dry season and receives approximately 1,526 mm of rainfall annually, with July being the driest month (averaging only 36 mm).³

62. The terrain is marked by northeast–southwest-oriented ridges separated by wide, flat valleys, creating a dispersed settlement pattern. These ridges can reach elevations of up to 200 metres above sea level.⁴

63. The NCD shares a land border with Central Province. To the northeast lies the Owen Stanley Range, traversed by the Kokoda Track, which begins near Sogeri. The Sogeri Plateau is an important agricultural area that supplies Port Moresby with fresh produce. The nearby Sirinumu Dam is the city's primary source of freshwater and hydropower. Recreational areas such as Crystal Rapids and Varirata National Park are also located in this region.

64. The Hiritano Highway connects Port Moresby to Kerema and Gulf Province to the northwest. It extends inland for roughly 20 km, passing through lower foothills, steep slopes,

² National Capital District Commission Urban Development Plan Review 2020, "Port Moresby Towards 2030". November 2020. Port Moresby.

³ Climate Data. <https://en.climate-data.org/oceania/papua-new-guinea/port-moresby/port-moresby-2095/>. Accessed on 10 May 2015 and 27 June 2025.

⁴ Port Moresby, Papua New Guinea – Climate Change Vulnerability Assessment, United Nations Human Settlements Program (UN-Habitat). 2013.

lowland plains, and marshlands. The Magi Highway runs southeast along a narrow coastal strip characterized by rocky headlands, sandy beaches, and coastal lagoons.⁵

65. In addition to being the national capital, Port Moresby serves as Papua New Guinea's principal administrative and commercial hub. As the country's largest and most developed urban center, it attracts both resources and people from nearly all tribal groups across the nation. It also houses the seat of the National Government. The Central Business District is located on a peninsula at the entrance to Fairfax Harbour, where the main commercial port and other key business establishments are situated.⁶

66. As of 2018, the district covered an area of approximately 259 km². The urban area⁷ spans around 69 km², or about 43% of the city. This area is projected to expand to roughly 82 km² by 2030.⁸

C. Settlements

67. Over the past decade, the area occupied by informal settlements has more than doubled, growing from 18 km² to 40 km². Combined with undeveloped land within the Subdivision Zone currently under development, the total urban footprint is expected to reach approximately 80 km².⁹

68. Around 50% of the district's land area comprises green-blue infrastructure, including natural assets, ecologically sensitive areas, and mountainous terrain. The NCD's maritime zone includes the main port, surrounding islands, and fragile marine ecosystems.

69. Informal settlements constitute the dominant land use in the city, occupying nearly 15% of the city. Urban expansion has recently focused on consolidating existing developed zones through redevelopment, while informal settlements have proliferated on the city's fringes.

⁵ Port Moresby, Papua New Guinea – Climate Change Vulnerability Assessment, United Nations Human Settlements Program (UN-Habitat). 2013.

⁶ Port Moresby, Papua New Guinea – Climate Change Vulnerability Assessment, United Nations Human Settlements Program (UN-Habitat). 2013.

⁷ Defined as land already subject to some form of formal or informal development.

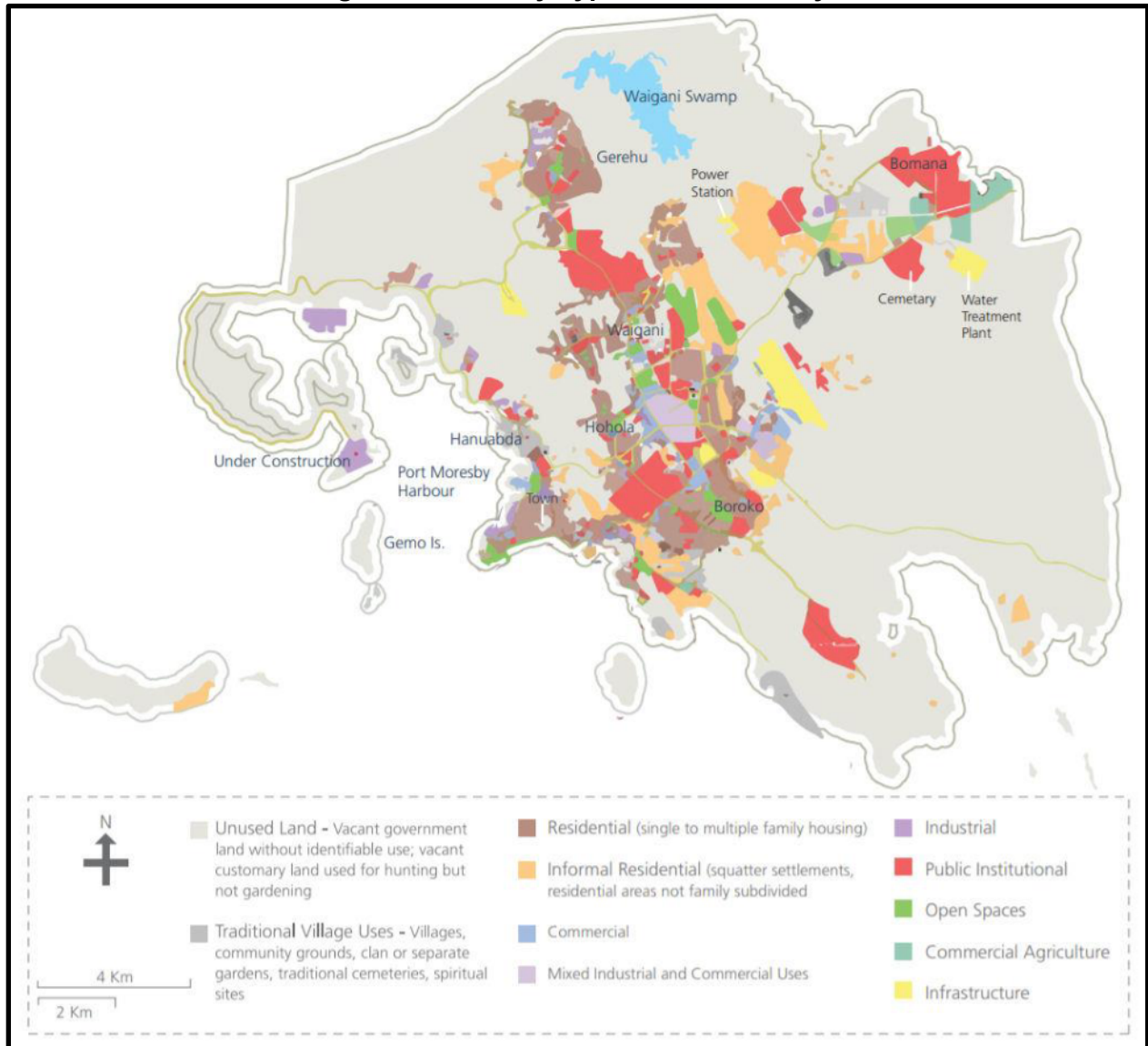
⁸ National Capital District Commission Urban Development Plan Review 2020, "Port Moresby Towards 2030". November 2020. Port Moresby.

⁹ IDEM.

70. Land tenure in Port Moresby is classified primarily into two types: state land and customary land. State land covers the city center and extends northward and northeast, while customary land is found predominantly in the northwestern and southeastern outskirts.¹⁰

71. Of the district’s approximately 250 km² of land, about 60% is state land, with the remaining 40% being customary land. Since 2006, only minor changes have occurred in these proportions, as reflected in the 2018 land tenure data. Nonetheless, a persistent lack of reliable and up-to-date land tenure information remains a concern.¹¹ Figure 13 shows land by type in Port Moresby.

Figure 13: Land by Type in Port Moresby



¹⁰ National Capital District Commission Urban Development Plan Review 2020, “Port Moresby Towards 2030”. November 2020. Port Moresby.

¹¹ IDEM.

72. Informal settlements continue to expand on both state and customary lands. The informal land system is increasingly perceived as a practical alternative to the formal system, which is often viewed as bureaucratic, slow, and financially inaccessible. This informal market allows land to be sold or leased, largely through kinship-based arrangements.¹²

73. According to the 2000 census, population growth has been concentrated in inner suburbs such as Gerehu, Morata, Gordons, and Tokarara. Residential expansion has moved uphill—initially in areas between the port and Koki, and since the mid-2000s, extending to the elevated areas surrounding Waigani, Hohola, and Garden Hills.¹³

74. These settlement characteristics must be carefully considered in project design and planning—particularly given the city’s scattered urban pattern and the need to avoid works that could restrict or temporarily cut off access to water sources during the dry season.

D. Population

75. The Port Moresby’s estimated population in 2021 was 513,918,¹⁴ up from 364,125¹⁵ recorded in the 2011 Census. Between 2000 and 2011, the city’s population grew at an estimated annual rate of 3.3%, exceeding the national average of 3.1% during the same period.¹⁶ This may be attributed to rural to urban immigration, particularly to man cities of people looking for opportunities and access to social services.

76. According to the National Capital District Urban Development Plan Port Moresby Towards 2030, the city’s population is projected to increase by between 210,000 and 480,000 people by 2030.¹⁷ This equates to an average annual growth of approximately 20,000 to 44,000 individuals. This sustained population growth is largely attributed to continued internal migration from rural areas, the expansion of informal settlements, and increased birth rates within the urban environment.¹⁸

77. Based on the projections, 51% of the population is male and 49% female. The age distribution comprises 20.8% aged 0 to 14 years, 67.9% between 15 and 64 years, and 2.3% aged over 65.¹⁹

E. Life Expectancy and Health

78. Life expectancy in Papua New Guinea has been increasing steadily in recent decades, although it remains below the global average.²⁰

¹² National Capital District Commission Urban Development Plan Review 2020, “Port Moresby Towards 2030”. November 2020. Port Moresby.

¹³ IDEM.

¹⁴ National Statistical Office (NSO). Census 2011, Port Moresby.

¹⁵ National Population Estimate 2021. National Statistical Office, Australian Government and AusPNG Partnership and (UNFPA), 2021.

¹⁶ National Capital District Commission Urban Development Plan Review 2020, “Port Moresby Towards 2030”. November 2020. Port Moresby.

¹⁷ IDEM.

¹⁸ Port Moresby, Papua New Guinea – Climate Change Vulnerability Assessment, United Nations Human Settlements Program (UN-Habitat). 2013.

¹⁹ National Population Estimate 2021. National Statistical Office, Australian Government and AusPNG Partnership and (UNFPA), 2021.

²⁰ World Life Expectancy. Life expectancy in Papua New Guinea. <https://www.worldlifeexpectancy.com/new-guinea-life-expectancy> . Accessed on 27 June 2025.

79. By 2025, estimates place life expectancy at birth between 65.3 and 66.5 years nationally, with gender differences: between 63.4 and 64.5 years for men and between 67.4 and 68.5 years for women. Given that Port Moresby, as the country's capital, has better access to basic services, healthcare, and economic opportunities than rural areas, its life expectancy levels can be assumed to be slightly higher than the national average, although specific data for 2025 are not available.²¹

80. The National Capital Region Provincial Health Authority (NCDPHA) has developed its 2025–2030 Strategic Plan to improve the equity, efficiency, and coverage of services, especially in peri-urban communities and informal settlements, where health gaps are most pronounced.²²

81. The most recent figures indicate that the infant mortality rate stands at 34.8 deaths per 1,000 live births, while maternal mortality is approximately 171 per 100,000 births. Under-five mortality is 49 per 1,000 live births.²³

82. Communicable diseases such as tuberculosis and HIV/AIDS remain prevalent, particularly in densely populated settlements. Port Moresby accounts for a significant proportion of the country's HIV cases, and although the national prevalence ranges between 0.8% and 1.0%, testing coverage remains low: only 6.9% of women and 5.9% of men aged 15–49 have recently been tested and received results.²⁴

83. Non-communicable diseases such as hypertension and type 2 diabetes are on the rise, driven by urban sedentary lifestyles, food insecurity, and limited access to preventive care.²⁵

84. Although Port Moresby has better infrastructure than other regions in the country, less than 55% of births are attended in health facilities, and only 35.3% of children aged 12–23 months receive their full vaccination schedule.²⁶

F. Education

85. Education faces several challenges in terms of both access and quality. Port Moresby, as the national capital, is home to a significant portion of the country's urban population and presents a dual educational structure: on the one hand, public and private schools with established infrastructure; on the other, a network of community schools and informal centers in urban settlements with limited access to resources, staff, and basic services.

86. The rollout of a new education system is hindered by infrastructure shortfalls, a lack of qualified teachers, insufficient teaching materials, and poor classroom and sanitation conditions. Low public funding exacerbates these issues, affecting education quality across the system. Nationally, over 70% of ten-year-old children in PNG do not demonstrate age-appropriate reading comprehension. There is little to no access to early childhood education, leaving many children

²¹ World Health Organization (WHO) . Papua New Guinea - NCD Country Profiles 2018. https://cdn.who.int/media/docs/default-source/country-profiles/ncds/png-es.pdf?sfvrsn=d0c2b16f_38&download=true Accessed on 27 June 2025.

²² NCD Provincial Health Authority. (2025). Strategic Health Plan 2025–2030. Document technical (draft).

²³ National Statistical Office (NSO) & Department of Health (NDoH). (2019). Papua New Guinea Demographic and Health Survey 2016–2018.

²⁴ PNG National HIV/STI Strategy Review. (2024–2025). Mid-Term Assessment Report.

²⁵ NCD Provincial Health Authority. (2025). Strategic Health Plan 2025–2030. Document technical (draft in revision).

²⁶ Reliefweb Disease Outbreak News: Circulating vaccine-derived poliovirus type 2 (cVDPV2) - Papua New Guinea, 20 May 2025. Accessed on 27 June 2025.

at a disadvantage before entering primary school. Teacher absenteeism and weak school management further hinder learning outcomes.²⁷

87. According to the PNG National Research Institute’s Universal Basic Education in 2019 report, the National Capital District (NCD) comprises three electorates—Port Moresby South, Northeast, and Northwest—each with primary and elementary schools. As of 2019, there were 42 elementary schools and 41 primary schools across the district.²⁸

88. Only 64% of children are enrolled in elementary education, compared to 97% of children aged 6–14 who attend basic education. In 2019, enrolment of six-year-olds in elementary school declined, with nearly two-thirds instead entering primary school directly.²⁹

89. The report also found that only 55% of students who begin first grade complete basic education through Year 8, indicating a significant dropout rate. The average pass rate for eighth-grade examinations was 36%—well below the national average of 49%—highlighting ongoing gaps in learning quality and attainment.³⁰

G. Employment

90. As the national capital, Port Moresby concentrates a significant proportion of Papua New Guinea’s economically active population, particularly in sectors such as commerce, construction, public administration, and essential services. While the official local unemployment rate is estimated at 1.9%, this figure does not adequately capture the high levels of informality and underemployment prevalent across the city.³¹

91. The informal economy plays a vital role in Port Moresby’s socioeconomic landscape, sustaining a large share of the urban population—especially more than 75% of those living in informal settlements. Informal activities, typically structured as microenterprises or livelihood ventures, span areas such as marketing, distribution, small-scale manufacturing, and service delivery.³²

92. This sector is estimated to generate around 2 million kina per day, equating to roughly 750 million kinas annually, and represents the primary income source for nearly half of all urban households. Even among those employed in the formal sector, it is common to engage in informal economic activities to supplement household income.³³

93. The expansion of the informal economy has been driven by a combination of factors, including rapid population growth, a shortage of formal employment opportunities, low wages, rising living costs, and increasing numbers of children leaving school before completing their education.³⁴

²⁷ World Vision Australia. Our approach to education in Papua New Guinea. <https://www.worldvision.com.au/global-issues/work-we-do/poverty/our-approach-to-education-in-papua-new-guinea> . Consulted on 27 June 2025.

²⁸ National Research Institute (NRI).NCD Universal Basic Education in 2019. <https://pngnri.org/atlasNRI/index.php/ube-status/southern-region?layout=edit&id=4> . Consulted on 27 June 2025.

²⁹ PNG National Research Institute (NRI).NCD Universal Basic Education in 2019. <https://pngnri.org/atlasNRI/index.php/ube-status/southern-region?layout=edit&id=4> . Consulted on 27 June 2025.

³⁰ IDEM.

³¹ <https://versus.com/en/port-moresby> . Accessed on 27 June 2025.

³² National Capital District Commission Urban Development Plan Review 2020, “Port Moresby Towards 2030”. November 2020. Port Moresby.

³³ IDEM.

³⁴ IDEM.

H. Household Income and Expenditure

94. There are currently no official figures published by the National Institute of Statistics that focus solely on household income in Port Moresby. However, Living Cost estimates it to range between 1,500 and 2,500 kina per month. This figure varies depending on factors such as the type of employment, level of education, and whether the household is located in a formal area or an informal settlement.³⁵

95. According to the same source, this income level covers only around 80% of the average monthly cost of living. As a result, households typically rely on multiple income streams, including earnings from informal economic activities, to meet their basic needs.

I. Poverty

96. According to the United Nations Development Programme (UNDP), Papua New Guinea's Multidimensional Poverty Index (MPI) for 2019/2020 was 0.263. This indicates that approximately 37.8% of the population was considered multidimensionally poor, facing deprivation across key indicators such as health, education, and living standards.³⁶

97. Data from the 2009 PNG Household Income and Expenditure Survey (HIES) estimated that around 37% of the national population was living below the income poverty line at that time. However, no more recent disaggregated household income data is available specifically for Port Moresby.³⁷

98. The wantok system—a traditional network of solidarity and reciprocity that connects individuals sharing the same language, culture, or regional background—remains an integral part of Papua New Guinea's social fabric. While it plays a crucial role in fostering social cohesion and providing informal support in contexts where public services are lacking, it can also reinforce cycles of poverty. In urban settings such as Port Moresby, where formal and informal systems intersect, the wantok system serves both as a social safety net and a concealed financial burden, particularly for individuals seeking economic autonomy.³⁸

J. Housing³⁹

99. Formal housing in Port Moresby is characterized by lack of affordability. Recent housing developments are priced beyond the reach of the majority of the working population. This forces many people to resort to informal options such as boarding houses, shared accommodation, or informal settlements. This gap has driven accelerated growth in the informal sector, with more than 23,000 new constructions in settlements in the last decade, compared to just 6,500 in planned areas.

³⁵ <https://livingcost.org/cost/papua-new-guinea/port-moresby/>. Accessed on 27 June 2025.

³⁶ UNDP (United Nations Development Programme). Multidimensional Poverty Index (MPI) <https://hdr.undp.org/content/2024-global-multidimensional-poverty-index-mpi#/indicies/MPI>. Accessed on 27 June 2025.

³⁷ National Statistical Office – PNG Household Income and Expenditure Survey, <https://www.nso.gov.pg/census-surveys/household-and-income-expenditure-survey/>. consulted on 27 June 2025.

³⁸ National Research Institute (NRI) Spotlight Volume 16, Issue 11 “Papua New Guinea is facing the development challenges of poverty in urban centers” by Philip Kavan. July 2023.

³⁹ National Capital District Commission Urban Development Plan Review 2020, “Port Moresby Towards 2030”. November 2020. Port Moresby.

100. The city's urban fabric is composed of established neighbourhoods such as Town, Konedobu, Boroko, and Gerehu, originally developed with low density and single-family housing. In recent years, many have undergone densification, subdivision, and redevelopment. New developments, such as Kennedy Estate and Skyview, tend to be gated communities with limited spatial integration and a lack of public services.

101. Roughly 40% of Port Moresby's urban land is customary land, predominantly managed by the Motu Koitabu people. This land encompasses not only traditional residential areas but also communal gardens, ceremonial spaces, spiritual sites, and burial grounds. Villages such as Hanuabada, Kira Kira, and Pari maintain a strong cultural identity. However, the pressures of rapid urbanisation pose significant risks to their traditional lifestyles and land uses.

102. As these Motu Koitabu villages expand, they face mounting challenges related to overcrowding, inadequate housing, and poor access to basic services. Water supply is intermittent, electricity is commonly sourced via informal connections, sanitation infrastructure is lacking, and waste management remains insufficient.

103. Over 50% of the city's population lives in informal settlements, many without legal land titles or compliance with urban planning regulations. Whether located on state or customary land, these areas are typically characterised by inadequate housing, unemployment, limited access to essential services, and heightened social vulnerability. Their growth—primarily driven by rural-to-urban migration—has outpaced formal development, now covering the equivalent of 70% of land occupied by planned urban areas, placing increasing pressure on both formal infrastructure and traditional land systems.

104. Port Moresby's water supply depends largely on the Sirinumu Reservoir, with water treated at the Mount Erima Plant, which processes around 177 megalitres per day. Despite this capacity, the system faces critical inefficiencies: only 45% of treated water is billed. Losses arise from leaks (27%), illegal connections (11%), and unbilled consumption (17%), particularly within informal settlements and customary villages. The distribution network primarily serves older suburbs, leaving substantial areas—especially in the east, south, and west—without reliable service.

105. The wastewater treatment system consists of several decentralised basins connected mainly to the Waigani Wetlands and Joyce Bay. Although a new treatment plant was recently added near the bay, it operates at only 25% of its capacity and is restricted by legal constraints related to sludge disposal. Currently, sludge is accumulating on vacant land. The Waigani treatment lagoons are severely congested and require the removal of at least 300,000 m³ of sludge. The absence of regulatory frameworks on wastewater and sludge management poses growing public health and environmental risks, particularly as urban development encroaches on treatment infrastructure zones.

Figure 14: Port Moresby Water Network

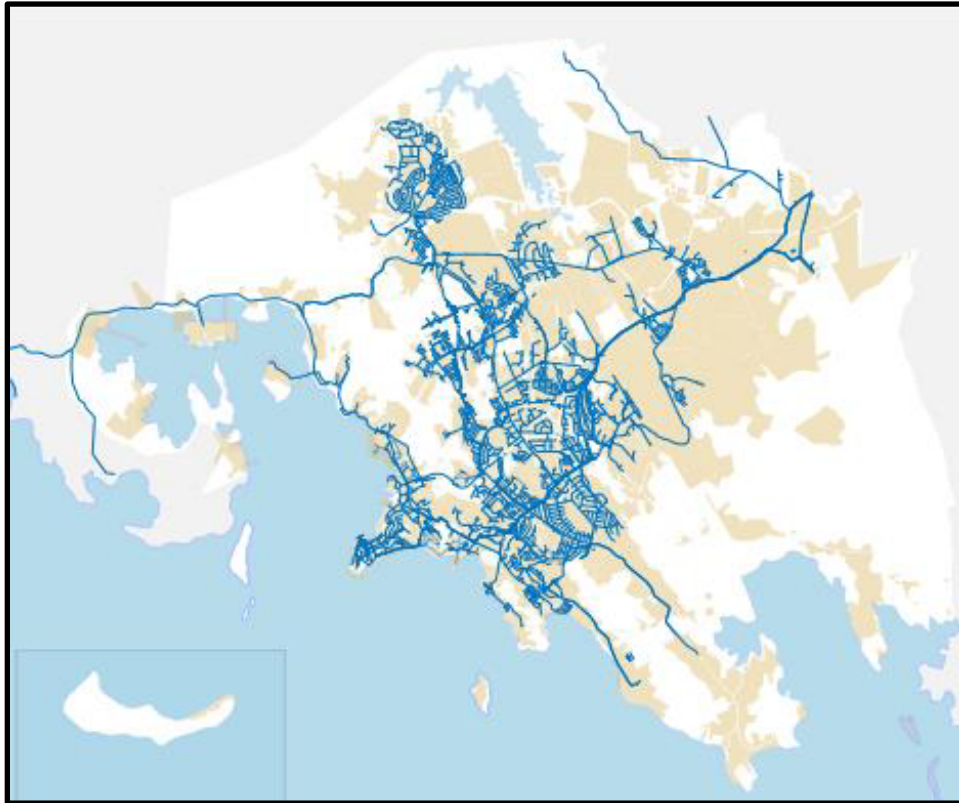
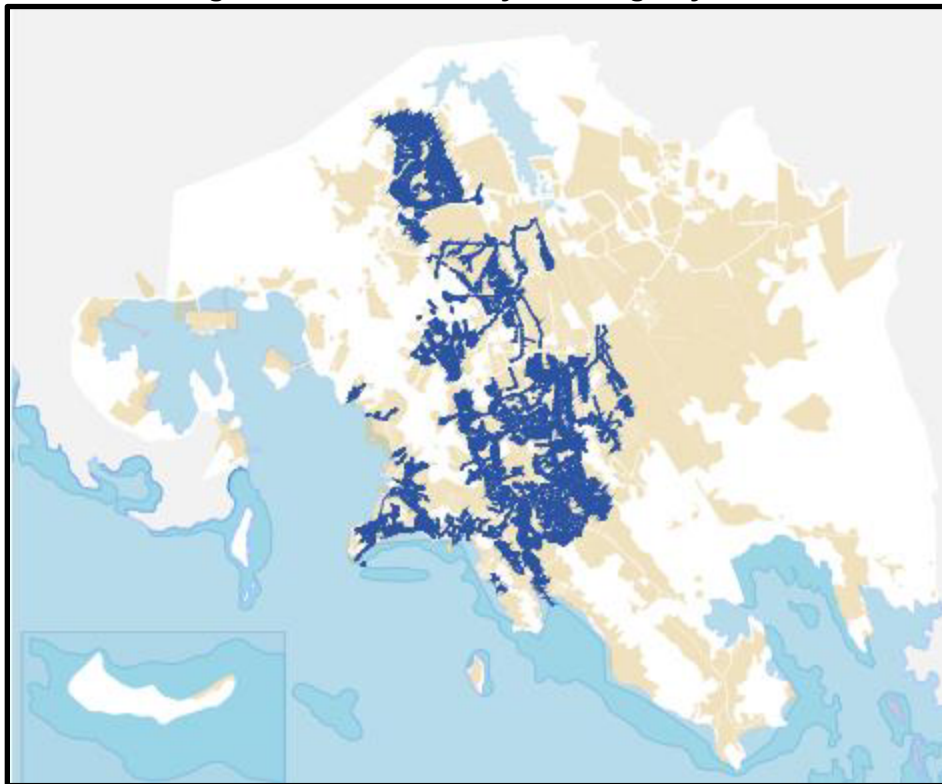


Figure 15: Port Moresby Sewerage System



106. Future investment planning in urban infrastructure is complicated by a lack of reliable data on actual population figures and the current extent of service networks, making scenario modelling dependent on assumptions.

107. The city's electricity system is managed by PNG Power Ltd, combining hydroelectric generation (Rouna 1–4) with thermal power (Moitaka), interconnected through substations located at Bomana, Boroko, Waigani, and Konedobu. However, service coverage remains heavily concentrated in formal urban areas, with limited or unreliable access in informal settlements and peripheral zones.

K. Migration

108. Migration within Papua New Guinea is predominantly internal and circular. This means that individuals—often young men—relocate from their rural villages to urban centres or development areas such as mining sites, forestry zones, or provincial capitals in pursuit of employment and economic opportunity. However, they typically maintain strong ties with their communities of origin and often return periodically.⁴⁰

109. People travel to the city and move with their neighbours, with whom they share language, kinship, mutual commitment, and support. This creates networks of connected and organized people that allow them to share resources. These social connections are essential for people to access the opportunities the city offers and are also key to their resilience and ability to adapt to the rapid changes taking place in the city.⁴¹

110. Port Moresby, in particular, attracts large numbers of migrants from across all provinces. According to the 2011 Census there were 152,373 migrants residing in the district, representing 42% of the total population. This marked a 28% increase in migrant numbers since 2000. Among all provinces, the National Capital District had both the highest volume of incoming migrants and the greatest net migration, with a net gain of 108,184 people. Most migrants were aged between 25 and 29 years, and the gender distribution showed a slightly higher proportion of men—109 males for every 100 females.⁴²

L. Gender

111. In Papua New Guinea, the situation of women in Papua New Guinea (PNG) is complex, marked by the coexistence of strong traditional roles. Women's participation in PNG's economy is strongly divided between the informal sector and a very small formal sector. Women play a key role in the informal economy, especially in the production and sale of fresh food in local markets.

112. Men are more likely to be formally employed than women. Sixty-four percent of married men worked in the past 12 months, compared to only 36 percent of married women. Forty-six percent of married women with cash income independently decide how their earnings are used. Approximately half of women and men report making joint decisions about their partners' cash income.⁴³

⁴⁰ National Research Institute (PNG). *Evolving patterns of population movement in Papua New Guinea with reference to policy implications*. 1978.

⁴¹ National Capital District Commission Urban Development Plan Review 2020, "Port Moresby Towards 2030". November 2020. Port Moresby.

⁴² IDEM.

⁴³ National Statistical Office – PNG Household Income and Expenditure Survey, Key Findings of the 2016-18 DHS. <https://www.nso.gov.pg/census-surveys/demographic-and-health-survey/>. Consulted on 27 June 2025.

113. Contraceptive use is higher among women who participate in one or more household decisions. In most cases, women's participation in decision-making is positively associated with seeking reproductive health care, including prenatal care, birth with a qualified professional, and postnatal checkups.⁴⁴

114. Around 56% of women aged 15 to 49 in Papua New Guinea have experienced physical violence since the age of 15, and 28% have experienced sexual violence. Eighteen percent of women who have ever been pregnant have experienced violence during pregnancy.⁴⁵ 63% of women who have ever been married have experienced physical, sexual, or emotional spousal violence. The most common type of spousal violence is physical violence (54%), followed by emotional violence (51%). 29% of women have experienced spousal sexual violence. 57% of women who have experienced physical or sexual spousal violence have suffered injuries.⁴⁶ Cuts, bruises, or sore spots are the most common types of injuries reported. In Port Moresby's urban settlements, these rates are often even higher, driven by factors such as insecurity, poor lighting, poverty, and social marginalization.⁴⁷

M. Cultural

115. The Motu Koitabu are the original custodians of the land on which Port Moresby is situated. They maintain vibrant cultural traditions, including rituals, ceremonial sites, and festivals, which remain integral to their collective identity. One of the most significant cultural celebrations is the Hiri Moale Festival, held annually in September. This event commemorates the historic Hiri maritime trade route, paying homage to Motu ancestors through traditional dances, lagatoi (canoe) races, ceremonial singing, and the crowning of the Hiri Queen—a symbolic figure representing the strength and dignity of Motu women. The festival takes place at Ela Beach, an important ceremonial venue that also hosts various community gatherings and cultural events throughout the year.⁴⁸

116. Beyond Ela Beach, ritual spaces are found in traditional villages such as Hanuabada, Tatana, and Vabukori, where culturally significant activities—such as sacred dances, initiation ceremonies, traditional funerals, and other customary practices—continue to be performed. These sites hold deep spiritual and cultural value for local communities and serve as living expressions of Motu Koitabu heritage.⁴⁹

⁴⁴ IDEM.

⁴⁵ IDEM.

⁴⁶ IDEM.

⁴⁷ UN Women PNG. (2023–2025). Country Gender Equality Brief.

⁴⁸ <https://adventurebackpack.com/port-moresby-events/>. Accessed on 27 June 2027.

⁴⁹ IDEM.

IV. INFORMATION DISCLOSURE, CONSULTATION, AND PARTICIPATION

117. Effective implementation of the Resettlement Plan (RP) requires clearly defined roles and responsibilities across the various institutions involved in the Project. This section outlines the key agencies and actors responsible for managing and executing resettlement-related activities during both the pre-implementation and implementation phases. These arrangements ensure that all stakeholders coordinate effectively, and that the RP is delivered in a timely, transparent, and policy-compliant manner.

A. Approaches to Information Disclosure, Consultation, and Stakeholder Participation

118. ADB SPS highlights the importance of meaningful consultation and the involvement of affected families in development projects. Key aspects of meaningful consultations include:

- (i) initiating early in the project preparation phase and continuing throughout the entire project cycle;
- (ii) offering timely access to pertinent and sufficient information that is clear and easily obtainable for those affected;
- (iii) conducting discussions in a setting that is free from intimidation or pressure;
- (iv) ensuring gender inclusivity and addressing the needs of vulnerable and disadvantaged groups;
- (v) scheduling meetings at times and locations that are convenient for women to guarantee at least 30% participation from them; and
- (vi) facilitating the integration of relevant perspectives from affected individuals and stakeholders into decision-making processes, including project design, mitigation strategies, the distribution of development benefits, and implementation challenges.

B. Consultation and Participation during Project Preparation

119. Stakeholder consultation and participation process included meetings with local communities, private property owners and relevant authorities to inform them about the project's objectives and address any questions or concerns regarding water supply and sanitation improvements in Port Moresby. To ensure affected people, government entities and private land lease holders are adequately informed, the Project team will ensure meaningful consultations are carried out with relevant community groups including marginalized groups such as women, elderly and persons with disabilities, to gather their insights and incorporate their perspectives into the implementation works. During the earlier stages of the project preparation, the Project Team consulted the department of lands and physical planning (DLPP), National Capital District Commission (NCDC), relevant stakeholders, local impacted communities living within the vicinity of the project sites.

120. As the project progressed, further consultations will be carried out following the stakeholder consultation plan where details of works, project design scope and construction schedules, anticipated impacts, and proposed mitigation measures shall be disseminated to the communities and stakeholders who are directly or indirectly impacted by the Port Moresby Water Supply Project. There will be an ongoing dialogue during implementation stages of project cycle aimed at fostering transparency, build trust, and ensure that community feedback is continuously integrated into project design and implementation.

121. Specific consultations and interviews with the affected people and communities directly impacted by the project shall be undertaken during the implementation stages. Particular attention will be given to the challenges women faced as the administrators of household water management responsibilities.

122. The Table 3 below summarizes the stakeholder and community consultations conducted thus far in Port Moresby pertaining to Subprojects.

Table 3: List of Stakeholders

Category	Stakeholders
Primary Stakeholders	<p>National</p> <ul style="list-style-type: none"> (i) Department of National Planning and Monitoring (DNPM) (ii) Kumul Consolidate Holdings (KCH) (iii) Department of Lands and Physical Planning (DLPP) (iv) National Broadcasting Commission (NBC) (v) Department of Treasury (DOT) <p>LLG</p> <ul style="list-style-type: none"> (i) National Capital District Commission (NCDC) <p>Others</p> <ul style="list-style-type: none"> (i) Royal PNG Constabulary (RPNGC) (ii) WR Carpenters (PNG)-Port Moresby (8-mile site lease holder) (iii) RPNGC –Port Moresby (9-mile site lease holder) (iv) Impacted Communities
Secondary Stakeholders	<ul style="list-style-type: none"> (i) Informal Settlements in 8 mile and 9 Mile, Port Moresby (ii) Shops and business houses near 8- and 9-mile, Port Moresby (iii) Local Communities (including vulnerable groups) <p>Non-Governmental Organizations (NGOs)</p> <ul style="list-style-type: none"> (i) Churches (ii) Vulnerable Groups (e.g., People Living with Disabilities)

C. Consultations with the Affected People

123. Between early 2024 and mid-2025, several high-level stakeholder meetings were held in Port Moresby, involving representatives from the ADB Fact-Finding Mission and various government departments and agencies of the Government of Papua New Guinea. During this period, WPNG and the project consultants encountered challenges in maintaining consistent stakeholder engagement in relation to the planned subprojects.

124. To ensure proper alignment with land tenure requirements, WPNG prioritized engagement with the Department of Lands and Physical Planning (DLPP) to confirm cadastral survey maps and identify settlement zones along the periphery of state land, where the proposed water reticulation systems are expected to traverse.

125. Given the uncertainties surrounding the final design and to prevent any premature expectations, the project team has temporarily limited engagement with the informal settlement communities at 8 Mile and 9 Mile, both within and outside state land areas. However, stakeholder engagement with these communities will continue once the design is completed. The views and

concerns of the community will be thoughtfully considered and integrated into the planning and implementation stages moving forward.

126. Throughout project implementation, the contractor and the Implementing Agency (IA) shall ensure ongoing communication and consultation with affected communities and key stakeholders. These efforts aim to provide timely, transparent, and accurate information about project activities.

127. Engagement measures shall include the installation of project signage, distribution of newsletters, regular informational briefings, and formal consultation meetings. The contractor shall appoint a dedicated Community Liaison Officer (CLO), responsible for leading community engagement, coordinating stakeholder consultations, and managing all project-related communication initiative.

D. Stakeholder Consultation and Engagement Plan during Project Implementation

128. Water PNG and NCDC will jointly coordinate the disclosure of project information to local communities and relevant stakeholders throughout Port Moresby. This process shall be undertaken during the construction and installation of transfer pump stations, reservoirs, treatment plants, and water reticulation pipelines as defined within the project design scope across the city's suburbs.

129. WPNG's PMU, in coordination with the DLPP, shall engage with affected stakeholders to plan the land acquisition process. This includes consultation on compensation measures and the formal transfer of state leases to WPNG for the installation of water reservoirs and treatment facilities. Additional consultations shall target informal settlement areas, commercial shops, businesses, and private landholders during the first year of project implementation. Engagement with these groups will continue throughout the project's implementation phase to ensure ongoing communication and responsiveness to stakeholder concerns.

130. In addition, WPNG and DLPP shall coordinate with WR Carpenters regarding the proposed reservoir sites. This will involve consultations with leaseholders to explore options for land purchase, subdivision, and eventual transfer of lease ownership to WPNG to facilitate the development of reservoir infrastructure.

Table 4: Engagement with Authorities and Stakeholders

Date	Reference	Participants	Brief Description	Notes & Outcomes
May 2024	Land Acquisition	Social Safeguards Specialist and DLPP	Numerous meetings with DLPP on land acquisition for Port Moresby	Formal Letter requesting DLPP assistance in the acquisition process. DLPP Secretary responded by WPNG financial constraint led to delay in assistance being sought
8 April 2025	Land Acquisition	Social Safeguards Specialist and DLPP	Interviewed Land Officials and Conduct searches on land earmarked for reservoirs in Port Moresby	Project Internal Land Status Report compiled and submitted to Urban Development Specialist and WPNG PMU

Date	Reference	Participants	Brief Description	Notes & Outcomes
June 2025	Land Acquisition	WPNG, Social Safeguards Specialist, DLPP	Various meetings with DLPP, second formal request to DLPP Secretary from WPNG CEO requesting officers to assist in land acquisition work for Port Moresby (and Vanimo)	Final Field Surveys Completed in Vanimo in mid-June 2025

Table 5: Interviews and Surveys

Type of Meeting	Date	Participants	Key Points and Findings	Follow-up Actions
Consultation	September 2024	Vendors at Mt Eriama Water Treatment Facility Entrance and Social Safeguards Specialist	Enquiries on “who” owns land next door to the treatment plant – previous candidate site for Mt Eriama Reservoir. Site owned by Behori Clan of Koiari, Central Province	Verified information to be correct
Consultation	April 2025	WPNG, Social Safeguards Specialist and WR Carpenters Consultant; Murale Nair	WR Carpenters planned to develop 8-mile proposed site for reservoir into housing estate for their staff	Data to inform infrastructure, gender-sensitive planning, and community education initiatives

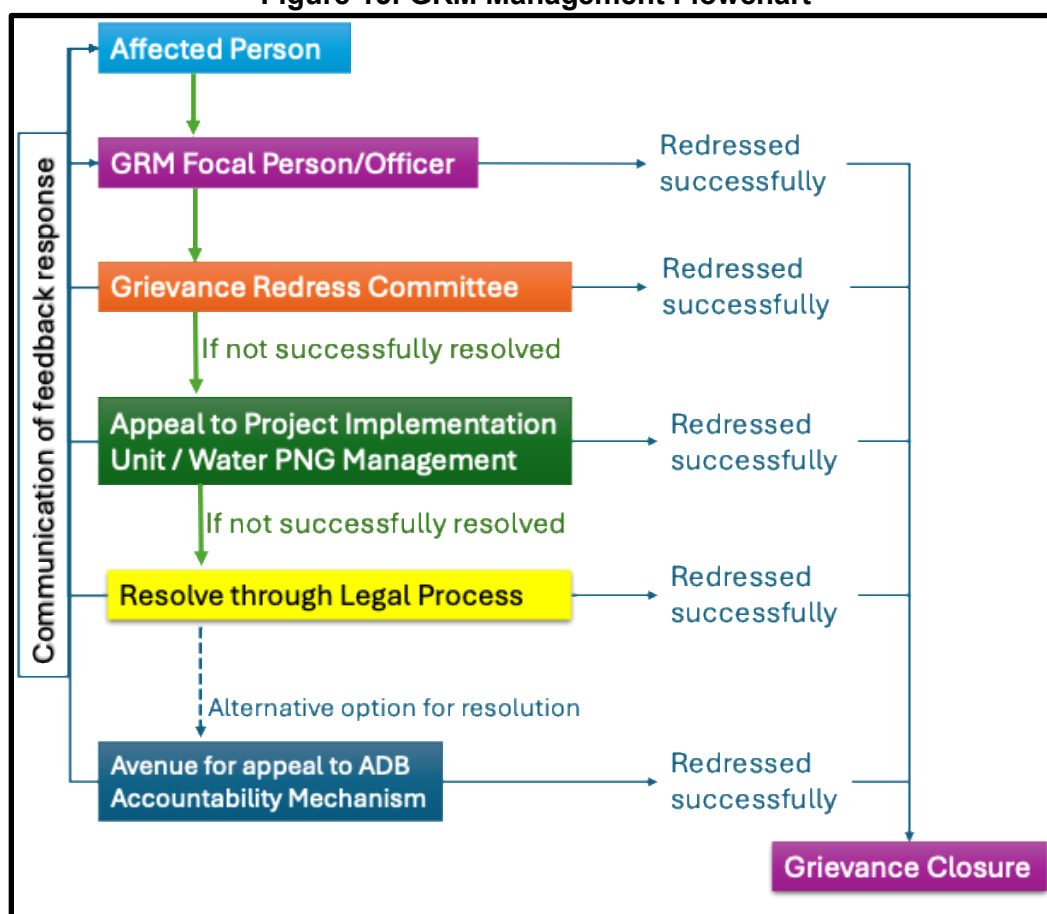
V. GRIEVANCE REDRESS MECHANISM

131. The Grievance Redress Mechanism (GRM) is a system established during the early stages of the project to manage complaints and grievances raised by project-affected persons (APs) and other stakeholders. Its primary purpose is to provide a clear, accessible, and transparent channel through which individuals or communities can voice concerns related to project impacts and receive timely, fair responses from responsible authorities. The GRM is designed to foster trust, promote mutual understanding, and support the smooth implementation of the project.

132. The GRM to be implemented under the UWSSSRIP will be accessible to all stakeholders, taking into account varying levels of literacy, language, and access to communication tools. The mechanism will be predictable, with defined procedures, responsibilities, and timeframes for response and resolution. It will ensure transparency and accountability throughout all project phases—pre-construction, construction, and post-construction.

133. The GRM will address a wide range of concerns, including those related to land acquisition, resettlement, environmental impacts, and social issues. The procedures for handling grievances are illustrated in the grievance redress process flowchart (see Figure 8).

Figure 15: GRM Management Flowchart



A. Roles and Responsibilities

134. **GRM focal point/GRM officer.** During the preparatory phase, a Social Safeguards Officer from WPNG will serve as the GRM Focal Point for the Port Moresby Water Supply Project. The GRM Focal Point will coordinate closely with all relevant stakeholders to receive, document, investigate, and resolve grievances in a timely, fair, and impartial manner. These responsibilities will later be transferred to the safeguards specialist within the construction supervision consultant team, who will then serve as the Project GRM Officer during implementation. The GRM Focal Point/Officer will engage the Grievance Redress Committee (GRC) as needed, particularly for high-risk or complex grievances requiring broader deliberation.

135. Throughout the process, the WPNG GRM Focal Point will be guided and mentored by the ADB Safeguards Officer at the Papua New Guinea Resident Mission (PNRM), to ensure that all grievances are properly recorded, reported, investigated, and resolved, and escalated to the GRC when necessary for appropriate resolution.

136. Additionally, the focal will work closely with the affected communities and the Contractor on site on daily basis doing awareness, consultations and listening to the stakeholders and APs, in return communicate any findings, issues or concerns to GRC and PMU.

137. **Project grievance redress committee.** The project will establish a Grievance Redress Committee (GRC) in Port Moresby to oversee the resolution of all sensitive and high-risk grievances, particularly those that are external in nature or require intervention from relevant authorities. The final composition of the GRC will be confirmed prior to the commencement of construction activities. The proposed GRC will include representatives from WPNG, NCDC, DLPP, and a non-governmental organization (NGO) representative to ensure gender-sensitive representation, particularly of women's concerns.

138. The GRC will receive technical support from the WPNG Project Management Unit (PMU), including staff responsible for environmental and social safeguards, land acquisition, and public relations, all of whom are equipped to handle project-related grievances.

139. Roles and Responsibilities of the GRC:

- (i) review and deliberate on high-risk and unresolved grievances referred from the GRM Focal Point or GRM Officer;
- (ii) ensure fair and impartial resolution of complaints, particularly those involving land disputes, compensation disagreements, or social and gender-based concerns;
- (iii) engage relevant government authorities and external agencies as needed to assist in resolution;
- (iv) monitor the implementation of grievance resolutions and verify that corrective actions are effectively completed;
- (v) ensure confidentiality and protection of complainants, particularly in cases involving vulnerable individuals or sensitive social issues; and
- (vi) document and report grievance outcomes in coordination with the PMU safeguards team for inclusion in safeguards monitoring reports and audits.

140. The GRC will function in accordance with the grievance redress process detailed in Figure 8 and will meet on an as-needed basis or within five working days upon receipt of referred grievances.

141. **WPNG/Project implementation unit.** The PMU is responsible for providing project related information and coordinate with the GRM Focal Point or GRM Officer on a daily basis in planning and coordination of activities and provides timely response to complaints. The Project's social safeguards and gender officer will ensure GRM is monitored, and records are updated on regular basis and guides the implementation to ensure all complaints are redressed and responded to in accordance with the ADB Accountability Mechanism (AM) requirements.

142. **Civil works contractor.** The contractor will engage a dedicated Safeguards Officer, who will serve as the Grievance Receiving Officer for the site. A structured approach will ensure that community and worker concerns are captured, escalated, and addressed in a timely and transparent manner. The Safeguards Officer's responsibilities include:

- (i) maintaining a site-specific grievance registry, in which all complaints and concerns raised on site are promptly recorded;
- (ii) forwarding all grievances to the GRM Focal Point or Project GRM Officer within 24 hours of receipt;
- (iii) ensuring accurate documentation of each grievance, including the complainant's details (as appropriate), date of receipt, nature of the complaint, and any immediate actions taken;
- (iv) coordinating with the PMU's safeguards team to monitor the status of each grievance and assist in implementing agreed corrective measures; and
- (v) providing regular updates to the PMU—at least weekly—on the number, types, and resolution progress of site-level grievances.

B. Record and tracking keeping

143. A Register of Complaints will be kept at the PMU office. This registry will contain the following: dates received, names and gender of complainants, action/s taken, and personnel involved and remarks. All complaints received and resolutions will be properly documented and reported during quarterly and semi-annual reporting for public consumption and inform the management.

C. GRM Process

144. The GRM will be established to receive and response to grievances coming from the AP and stakeholder communities. The stakeholders and APs shall be informed about the focal person, GRC and the GRM process at early stages of the project implementation. Issues including clan differences, landowner disputes over water sources or other safeguards issues will be handled by the focal point and the GRC and respond provided within 24 hours and 7 days. Other project-related grievances such as compensation, environmental impacts or technical project related matters shall be submitted to PMU and Water PNG Management for deliberation and responses provided within 21 days. Grievance received and responses must be documented and report in monthly/quarterly progressive reports.

145. Affected persons have the option to appeal to the ADB Accountability Mechanism if their concerns are not fully resolved by the GRM.

D. Steps of Grievance Redress Process

146. The steps of the grievance redress process are outlines below:

- (i) **Step 1.** The grievance is lodged and received by the GRM Focal Point / GRM Officer. Team members should direct complainants to the GRM Focal Point or GRM Officer as entry points to the GRM.
- (ii) **Step 2.** Upon receipt of complaint(s), the GRM Focal Point / GRM Officer will log the details in a grievance register recording the date, name of affected household, contact address and/or phone number, if available. The focal point will then share the details of the grievance with the PMU and issue an acknowledgment to the complainant within the day of receiving the grievance.
- (iii) **Step 3.** The focal point assesses the grievance and determines its validity and whether it is low-risk and can be easily and promptly resolved or whether it is high risk and requires the engagement of the GRC. If low risk, the focal point investigates the alleged complaint and provides a response to the complainant with a resolution. If the complainant is satisfied with the resolution, such resolution is recorded in the grievance registry and the grievance is closed. If the grievance is unresolved at the project site level, or is a high-level risk, the focal will bring it to the attention of GRC to resolve. If still unresolved, the GRC chairperson will call a meeting with the GRC members and organize a hearing session at the district level within 5-7 days for resolution process. The resolution will be conveyed by the focal to the concerned affected person or stakeholder within 7 days' time. If the grievance is resolved to the satisfaction of the complainant, the resolution is recorded in the grievance registry and the grievance is closed.
- (iv) **Step 4.** If grievances are not resolved to the satisfaction of the complainant at the GRC level, then the focal GRM Focal Point / GRM Officer will escalate the grievance to the PMU and Water PNG Management, where resolution will be attempted within 21 days.
- (v) **Step 5.** If a grievance is not resolved at the PMU and WPNG Management level after 21 days, then the complainant can resort to the local or national legal system for resolution.
- (vi) **Step 6.** If the above steps provide a resolution that is not of the satisfaction of the complainant, the complainant has the option to submit the grievance to ADB's Accountability Mechanism for consideration and resolution.

VI. LEGAL FRAMEWORK

147. The policy framework for the Project is grounded in the ADB's safeguard requirements on involuntary resettlement as articulated in the Safeguard Policy Statement 2009 (SPS), alongside the laws of Papua New Guinea (PNG). In cases where discrepancies arise between national laws and ADB requirements, the resettlement policy shall adhere to ADB requirements in the SPS to ensure compliance and effectiveness. Similarly, where gaps exist between the SPS requirements and national legislation, the resettlement policy will follow the provisions of the SPS.

148. The key laws governing Papua New Guinea include: (i) the Constitution of 1975; (ii) the Land Act of 1996; (iii) the Land Disputes Settlement Act of 2000; (iv) the Fairness in Transactions Act of 1993; (v) the Land Ownership Act of 2000; (vi) the Companies Act of 1997; (vii) the National Toilet Supply and Sanitation Act of 2016; and (viii) the National Toilet Supply and Sewerage Act of 1986.

149. Most land in Papua New Guinea (PNG) is classified as customary land, owned or held by clans. In traditional land tenure systems, clan members—known as 'primary rights holders'—collectively possess these lands, with rights to use them but not to sell or alienate them. They view themselves as custodians, preserving the land for future generations. Land ownership plays

a fundamental role in clan identity, livelihoods, and social structures. Property rights are inherited and held in trust for descendants. A tribe's ancestry and cultural identity are deeply connected to the land, and the permanent loss of all customary lands is perceived as the end of the tribe. As a result, customary landowners often oppose the unilateral transfer of ownership, even of a small portion.

150. However, they may consent to sell part of their land, though it is not easily transferred to individuals or private entities like freehold or leasehold properties in other jurisdictions. PNG law allows for the conversion of customary land to freehold or leasehold, enabling private or State ownership through processes such as land registration, voluntary conversion, or government-led land reforms. These require consultation with affected landowners and adherence to legal requirements. Voluntary acquisitions involve negotiation with customary landholders through purchase or lease agreements, while compulsory acquisitions occur via the State's power of eminent domain and are only executed through purchase.

151. The State does not have authority over customary land except under the Land Act of 1996, which provides for acquisition for public purposes. During the colonial era, the Custom Recognition Act of 1963 stipulated that 'custom shall be recognized and applied by all courts and may be invoked before them' (Article 3(1)(a)). Following independence, these principles were upheld in the Constitution and later expanded upon in the Basic Law of 2000, also known as the Land Disputes Resolution Act of 2000. Customary law defines the rights, rules, and obligations derived from tradition and is recognized by courts when statutory or underlying laws do not apply, provided it does not conflict with statutory law.

A. Constitution of Papua New Guinea

152. The 1975 Constitution of Papua New Guinea explicitly incorporates provisions recognising customary law as a fundamental part of the nation's legal framework, as outlined in Schedule 2. This inclusion highlights the importance of property rights within customary land tenure systems.

153. Section 38 stipulates that laws must strike a balance between safeguarding individual rights and addressing the country's needs and societal well-being. A law is considered valid if it is properly enacted and certified, and if it regulates or restricts certain rights when necessary to protect the public interest. This may include matters such as defense, security, public order, welfare, health, the protection of children and disabled persons, or the development of disadvantaged communities. Additionally, it must ensure that when rights conflict, clear rules are established to resolve such disputes.

154. Article 53 of the Constitution states that no person may forcibly take possession of property, nor may any interest or right in property be compulsorily acquired unless it is required for a public purpose or for duly justified reasons that respect human rights and dignity. These reasons must also be formally declared and outlined in an Organic Law or an Act of Parliament.

155. Without prejudice to Section 53, the expropriating authority must provide fair compensation on equitable terms, taking into account national objectives, the expression of the nation's interests by Parliament, and the rights of the affected person.

B. 1996 Land Act

156. The Land Act 1996 (No. 45) serves several key purposes in regulating land ownership, management, and administration, including:

- (i) **Transaction facilitation.** Governs the transfer, leasing, and subdivision of land, ensuring compliance with legal requirements and title registration.
- (ii) **State land management.** Oversees state-owned lands, setting procedures for their allocation and use for public purposes.
- (iii) **Dispute resolution.** Establishes legal mechanisms, such as Titles Commissions and Land Courts, to resolve disputes over land ownership and usage.
- (iv) **Sustainable land use.** Encourages the conservation of natural resources and regulates development to minimise environmental impacts.
- (v) **Acquisition of customary land.** Can occur through voluntary agreement or compulsory processes, subject to the approval of landowners and the Minister of State. This involves investigation, inspection, appraisal, compensation payment, and registration of state ownership.

157. The Act defines the State's authority to acquire customary lands for public purposes. This includes infrastructure related to artificial watercourses, watering facilities, apparatus for water retention and transportation, as well as roads, bridges, culverts, and quarries.

1. Current Practices in Land Acquisition and Resettlement for Public Purposes in PNG

158. In Papua New Guinea, the government's approach to land acquisition is generally one of negotiation and partnership with customary landowners. The preference is to reach voluntary agreements rather than resorting to compulsory acquisition, which the government uses mainly for long-term public utility projects. This includes essential infrastructure developments such as airports, ports, and urban expansions, where land may be needed for an extended period.

159. Recently, land acquisition initiatives have focused on critical utility services, such as water supply and sanitation projects. For example, the Urban Water Supply and Sanitation Security Resilience Investment Program (UWSSSRIP) has been proactive in securing land necessary for essential water infrastructure across various provinces. Through these initiatives, the government places significant emphasis on engaging local communities early in the project lifecycle, proactively addressing potential land acquisition impacts, and fostering buy-in from affected landowners.

160. Before an infrastructure project is launched, government agencies are required to submit detailed work plans for the upcoming fiscal year. These plans include budgets, feasibility studies, and assessments of environmental impacts. Projects necessitating land acquisition must receive approval from the relevant authorities, thus ensuring that developments align with national policies and community expectations. While current legislation does not explicitly require the minimization of land acquisition impact, government practices increasingly reflect international best practices emphasizing community involvement and respect for land rights.

161. In some cases, provincial government heads, such as administrators, have the authority under Section 73(2) of the Organic Law on Provincial and Local-Level Government Administrative Act (1997) to issue Certificates of Authorization for Occupancy (CAO). This allows state-owned enterprises or other inter-government agencies to occupy and use state lands or parts thereof for development purposes.

2. The Formal Process for Land Acquisition

162. When land is earmarked for public projects, a systematic formal notification process is initiated to protect the rights of customary landowners and ensure transparency.

163. **Notice issuance.** The Minister for Lands and Physical Planning issues a written notice to both customary owners and interested third parties, stating the government's intent to acquire the land. This notice must be publicly displayed for at least 30 days, allowing sufficient time for community members to be informed and provide feedback.

164. **Objection period.** During this 30-day period, community members and landowners are entitled to voice objections regarding the planned acquisition. After this period, the Minister examines the legitimacy of the objections and determines whether the land is appropriate for the intended public utility purpose.

165. **Land valuation.** If the objections are resolved and the acquisition continues, the next step involves conducting a thorough land valuation. This assessment considers various criteria such as the type of lease (residential, agricultural, etc.), current market conditions, the physical characteristics of the land, and customary rights associated with it. The evaluation is carried out by the Office of the Valuer-General and must adhere to guidelines set forth in the Land Act (1996) and the Land Acquisition Act (1978).

166. **Compensation processes.** The calculated compensation amounts are communicated to landowners, who maintain the right to dispute these valuations. The government bears responsibility for transparently disclosing all proposed valuations and ensuring that evaluation methods are clear and accessible to affected parties.

167. **Appeals.** Should landowners contest the compensation offered; they have the right to appeal the Minister's decision through the Supreme Court. In cases involving traditional or customary land claims, the Land Court may be consulted to provide additional context and facilitate resolution.

3. Carrying Out the Acquisition of Land/Structures

168. Following the notice period and the resolution of any conflicts, the acquisition of land and structures can formally commence. The Department of Lands and Physical Planning oversees this process, which is monitored by the Ministry of Justice and Attorney General, or to Minister for State Enterprises ensure compliance with financial regulations and transparency.

169. The Ministries are responsible for addressing any disputes that may arise regarding the valuation process or the actual compensation amounts offered. In situations where conflicts remain unresolved, they may be escalated to local customary land tribunals or, if necessary, through the judicial system for formal resolution. This emphasis on a structured process is intended to ensure that all stakeholders receive fair treatment and that any inconveniences incurred as a result of land acquisition are appropriately addressed.

4. Negotiation in Land Acquisition

170. The Land Acquisition Act (1978) and its amendments outline a clear protocol for the negotiation processes surrounding land acquisition, ensuring that the rights of customary landowners are respected, and that due process is followed.

171. **Notice of acquisition.** The government begins the process by issuing a 30-day notice detailing its intention to acquire specific land. This notice is widely disseminated in local languages through newspapers and public postings, ensuring that all stakeholders are adequately informed.

172. **Community engagement.** The notice clearly states that any objections must be submitted to the land officer within the specified 30-day timeframe. In doing so, the government affirms the right of landowners to express their concerns and seek redress.

173. **Conflict resolution.** Any disputes arising from ownership claims or objections are referred to local land tribunals for resolution. This process allows landowners to present their claims, and the tribunal ultimately makes a decision regarding rightful ownership, thus aiming for fairness and transparency.

174. **Compensation proposals.** The acquiring officer engages in discussions with customary landowners regarding compensation. The proposed compensation package is expected to reflect real market values, account for damages caused by the acquisition process, and consider losses incurred due to displacement.

175. **Final valuation and appeal.** If there is a lack of agreement between landowners and government valuations, the final assessment provided by the Valuer-General serves as the official government valuation. Should landowners find this valuation unacceptable, they are entitled to appeal the decision in the Supreme Court, ensuring legal recourse is available.

176. **Final decisions.** Once an agreement on compensation is finalized and no pending appeals exist, the outcome becomes official, culminating in a formal transfer of land rights as outlined by provisions in the Land Act.

C. National Water Supply and Sewerage Legislation

1. National Water Supply and Sewerage Act 1982

177. This Act replaced the 1982 version and remains in force until the 2016 Act's full rollout) explicitly includes provisions concerning access to land for public water and sewerage services. The Act established the National Board of Water Supply and Sewerage (WTB) to develop the country's water supply and sanitation sector. It empowered the WTB to regulate water systems administered by various organizations, set tariffs, and declare certain facilities as nationally managed districts.

2. National Water Supply and Sanitation Act 2016 (No. 52)

178. The 2016 Act replaced the National Water Supply and Sewerage Act 1986 and established Water Papua New Guinea Limited (Water PNG), but as a company replacing WTB to provide coordinated water supply and sanitation services. It oversees the planning, design, construction, and management of these systems across the country, excluding Port Moresby, and allows for the collection of charges related to these services.

179. This Act not only defines the constitution of Water Papua New Guinea Limited, outline its duties, powers, administration, and operational structure. More broadly, it provides a legal framework for water supply and sanitation management, with the company's primary responsibility being to ensure and deliver an adequate water supply. Water PNG is responsible

for ensuring and maintaining an adequate supply of water in accordance with the Act. It also manages, operates, and maintains the company's water supply and sanitation systems, along with any additional infrastructure it may construct. It is empowered to take all necessary or convenient actions in relation to its duties, including providing, designing, constructing, and maintaining water supply systems for private and public use in cities, towns, and rural areas.

180. The company collaborates with provincial governments and, through them, with relevant district authorities and, where appropriate, other state-owned enterprises to advance the objectives of the legislation. Based on constitutional principles 38 and 53, the National Water Supply and Sanitation Act authorizes the compulsory acquisition of property or property rights, provided it aligns with national objectives and social obligations, particularly sovereignty, self-reliance, natural resource management, and environmental sustainability. This acquisition is permitted for purposes such as facilitating and maintaining efficient and economical water supply and sanitation services and preserving peace and good order across Papua New Guinea.

181. Additionally, Water PNG Limited has the authority to:

- (i) enter into contracts and agreements to purchase land or secure easements over or across land;
- (ii) undertake construction works necessary for the provision of its services;
- (iii) enter any land or premises to construct, maintain, repair, extend, or upgrade water supply or sanitation systems;
- (iv) obtain water by sinking wells or galleries, enhance water quality and sanitation infrastructure, or modify systems as needed;
- (v) maintain streams and watercourses to ensure water supply, and if necessary, impound or extract water from any source—including diverting or altering watercourses;
- (vi) extract water located beneath or on any land; and
- (vii) excavate or break ground, including soil and pavement across land, roads, public pathways, or beneath streets, highways, or rights of way to install or repair pipes, sewers, drains, tunnels, or associated infrastructure required for water supply or sanitation services.

182. Specifically in relation to the rights to entry onto land, Section 59 states that Water PNG may enter upon any land, with or without notice, for the purpose of exercising its powers or performing its functions under the Act. This includes activities such as:

- (i) investigations or surveys,
- (ii) construction or maintenance of water and sanitation infrastructure,
- (iii) inspection or operation of existing systems.

183. Section 59 further states that Water PNG must cause as little detriment and inconvenience as possible and compensate for any damage done during such activities.

184. Acquisition of land or easements is described in Section 60. Acquisition is for the purpose of establishing or maintaining water or sanitation infrastructure. Water PNG may:

- (i) acquire land or an interest in land, including easements (the right to use land without owning it), by:
 - (a) agreement (negotiation), or
 - (b) compulsory acquisition under the Land Act 1996 and relevant laws.

185. When Water PNG Limited occupies and holds land on a permanent basis, acquisition must be carried out in accordance with the procedures outlined in the Land Act (1996).

186. Water PNG is also required to comply with the Public Health Act and the Environment Act, particularly in relation to water quality and wastewater discharge standards.

187. **National Water Supply and Sanitation (Amendment) Act 2020 (No. 18 of 2020).** The legislation amends the National Water Supply and Sanitation Act 2016. It also formalizes the amalgamation of National Capital District Water and Sewerage Limited, trading as Eda Ranu, with Water PNG Limited, and repeals the National Capital District Water Supply and Sewerage Act 1996.

3. Papua New Guinea Water, Sanitation and Hygiene (WaSH) Policy 2015-2030.

188. The National Water, Sanitation and Hygiene (WASH) Policy 2015–2030 recognizes access to these services as a fundamental human right, essential for sustainable development and poverty reduction.

189. This policy aims to enhance the delivery of drinking water and sanitation services while fostering long term behavioural change in hygiene practices. Its overarching objective is to significantly, sustainably, and equitably expand access to safe drinking water and sanitation, with a particular focus on underserved rural and peri urban areas.

190. The policy begins by outlining the rationale and evidence base that informed its development. It then defines key concepts and sets minimum standards to guide implementation. The broader context and guiding principles follow, setting the foundation for the policy's strategic direction. It proceeds to detail the core policy positions and the strategies designed to achieve them. Roles and responsibilities across institutions are clearly defined to support coordinated action. An implementation plan is provided to guide practical rollout. Finally, the policy sets out mechanisms for monitoring and evaluation to ensure accountability and continuous improvement.

4. Port Moresby Towards 2030

191. The “Port Moresby Towards 2030” plan envisions a connected, integrated, and resilient city, underpinned by sustainable urban services that respond to rapid population growth. In the water and sanitation sector, the focus lies in enhancing equitable, safe, and sustainable access to essential services, particularly in informal settlements that account for a substantial portion of the urban population.

192. The plan aims to reinforce existing infrastructure, including distribution networks, treatment plants, and sewerage systems. It also prioritizes strengthening the governance of Water PNG to ensure efficiency and long-term sustainability. Additionally, it seeks to foster community participation and hygiene education, guided by a commitment to gender equity and environmental protection.

D. ADB’s Safeguard Policy

193. The Safeguard Policy Statement (SPS) became effective and applicable in January 2010. The SPS was formulated to address the emerging challenges of development, respond to

lessons learned from its experience with its old safeguard policies, and adapt to its new lending modalities and financing instruments.

194. The SPS, Involuntary Resettlement Safeguard; aims to avoid or minimize the impacts on people, households, businesses and others affected by the land acquisition required by a subproject. The scope of the policy includes physical displacement (relocation, loss of residential land, or loss of shelter) and economic displacement (loss of land, assets, access to assets, income sources, or means of livelihoods) as a result of (i) involuntary acquisition of land, (ii) involuntary restriction on land use and (iii) involuntary restriction of access to legally protected areas, whether it be full or partial, permanent or temporary.

195. The objectives are to: (i) avoid involuntary resettlement wherever feasible and minimize involuntary resettlement through assessing subproject alternatives and alternative project designs. (ii) enhance or at least restore the livelihoods of all affected people (DPs) in real terms relative to pre project levels and improve the standards of living of the affected poor and other vulnerable groups.

196. The SPS's policy principles on involuntary resettlement are as follow:

- (i) **Screen early and assess resettlement impacts and risks** and determine the scope of resettlement planning through survey or census of displaced persons, including gender analysis specifically related to resettlement impacts and risks;
- (ii) **Carry out meaningful consultations** with DPs (particularly vulnerable groups such women, children, Indigenous peoples and those living in poverty) as well as host communities and relevant nongovernment organizations. Consultations should involve informing displaced persons of their entitlements and resettlement options and ensuring their participation in the planning, monitoring and evaluation of resettlement programs;
- (iii) **Develop a grievance redress mechanism** is also required to ensure affected persons' concerns are able to be resolved. As involuntary resettlement is highly complex and impactful, compensation and resettlement decisions should be preceded by a social preparation phase;
- (iv) **Improve/restore livelihoods** of DPs through land-based resettlement strategies, prompt replacement of lost assets (with assets of equal or higher value), compensation at full replacement cost (for assets that cannot be restored), and additional benefits through revenues and services as appropriate;
- (v) **Provide appropriate assistance** to physically and economically DPs (including relocation, secured tenure to relocation land, better housing at resettlement sites with comparable access to employment and production opportunities, integration of resettled persons economically and socially into their host communities, and extension of project benefits to host communities; (ii) transitional support and development assistance, such as land development, credit facilities, training, or employment opportunities; and (iii) civic infrastructure and community services, as required;
- (vi) **Improve living standards** of poor and vulnerable DPs to the national minimum standards. Provide those living in rural areas with legal and affordable access to land and resources. Provide those in urban areas with appropriate income sources and legal and affordable access to adequate housing;
- (vii) **Develop transparent, consistent, and equitable procedures for land negotiations**, to ensure maintenance of the same or better income and livelihood status;

- (viii) **Ensure that displaced persons without titles to land or any recognizable legal rights to land are eligible for resettlement assistance and compensation** for loss of nonland assets; Prepare RPs that outline displaced persons' entitlements, an income and livelihood restoration strategy, institutional arrangements, monitoring and reporting framework, budget, and time bound implementation schedule;
- (ix) **Disclose RPs** to DPs and other stakeholders and document the consultation process before project appraisal. This should be provided in an accessible place and form and in the language of the DPs and stakeholders;
- (x) **Conceive and execute resettlement** as part of the project. The costs and benefits of the project should be provided and where involuntary resettlement is required – this should be implemented as a separate project;
- (xi) **Deliver entitlements** and compensation to DPs before their physical or economic displacement. This involves implementation of the resettlement plan under close supervision throughout the project; and
- (xii) **Monitor and assess resettlement outcomes and impacts** on the standard of living of DPs. The objectives of the resettlement plan should be monitored and assessed by measuring baseline conditions and the results of resettlement.

E. Gaps between PNG laws and ADB's SPS

197. The gaps between the PNG laws and ADB SPS requirements on land acquisition and resettlement have been identified and necessary gap filling measures developed to meet the requirements of ADB's SPS. The following Table 6: Gaps and Gap Filling Measures shows the gaps identified between the PNG legal framework and the ADB Safeguard Policies.

Table 6: Gaps between PNG laws and ADB's SPS

Topic	PNG Laws		ADB SPS Requirements		Gap-Filling Measures
	Laws	Reference	Laws	Reference	
Land acquisition/ use	No provision for persons without legal or recognizable rights to land.	Land Act 1996, no provision for informal occupants	Compensation for all affected assets, including those of non-title holders.	ADB SPS 2009, para 15: Compensation for all affected persons	RP includes compensation for all DPs including non-title holders.
Consultation with DPs	No statutory requirement for meaningful consultations with DPs, including vulnerable groups.	No statutory reference in Land Act or Constitution	Requires inclusive consultations and informed participation of all DPs.	ADB SPS 2009, para 20–22: Meaningful consultation with all DPs	Conduct and document inclusive consultations; provide summaries to DPs.
Livelihood restoration	No legal obligation to restore or improve DPs' livelihoods.	Land Act 1996 and Constitution silent on livelihood restoration	Restoration or improvement of livelihoods is mandatory.	ADB SPS 2009, para 12 & 14: Livelihood restoration required	Include livelihood restoration strategies in RP.
Compensation for non-land assets	Limited provisions; uses Valuer General's outdated schedules.	Valuer General's 2013 Schedule under Land Act 1996	Compensation must be at full replacement cost for all assets.	ADB SPS 2009, para 23: Replacement cost standard required	Update and apply replacement cost valuations; verify with Valuer-General.
Monitoring and assessment	No requirement to monitor or assess resettlement outcomes.	No legal requirement in Land Act or Environment Act for monitoring	Requires monitoring and evaluation of resettlement outcomes.	ADB SPS 2009, para 24 & Appendix 2: Monitoring and evaluation	Develop M&E indicators and include baseline in RP; disclose results.
Legal recognition of non-title holders	Non-title holders not recognized under current laws.	No legal provision under Land Act for informal settlers	Entitlements and assistance must include non-title holders.	ADB SPS 2009, para 7 & 15: Non-title holders are eligible	Project will treat informal occupants as eligible for resettlement support.
Temporary land access for surveys/ construction	No clear legal pathway for temporary occupation of land.	Land Act 1996 silent on temporary land access outside acquisition	Access permitted with safeguards during all phases, including construction.	ADB SPS 2009, para 14 & 27: Safeguards during temporary use	Include access arrangements in RP and negotiate consent with landowners.
Valuation and replacement cost	No requirement to use replacement cost methodology.	Land Act 1996, compensation based on	Compensation must reflect market/replace ment value.	ADB SPS 2009, para 23: Must reflect full	Conduct replacement cost survey and update

Topic	PNG Laws		ADB SPS Requirements		Gap-Filling Measures
	Laws	Reference	Laws	Reference	
		valuation schedule		replacement value	compensation schedule.
Grievance redress mechanism	No requirement for a project-level grievance mechanism.	No legal obligation under Land Act or Water PNG Act 2016	Projects must have accessible GRMs for affected people.	ADB SPS 2009, para 25: Accessible GRM must be established	Establish and operationalize a GRM integrated with Water PNG.
Long-term land occupation by Water PNG	Lacks detailed procedures for Water PNG's long-term occupation of customary land.	National Water Supply and Sanitation Act 2016, s59–60 lack detail on long-term occupation	Requires clear land rights and agreements for long-term use.	ADB SPS 2009, para 10 & 14: Secure long-term land use and tenure	Define land use agreements and procedures in RP consistent with Land Act.

F. Resettlement Principles for the Project

198. This RP has been developed as per ADB's Safeguard Policy Statement (SPS) and the pertinent laws of Papua New Guinea. Where the laws of PNG are not clear, a project specific set of resettlement principles consistent with ADB policy has been adopted. The resettlement principles of this RP consistent to the resettlement framework are as follow:

- (i) land acquisition and resettlement will be avoided or minimized through careful engineering design;
- (ii) displaced persons (DPs) will be consulted meaningfully and effective mechanisms will be established for hearing and resolving grievances;
- (iii) social assessment will be undertaken and RPs will be prepared for roads involving land acquisition/resettlement;
- (iv) DPs will receive compensation at replacement cost for their loss of assets and necessary assistance to ensure that they will be as well off as without the project;
- (v) loss of assets may be compensated through cash compensation or in-kind compensation commensurate to actual losses, at the option of the DPs;
- (vi) such compensation will be paid to DPs prior to commencement of civil works; and
- (vii) absence of formal title will not be a bar to compensation or assistance. Particular attention will be paid to women, the elderly and other vulnerable people.

199. Land acquisition and resettlement will be conceived of as part of the subproject and related costs will be included in and financed out of the project cost.

200. Resettlement impacts, including any unforeseen losses that may occur during construction will be monitored and remedial steps taken as required.

- (i) describes national and local laws and regulations that apply to the project and identify gaps between local laws and ADB's policy requirements; and discusses how any gaps will be addressed;
- (ii) describes the legal and policy commitments from the executing agency for all types of displaced persons;
- (iii) outlines the principles and methodologies used for determining valuations and compensation rates at replacement cost for assets, incomes, and livelihoods; and

- set out the compensation and assistance eligibility criteria and how and when compensation and assistance will be provided; and
- (iv) describes the land acquisition process and prepares a schedule for meeting key procedural requirements.

VII. ENTITLEMENTS, ASSISTANCE, AND BENEFITS

201. The main aim of the UWSSRIP compensation and entitlement approach is to ensure that all Affected People (APs) can maintain—and ideally improve—their standard of living and income-generating potential after the subproject is implemented. This will be achieved through comprehensive compensation for physical and intangible assets impacted by the project, along with additional assistance and rehabilitation measures where needed.

202. For the purposes of this Resettlement Plan (RP), Affected People (APs) or Affected Households (AHs) are those who experience:

- (i) loss of land agricultural, residential, or commercial land that is partially or fully (temporarily or permanently) impacted by the subproject;
- (ii) damage to housing or structures, buildings and infrastructure affected partially or entirely (temporarily or permanently) due to project activities;
- (iii) disruption to businesses or income sources. Employment or other revenue-generating activities affected temporarily or permanently by the subproject;
- (iv) impact on crops and trees, both annual and perennial crops and trees damaged due to project works; and
- (v) loss of other assets, trees, plants, or other economically valuable resources affected fully or partially (temporarily or permanently).

203. Adjustments to design or alignment, either before or during construction, that result in additional impact those affected will be entitled to the same rights as other AH/APs.

204. The entitlements for affected individuals are structured based on the type and extent of loss or impact experienced due to the subproject. These rights are outlined in the project Entitlement Matrix (Table 7), which details available compensation and support, tailored to the specific circumstances and nature of losses.

205. In cases of permanent land loss, customary land rights and property protections will be upheld under the applicable legal framework. Affected individuals will receive fair compensation at full replacement cost, with related costs covered within the subproject budget. Additionally, transparent and equitable land negotiation procedures will be established to ensure that income levels and living conditions remain stable or improve.

Table 7: Entitlement Matrix

Category of Affected Persons (APs)	Type of Impact	Entitlements	Description
Customary Land Users Recognized by traditional authorities and the wider community	Permanent loss of land	<p>In accordance with the law, customary land rights and property protections will be recognized. Affected individuals will receive fair compensation at full replacement cost, with associated costs included and funded as per arrangements outlined in Section X (Resettlement Budget and Financing Plan) of this Resettlement Plan.</p> <p>Assistance will be provided to PA in the acquisition of land for replacement purposes.</p>	Develop transparent and equitable land negotiation procedures to ensure that income levels and living conditions are maintained or improved.
State-owned land	Permanent land use.	Compensation for damage to improvements.	Transfer of land or sublease to WPNG. Replacement of improvements.
	Damage to land and improvements	Where applicable, compensation will be determined using Valuer General rates updated with current inflation rates.	
Private Landowners	Permanent loss of land	<p>In accordance with Papua New Guinea law, private land rights will be recognized, and landowners will receive fair compensation at replacement cost for any land acquired.</p> <p>Alternatively, replacement of land of equal or greater size with comparable characteristics for planting, cultivation, and reasonable proximity to services and resources.</p>	<p>Landowners or those with legally granted access will be recognized and receive fair compensation based on market rates, ensuring they are not disadvantaged as a result of the subproject.</p> <p>Replacement of land of equal or greater size with comparable characteristics for planting, cultivation, and reasonable proximity to services and resources.</p> <p>Special consideration will be given to women, the elderly, and other vulnerable groups.</p>

Category of Affected Persons (APs)	Type of Impact	Entitlements	Description
Tenants (including those in informal settlements)	Permanent loss of land	<p>Compensation and resettlement support will be extended to both landowners and individuals residing in informal settlements.</p> <p>Renters will be compensated based on the costs stipulated in their respective lease agreements.</p> <p>The absence of a formal title will not prevent tenants from receiving compensation or assistance. Special consideration will be given to women, elderly individuals, and other vulnerable groups to ensure fair treatment.</p>	<p>Landowners will be consulted and empowered to make informed decisions regarding agreements.</p> <p>Tenants will receive a cash equivalent for rent elsewhere during the transition period until relocation. Assistance will also be provided to secure alternative housing with comparable characteristics.</p> <p>Support will be offered for land regularization and relocation processes.</p> <p>The implementation of this subproject aligns with state policies aimed at expanding and improving basic service provision. In accordance with Asian Development Bank (ADB) guidelines, residents' rights and compensation will be recognized, and they will receive guidance on accessing legalized land or government housing programs, ensuring forced evictions do not occur.</p>
Customary land users	Crop losses	<p>Compensation for damage or loss of standing crops to support income recovery.</p> <p>Payments will be made based on the crops listed in the loss inventory.</p> <p>Compensation will be provided in full before civil works commence.</p> <p>The compensation amount will be determined using the indexed rates set by the Valuer General.</p>	<p>Compensated crops may be harvested before civil works commence, with harvested crops remaining the property of the landowner or rightful claimant.</p> <p>Crop owners will be notified at least one month before the start of civil works, after which land possession will be transferred to the civil works contractor.</p> <p>Special consideration will be given to female heads of household.</p>

Category of Affected Persons (APs)	Type of Impact	Entitlements	Description
Owners of structures	Loss of structures	<p>AP will receive compensation at full replacement cost for asset losses, along with the necessary assistance to ensure they remain in the same or improved situation as before the subproject.</p> <p>Asset losses may be compensated through either cash or in-kind support, proportional to the actual value of the losses incurred.</p>	<p>Compensation will be paid based on the structures included in the loss inventory.</p> <p>Compensation will be paid in full before the start of civil works.</p> <p>Compensation will be paid based on the valuation performed during the initial testing phase and adjusted to reflect market rates.</p>
	Replacement / Relocation of structures	<p>The AP will receive compensation at replacement cost for the loss of their assets and the necessary assistance to ensure they are in the same situation as without the subproject.</p> <p>The loss of assets may be compensated through cash or in-kind compensation proportional to the actual losses.</p>	<p>Assistance payment to cover the cost of construction materials that cannot be reused.</p> <p>Assistance payment to compensate for lost business opportunities for up to one (1) week when the structure is used for income generation.</p> <p>Compensation will be provided based on valuations conducted during the initial assessment phase and adjusted to reflect current market rates.</p>
People whose livelihoods will be temporarily or permanently affected by the construction of the subproject	Loss of livelihoods	<p>Livelihood restoration activities including swift replacement of lost assets with those of equal or greater value, full replacement cost compensation for non-restorable assets, and additional benefits such as income support and essential services, as appropriate.</p>	<p>Compensation for improvements losses will be provided in cash, proportional to actual losses, and must be paid in full before civil works commence.</p> <p>Additionally, the subproject will require local services and goods, such as land rentals and food supplies, enabling local communities to stimulate other economic sectors and diversify their sources of income.</p> <p>Assistance and support will be provided to tenants and residents of informal settlements</p>

Category of Affected Persons (APs)	Type of Impact	Entitlements	Description
			to help them secure similar or improved housing.
Impacts on the most vulnerable households, women, children, older adults, single mothers, sick people, people with disabilities, and poor people	Adverse effects on income generation, poverty reduction, and community development	<p>Restoration of livelihoods, poverty alleviation, and social development.</p> <p>Design considerations that prioritize the most vulnerable and those likely to be most affected by the subproject.</p>	<p>Given the high levels of poverty among the affected population, disruptions and impacts during the construction phase must be minimized to avoid compromising the housing conditions, access to essential services, and livelihoods of the most vulnerable members of the community.</p> <p>Measures specifically designed to restore their livelihoods and housing, these include but are not limited to access to water and women's health.</p>
All people living in the immediate project surroundings	Unanticipated impacts of workforce influx. Potential rise in alcohol consumption, gender-based and sexual violence, sex work, and sexually transmitted infections, including HIV/AIDS.	<p>Unforeseen losses that arise during construction must be addressed with appropriate corrective measures as required.</p> <p>Implementation of a grievance and redress mechanisms to ensure timely resolution of concerns.</p>	<p>The impacts of resettlement, including any unforeseen losses arising during construction, will be monitored, with necessary corrective measures implemented as required, these may include:</p> <ul style="list-style-type: none"> (i) Access to GBV referral services and survivor-centred support (e.g. medical, psychosocial, legal aid) (ii) Establishment of GBV-sensitive grievance redress mechanisms (GRM) (iii) Awareness campaigns and behaviour protocols for workers (Code of Conduct) (iv) Public health campaigns and education in local communities (vi) Distribution of condoms and STI prevention materials (vii) Free testing and counselling services

Category of Affected Persons (APs)	Type of Impact	Entitlements	Description
			<ul style="list-style-type: none"> (viii) Community awareness and outreach programs (ix) Monitoring and regulation of worker behaviour (camp rules, codes of conduct) (x) Coordination with local authorities to strengthen law enforcement and community policing (xi) Strict enforcement of child protection and anti-trafficking laws (xii) Worker induction on legal consequences and prohibition of exploitative behaviour (xiii) - Safeguard clauses in contracts with contractors and sub-contractors
All people living in the immediate project surroundings	Traffic and transportation disruptions.	Ensure that impacted communities have access to essential infrastructure, including roads, schools, healthcare facilities, and markets.	Provide assistance throughout the construction process to ensure that access to transportation, housing, healthcare, and education services remains unaffected by subproject activities
	Access to land and private property	The regulatory framework permits entry onto land and private property for water supply and sanitation projects. However, these processes must be communicated transparently and, where possible, agreed upon with landowners and residents through a community engagement process.	<p>This process must ensure that information about the project is provided in a clear and accessible manner.</p> <p>Mitigation measures will be designed collaboratively, applying a gender-sensitive approach recognizing that women may be disproportionately impacted due to their primary roles in water use for tasks such as cooking, hygiene, and everyday household responsibilities.</p>

Category of Affected Persons (APs)	Type of Impact	Entitlements	Description
	Water Sources	Community and settlement water sources should be identified and managed to avoid disruptions caused by road closures, excavation work, or pipeline interference that could contaminate or cut off access to wells and underground sources	Strategies should be implemented to ensure continued access to safe drinking water.

VIII. RELOCATION OF HOUSING AND SETTLEMENTS

206. This section is not applicable as the construction of the infrastructure required for the water treatment, transfer and reticulation network will not require relocation of houses or settlements. As described in this RP, land acquired for water treatment and transfer is not inhabited. Reticulation network works will take place in established road easements.

IX. INCOME RESTORATION AND REHABILITATION

207. The implementation of the Port Moresby Water Supply Subproject is not expected to result in the resettlement of households or the relocation of houses. However, if such impacts were to occur during construction or as a result of unforeseen design adjustments, additional measures would need to be included in this RP to reestablish APs livelihoods and secure access to alternative land or shelter. In this version of the RP, such provisions are not included, as physical displacement is not anticipated based on the current scope and design.

208. Likewise, no significant long-term impacts on livelihoods are currently expected. Most adverse effects are likely to be temporary, stemming from construction-related nuisances such as restricted access to properties, dust, noise, and temporary disturbances near economic activity areas. However, in the event that income-generating activities—such as small-scale vending, informal trading, or subsistence gardening—are disrupted, targeted income restoration measures will be implemented to ensure that APs are not worse off as a result of the Project.

209. In accordance with ADB's Safeguard Policy Statement (SPS) 2009, the Project is committed to restoring and, where possible, improving the living standards and livelihoods of all affected persons, particularly vulnerable groups. Income restoration and rehabilitation support will be designed based on local conditions where many households rely on informal livelihoods and subsistence activities.

210. The Project recognizes several livelihood risks specific to the local context, including:

- (i) Temporary loss of income for informal vendors operating near pipeline corridors and construction zones;
- (ii) Disruption to public facilities or institutions where women, youth, and vulnerable groups are active, such as market areas, clinics, and schools; and
- (iii) Reduced customer access to small businesses and roadside vendors during trenching or pipe-laying activities.

211. For minor, short-term impacts, compensation at full replacement cost will be provided, in line with PNG legal requirements and ADB's SPS 2009. In addition, the Project will offer support measures tailored to the needs of affected individuals. These may include:

- (i) Temporary employment opportunities during construction, with prioritization of local hiring, especially for women and vulnerable households; and
- (ii) Special provisions for female-headed households, elderly persons, and persons with disabilities, including targeted outreach and assistance during compensation and livelihood support activities.

212. These measures will be developed in greater detail and included in the updated Resettlement Plan, which will be prepared following completion of the detailed engineering design and confirmation of specific land and livelihood impacts.

213. The updated RP will also ensure that the design and implementation of income restoration measures are informed by meaningful consultation, and that they are culturally appropriate, gender-sensitive, and inclusive of all affected and at-risk groups, consistent with both ADB' SPS 2009 and Papua New Guinea's national social development and gender equality frameworks.

Table 8: Impacts and Measures for Restoration and Rehabilitation

Type of Impact	Proportion of the impact	Restoration Plan
Permanent loss of land	Loss of land at the reservoir sites. Dimensions to be confirmed with the design.	<p>As the resettlement or relocation of households is not anticipated under the current project scope, the Restoration Plan does not include provisions for physical relocation support—such as transport of household goods, temporary accommodation, or relocation site preparation.</p> <p>However, if changes to the detailed design or unforeseen circumstances during implementation result in physical displacement or require the relocation of households or assets, the Restoration Plan will be reviewed and updated accordingly. In such cases, additional measures will be included to ensure that affected persons receive comprehensive assistance. This may include but is not limited to support in securing new land or property titles, assistance with legal and administrative processes related to resettlement, and facilitation of access to temporary or permanent housing solutions.</p> <p>The Project will ensure that any revised plan continues to meet ADB safeguards requirements and is responsive to the needs of vulnerable groups, including female-headed households, elderly persons, persons with disabilities, and those without formal land tenure.</p>
Damage to land and improvements	Access road to reservoir 9 may cause impacts to land. Accidental damages to improvements during construction are likely to take place.	<p>The Restoration Plan ensures that all APs receive full compensation or restoration support, with their living conditions and livelihoods restored to pre-impact levels or improved. Restoration efforts will be guided by a technical assessment of damages and will include compensation—either in-kind or in cash—at full replacement cost without depreciation. APs will be actively engaged in identifying appropriate remedial measures, ensuring that restoration options are culturally appropriate and aligned with their preferences.</p> <p>A clear, time-bound implementation schedule will be developed to guide the delivery of compensation and restoration measures. In addition, the plan incorporates the project GRM to address any concerns raised by APs in a timely manner. Participatory monitoring processes are established as part of this RP to allow community involvement in oversight, and independent verification will be conducted to confirm that restoration measures have been properly implemented, and that APs' rights and entitlements are upheld in accordance with ADB's 2009.</p>

Type of Impact	Proportion of the impact	Restoration Plan
Crop losses	Non to very minimal expected. To be confirmed with the design.	<p>The Restoration Plan provides for APs to receive fair and timely compensation at full replacement cost, without depreciation, based on a technical assessment of the damage. In cases where agricultural livelihoods are impacted, appropriate measures to support recovery and restoration will be implemented. These may include provision of agricultural inputs, technical assistance, or access to livelihood recovery and productivity enhancement programs, with the objective of restoring or improving household income and living conditions to pre-impact levels.</p> <p>To ensure relevance and effectiveness, affected farmers will be actively involved in the design and selection of restoration measures. A clear, time-bound implementation schedule, along with accessible grievance and appeals mechanisms to address concerns in a timely and transparent manner shall be developed. Participatory monitoring and evaluation processes shall be integrated into the implementation framework to assess the effectiveness of restoration efforts, ensure accountability, and uphold the principles of equity, inclusion, and sustainability.</p>
Loss of structures	No loss of structures expected. To be confirmed with the design.	<p>Loss of structures is not anticipated under the current project scope. As such, the Restoration Plan does not presently include provisions for the replacement or compensation of houses or other significant buildings or structures. However, if changes to the detailed design or unforeseen circumstances during implementation result in the loss of structures, the Restoration Plan shall be reviewed and updated accordingly.</p> <p>In such cases, the plan will ensure that affected persons (APs) receive full compensation at replacement cost—free from depreciation—based on a comprehensive technical assessment. Reconstruction support shall be provided either at the original site or at a mutually agreed alternative location, using materials of equal or superior quality. All reconstructed structures shall be required to meet appropriate safety and functionality standards, consistent with national building regulations and local context.</p> <p>Affected persons shall be meaningfully engaged in the identification of appropriate reconstruction options. The restoration process will be guided by a clear and time-bound implementation schedule, supported by accessible grievance redress and appeals mechanisms. Participatory monitoring will be undertaken to assess the quality of reconstruction efforts and to ensure adherence to the principles of equity, dignity, and sustainability.</p> <p>The Project shall ensure that any revised Restoration Plan remains fully compliant with ADB's Safeguard Policy Statement (2009) and responsive to the needs of vulnerable groups, including female-headed households, elderly persons, persons with disabilities, and individuals without formal land tenure.</p>

Type of Impact	Proportion of the impact	Restoration Plan
Loss of livelihoods	No loss of livelihoods expected.	<p>Loss of livelihoods is not anticipated under the current project scope. As such, the Restoration Plan does not presently include provisions for livelihood restoration activities. However, if changes to the detailed design or unforeseen circumstances during implementation result in the loss of livelihoods, the Restoration Plan shall be reviewed and updated accordingly.</p> <p>In case of loss of livelihoods, the Restoration Plan must ensure that APs receive adequate compensation and targeted support to restore or improve their economic and productive conditions to at least pre-impact levels. This requires a thorough identification of affected livelihood sources—such as informal trading, fishing, small-scale farming, or wage employment—and the implementation of appropriate restoration measures. These may include cash compensation for temporary income loss, technical assistance, access to livelihood recovery programs, vocational training, and linkages to sustainable economic opportunities within the Vanimo context.</p> <p>The plan should be developed through close consultation with affected individuals and households, ensuring that interventions are context-specific, culturally appropriate, and aligned with local capacities and aspirations. It must be accompanied by a clear and time-bound implementation schedule, as well as accessible grievance redress and appeals mechanisms to address concerns in a fair and timely manner.</p> <p>Participatory monitoring will be integrated into the plan to track progress, evaluate the effectiveness of restoration measures, and ensure accountability. This process will uphold the principles of equity, sustainability, and improved livelihoods, particularly for vulnerable groups such as women, youth, persons with disabilities, elderly persons, and those without secure land tenure. All measures will be designed and implemented in accordance with ADB’s Safeguard Policy Statement (2009).</p>
Poverty and social development	No impacts enhancing poverty expected.	<p>The Restoration Plan ensures that APs and communities not only regain their pre-impact living conditions but also experience measurable improvements in their social and economic wellbeing. To achieve this, the Plan must identify and prioritize support for vulnerable groups—such as low-income households, female-headed families, persons with disabilities, and marginalized communities—who may face additional barriers to recovery.</p> <p>Targeted measures should include priority access to essential services (such as water, health, and education), financial inclusion initiatives, tailored capacity-building programs, and access to local employment and income-generation opportunities created by the Project. Meaningful involvement of vulnerable groups in decision-making processes will be critical to ensure that restoration strategies are inclusive, appropriate, and sustainable.</p>

Type of Impact	Proportion of the impact	Restoration Plan
		<p>The Restoration Plan must be developed through a participatory process that reflects the voices and priorities of affected communities. It should be guided by a clear, time-bound implementation schedule, supported by accessible grievance redress and appeals mechanisms, and underpinned by a robust social monitoring framework. This framework will track progress on equity, social cohesion, and sustainable development outcomes, in line with the principles of ADB's SPS 2009 and the Government of Papua New Guinea's commitments to inclusive development.</p>
Unanticipated impacts of workforce influx.	Potential rise in alcohol consumption, gender-based and sexual violence, sex work, and sexually transmitted infections, including HIV/AIDS.	<p>The Restoration Plan incorporates preventative, mitigation, and restorative measures aimed at safeguarding host communities from potential social risks associated with project implementation. This includes the enforcement of a mandatory Code of Conduct for all project personnel, with clear provisions on respectful behavior, non-discrimination, and zero tolerance for gender-based violence (GBV), sexual exploitation, abuse, and harassment (SEAH).</p> <p>In addition, the plan includes the delivery of culturally appropriate community awareness campaigns on gender-based violence, sexual and reproductive health, and rights. It also facilitates access to essential health services and psychosocial support, particularly for survivors of violence or trauma. Partnerships with specialized local service providers and civil society organizations will be critical to ensure that support mechanisms are accessible, context-sensitive, and responsive to community needs.</p> <p>Women, youth, and other vulnerable groups must be meaningfully engaged in the design and implementation of these measures to ensure that interventions are inclusive and relevant. The plan also establishes safe, confidential, and accessible grievance redress mechanisms specifically designed to handle sensitive issues such as GBV and SEAH.</p> <p>Finally, a participatory monitoring system is to be embedded within the plan to assess the effectiveness of interventions and ensure accountability. This system will track progress in promoting dignity, equity, and non-discrimination, and help ensure that safeguards are fully upheld throughout project implementation.</p>
Nuisance and construction impacts	Traffic and transportation disruptions	<p>The Restoration Plan ensures safe, continuous, and accessible mobility for affected communities during all phases of the Project. This requires the development and implementation of a comprehensive Traffic Management Plan (TMP), designed in coordination with local transport authorities and responsive to community needs. The TMP should include clearly marked detours, signage, and public notices; construction schedules that minimize traffic disruptions and congestion; and guaranteed</p>

Type of Impact	Proportion of the impact	Restoration Plan
		<p>access to homes, businesses, schools, health services, and other essential facilities.</p> <p>Special attention must be given to the needs of vulnerable groups, including children, elderly persons, and persons with disabilities, to ensure that mobility and access are not compromised. Tailored provisions—such as pedestrian pathways, crossing assistance, and transportation alternatives—should be incorporated where needed.</p> <p>In addition, the TMP should be supported by public information campaigns and regular community engagement to keep residents informed of planned works, access arrangements, and available support. An accessible grievance redress mechanism should be in place to promptly address any mobility-related concerns, and a participatory monitoring process should be established to assess the effectiveness of mitigation measures. These actions will help uphold the principles of safety, equity, and service continuity throughout project implementation.</p>
	Access to land and private property	<p>The Restoration Plan includes formal agreements with land rights-holders to govern temporary land use or access during construction. These agreements must ensure fair and timely compensation for any temporary or permanent damage to structures, crops, or access routes, and must include provisions for the full restoration of affected land to its original condition upon completion of works.</p> <p>The plan must also ensure the meaningful involvement of affected individuals in the planning and scheduling of works, including consultation on restoration timelines and methods. Accessible grievance redress and appeals mechanisms should be established to address any disputes or concerns related to land use, damage, or restoration.</p> <p>Participatory monitoring should be implemented to verify that land entry, compensation, and restoration activities are carried out in accordance with the principles of equity, legality, and respect for private property. These processes will help build trust with affected communities and ensure that the Project remains compliant with ADB's SPS 2009 and relevant legal frameworks in Papua New Guinea.</p>
	Water Sources	<p>The Restoration Plan ensures uninterrupted, safe, and access to water for all affected communities throughout the construction period. This requires the prior identification of vulnerable or at-risk water sources, particularly those relied upon by informal users, and the establishment of alternative supply systems—such as mobile water tanks, standpipes, or temporary service connections. Continuous water quality monitoring must be conducted to ensure the safety of both existing and substitute sources, with rapid corrective measures implemented in the event of contamination or service disruption.</p>

Type of Impact	Proportion of the impact	Restoration Plan
		<p>The plan must be developed in close consultation with affected communities to ensure that measures are contextually appropriate, culturally acceptable, and responsive to community needs. It should include clear, accessible information-sharing processes and complaints mechanisms, as well as a defined implementation timeline with clearly assigned institutional responsibilities.</p> <p>A participatory monitoring system should also be established to verify the adequacy, safety, and accessibility of temporary water supply arrangements. This process will help ensure that restoration efforts are aligned with public health and sanitation standards, and uphold the principles of equity, the human right to water, and effective, rights-based service restoration.</p>

X. RESETTLEMENT BUDGET AND FINANCING PLAN

214. The resettlement budget for the Project includes all costs associated with land acquisition, compensation for affected assets and livelihoods, assistance to vulnerable groups, grievance redress, and safeguard implementation. The budget also covers monitoring, institutional support, and capacity-building activities related to resettlement.

215. Preliminary cost estimates have been prepared based on the available project design and the identification of affected assets. These costs will be updated following the detailed design phase and updated Detailed Measurement Survey (DMS), which will confirm the extent of impacts and number of Affected Persons (APs). The budget will include a contingency of 10% to account for unforeseen impacts or price fluctuations.

216. The EA, Kumul Consolidated Holdings (KCH), through WPNG as the IA, will be responsible for ensuring the timely allocation and disbursement of funds for resettlement. All resettlement-related costs—including land acquisition, compensation, assistance, and administration—will be financed by the Government of Papua New Guinea as part of its counterpart contribution to the project. All resettlement-related costs—including land acquisition, compensation, assistance, and administration—will be financed by the Government of Papua New Guinea as part of its counterpart contribution to the project.

217. Compensation payments will be made prior to displacement or disruption of access and will be based on full replacement cost principles, as per ADB's SPS 2009 and national regulations. Valuation of affected land, crops, and other assets will be conducted by qualified and independent valuers in accordance with national laws and ADB safeguards.

218. Following the disbursement of all cash compensation and the completion of the required bank transfers, the PMU will prepare a Compensation Completion Report. This report will include detailed records of all payments made, the list of beneficiaries, dates of distribution, and any remaining unspent funds. It will be submitted for internal review and approval to document the full implementation of compensation commitments.

219. The grievance redress mechanism described in this Resettlement Plan will be fully operational during and after the compensation process, providing a structured avenue for affected persons to raise concerns or disputes related to compensation or other resettlement matters. This system will ensure that all grievances are formally recorded, tracked, and resolved in a timely and equitable manner, reinforcing WPNG's commitment to transparency, fairness, and accountability in resettlement implementation.

220. The budget estimates in this RP are based on valuation data from DLPP's valuation reports and other relative data from past resettlement plans. The budget estimated in the Table 9 provides a financial basis to address land acquisition impacts and ensure fair compensation for affected individuals and communities involved in Project. Figures presented in this budget are based on the recent DLPP visit, the Valuer General's Office have submitted a preliminary Valuation Report included in Appendix 5 covering compensation for economic plants, trees, structures, and land loss to WPNG. Other estimates were sourced from other Projects in PNG, and other past water projects in the pacific.

221. The budget is organized into three main categories: (i) Value of Assets, which encompasses provisions for compensation related to land and improvements as well as costs associated with any necessary relocations and livelihood restoration efforts; (ii) implementation costs, which include the fees for social and environmental safeguards specialists, as well as one-time payments required for land acquisition, surveys, and permits; and (iii) contingencies, designed to address any unforeseen circumstances that may arise during the resettlement process. Table 87 shows indicative line items in the resettlement budget for the Port Moresby Water Supply Sub-Project's Resettlement Plan.

222. Table 9 summarizes the preliminary budget for resettlement implementation. This will be updated in the final Resettlement Plan following the detail design, DMS and valuation completion.

Table 9: Indicative Resettlement Plan Implementation Budget

Item	Description	Amount in USD
1. Assets		
Improvements	Compensation for loss of structures	N/A
Improvements	Economic Plants and Trees (impacts)	N/A
Land	Loss of Land/Outright Purchases (Refer to Appendix 5)	387,520
Subtotal 1: Value of assets		387,520
2. Implementation		
Safeguards	Social Safeguards Specialist	61,853
	Environmental Safeguards Specialist	61,853
	Livelihood Community Incentives (such community shelters for disabled Persons, behaviour change communication campaigns)	TBC
Land Acquisition Survey, Physical Planning Consents and Permits	One-off payments (Refer to Appendix 5)	10,843

Item	Description	Amount in USD
Subtotal 2: Implementation		134,549
2. Contingencies		
Lump Sum for Value of Assets	10% of Subtotal 1	38,752
Lump Sum for Implementation	10% of Subtotal 2	13,454
Subtotal 3: Contingencies		52,206
Total budget (Value of assets + Implementation + Contingencies)		574,275

XI. INSTITUTIONAL ARRANGEMENTS

223. The institutional framework for the Urban Water Supply and Sanitation Sector Reform and Investment Program (UWSSRIP) has been designed to ensure the effective planning, implementation, and oversight of subproject activities. This includes coordinated efforts across multiple agencies and ministries to uphold social and environmental safeguards, particularly with respect to land acquisition and resettlement.

224. Kumul Consolidated Holdings (KCH), as the Executing Agency, holds overall responsibility for subproject management. This includes securing land-use rights, ensuring compliance with applicable laws and policies, and providing compensation for land and assets affected by subproject implementation.

225. These responsibilities are critical to ensuring the smooth execution of subproject activities and maintaining compliance with national legislation and the Asian Development Bank's SPS 2009.

A. Executing Agency

226. Kumul Consolidated Holdings is the Executing Agency (EA) for UWSSRIP. KCH holds overall responsibility for the strategic oversight and coordination of subproject implementation, including compliance with loan covenants and safeguard requirements. KCH is responsible for managing counterpart funding and ensuring that legal and financial procedures align with national systems.

227. As the EA, KCH also ensures alignment with ADB's safeguards requirements and actively participates in project-level decision-making processes, including representation on the Project Steering Committee (PSC). KCH will work closely with the Implementing Agency (Water PNG), relevant national agencies, and the ADB to address safeguard compliance and land access matters. Key Responsibilities of the EA include:

228. **Legal and administrative compliance.** KCH acts as the government's representative in receiving loans and grants from ADB and other development partners. It is responsible for the negotiation, signing, and execution of all legal agreements, including those that pertain to safeguards and land acquisition.

229. **Subproject coordination and reporting.** KCH oversees coordination among subproject stakeholders and ensures the timely submission of project reports to ADB. It monitors implementation progress and provides regular updates to the Government of PNG and relevant development partners.

230. **Safeguards oversight and compliance.** KCH is responsible for ensuring that safeguard measures—particularly those related to resettlement and environmental management—are properly implemented. Through the Project Implementation Unit (PIU), KCH will monitor compliance with the Environmental Management Plan (EMP) and Resettlement Plan (RP). Semi-annual safeguards monitoring reports will be submitted to ADB, including progress on RP implementation, compliance issues, and corrective actions taken.

231. **Financial management.** KCH manages counterpart funding and ensures the timely disbursement of loan proceeds. It also supervises project financial management, including the preparation and submission of audited financial statements in accordance with ADB and government procedures.

B. Implementing Agency and Project Management Unit

232. Water PNG Limited (WPNG) serves as the designated Implementing Agency (IA) for the Vanimo project under UWSSRIP. Through its dedicated Project Management Unit (PMU), WPNG is responsible for the day-to-day implementation and management of subproject activities. This is done in accordance with the financing agreements between the Government PNG and ADB, and consistent with the safeguard, procurement, financial, and operational policies of both ADB and the Government. The IA core responsibilities through the PMU include the following:

- (i) **Day-to-day management.** – Coordinate and supervise all aspects of subproject implementation, ensuring alignment with the approved timeline, quality standards, and scope.
- (ii) **Procurement.** Manage the procurement of civil works, goods, and consulting services. This includes the preparation of bidding documents, bid evaluation, contract negotiation, and contract award processes in accordance with ADB procurement guidelines.
- (iii) **Financial management.** Maintain accurate and up-to-date financial records. Prepare and submit withdrawal applications, quarterly financial statements, and annual audited reports. Ensure the application of internal controls and implementation of the financial management action plan to address potential risks.
- (iv) **Contract administration.** Manage the negotiation, execution, and administration of contracts for civil works and consulting services. Ensure compliance with contractual deliverables.
- (v) **Stakeholder engagement and issue resolution.** Maintain coordination with national, provincial, and local stakeholders. Identify and resolve implementation bottlenecks and agree on remedial actions in the case of delays or underperformance.
- (vi) **Capacity building.** Ensure the PMU is adequately staffed with qualified personnel and operational throughout the subproject lifecycle.
- (vii) **Reporting.** Submit regular progress reports to KCH and ADB, including updates on physical progress, safeguards compliance, financial management, and key milestones. Prepare and update consolidated annual work plans and implementation schedules.
- (viii) **Supervision and compliance.** Monitor the performance of contractors and consultants. Ensure compliance with safeguards requirements as per the

- Resettlement Plan (RP) and Environmental Management Plan (EMP), including obtaining environmental and land access permits.
- (ix) **Change management.** Issue and manage contract variation orders as required to respond to changes in scope, schedule, or resource requirements.
 - (x) **Community engagement and grievance redress.** Conduct meaningful consultations and engage with affected communities throughout the project cycle. Operate and maintain the GRM, ensuring timely resolution of complaints.
 - (xi) **Monitoring and evaluation.** Conduct routine monitoring of project activities, particularly environmental and social safeguards. Submit semi-annual safeguards monitoring reports to ADB and other relevant stakeholders.
 - (xii) **Project completion.** Prepare and submit the subproject completion report, capturing achievements, challenges, lessons learned, and recommendations for future programming.

C. Project Steering Committee

233. The Project Steering Committee (PSC) functions as the principal oversight and coordination body for UWSSRIP. It ensures the program's alignment with national development priorities, adherence to loan and grant agreement conditions, and the application of sound public investment and financial management practices.

234. The PSC is co-chaired by the Department of National Planning and Monitoring (DNPM) and the Department of Treasury (DoT). Membership includes representatives from KCH, WPNG, and other key stakeholders.

235. The Chief Executive Officer (CEO) of WPNG, supported by the Head of the PMU, serves as the PSC Secretariat, responsible for convening regular meetings, compiling implementation reports, and facilitating timely communication across agencies. The PSC's core responsibilities include:

- (i) **Strategic oversight.** Ensure the implementation of the investment program is consistent with national development policies and strategic frameworks.
- (ii) **Compliance monitoring.** Ensure adherence to loan agreement covenants and safeguard policy commitments, particularly related to procurement, resettlement, and environmental management.
- (iii) **Resource coordination.** Support KCH and WPNG in mobilizing counterpart and loan funds and resolving inter-agency bottlenecks that may delay implementation.
- (iv) **Performance review.** Monitor project milestones, budget utilization, and progress across workstreams, including safeguards, engineering, procurement, and financial management.
- (v) **Meeting frequency and escalation.** Convene quarterly meetings or as needed to assess implementation progress, address emerging risks, and authorize corrective measures where necessary.

D. Consultant

236. A consulting firm will be engaged to fulfill the requirements for engineering design and technical investigation through the Design and Supervision Consultant (DSC) while individual experts will be recruited to complement the overall project management function to support the EA and IA in delivering the project effectively and in compliance with ADB and national requirements.

1. Project Management

237. Key individual experts will play a central role in supporting both the EA and IA across multiple functions of project implementation and control. The individual consultants will provide ongoing strategic, administrative, and operational support to ensure timely and efficient delivery of the project. The Consultants primary responsibilities include:

- (i) **Planning and coordination.** Assist in developing implementation strategies, schedules, and coordination mechanisms among agencies and stakeholders.
- (ii) **Project management and administration.** Support day-to-day project management, ensuring alignment with the loan agreement and performance targets.
- (iii) **Procurement and contract management.** Provide expert guidance on tendering processes, bid evaluations, and contract administration to ensure transparency and compliance.
- (iv) **Problem-solving and troubleshooting.** Assist in identifying and resolving implementation bottlenecks, risks, and performance issues.
- (v) **Progress monitoring and reporting.** Prepare consolidated project progress reports, including financial and safeguards monitoring updates, for submission to ADB and the Government.

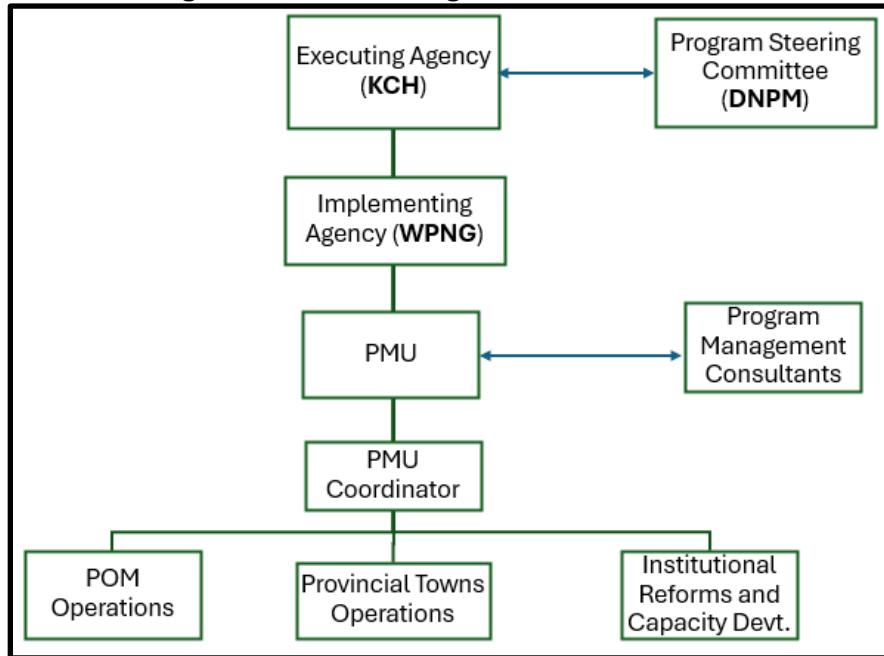
2. Design and Supervision

238. The consultant provides critical technical support during the design, construction, and operational phases of the subprojects. The consultant ensures that engineering and construction activities comply with design specifications, safeguards policies, and quality standards. The DSC's key responsibilities include:

- (i) **Design review.** Examine detailed engineering designs prepared by contractors, verify their technical adequacy, and make recommendations to the Implementing Agency on necessary modifications or improvements.
- (ii) **Construction supervision.** Oversee the implementation of civil works to ensure compliance with technical specifications, timelines, and safeguards.
- (iii) **Quality assurance and certification.** Certify the completion of works, validate contractor performance, and review payment claims and variation orders.
- (iv) **Safeguards monitoring.** Conduct on-site monitoring of social and environmental safeguards compliance, ensure mitigation measures are implemented, and support the preparation of safeguards reports required by ADB and national authorities.

239. The Consultant work in close coordination with the PMU, contractors, and local stakeholders to ensure project objectives are met while maintaining a high standard of social and environmental performance throughout implementation.

240. Figure 9 visually represent the structure of an organization or project team, showing the relationships and relative ranks of its components.

Figure 16: Overall Organizational Structure

XII. IMPLEMENTATION SCHEDULE

241. This section includes a detailed, time-bound implementation schedule for all key safeguards activities. The implementation schedule should cover all aspects of resettlement activities synchronized with the project schedule of civil works construction and provide land acquisition process and timeline.

242. The implementation schedule for the Project is presented in Table 10 below.

Table 10: Implementation Schedule

XIII. MONITORING AND REPORTING

243. The objective of resettlement monitoring is to ensure that the entitlements provided to affected persons (APs) are delivered on time, that livelihood restoration measures are effectively implemented, and that the resettlement process complies with the agreed RP and ADB's SPS 2009. Monitoring will also ensure the timely identification and resolution of any implementation challenges, with a particular focus on addressing the needs of vulnerable groups.

244. Activities related to the implementation of this RP will undergo both internal and external monitoring. Internal monitoring will be conducted by the PMU with the support of the Design and Supervision Consultant. External monitoring will be assigned to an independent monitoring organization (IMO).

A. Internal Monitoring

245. Internal monitoring will be carried out by the PMU of Water PNG, with oversight from Kumul Consolidated Holdings (KCH) as the EA. The PMU's safeguards team will be responsible for day-to-day monitoring and documentation of RP implementation activities.

246. Internal monitoring will cover:

- (i) Delivery of compensation payments and assistance (including to vulnerable APs);
- (ii) Timeliness of disbursement and adequacy of entitlements;
- (iii) Functionality of the grievance redress mechanism (GRM);
- (iv) Progress in livelihood restoration activities;
- (v) Community engagement and consultation activities;
- (vi) Any unanticipated impacts identified and addressed;
- (vii) Restoration of temporary impacts, including land and access.

247. Monitoring will use both quantitative and qualitative indicators and will be disaggregated by gender, age, and vulnerability status. Field visits, household surveys, stakeholder interviews, and review of grievance records will be standard tools used by the PMU.

248. Internal monitoring results will be compiled into semi-annual social safeguards monitoring reports (SSMRs) and submitted to ADB. These reports will document progress, challenges encountered, corrective actions taken, and next steps.

249. An indicative list of internal monitoring parameters and indicators is provided in the Table 11 below.

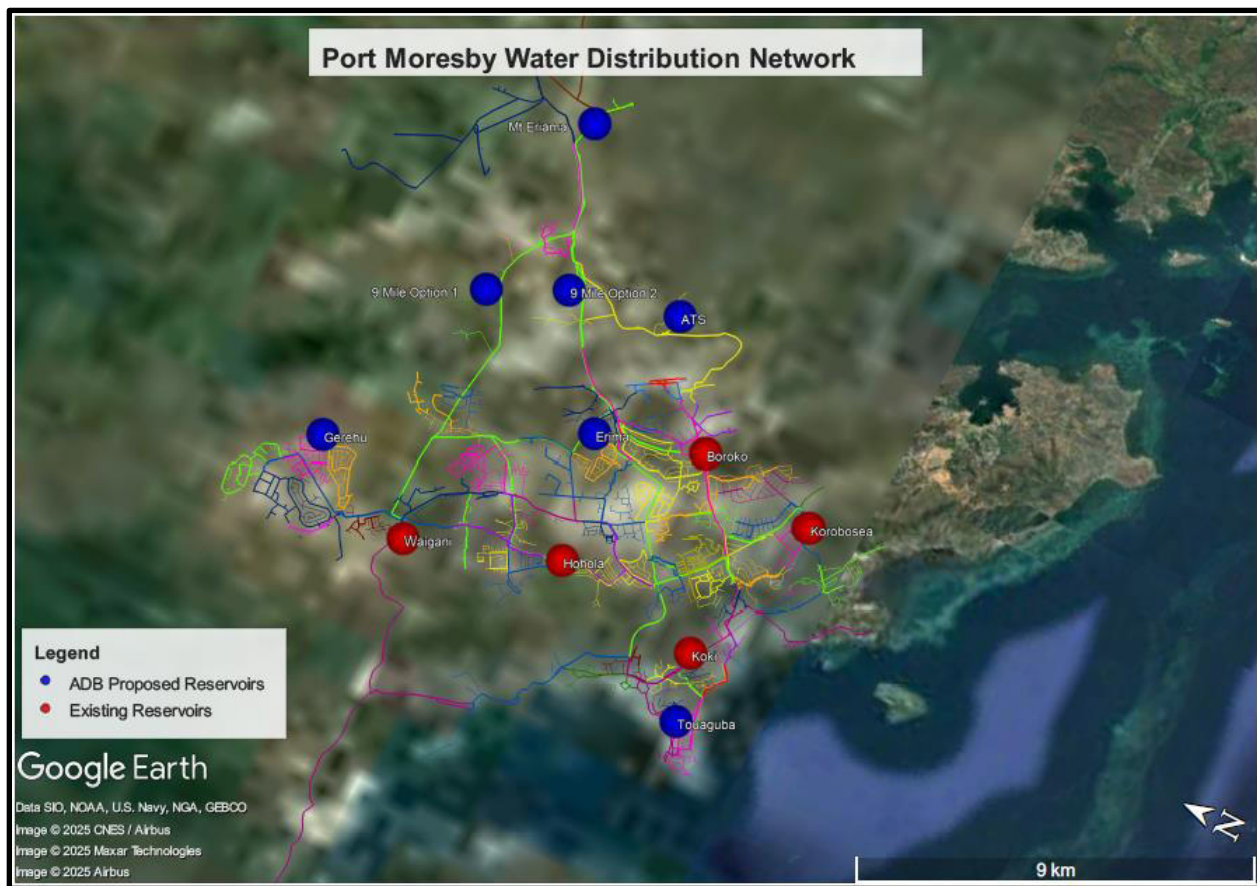
Table 11: Internal Monitoring Parameters

Monitoring Parameters	Suggested Indicators
Engagement and Grievances	<ul style="list-style-type: none"> • Number of engagement sessions delivered as scheduled. • Awareness of entitlements among APs, including vulnerable groups • Utilization of the GRM by affected residents (including women, children, and vulnerable groups) • Timely resolution status of grievances.
Delivery of AP Entitlements	<ul style="list-style-type: none"> • Proportion of APs who received compensation and/or entitlements for land, trees, and structures per the inventory of losses.
AP Satisfaction	<ul style="list-style-type: none"> • Number of APs satisfied with consultation processes, adequacy, and timeliness of compensation payments.

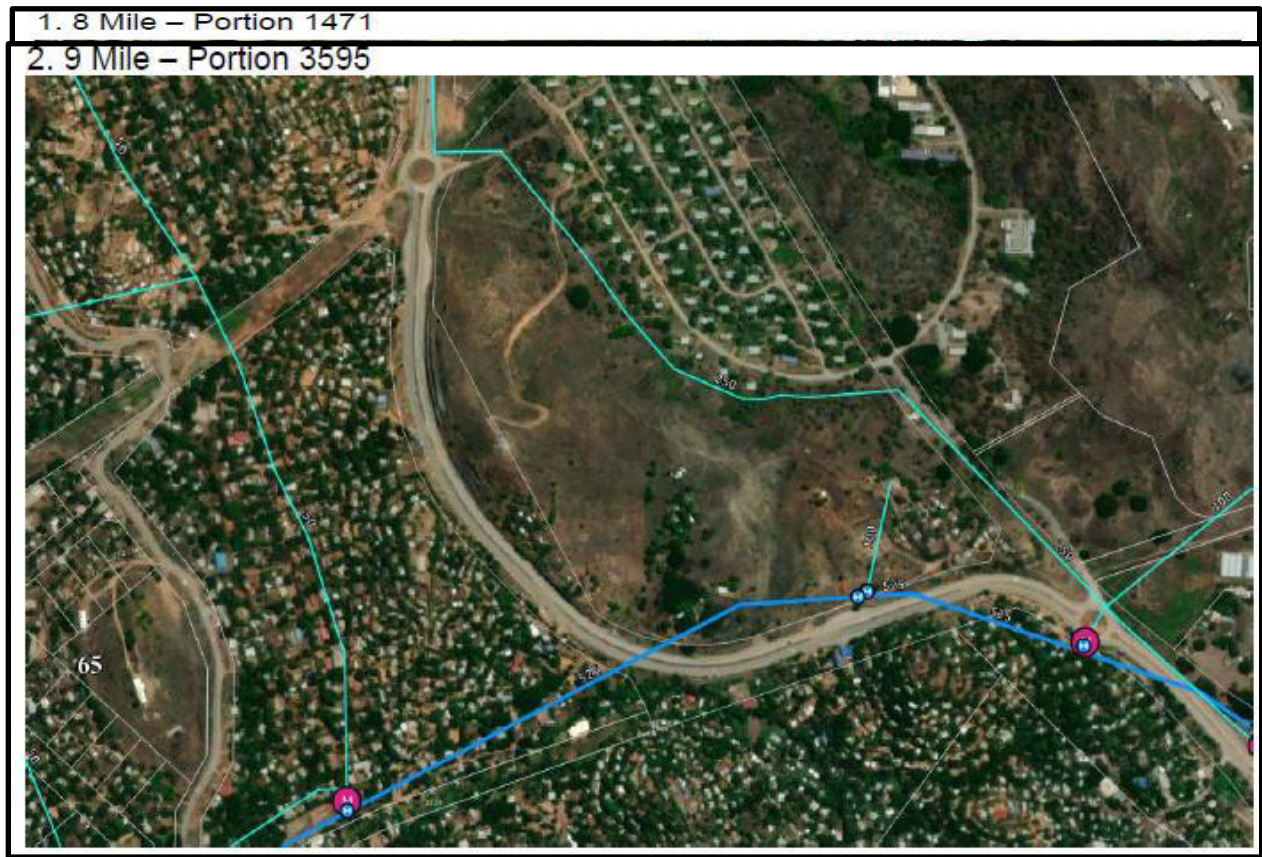
B. External Monitoring

250. Under the ADB's SPS, 2009, external monitoring is not required for projects classified as Category B for Involuntary Resettlement. This classification indicates that the project is not expected to cause any significant physical or economic displacement. However, if, during implementation, resettlement impacts such as the relocation of houses emerge, these must be promptly communicated to ADB. ADB, in coordination with the PMU, will assess the situation and determine the need for appropriate and proportional monitoring and safeguard documentation, which may include updating this RP in accordance with SPS 2009 requirements.

Port Moresby Water Distribution Network and Reservoir Sites



Reservoir Sites Feed Network (1-4)



3. Mt Eriama – Bomana – Portion 2439



4. Touaguba Reservoir – Section 14, Allotment 21, Touaguba



Land Titles

A – Portion 2461 Millinch of Granville Fourmil NCD – Mt Eriama Water Treatment Facility

THE TITLES OFFICE

04116/2461

THE INDEPENDENT STATE OF PAPUA NEW GUINEA
STATE LEASE

Registered in the Register of State Leases
 Volume 33, 213
 Date of Transfer 10/01/2007

REGISTRAR OF TITLES
 PAPUA NEW GUINEA

THE MINISTER ON BEHALF OF THE INDEPENDENT STATE OF PAPUA NEW GUINEA GRANTS TO THE LESSEE:

**NCD WATER & SEWERAGE LIMITED
 (T/A-EDA RANU)**

A State lease under Section 100 of the Land Act 1996 for a period of 99 years from 24/11/2005 (the commencement date) to 23/11/2104 for SPECIAL purposes of the land referred to in the Schedule and/or as shown coloured yellow on the annexed plan.

THE LESSEE and his successors in title shall perform or observe the Covenants, Conditions and Restrictions set out in the Land Act 1996, Land Regulations and those set out below:

- The lease shall be used bona fide for Special (Water Treatment Plant, Storage & Pumping facilities) purposes.
- Rent shall be paid at Two Thousand Kina (K2,000.00) being five percentum per annum (5%) of the unimproved value of the land as determined for the first ten (10) years of the lease at which time the annual rental will be re-assessed at five percent (5%) of the re-appraised valuation or at whatever other rate that may be decided as being appropriate at the time and such reappraisals shall be made every ten (10) years thereafter;
- Improvements being buildings for Special (Water Treatment Plant, Storage & plumbing facilities) purposes to a minimum value Fifteen Million Kina (K15,000,000.00) shall be erected on the land within five (5) years from the date of transfer of lease to the purchaser and these or similar improvements for the same purposes and to the same minimum value shall be maintained thereon in good repair for the term of the lease.
- Provision of any easements for electricity, water, power, drainage and sewerage reticulation.

SCHEDULE


All that piece of land known as Allotment/Portion 2461 Section/Milinch GRANVILLE Town/Fourmil MORESBY in NCD Province containing an area of 6.0200 hectares or thereabouts as delineated on registered survey plan (class URBAN ONE (1)) catalogued No. 49/2159 in the Department, Waigani, NCD

Dated this 14th day of December, 2006

Signed on behalf of the Independent State of Papua New Guinea by a delegate of the Minister

B - Lot 21, Section 14, Port Moresby NCD: Touaguba Hill Reservoir Rehabilitation Site

OWNER'S COPY



THE INDEPENDENT STATE
OF
PAPUA NEW GUINEA
STATE LEASE

Registered in the Register of
State Leases
Volume 20, 213
Folio 213

10/01/2007

DB/014/021

THE MINISTER ON BEHALF OF THE INDEPENDENT STATE OF PAPUA NEW GUINEA

NCD WATER & SEWERAGE LIMITED
(T/A-EDA RANU)

REGISTER OF TITLES
PAPUA NEW GUINEA

Registrar of Titles
10/01/2007

THE MINISTER ON BEHALF OF THE INDEPENDENT STATE OF PAPUA NEW GUINEA GRANTS TO THE LESSEE:

NCD WATER & SEWERAGE LIMITED
(T/A-EDA RANU)

A State lease under Section 100 of the Land Act 1996 for a period of 99 years from 24/11/2005
(the commencement date) to 23/11/2104 for SPECIAL purposes of the land referred to in the Schedule
and/or as shown coloured yellow on the annexed plan.

THE LESSEE and his successors in title shall perform or observe the Covenants, Conditions and Reservations
set out in the Land Act 1996, Land Regulations and those set out below:

- (a) The lease shall be used bona fide for Special (Water Reservoir tank, plant & pumping facilities) purposes.
- (b) Rent shall be paid at Eight Thousand Three Hundred and Fifty Kina (K8,350.00) being five percentum per annum (5%) of the unimproved value of the land as determined for the first ten (10) years of the lease at which time the annual rental will be re-assessed at five percent (5%) of the re-appraised valuation or at whatever other rate that may be decided as being appropriate at the time and such reappraisals shall be made every ten (10) years thereafter;
- (c) Improvements being buildings for Special (Water reservoir tank, plant & plumbing facilities) purposes to a minimum value Fifteen Million Kina (K15,000,000.00) shall be erected on the land within five (5) years from the date of transfer of lease to the purchaser and these or similar improvements for the same purposes and to the same minimum value shall be maintained thereon in good repair for the term of the lease.
- (d) Provision of any easements for electricity, water, power, drainage and sewerage reticulation.


SCHEDULE

All that piece of land known as Allotment/Portion 21 Section/Block 14
Town/Village GRANVILLE in NCD Province containing an area of 0.834 hectares or thereabouts
as delineated on registered survey plan (class URBAN ONE (1)) Catalogue No. 49/2159 in the Department, Waigani, NCD

Dated this 14th day of DECEMBER, 2005

C – Portion 1404 Millinch of Granville, Fourmil of NCD: Waigani Sewerage Ponds

04/1161404


OWNER'S COPY
 THE INDEPENDENT STATE
 OF
PAPUA NEW GUINEA
STATE LEASE

Registered in the Register of
 State Leases **22** / **1995**
 Deputy Registrar of Titles
14.12.1999

THE MINISTER ON BEHALF OF THE INDEPENDENT STATE OF PAPUA NEW GUINEA GRANTS TO THE LESSEE:

NCD WATER AND SEWERAGE LTD (T/A EDA RANU)

A State lease under Section **100** of the Land Act (~~1996~~) for a period of **99** years from **17 / 06 / 1999** ("the commencement date") to **16 / 06 / 2098** for **SPECIAL** purposes of the land referred to in the Schedule and/or as shown coloured yellow on the annexed plan.

THE LESSEE and his successors in title shall perform or observe the Covenants, Conditions and Reservations set out in the Land Act (~~1996~~) Land Regulations and those set out below:


- (a) The lease shall be used bona fide for Special (Public Utilities) purposes;
- (b) YIELDING AND PAYING therefore during the first Ten (10) years of the term in advance on the first day of January in each and every year an annual rent of Six Thousand Two Hundred Kina (K6,200.00) and thereafter such annual rent as shall be or become payable by reason of the annual rent having being redetermined in due course of law;
- (c) Improvements being buildings for Special (Public utilities) purposes to a minimum value of Two Hundred Thousand Kina (K200,000.00) shall be erected on the land within Three (3) years from the date of grant and these or similar improvements to the same minimum value for the same purposes shall be maintained thereon in good repair during the currency of the lease;
- (d) Excision of easements for electricity, water, power, drainage and sewerage reticulation.

SCHEDULE




All that piece of land known as Allotment/Portion **1404** Section/Milinch **GRANVILLE**
 Town/Journal **MORSEBY** in **NCD** Province containing an area of **124** hectares or thereabouts
 as delineated on registered survey plan (class **ONE (1)**) catalogued No. **49/1559** in the Department, Waigani, NCD.

Dated this 14th day of December, 1999.

Signed on behalf of the Independent State of Papua New Guinea by a delegate of the Minister.


 A Delegate of the Minister

Official Land Status Report: Proposed 8-mile and 9-mile Reservoir Sites

	DEPARTMENT OF LANDS & PHYSICAL PLANNING	
State Lands Division		
EDA TANO HAUS, GROUND FLOOR, SOUTH WING WAIGANI DRIVE PO BOX 5665, BOROKO, NCD, PAPUA NEW GUINEA		TELEPHONE: (675) 301 3260 FASCIMILE: (675) 3013979
		Date : 23 rd June, 2025 Ref : 04116/3595-DE/027/001
The Chief Executive Officer Water PNG Limited PO Box 2779 BOROKO, NCD 111		
Attention: Mr. James Young		
RE: STATUS OF PROPOSED LAND SITES FOR ADB (UWSSSRIP) WATER SUPPLY PROJECTS IN PORT MORESBY, NATIONAL CAPITAL DISTRICT		
Department of Lands & Physical Planning advises in response to Water PNG Limited's query on two (2) Proposed Reservoir Infrastructure Sites in Port Moresby, per received correspondence dated 27 th May, 2025 and referenced ADB (UWSSSRIP) –Land Investigation.		
STATUS OF PROPOSED SITES:		
1. 8 Mile site with specific coordinates (Latitude 9°25'6.94"S, Longitude 147°13'20.86"E) is for Land legally described as Allotment 1 Section 27, Town of Bomana, National Capital District. This property/land is leased to W.R Carpenters (Properties) Limited, a State Lease Volume 42 Folio 94 and therefore is not available for allocation.		
2. 9 Mile site with coordinates (Latitude 9°24'10.26"S, Longitude 147°12'52.69"E) is land legally described as Portion 3595 Milinch Granville Fourmil Moresby, National Capital District. The subject land is Reserved Land under Section 49 of the Land Act 1996 to the Royal Papua New Guinea Constabulary under Certificate Authorizing Occupancy No. 02/2024 for Special Services Division's Police requirements, therefor is not available for allocation.		
Should Water PNG Limited require further perusing their interest for the sites, you are advised to liaise with the above mentioned entities for their consent.		
We hope the information is sufficient for further address on your interest over the land.		
Yours faithfully,		
		
VILINDURI TANU (Ms) Manager Land Allocation		
<i>Land is Utilized to improve the Quality of Life for all Citizens of PNG</i>		

Valuation Report prepared by the Valuer General's Office

LAND ACQUISITION COSTS Urban Water Supply and Sanitation Security Investment Program (UWSSSRIP) _ Port Moresby Component

LAND COMPENSATION ASSESSMENT: OUTRIGHT PURCHASE

Location	Property	LA (ha)	Land Area Required	LA (M2)	Value (K)
1. 8 mile Reservoir site	McGregor area	0.1600	0.16	1,600	800,000.00
2. Access Road	-	0.0000	0	-	-
3. 9 mile reservoir site	-	0.1600	0.16	1,600	800,000.00
4. Access Road	-	0.0000	0	-	-

Total Value (K): 1,600,000.00

Total Value (USD): 387,520.00

Source: DLPP Estimates, June 2025

ONE OF PAYMENTS (REGULATORY FEES)

SURVEY COSTS

8- and 9-Mile Reservoir Storage Site

Task	Rate (PGK)	Quantity	Amount (PGK)
Site Boundary Survey & Survey Plan	18,000	2	36,000.00
Registration of Survey Plans	100	2	200.00
Lodgment Fees of Survey Plans	10	2	20.00

Total Value (K): 36,220.00

Total Value (USD): 8, 781.68

PLANNING APPLICATION FEES

Task	Rate (PGK)	Quantity	Amount (PGK)
Application For Rezoning	500.00	2	2,000
Application for Planning Permit	500.00	4	4,000
Application for Non-Conformance Fees	500.00	1	500.00

Total Value (K): 6,500.00

Total Value (USD): 1,577.30

BUILDING BOARD APPLICATION FEES

Task		Rate (PGK)	Quantity	Amount (PGK)
Building Permit Application		500.00	4	2,000

Total Value (K): 2,000.00

Total Value (USD): 484.40

Total One-Off Payments Land Acquisition (Fees): USD 10, 843.38

Source: UWSSSRIP Team