

REGIONAL DISTRICT OF OKANAGAN-SIMILKAMEEN

INFORMATION RELEASE

April 3, 2020 4:30 pm

EOC Update: Sandbagging Information and COVID-19 Precautions

In British Columbia, property owners are responsible for taking the necessary steps on their property to protect their home and property from flooding, while government emergency programs focus on broader flood response measures.

Visit the RDOS EOC website for information updates and to check the status of emergencies in the region: <https://emergency.rdos.bc.ca/> The RDOS EOC may set up Sandbag Centres throughout the RDOS to provide home owners with sand and sandbags to protect their properties.

For active locations within the RDOS, please visit: <https://emergency.rdos.bc.ca/interactive-map/>

Flooding on private property will typically occur as a result of high stream flow, pooling or slow rising water from a body of water. The following should be considered for protecting your property from flooding:

- **Assess** - Determine potential sources of flooding that may impact your property.
- **Act early** - Preparing flood protection takes time and requires manual labour.
- **Focus your efforts** – Work on the most effective methods to protect your property for the type of flood risk; to protect the most important areas such as your home or areas where the greatest damage may occur.
- **Be Safe** – Avoid working alone around flowing water, use proper safety equipment and techniques to avoid injury.
- **Start Early and Get Help** – Sandbagging is labour intensive and physically demanding work, ensure physical distancing practices are used when working as a team.
- **Communicate** - Work with your neighbours; coordinating work with adjacent properties may provide more effective flood defences.
- **Invest** – Properties with routine flooding may wish to invest in improved flood defences that can be quickly deployed and are less labour intensive to put in place than sandbags.
- **Streams and flowing water** - Create sandbag walls or other barrier type flood defences alongside the stream; contain the stream or redirect the flow away from your home and other critical areas of your property; be aware that backing up of flow may cause water to rise or back flow into unprotected areas.
- **Pooling or slow rising water from a body of water** - Create sandbag walls with heavy duty poly or plastic sheeting incorporated to completely surround a structure; have pumps on hand to remove seepage of water from within the protected area; be aware that power may be out or disconnected; have a generator on hand if needed.

Sandbagging - General Information

Construct sandbag wall (dike) on high ground, as close as possible to your home or building. By being closer to your home or building, fewer bags will be needed, and the sandbag wall will be less exposed to water.

Sandbags must be neatly stacked, not dumped into place. The joints between rows and layers of sandbags should be lapped or staggered to improve strength and reduce water seepage.

- Sandbagging should also focus along existing flood works or any low spots along dikes for maximum protection.
- Dig a trench one bag in depth and two bags wide as a foundation for the wall structure
- To be effective, a sandbag wall must be three times as wide at its base as it is high.
- Sandbags should be turned right side out and filled half full. They need not be tied shut, just laid overlapping each other.
- The open ends of the sandbags should be facing upstream and/or uphill so the moving water will not remove the sand from the bags as readily.
- Alternate direction of sandbags with bottom layer, i.e. bottom layer lengthwise with sandbag wall, next layer crosswise.
- As individual bags are put in place, walk on bags to tamp them into place to ensure maximum strength. Take care to avoid puncturing the bags.
- The butt ends of the bags should be placed facing the stream, for rows that are perpendicular to the stream.
- Each successive layer should be set back one-half sandbag width on both sides in each additional layer so a completed sandbag wall has a triangular cross-section.
- The number of sandbags needed to protect a home or building varies depending on the local topography and the anticipated depth of water.

Please see safety information and recommended method for building a sandbag wall below.

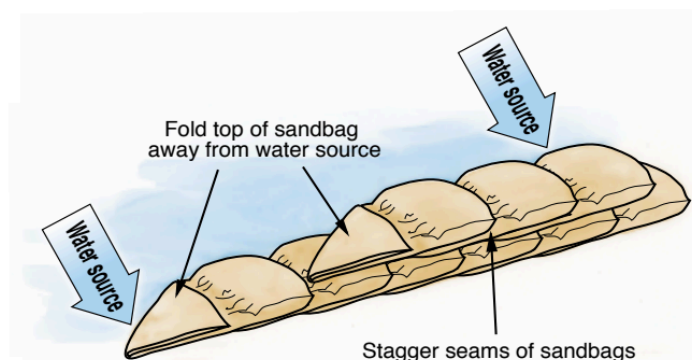
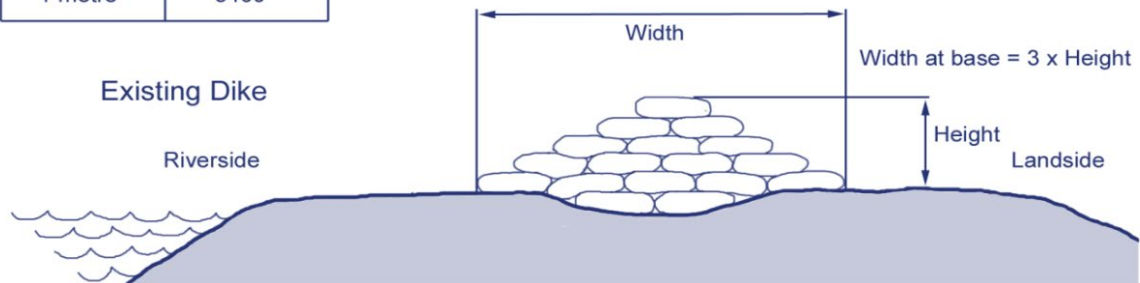


Figure 2: Fill sandbags 1/3 full, fold top of sandbag away from water source and stagger seams of sandbags.

RECOMMENDED METHOD FOR SANDBAG DIKING

Bags Required per 100 Linear Feet of Dike	
Height Above Dike	Bags Required
1/3 metre	600
2/3 metre	2000
1 metre	3400



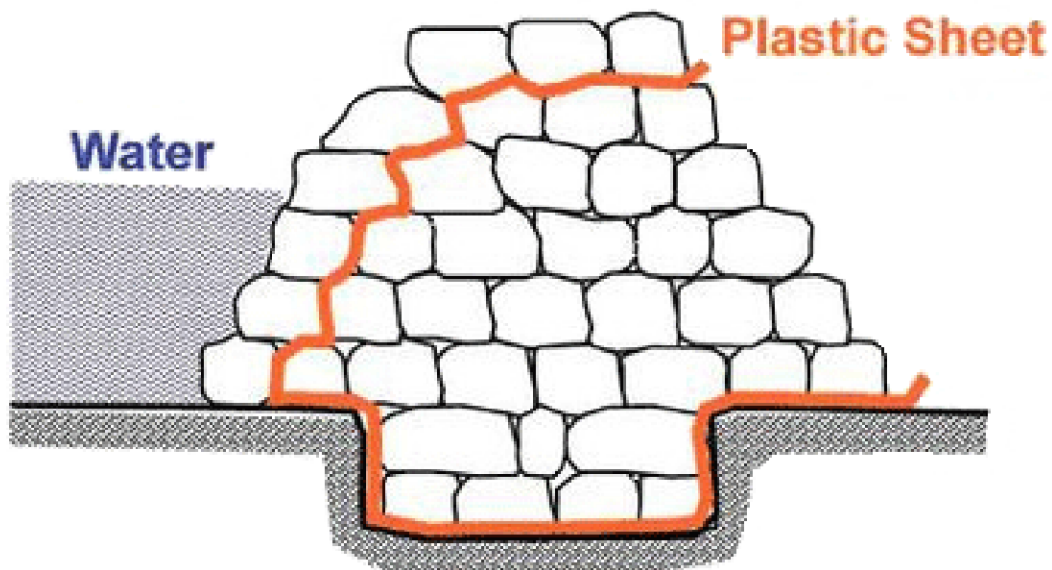
Strip sod before placing bottom layer

Bonding trench, 1 sack deep by 2 sacks wide

1. Alternate direction of sacks with bottom layer, i.e. bottom layer length wise with dike, next layer crosswise.
2. Lap unfilled portion under next sack.
3. Tying or sewing of sacks is not necessary

4. Sacks should be approximately one half full of clay, silt or sand.
5. Tamp thoroughly in place.

SOURCE: EMERGENCY MANAGEMENT BC (EMBC)



Typical Sandbag Walls

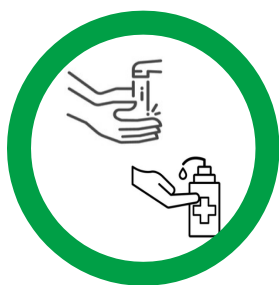
SOURCE: TOWNSHIP OF EDWARDSBURGH CARDINAL

General Safety and Health Advice

COVID-19 & Sandbagging

Sandbagging while following provincial health guidelines that restrict large gatherings may involve wearing protective masks, eye protection, and gloves to provide the best protection for residents. The RDOS EOC has implemented protocols to appropriately sandbag during the COVID-19 pandemic.

To ensure physical distancing, the RDOS EOC is advising residents to fill one sand bag at a time without a second person holding the bag upright to align with the physical distancing order. The RDOS EOC understands the challenges of physical distancing while sandbagging. Information about sandbag aids that can be created by homeowners is being developed.



**Wash and/or
sanitize your hands**



**Cough or sneeze into
your sleeve & avoid
touching your face**



**Maintain physical
distance two meters
or six Feet apart**



**Use tissues or gloves
to sanitize
equipment**

- Use gloves to protect hands from chemically-treated sandbags and contaminants in sand and floodwater.
- Avoid touching your eyes and mouth at all times.
- Wash your hands and face as often as possible.
- Use safety glasses and face masks when filling up sandbags .
- Wear work boots (waterproofed if working in floodwater).
- Use waterproof gear if working in floodwater or rain.
- Use protective clothing if exposed to polluted floodwater.
- Use a personal floatation device when working near floodwater.

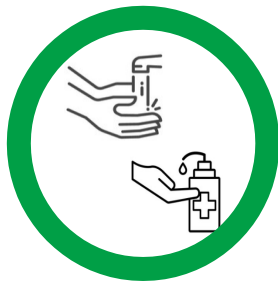
Come prepared to take precautionary measures to minimize the risk of exposure and spread of COVID-19.

For current information regarding COVID-19, please visit www.covid-19.bccdc.ca

RDOS Sandbag Centres & COVID-19

The RDOS will have designated Sandbag Centres for the public to fill sandbags to protect their property during spring freshet. RDOS Sandbag Centres will look different in 2020 and will follow guidelines set by the Ministry of Health regarding physical distancing.

The RDOS has developed a process where individuals can fill sandbags in a public environment while following Provincial health orders from the Ministry of Health. Currently, the RDOS EOC will not be providing sandbag aids at sandbag centres until COVID-19 health requirements can be met.



Wash and/or sanitize your hands



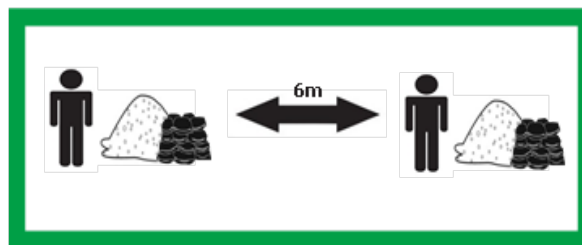
Avoid contact with common surfaces



Maintain physical distance two metres or six feet apart



Use tissues to sanitize equipment or wear gloves



Sand will be placed six metres apart to allow for physical distancing while filling sandbags



Avoid crowds

- Proper personal protection equipment (PPE) for COVID-19 is advised (gloves, face mask, eye protection).
- Avoid crowding at sandbag locations, line up 2 metres apart, and ensure vehicles are parked at designated parking areas to minimize overcrowding within the Sandbag Centre.
- Sand piles will be placed six metres apart to maintain physical distancing for sandbagging at RDOS Sandbag Centres .
- Bring your own equipment and restrict sharing between persons – the RDOS is not able to provide a mechanism to clean personal equipment.

Please ensure you are following Ministerial Orders regarding physical distancing when filling sandbags.

For current information regarding COVID-19, please visit www.covid-19.bccdc.ca

Filling, Moving and Placing Sandbags during Flooding

Manually filling, moving and placing sandbags is physically demanding work. It involves repeatedly lifting and carrying heavy loads, and may involve working in awkward positions. This work may lead to back and other injuries. Automated equipment to fill and move sandbags reduces heavy lifting and should be used when possible. **You will need to adjust your regular sandbagging best practices to incorporate COVID-19 Pandemic Orders from the BC Government.**

Shovelling Information

Choose the proper shovel and use it correctly to reduce the risk of injury when shovelling fill into sandbags.

The shovel should meet the following criteria:

- Weight – between 1.5-3 kg
- Length – between elbow and chest height
- Shape – triangular or round blades
- Handles can be added to shovels to help keep the back and wrist straight
- Pace yourself – watch how fast you are going: Do not shovel more than 22-33 kg of fill per minute

Guidelines

Follow these guidelines to safely fill sandbags:

- If you are working in pairs, ensure you are maintaining **physical distancing of two metres or six feet.**
- Bag holding racks can be constructed to hold bags open for filling (constrict bag holding racks for one person to fill sandbags).
- The person shovelling should keep feet shoulder-width apart.
- Place front foot close to shovel.
- Put weight on front foot and dig shovel into fill.
- Shift weight to rear foot - keep load close to body.
- Turn feet instead of twisting - release load into bag.
- Fill the bag about half full.
- If tying the bag, tie at top of bag to allow fill to conform to shape.
- Bags should weigh no more than 15-20 kg.
- Alternate between tasks every 15-20 minutes to allow muscle groups to rest.
- Stay hydrated. You are doing hard work.
- And if it is hot and sunny – be aware of the heat and the effects on your body.

Carrying Technique

- Keep sandbag close to the body.
- Don't twist the back. To change direction, shift foot direction and turn the whole body.

Sandbagging Information Video: <https://youtu.be/thZwVWyXiMQ>

- Please note, the sandbagging video does not include COVID-19 sandbagging techniques.
Please refer to the guidelines above for clarity.

Important Notes

- Sand and sandbag locations will be listed on the RDOS EOC website:
<https://emergency.rdos.bc.ca>
- If you require assistance with sandbagging, please connect with your friends, family or volunteer organizations
- The RDOS does not deliver sand or sandbags to private residences or businesses
- Filled sandbags are not available from the RDOS

For more information visit the RDOS EOC website <https://emergency.rdos.bc.ca>

Issued by Director of RDOS Emergency Operations Centre

RDOS EOC 250-490-4225