

STRUCTURAL PROTECTION UNIT INVENTORY SPECIFICATIONS

BACKGROUND

The Firestorm 2003 Provincial Review by the Honourable Gary Filmon recommended that "Communities and homeowners in the interface should be encouraged to invest in methods of self-protection, such as sprinklers, as soon as possible." With funding from the Province of British Columbia, a taskforce was struck to determine the ideal equipment configuration for a Community Structural Protection Unit (SPU), specific to the needs of British Columbia. This configuration would assist in developing a model for communities to follow when considering such equipment locally. At the same time, a provincially shared resource would become available to assist with community protection province wide.

Based on the recommendations of the task force, three SPU's and an additional set of inventory were purchased. These units are owned by the Union of BC Municipalities (UBCM) and jointly managed under a Memorandum of Understanding with the Office of the Fire Commissioner (OFC) and the Ministry of Forests and Range (MOFR).

The SPU's are designed to protect against wildfire in the urban interface. They are deployed during an interface fire to dampen roofs and areas around structures, to help prevent sparks and embers from igniting structural fires. One UBCM owned SPU contains about 350 sprinklers and can protect between 30 and 35 homes.

HOW WOULD I DEVELOP A S.P.U. FOR MY OWN COMMUNITY?

SPU configurations can vary widely, depending on size of community to be served, and funds available to purchase equipment. Local governments might start with only one kit, and add to their inventory as funds come available. Alternately, they may decide to create a "full scale" unit that can be made available regionally. Each community situation is unique and these decisions should be made at a local level. The UBCM and OFC are pleased to provide some advice and specifications for your consideration.

It is our aim to ensure that, when different communities are considering similar equipment for use in their jurisdictions, they consider equipment with equivalent specifications. This ensures compatibility if other resources are required as backup.

PORTABILITY

Equipment must be easily portable, and may need to be deployed in an area where access is difficult for traditional fire service vehicles. Depending on the amount of equipment you have available to you, you may choose to transport it in a towable trailer, or perhaps on pallets in the back of a truck.

WHAT SHOULD BE CONSIDERED FOR INVENTORY?

Below, we have provided you with a snapshot of the type of equipment you will find in one of the UBCM Structural Protection Units. A complete inventory is available on request. Remember, no matter how much equipment you wish to purchase for your community, it is very important that your equipment be compatible with other equipment in the province, in case it needs to be called to support your firefighting efforts.

Pumps:

Each pump you purchase should be accompanied by suction hose, foot valve and fuel tank, additional fuel tank, and the necessary hardware for a dual tank operation. It should also have a pump kit with spare sparkplug and wrench, a hose wrench for the suction hose, rubber gloves, and protective eyewear.

Foam:

The UBCM SPU's are equipped with Scotty Foam Inductors with attachments to allow foam delivery. Class "A" foam comes in 25 litre pails.

Hose:

- 1.5" (self-protecting) lightweight hose c/w forestry couplings
- 2/ ½" x 50' lightweight hose c/w BC Fire Hose Thread Standard on male and female ends
- 5/8" nylon econoline

Fittings and Adapters:

In order to allow sprinkler systems to be supplied from municipal fire department, or rental water, equipment, the following is required, with threaded fittings that conform to the BC Fire Hose Standard.

- 2.5" F/BAT x 2 " FNPT SSW Firelite
- P-100A Lightweight Gated Wye F BAT x (2) 65 mm male BAT Gated Wye outlets
- Firelite Wye 2 1/2" BC Thread x (2) 2 1/2" male BC Thread
- Plain Firelite Siamese 2.5" BC Thread male x (2) 2 1/2" female BC Thread
- Combination adjustable hydrant wrench and spanner
- 5" Storz x 2.5" female BC Thread Solid Adapter
- 4" Storz 65 mm female BC Thread Solid Adapter
- 2.5" M/BAT x 2.5" M/BAT Firelite Adapter
- 2.5" x 2.5" Double Female BC Thread
- Hydrant Gate Valve 65 mm x 65 mm BC Thread
- Plain Brass Siamese 2 1/2" Male BC Thread x (2) 65 mm Female BC Thread
- Adjustable Plastic 1.5" Nozzles BC Thread

SPRINKLER KITS

There are three types of sprinkler kits to allow for deployment on the structure, perimeter or for wet line protection. Below please find an inventory of each kit available in the UBCM SPU's.

Large Kit:

- 5 - 1" Buckner with stepped spike c/w 7/32 + 3/16 Tips
- 8 - Water Thieves 1 1/2" Forestry Coupling to 5/8 inch hose outlet with shutoff
- 4 - 2 1/2" Tee c/w Water Thief and Blanking Cap
- 4 - 2 1/2" Female x 1 1/2" c/w Blanking Cap
(All threaded fittings must be BC Thread Standard)
- 12 - 5/8" x 15-foot nylon hose
- 6 - 5/8" x 30-foot nylon hose
- 24- 5/8" hose washers
- 8 - Rolls fluorescent vinyl flagging tape
- 1 - Roll Teflon tape
- 1- Tube/Can thread sealant
- 1- Roll 16 gauge bailing wire
- 1 Claw hammer
- 1 - 6" crescent wrench
- 1 - Adjustable pliers
- 1 - Multi-Bit Screw Driver
- 1 - Container - Assortment of Nails and Screws
- 1 - Roll Duct Tape - 25 Feet
- 2 - Rolls Black Electrical Tape

Small Kit:

- 5- 1/2" Buckner with Stepped Spike C/W 7/64 " + 5/32" Tips
- 4 - 1 1/2" to 5/8" Water Thief
- 2 - Adapters 3/4" Male Garden Hose
- 2 - Adapters 3/4" Female Garden Hose
- 4 - Couplers, Double Female Brass 3/4" x 3/4"
- 4 - Valve Garden Hose shut off
- 3 - Wye Flow Through 3/4"
- 3 - Wye 1 1/2" c/w shut off and Forestry Couplings
- 2 - Spare 1/2" Brass Sprinkler Heads
- 12 - 5/8" x 15 feet nylon hose
- 6 - 5/8" x 30 feet nylon hose
- 24 - 5/8" hose washers
- 8 - Rolls fluorescent flagging tape
- 1- Roll Teflon Tape
- 1 - Tube/Can Thread Sealant
- 1 - Roll 16 gauge bailing wire
- 1 - Claw Hammer
- 1 - 6" Crescent Wrench
- 1 - Adjustable pliers
- 1 - Multi-Bit screwdriver
- 1 - Container - Assorted Nails and Screws

Roof Top Sprinklers:

Roof Sprinklers must be easily deployable to the structure without the need for nails or screws. Heads should be foam capable with low delivery water flows.

- 8 - Sprinkler Heads c/w mounting hardware
- 30 - 5/8" by 15-foot nylon hose
- 3 - 5/8" by 30-foot nylon hose

Water Storage:

Water supply for each structural protection unit is provided through three self-supporting units known in the industry as Port-a-tanks, c/w bottom discharge.

- 2500-Gallon Port-a tanks. (Forestry Type) with 2" discharge c/w shut off
- storage bags, orange

Ladders:

- Extension Ladder
- Stepladder (aluminium)

Lighting:

- Generator and fuel

Other equipment that you might wish to consider:

- Chain saw, handsaw, and axes
- Round nose shovels and pulaskis
- 1/4" nylon rope, plastic tars, and rubber tarp straps
- Road crossing ramps & caution signs tripod mount and flag
- Orange safety pylons and safety vests
- ABC dry chemical fire extinguisher
- First aid kit and insect repellent
- Nylon strap tie downs (ratchet type)
- Headlamp with elastic band and spare batteries

To obtain a full inventory of equipment contained in a provincially owned SPU please contact Sue Clark, Union of BC Municipalities, at sclark@civicnet.bc.ca or by phone @ 250-356-5134.
