



## Tank Freezing Precautions – Summary of MPE Engineering Recommendations

### Tank Specifications

MPE engineering has recommended the use of concrete tanks for all of the Summer Villages. Step tanks in the Summer Villages of Ma-Me-O Beach, Grandview and Poplar Bay require two compartments, 2 risers and a minimum capacity of 1,200 gallons.

Owners are required to use the services of prequalified, certified installers. A list of these contractors will be provided by the Summer Village. The certified installers will meet individually with owners to discuss site specific concerns.

### Freezing Prevention Specifications

The following installation specifications are required and are intended to reduce the risk of freezing for **new tank** installations:

1. Tanks must be buried at a depth of at least 1.2m below the ground surface (measured to the top of the tank);
2. The access risers shall be insulated with foam insulation and fitted with insulated discs;
3. The tank lid and the outside of the tank shall be insulated with spray foam insulation to a depth of 1.8 m;
4. New pump chamber vaults shall be insulated with spray foam to a 1.8m depth; and,
5. Insulated and heat traced service lines will be located at a depth of approx. 1.2 m.

Options for **existing tanks** that may provide additional protection and may be discussed with the certified installer and include the following.

1. The access risers will be fitted with insulated discs and may be insulated;
2. Owners could excavate to 0.6 m above existing tanks and install Styrofoam board insulation;
3. Owners could excavate around existing tanks and provide spray foam insulation on the outside of the tanks;
4. Owners may want to consider providing some form of heat tracing on the outside or within the tank.

**Note:** If freezing has not be a problem in your tank previously, it is even less likely to be a problem with the new system.

### Extended Winter Absence

Property owners who are leaving for the winter may want to unplug the STEP pump and request that the cc valve between the main line and the tank be closed in the fall and re-opened in the spring. The pump comes with a cold weather kit installed and may be left in the tank over the winter.

Note that the pump should not be run when there is ice in the tank.

It is strongly recommended that residents leave their heat tracing on over the winter to prevent freezing while they are away. The estimated cost for power is about \$20.