Civil Servicing Network Summary

Overview:

A civil servicing network including water distribution, sanitary sewer collection, and drainage has been developed by the Proponent in consultation with City staff and Urban Systems Ltd.. Work has been completed in draft and is currently undergoing review by the City and its Consultants for the Proponent to finalize.

Water Distribution

The potable water distribution and fire protection system presented builds from the concept outlined in the MIS. Adjustments have been made and are still being finalized to suit site constraints, operational requirements, land uses, and new information such as from the Water Master Plan and associated SCPA Gap Services design. The network includes seven pressure zones, a trunk supply transmission main, two reservoirs, a number of Pressure Reducing Valve (PRV) stations and interconnected distribution watermains, as well as two booster pump stations (BPS). A third BPS and the elevation/location of the lower reservoir are still being contemplated as they depend on further detail from the Gap Services design, in addition to the development phasing strategy.

The water network serves the CNP area but will also provide connection points at its borders to other areas such as the future West, North, and East Neighbourhoods of the SCPA, as well as the Israel Bench. Allowance is being made for a possible future connection to the Cannell Lake source supply main at Dewdney Trunk Road and Keystone Avenue, which could eventually be served by a regional reservoir in Zone 4 and re-commissioning of the BPS at Best Ave and Cedar Street, both of which are being contemplated by the Abbotsford Mission Water Sewer Commission (AMWSC).

Sanitary Sewer Collection

The sanitary sewer system presented builds from the concept outlined in the MIS. However, some major changes have been made such as relocation of pump stations, avoiding trunk pipes on Highway 7, and siphoning by gravity a large portion of the high elevation lands directly into the Gap Services trunk mains to bypass redundant pumping. Other adjustments have been made and are still being finalized to suit site constraints, ultimate road elevations, operational requirements, land uses, and new information such as from the Sanitary Sewer Master Plan and associated SCPA Gap Services design. The network includes a large trunk siphon/forcemain, three community pump stations (PS) complete with forcemain pipes, and one strata-owned PS, all of which convey inflow from an extensive network of gravity sewers. A number of private PSs are required that will either have forcemains onsite discharging to a gravity service connection, or short/insignificant lengths of forcemain in public right-of-way. For the upper end of the largest trunk main, the transition line that separates siphoning by gravity vs. flowing by gravity to lower pump stations, is dynamic (depending on the point in time of development buildout) and so requires further detail from the phasing strategy to be finalized. The final Gap Services design also affects the aforementioned.

Drainage

Refer to the IRMP section.

Next Steps

The civil servicing network plans and analysis are currently being finalized. City staff, with input from their Consultants, have given comments and will be providing more shortly, which the Proponent team is and will be reviewing and addressing.