Initial Environmental Examination

November 2021

Solomon Islands: Urban Water Supply and Sanitation Sector Project

Part 4


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Where the trunk main passes through before or after the river crossings at the Kongulai section, some identifiable trees include *Pometia pinnata* (Akwa), *Broussonetia papyrifera* (Paper Mulberry), *Canaga odorata* (Ylang-ylang), *Macaranga simulis*, *Spathodea campanulate* (African Tulip), *Ficus elastica* (Fig Tree), *Delonix regia* (Christmas Trees), *Ficus spp* (Amau/Kanava), *Ficus benjimina*, *Ficus congesta*, *Schizostachyum tessellatum* (Small Green Bamboo) including fruit trees such as *Syzygium aqueum* (Water Rose Apple), *Syzygium malaccense* (Abarai), *Barringtonia procera / Novae-ibernae* (Cut Nut), *Mangifera indica* (Mangoes), *Artocarpus altillis* (Bread Fruit), *Canarium indicum* (Ngali Nuts), *Cocos nucifera* (Coconuts), *Terminalia spp* (Alite), *Averrhoa carambola* (Star Fruit), *Psidium guajava* (Guava).

Plate 4-7 shows the typical vegetation along the trunk main corridor – Kongulai section.
Gardens owned by settlers are also observed and garden crops planted include *Manihot esculentum* (Tapiok), *Colocasia esculenta* (Taro), *Dioscorea spp* (Yam), *Musa spp* (Banana), *Saccharum edule* (Long Pitpit), pawpaw, slippery cabbage, *Polysicas spp* (Yellow Leafy Cabbage), *Pseuderanthemum wharftoniaum* (Ofenga), *Sauropus androgynus* (Bonio), *Ananas comosus* (Pineapples).

Other grasses and vines found along the footprint include *Pueraria sp*, *Piper betel*, *Imperata cylindrica*, *Paspalum mandiocanum*, *Mimosa pudica*, *Mimosa invisa*, *Sida rhombifolia*, *Eleusine indica*, *Merremia peltate*, *Syngonium podophyllum*, *Mikania micrantha*.

Towards the White River section, the vegetation along the trunk main footprint vegetation highly altered due to human settlements. The surrounding vegetation consist mainly of garden crops such as *Manihot esculentum* (Tapiok), *Musa spp* (Banana), *Pseuderanthemum wharftoniaum* (Ofenga), *Polysicas spp* (Yellow Leafy Cabbage) and *Saccharum offinarium* (Sugar Cane), *Areca catechu* (Betel Nut Trees), *Metroxylon salomonense* (Sago Palms), *Pandanus tectorius* are also present. Some introduced trees are *Broussonetia papyrifera* (Paper Mulberry), *Mangifera minor* (Mango), *Artocarpus altilis* (Breadfruit), *Samanea saman* (Rain Tree), *Polyscias spp* (Shrub) and *Plumeria acuminata* (Frangipanies).

Plate 4-8 shows the typical vegetation along White River section.
Plate 4-8: Typical Vegetation along White River Section

Source: Survey of Riparian and terrestrial flora and Fauna of the Proposed Pipeline Route, August 2021
The flora within the vicinity of the river crossings (5-6), where the trunk main passes through consist of *Samanea saman* (Rain Tree), *Mangifera indica* (Mango), *Musa spp* and *Morinda citrifolia* (Noni) including vines and creepers. Aquatic plant present is *Ipomea aquatica* (Kangkong).

Plate 4-9 shows the typical vegetation at crossings 5-6 (White River section)
Plate 4-9: Typical Vegetation at Crossings 5-6 (White River Section)

Crossing 5

Crossing 6

Source: Survey of Riparian and terrestrial flora and Fauna of the Proposed Pipeline Route, August 2021
There are also areas where grasses and associated weeds colonizing the road corridor where the pipe will pass through. This also includes the area where the White River tank is located. Within the White River suburb, where the pipe will pass through until it reaches 01 Bus Stop, the vegetation is limited to landscaping plants within properties.

During the construction stage, trees and fruit trees including garden crops within the pipeline corridor along the Kongulai-White River section will be removed.

**East Kola Trunk Main**

The East Kola Trunk Main is located within the road corridor in an urban suburb in East Honiara. The suburb accommodates the residence of the Governor General of Solomon Islands which is immediate to the trunk main site, and along the route, there are residential homes, canteens, churches, schools, shops, and market (fishing village).

The Trunk Main will also pass through a small stream (Kukum) and Panatina. The stream is highly polluted with rubbish and other wastes dumped into it.

*Plate 4-10* shows the typical corridor along East Kola trunk main.
Plate 4-10: Typical Corridor along the East Kola Trunk Main

Source: Survey of Riparian and terrestrial flora and Fauna of the Proposed Pipeline Route, August 2021
Along the East Kola trunk main alignment, most vegetation is scattered roadside trees and shrubs along the road corridor and is tolerant to disturbances.

Figure 4-11 shows the route and sections of the East Kola trunk main.
Figure 4-11: Route and Sections of the East Kola Trunk Main

Source: Survey of Riparian and terrestrial flora and Fauna of the Proposed Pipeline Route, August 2021
All original forest vegetation has been cleared decades ago for the establishment of the suburb. The typical vegetation comprises of *Frangipany, Premna corymbosa* (Premna), *Delonix regia* (Christmas Trees), *Broussonetia papyrifera* (Paper Mulberry), *Elaeis guineensis* (Oil Palm), *Citrus limon* (Lemon). *Musa spp* (Banana), *Carica papaya* (Pawpaw), *Mangifera indica* (Mango) and *Morinda citrifolia* (Noni).

Plate 4-11 shows the typical vegetation along East Kola trunk main.
Plate 4-11: Typical Vegetation along East Kola Trunk Main

Source: Survey of Riparian and terrestrial flora and Fauna of the Proposed Pipeline Route, August 2021
Panatina Trunk Main

208. The Panatina trunk main is located at Panatina Suburb which is further East from the East Kola trunk main. Within this area, there are residential homes, an open-air roadside market, and canteens. Where the trunk main will connect to the main road, adjacent to it are the newly constructed stadiums at the Telekom grounds, Solomon Islands National University bus stop and grounds, and the Honiara golf field on the opposite side. Further along are the Ranadi industrial areas with shops and hardware, King George IV School, Perch Christian School, KG Betel Nut Market, and the Burns Creek area. There is a large shopping center known as Capital Park, a school, and a roadside market. There is a stream at Burns Creek before the Lungga Bridge and Lungga River.

209. Plate 4-12 shows the typical corridor along Panatina trunk main.
Plate 4-12: Typical Corridor Along Panatina Trunk Main

Source: Survey of Riparian and terrestrial flora and Fauna of the Proposed Pipeline Route, August 2021
Along the Panatina trunk main alignment, natural vegetation is limited and consists of roadside trees and grasses along the road corridor.

Figure 4-12 shows the route and sections of the Panatina trunk main.
Figure 4-12: Route and Sections of the Panatina Trunk Main

Source: Survey of Riparian and terrestrial flora and Fauna of the Proposed Pipeline Route, August 2021
No natural forest exists on the project site or in the surrounding areas. Roadside trees include *Samanea saman* (Rain Tree), *Delonix regia* (Christmas Trees), *Broussonetia papyrifera* (Paper Mulberry), *Vitex cofassus* (Vasa), and grasses such as *Panicum miliaceum* (L) (Common Millet), *Cynodon dactylon* (L), and Bermuda grass were identified.

Plate 4-13 shows the typical vegetation along the Panatina trunk main.