

## SW-GFEG 2<sup>nd</sup> Response Water Supply Project Budget

Every dwelling in S.W. Gambier Island is encouraged to have a first response water supply readily available to fight fires with. We do not have any fire hydrants here, so all homeowners/cottagers/landowners are responsible to themselves to ensure they have enough water readily available for a quick fire break-out response using their own equipment, or that available in the SW-GFEG 1<sup>st</sup> Response Fire Equipment Trailers. As a rough rule of thumb, water storage volumes of 2,000 gallons per 1,000 sq. ft. of structures is a good place to start. A 2,000-gallon supply will provide enough water to keep two fire hoses, each using 15 gallon-per-minute (GPM) foam or water nozzles operational for about 1 hour. Should neighbours responding to assist with fire suppression feel that the water supply is likely to be insufficient for them to stop the fire from spreading to the forest or to other property, then they will need to call for and staff up our 2<sup>nd</sup> Response Water Supply Equipment Trailer as soon as possible (once Phase 3 is complete).

To be able to staff up and operate the 2<sup>nd</sup> Response Trailer we will need to have a number of neighbours trained in the use and operation of this dedicated equipment. The success of this project depends to a very large extent upon the availability of dedicated volunteers to assist and direct those unfamiliar with it in emergencies that might occur at any time of the year, day or night. We will be seeking volunteers in each community.

### **Phase 1 – Waterax 4-stroke, 4-stage 23hp Forestry Fire Pump @ 440psi**

**Budget: \$10,086.76** includes Battery kit, LED work light, gas tank & 12 rolls of Hotline yellow high pressure fire hose.

The 2nd Response Water Supply pump will consist of a very high pressure portable pump capable of moving seawater from our docks in Gambier Harbour, New Brighton, Cotton Bay or West Bay along special hose laid along the side of public gravel roads to any property within SW Gambier. We estimate the maximum distance at 1.8KM (6,000ft) and the maximum elevation to be overcome at 160M (500ft) once we can afford to buy enough high pressure hose to get there (planned for in phase 3).

Implementation: May/June 2016

### **Phase 2 – Express Custom Aluminum Trailer for high pressure fire hose & pump**

**Budget: \$10,000** includes hose racks, hose-laying hopper and hose re-winding mechanism, plus a FireFax Low Profile 500-gallon self-supporting water tank.

The process of deploying our 2nd Response Trailer will take quite a long time -- probably up to an hour provided experienced volunteers are on-island and available to help. The plan includes building a dedicated second response fire equipment trailer, similar to those presently deployed in West Bay and Gambier Harbour. It will contain racks for 60 rolls of Hotline hose. In addition, it will carry our high-pressure pump to any one of the community's docks that can be reached by road - New Brighton, Cotton Bay, Gambier Harbour or West Bay. There will be a rear-facing hopper for laying out hose onto the road as the trailer is towed from the pump located on the dock towards a distant fire site. It will pause every 100ft to allow connection to another hose.



Upon arrival at the fire site, we will deploy a 500-gallon portable low-sided water tank with a floating rim as illustrated at left. It can be filled with seawater at a rate of 30-90GPM (subject to elevation). The presence of the tank will allow pumps carried in the 1<sup>st</sup> Response Trailer to draw from it and each lay water or foam on the fire at rates of 15 or 30GPM (as appropriate). This arrangement is designed for continuous operation.

Later, once the fire is extinguished, our 2<sup>nd</sup> Response Trailer's return journey will utilize a hose winding device facing forward through the front of the trailer so that responders can wind the hose back up off the road and then stow it in racks as it is towed slowly downhill back to the high pressure pump on the dock.

Source of funds for this phase includes 2016 contributions to our Fire Equipment Fund by neighbours in Gambier's SW Peninsula plus an SCR D Grant-in-Aid (if approved) that has already been applied for in 2016.

Implementation: Phase 2 anticipated late 2016 depending on availability of funds.

### **Phase 3 – 48 Rolls of 600psi test pressure Hotline yellow high pressure fire hose**

**Budget: \$12,000** for 48 x 100ft rolls of high pressure Hotline yellow fire hose and walkie-talkie equipment.

These 48 rolls of hose complete the quantity needed for us to be able to reach homes in the more distant and higher elevations of our region like our Community Centre, Austin Trails, upper Dulcie Road, central West Bay Rd, all Shawanabee Rd and even Lionsview if their two 5,000 gallon water tanks are running dry. It needs to be widely understood that this Hotline yellow high pressure hose is quite different from the usual regular low pressure hose that we have deployed at present. Our existing 60 rolls of off-white fire hose is rated as 150psi working pressure, 300psi test pressure and 600psi burst pressure. It is intended for our existing fire pumps that operate at maximum pressures of 100-200psi.

The new Waterax BB-4-23 high pressure pump has a maximum shut-off pressure of 440psi which must, by regulation, be less than the rated test pressure of the fire hose in use. Thus the need for a special high pressure hose which is rated at 300psi working – 600psi test – 900psi burst. One attractive feature of this new hose is that it is lighter when rolled up wet than our regular off-white fire hose. However, it goes without saying that it is double the price at \$235 per 100ft roll (tax & shipping incl.).

Implementation: The timing of Phase three is presently estimated to be during 2017 as funds are available.

## **SW Gambier Fire Equipment Group**

Stu Watson    Bob Ostiguy    Margo Gram    Joe Wright    Colin Bates    Kevin Pike  
398 Dulcie Rd, Gambier Harbour, Gambier Island, BC V0N 1V0