# Servicing and Infrastructure

The TOL infrastructure proposal is based on a system concept that is independent from City services and allows as much as possible the installation of services on a phase by phase basis. Some phase(s) may take more advantage of the existing infrastructure assets than other phases. A servicing layout plan will be prepared at MDP stage. The infrastructure concept being considered at this time consists of the following areas.



## 6.1 Water Supply

A dual system consisting of untreated raw water for fire protection and irrigation and a treated system for all potable water requirements is envisioned. A dual system would require separate distribution piping. The source for raw water will continue to be the Tranquille River as per TOL's existing water licences dating back to 1909. The source for domestic water supply is expected to be a new groundwater well and reservoir system. The distribution piping for non treated water may utilize part of the existing infrastructure associated with the historic farm and institutional facilities. Preliminary ground water investigation indicates that the aquifer water quantity and water quality may support a groundwater supply system for the entire village. In the unlikely event that a groundwater system is proven not to be technically feasible for the supply of potable water, lake supply will be pursued.



#### 6.2 Storm Drainage

Storm water will be managed by utilizing various Best Management Practices, as appropriate. This may entail the introduction of bio-swales, detention ponds, reduced impervious surfaces, curbless roads and infiltration fields. The general intent will be to maintain post-development flows that are in the magnitude of pre-development conditions. The system will be described in detail in the TOL Storm water Management Plan to be prepared in conjunction with the MDP. Flood rating will be incorporated into the design to accommodate major and infrequent storm events.



### 6.3 Sewage Collection and Waste Treatment

The City has indicated that a sewage connection to the City system could be considered if proposed by the development applicant. The feasibility is currently under review, however the expectation is that TOL will require a local community system(s) to collect and treat generated wastewater. Existing infrastructure for wastewater collection and treatment utilized by the previous institution is being assessed to determine the feasibility of utilizing components of the existing system on an interim or long term basis. Alternatives will be considered for the treatment and disposal of wastewater; it is anticipated that a number of proven wastewater treatment technologies economically viable for smaller numbers of residential dwellings or commercial units linked to a larger community wide treatment plant built when economies of scale warrant it will likely be the most practical longer-term approach. The layout and specific details of

the initial facilities will be provided as part of the phase one development application. Discharge options to be considered include combinations of in-ground infiltration and spray irrigation. River or creek discharge will be considered only as a last resort.

#### 6.4 Roadways

The road layout and hierarchy of road standards, including cross sections will be provided with the MDP. The application of City standards will apply only to the public east west connector road to the municipal park in Cooney Bay as the remainder of roads will be within the strata community where narrower roads will be proposed for the purpose of improved safety through "traffic calming", neighbourhood aesthetics, reduction of impervious surfaces, and an overall rural community ambience. Private road network design standards will adhere to emergency access requirements set by Kamloops Fire and Rescue. Road and lane right of ways within the strata property will likely range between 6 and 18 meters.

Recent signalized upgrades to the intersection at Southills Road and Tranquille Road meet the key recommendation of a Traffic Impact Assessment Study done for TOL in 2006. This study will be updated and its recommendations included in the MDP.

#### 6.5 Municipal Services

Policing, fire protection, garbage pickup and potentially, public transit¹ will be made available to TOL by the City. Input from the various providers of these services will be sought at the MDP stage preparation to ensure that safety and security considerations are incorporated into detailed planning and design. Future on site composting as part of the Tranquille Farm operation may be considered.

#### 6.6 Energy and Communications

The site is serviced with overhead electrical service. Underground power and telephone service is required for subdivision servicing within the project. Discussions are underway with respective utility companies to have the needed services available at TOL, including natural gas, conventional and renewable electrical energy, telephone, and cable.

#### 6.7 Utilities Operation

TOL, in collaboration with one or more private utility entities, will be responsible for the operation and maintenance of private infrastructure and compliance with regulatory standards. The location of dry (cable, telephone, electrical) private utilities within public lands (i.e. lakefront day use park, east west collector road right of way, and pathway systems) will be permitted and easements granted should the village servicing plan include utilities within these public areas. Wet utilities such as potable water, non potable water, and waste water may cross public lands. These will be minimized so as to avoid load disruptions. They will not lie within any public road right of way.



Public transit would be made available on an as and when feasible basis as determined by the Transit Future Plan basis.