



COUNTY OF RACINE

Emergency Management
David L. Maack, CEM, CPM
Coordinator

730 Wisconsin Ave.
Racine, WI 53403
Telephone: 262.636.3515
Fax: 262.636.3505
E-mail: david.maack@goRacine.org

March 23, 2015

To: Chief Elected Officials, Racine County Municipalities
City/Village/Town Administrators, Racine County Municipalities
Racine County Fire & Law Enforcement Agencies
Racine County Municipal Public Works Directors

From: David L. Maack, CEM, CPM
Racine County Emergency Management

RE: SEVERE WEATHER

As spring weather approaches, now is a good time for all Racine County municipalities to review their severe weather policies, procedures and plans. Maybe there was a time when severe spring and summer weather was a non-issue for us, but the last few years have proven that severe weather does not spare us.

In recent years, we have experienced multiple tornado warnings, severe thunderstorms, and flooding. Between 2007 and 2009 flooding in Racine County resulted in the displacement of residents from their homes, damage to infrastructure, and millions of dollars of damage to private property. In addition, Racine County experienced three tornado events in 2011. While we do not know what 2015 will hold, we **need** to be prepared!

We have a responsibility to our residents to prepare for severe weather and to respond when it strikes. Before the season is upon us, please review this "to do" list. If you have any questions or concerns about anything in this letter, please call me at 262.636.3515 or email me at david.maack@goracine.org.

1. Weather warnings and observation

- a. **National Weather Service.** Normally, the National Weather Service (NWS) will issue a watch and/or warning for our area when severe weather is anticipated. Upon receipt of a severe weather watch/warning, the Racine County Communications Center will notify all county fire and law enforcement agencies.
- b. **Local observations.** We sometimes hear that a storm had already passed before a weather warning was issued. Although Doppler radar has improved the timeliness of weather warnings, it does have limitations. Therefore, NWS also relies on eyewitness reports. We strongly encourage you to **report severe weather sightings** to the Communications Center (262.886.2300). You can also report directly to NWS via its website: <http://www.srh.noaa.gov/StormReport/SubmitReport.php?site=mkx>.

2. **Reporting the storm's effects.** Regardless of whether there is a watch/warning in effect, please notify the Communications Center if severe weather is affecting your community. To report to the State and Federal governments, we need, for the periods before, during, and immediately after watches or warnings, the time and location of the following:

- Severe Thunderstorms-Winds ≥ 58 mph (or implied by damage), and/or Hail ≥ 1 inch
- Tornadoes
- Waterspouts
- Funnel Clouds
- Wall Clouds
- High Winds -Sustained winds ≥ 40 mph for ≥ 1 hr, or any gust ≥ 58 mph
- Hail-measured or estimated 1 inch or larger
 - Accumulations? Ground covered white? Compare to diameters of coins
- Damage due to straight line winds or tornadoes
 - Size/number of trees/limbs downed
 - Power lines downed?
 - Structural damage?
- Flash Floods/Dam Breaks-extent/amount
 - Roads closed/washouts?
 - Bridges/railroads undermined
 - Structural damage?
- Urban/Small Stream Flooding
 - Water over curb?
 - Water out of bank?
 - Roads closed
- Visibility-when less than $\frac{1}{2}$ mile, due to precipitation or blowing snow or dust
- Heavy Rainfall Amounts-1" or more in a short period of time

3. **Damage reporting.** This office is responsible for submitting a damage assessment report (see attached) to Wisconsin Emergency Management (WEM) within 24 hours after the storm. However, the sooner we get the information compiled, the quicker the State can act upon the information.

- a. **Preliminary damage assessment.** Within a reasonable time after the storm, please email (RCEmergencyManagement@goracine.org) or fax (262.636.3505) a preliminary damage assessment report. This initial report should be a gross estimate of the public and private damage. No one will hold you to these figures, and your estimates need not be unduly conservative. Once actual costs come in, the estimates can be refined.
- b. **Point us in the right direction.** If you know of homes/areas that are badly damaged, please let us know as soon as possible. We will try to take pictures in areas that are badly damaged, and we will track these areas on a map. **Don't assume that we will know what areas were hit.**
- c. **Residents' calls.** If residents contact you, take down their names, addresses and types of damage. We will have a hotline, but there is no guarantee that your residents will contact us.

4. Disaster declarations and State/Federal aid.

- a. **Local emergency declarations.** In order for Racine County to ask for State or Federal aid, *each* affected municipality should declare a local state of emergency and forward it to us.
- b. **FEMA Assessments.** If Federal aid looks possible, FEMA will conduct a Preliminary Damage Assessment. In most cases, FEMA representatives will want to meet local officials personally, while also personally reviewing damaged areas to verify the validity of previous damage estimates. It is in your best interest to both photograph and document public infrastructure which is damaged by storms.

5. Municipalities' preparations for flooding. This is a good time to review flood response actions with Highway/Public Works, Law Enforcement, Fire, and Public Health Departments.

- a. **Are you ready?** Now is a good time to make sure that:
 - i. You have an adequate supply of flood fighting materials, such as sand, pumps and portable generators;
 - ii. You have effective mutual aid agreements with neighboring jurisdictions; and
 - iii. You have an adequate supply of sandbags on hand.

For your convenience, I have attached a list of sandbag suppliers.

It is the responsibility of each municipality to provide an adequate supply of sandbags.

- b. **Keeping your eye on rising waters.** You can monitor river levels at the Advanced Hydrologic Prediction Service (AHPS) website, which is a very useful tool in predicting flood levels: <http://www.water.weather.gov/ahps2/index.php?wfo=mkx>.

6. Training opportunity. We will be offering our annual Tornado and Severe Weather Spotter Seminar at 6:00 pm on March 26th. The seminar will be held at iMET Center (formerly CATI), 2320 Renaissance Blvd, Sturtevant, WI 53177. Please feel free to contact me for more information.

Thank you for your continued cooperation in helping make Racine County as safe as possible at all times, and especially during severe weather events. If you have any questions, please contact me at 262.636.3515 or at david.maack@goRacine.org.

WFO MKX Warnings & Advisories Thresholds

CONVECTIVE AND HYDROLOGIC EVENTS	THRESHOLDS
TORNADO WARNING - TOR	Tornado sighted by spotters or imminent based on radar
SEVERE THUNDERSTORM WARNING - SVR	Winds = > 58 mph (or implied by damage) and/or hail = >1inch
FLASH FLOOD WARNING - FFW	Rapidly developing flooding that produces life/property threat within 0-6 hrs of the causative event
FLOOD WARNING - FFW	Areal flooding that produces life/property threat within 6-12 hrs of the causative event
FLOOD WARNING (MAINSTEM RIVER) - FLW	River flooding that produces life/property threat
URBAN/SMALL STREAM FLOOD ADVISORY- FLS	Inconvenience flooding in 0 - 24 Hrs
NON-PRECIPIATION EVENTS	THRESHOLDS
HIGH WIND WARNING - NPW	Sustained winds 40 mph or more for 1 hr or more, or any gust 58 mph or more
EXCESSIVE HEAT WARNING - NPW	HI \geq 105 during the day and LO \geq 75 at night for a 48 hr period, or advisory conditions for at least 4 consecutive days
RED FLAG WARNING - NPW	Winds \geq 20 mph, RH \leq 25%, temps \geq 75 F, and critically dry fuels - extreme fire danger behavior
DUST STORM WARNING - NPW	Widespread/local blowing dust reducing visibilities to 1/4 mile or less for at least 3 hours with winds \geq 40 mph
WIND ADVISORY - NPW	Sustained winds \geq 30 mph for at least 1 hour, or any gust 45 to 57 mph
HEAT ADVISORY - NPW	HI \geq 100 during the day or high temperatures \geq 95F
DENSE SMOKE ADVISORY - NPW	Widespread/localized visibilities of 1 mile or less for at least 3 hours due to smoke
BLOWING DUST ADVISORY - NPW	Widespread/localized visibilities of 1 mile or less for at least 3 hours due to dust, and winds \geq 30 mph
ASHFALL ADVISORY - NPW	Ash from a volcanic eruption, forest fire, or indirectly from wind suspending ash generating visibilities \leq 1/4 mile
AIR STAGNATION ADVISORY - NPW	Major buildup of air pollution, smoke, dust, gases (State DNR usually issues statement as well)
MARINE EVENTS	THRESHOLDS
SPECIAL MARINE WARNING - SMW	Winds of at least 34 knots (convective or non-convective) for 2 hrs or less or waterspouts
HURRICANE FORCE WIND WARNING - CHIGLFLM & MWW	Sustained winds or frequent gusts of 64 knots or greater
STORM WARNING - CHIGLFLM & MWW	Sustained winds 48 to 63 knots or frequent gusts of 50 to 63 knots
GALE WARNING - CHIGLFLM & MWW	Sustained winds 34 to 47 knots or frequent gusts 38 to 47 knots
LAKESHORE FLOOD WARNING - CFW	Significant lakeshore flooding, erosion, ice jam, or seiche
SMALL CRAFT ADVISORY - MWW	Winds 22 to 33 knots and/or waves > 4 ft
DENSE FOG ADVISORY - MWW	Widespread visibilities = < 1/4 mile for at least 3 hours due to fog

Racine County Emergency Management Municipal Damage Assessment Summary – Public & Private Property –

Last Revised 9-07

Municipality:

Contact Name & Position:

Contact Phone #

As of (Date / Time):

Public Sector Damage by Category:

A. Debris Clearance: *Includes labor, equipment and disposal cost.*

Estimated Cost: _____

B. Protective Measures: *Includes fire and police costs for search and rescue, traffic control, security; sandbagging, building emergency levees; conducting emergency pumping; placing safety barricades and signs; and any other temporary repairs.*

Estimated Cost: _____

C. Road Systems: *(Non-Federal Aid Systems) Repair or replacement of roads, streets, bridges, traffic control facilities, culverts, etc. (curbs, sidewalks, shoulders, embankments, drainage ditches).*

Estimated Repair / Replacement Cost: _____

D. Water Control Facilities: *Repair or replacement of water control facilities such as dikes, dams, drainage channels, etc.*

Estimated Repair / Replacement Cost: _____

E. Public Buildings and Related Equipment:

Estimated Repair / Replacement Cost: _____

F. Public Utility Systems: *Includes storm/sanitary sewers, water sewage treatment, and power.*

Estimated Repair / Replacement Cost: _____

G. Other: *Includes parks, recreational facilities, etc.*

Estimated Repair / Replacement Cost: _____

Private Sector Damage: *Listed by # of structures impacted / estimated \$ value*

	Affected <small>(no household systems impacted)</small>	Minor # / \$ <small>(household systems affected)</small>	Major # / \$ <small>(significant structural damage / 1st floor flooding / building uninhabitable)</small>	Destroyed # / \$ <small>(existing structure must be removed)</small>	Total
Residential					
Business					

Report Prepared by: _____

SANDBAG SUPPLIERS

SOP 4-28 SANDBAG SUPPLIERS

Remember: On average 100 linear feet at 1 ft high = 600 bags, 2 ft high = 2,100, 3 ft high = 4,500, 4 ft high = 7,800

COMPANY	QTY / NEEDED SIZE 14 x 26	PRICE (incl. Delivery)	NUMBER ON HAND	DELIVERY TIME
Associated Bag Company 400 W. Boden St. Milwaukee, WI 53207 (414) 769-1000 FAX: (800) 926-4610 website: associatedbag.com		500/bundle. >10 bundles \$242.90 per bundle		1 day
Berg Bag Company 410 3rd Ave. North Minneapolis, MN 55401 (800) 658-7201 (612) 332-8845 (612) 669-0899 <i>after hours</i> <i>This company is retailer of U-Line below</i>				1 day
Central Bag Company 4901 South 4 th Street Leavenworth, KS 66048 (913) 250-0325 (See Valley Bag for information which is a subsidiary of Central Bag) website: centralbagcompany.com				
Dayton Bag & Burlap 322 Davis Avenue Dayton, OH 45403 (800) 543-3400 Chicago Distribution Center 6604 S. Union Road Union, IL 60180 (800) 585-2247 or (815) 923-1234 website: daybag.com				
Farber Bag & Supply Company 8733 Kapp Drive Peosta, IA 52068 (800) 553-9068 (toll free) (563) 583-6304 (Main) Website: farberbag.com				
Fredman Bag Company 5801 W. Bender Ct. Milwaukee, WI 53218 (414) 462-9400 website: fredmanbag.com		Do not stock – order from Iowa.		2 days

**SOP 4-28
SANDBAG SUPPLIERS**

Remember: On average 100 linear feet at 1 ft high = 600 bags, 2 ft high = 2,100, 3 ft high = 4,500, 4 ft high = 7,800

Frontier Bag 2420 Grant St. Omaha, NE 68111 (402) 342-0992 (800)278-2247 website: frontierbagco.com				2 days
Company	QTY / NEEDED SIZE 14 x 26	PRICE (incl. Delivery)	NUMBER ON HAND	DELIVERY TIME
911 Sandbags / Jacobs Trading Co. 8090 Excelsior Blvd. Hopkins, MN 55343 Phone: (763) 843-2000 or (612) 719-3698 After 5 pm 651-276-4415 (Scott) or 507-312-0051 (Jim) website: 911sandbags.com		4000 - 5000 .25 each. Over 5000 call for price and freight Accept CC payment only		3-6 days
Max Katz Bag Company 235 South LaSalle St. Indianapolis, IN 46201 (800) 225-3729 website: maxkatzbag.com		Price is based on availability at time of order.		1 - 2 days (same day if ordered by noon)
Sandbag Express 888-237-4224 sandbagexpress.com		500 per bundle >5000 .315 each		
U-Line 12575 ULine Drive Pleasant Prairie, WI 53158 262-612-4200 website: www.uline.com		100 per bundle.\$39.00 per bundle. Will invoice or take CC.		
United Bags, Inc. 2508 N. Broadway St. Louis, MO 63102 (800) 550-2247 or (314) 421-3700 website: unitedbags.com		5,000 - 10,000 1,000 per bale at \$310.00 per bale Order >10,000 is \$294/bale		2-3 days
Valley Bag Company 43487 Business Hwy. 2 East Grand Forks, MN 56721 (218) 773-1189 (218) 779-5549 after hours (Subsidiary of Central Bag Co) website: centralbagcompany.com		1,000 per bundle and 12,000 per pallet. <250,000 is .15/bag plus shipping. >250,000 is .14/bag and free delivery. Bags have ties. Will invoice or take CC but will charge 3.3% for CC pmt.	1,037,456	2 days commercial carrier
Warner & Warner Inc. 4020 Corporate Ave. Plover, WI 54467 (800) 927-6373				

**SOP 4-28
SANDBAG SUPPLIERS**

Remember: On average 100 linear feet at 1 ft high = 600 bags, 2 ft high = 2,100, 3 ft high = 4,500, 4 ft high = 7,800

website: warnerpackaging.com				
The Sand Bag Store 6935 Aliante Pkwy Ste 104-459 North Las Vegas, NV 89156 800-550-1235 www.sandbagstore.com		1000 pk \$425.00 10000 pk \$3,295.00 Plus shipping		
The Gulf Coast Bag Co. 3914 Westhollow Parkway Houston TX 77082 800-250-7959 www.gulfcoastbag.com		Call for current price/shipping		
<p>Wisconsin Division of Federal Property may have burlap sandbags as federal surplus property, depending on their supply.</p> <p>These are FREE for Pick-up ONLY, and are available to Law Enforcement Organizations ONLY—such as any Municipal Police, Sheriff, State Patrol, Emergency Police Services, etc.</p> <p>They are located off of Hwy. 19, South of Raemisch Road at:</p> <p style="padding-left: 40px;">Wisconsin Technical College Systems Foundation One Foundation Circle Industrial Park Waunakee, WI 53597</p> <p>They are open 8:00 a.m. to 3:00 p.m. Monday – Friday, phone 608-849-2449</p>				

Note: Prices for Sandbags will vary at the time of ordering

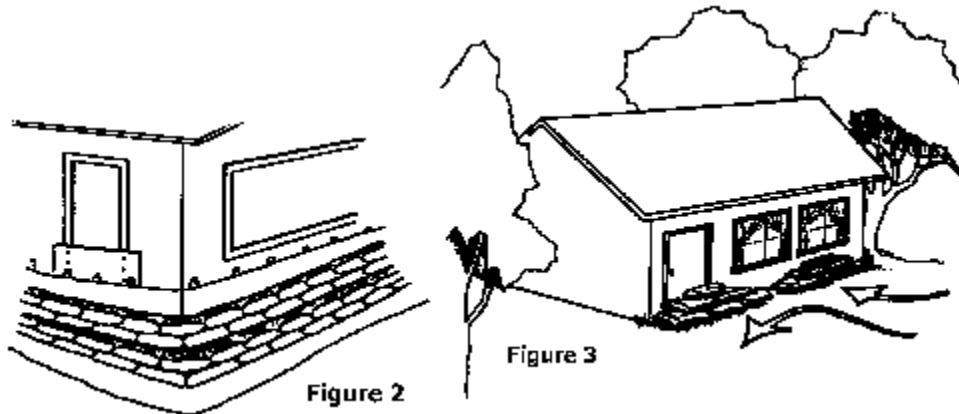
Note: Prices for Sandbags will vary at the time of ordering

Protecting structures with sandbags

Protecting structures 🏠

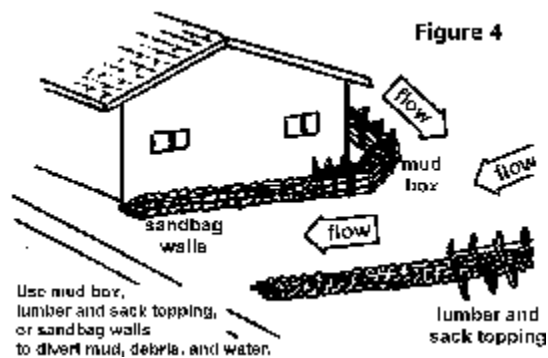
Although each house is a unique situation, the following method is used for protection of buildings and other structures near creeks or lakes and in similar situations where water is rising with little or no current.

Lay plastic sheeting on the ground and up the building walls to a point at least one foot above the predicted water elevation, and far enough out on the ground to form a half pyramid of sandbags (see Figures 2 & 3). Secure plywood over doors and vents. Overlap plastic sheeting and sandbags at corners of buildings.



Diverting water away from homes 🏠

Homes may often be protected from flood water by redirecting the water flow as shown in Figure 4. The barriers will divert the water flow away from the structure. The sandbags or wooden barriers must be placed at an angle and must be long enough to divert the flowing water into the street gutter.



Protection of slopes 🏠

The "raincoat" method is used to prevent further saturation of levee or hillside slopes (see Figure 5). Plastic sheeting is laid out flat on the slope, and stakes are driven into the ground just above the area to be protected. The stakes are four feet apart with a one-foot stagger. The plastic sheeting is secured to the stakes with tie-down buttons or small round rocks and rope.

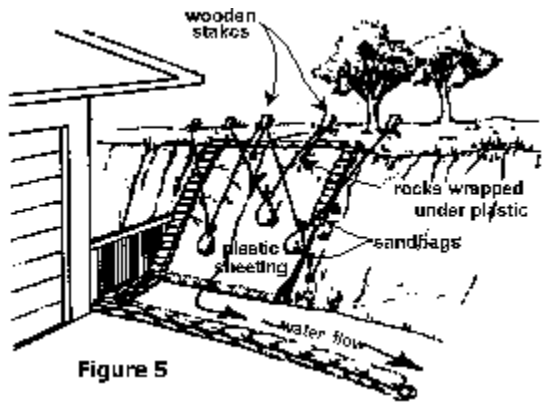


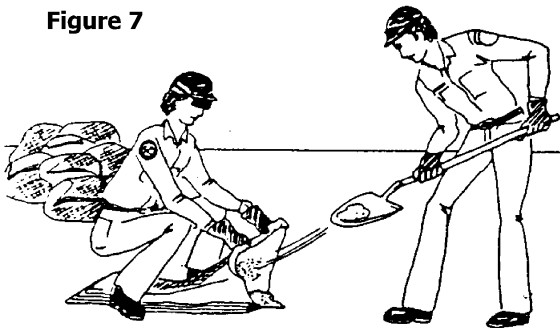
Figure 5

Use a crisscross method of tying off the sandbags or substitute tires if sandbags are not available. Place a solid row of sandbags on all edges of the plastic sheeting (half on the ground and half on the plastic sheeting).

Sandbagging ▲

When filling sandbags, you should work in pairs with one person holding the bag while the other shovels in the fill material. The first shovel of fill will be placed on the lip of the bag to help hold the bag open. The shoveler should use rounded scoops of fill until the bag is approximately one-third to one-half full. A completely full bag of wet sand or soil will be too heavy to work with. While shoveling, avoid extra movements (turning or twisting of the back) as this will tire you out sooner. The bag holder should bend at the waist until the elbows are resting on the knees while he is holding the bag open (see Figure 7).

Figure 7



Sandbag construction ▲

The use of sandbags is a simple but effective method of preventing or reducing damage from flood water or debris (see Figure 8).

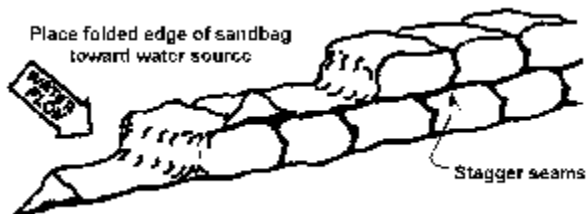


Figure 8

Suggestions for constructing sandbags follow:

- Close-weave burlap bags are recommended for all sandbag construction.
- Fold over the empty top of the bag in a triangle to keep sand from leaking.
- Place each bag over the folded top of the preceding bag and stomp into place before placing the next layer of bags.
- Stagger the second layer of bags, stomping each bag into place before placing the next.
- Stomp each succeeding layer of bags.

Materials required for 100 lineal feet of sandbag wall		
Height above ground	Bags required	Cubic yards of sand
1 foot	600-800	10 to 13
2 feet	1400-2000	23 to 33
3 feet	2200-3400	37 to 57
4 feet	5300	88
5 feet	7600	137
6 feet	10000	167

Flood Fighting: How To Use Sandbags

U.S. Army Corps of Engineers, Walla Walla District
Emergency Management Branch
Walla Walla, Washington 99362-1876
509-527-7146

Sandbag Construction

The use of sandbags is a simple, but effective way to prevent or reduce flood water damage. Properly filled and placed sandbags can act as a barrier to divert moving water around, instead of through, buildings. Sandbag construction does not guarantee a water-tight seal, but is satisfactory for use in most situations. Sandbags are also used successfully to prevent overtopping of streams with levees, and for training current flows to specific areas.

Untied sandbags are recommended for most situations. Tied sandbags should be used only for special situations when pre-filling and stockpiling may be required, or for specific purposes such as filling holes, holding objects in position, or to form barriers backed by supportive planks. Tied sandbags are generally easier to handle and stockpile. However, sandbag filling operations can generally be best accomplished at or near the placement site, and tying of the bags would be a waste of valuable time and effort. If the bags are to be pre-filled at a distant location, due consideration must be given to transportation vehicles and placement site access.

The most commonly used bags are untreated burlap sacks available at feed or hardware stores. Empty bags can be stockpiled for emergency use, and will be serviceable for several years, if properly stored. Filled bags of earth material will deteriorate quickly.

Commercial plastic sandbags, made from polypropylene, are also available from most bag suppliers. These will store for a long time with minimum care, but are not biodegradable. Thus, they have to be disposed of, or will remain around for a long time. Do not use garbage bags, as they are too slick to stack. Do not use feed sacks, as they are too large to handle. Use bags about 14-18" wide, and 30-36" deep. A heavy bodied or sandy soil is most desirable for filling sandbags, but any usable material at or near the site has definite advantages. Coarse sand could leak out through the weave in the bag. To prevent this, double bag the material. Gravelly or rocky soils are generally poor choices because of their permeability.

Sandbag barriers can easily be constructed by two people, as most individuals have the physical capability to carry or drag a sandbag weighing approximately 30 pounds.

How to fill a sandbag



Filling sandbags is a two-person operation. Both people should be wearing gloves to protect their hands. One member of the team should place the empty bag between or slightly in front of widespread feet with arms extended. The throat of the bag is folded to form a collar, and held with the hands in a position that will enable the other team member to empty a rounded shovel full of material into the open end. The person holding the sack should be standing with knees slightly flexed, and head and face as far away from the shovel as possible.

The shoveler should carefully release the rounded shovel full of soil into the throat of the bag. Haste in this operation can result in undue spillage and added work. The use of safety goggles and gloves is desirable, and sometimes necessary.

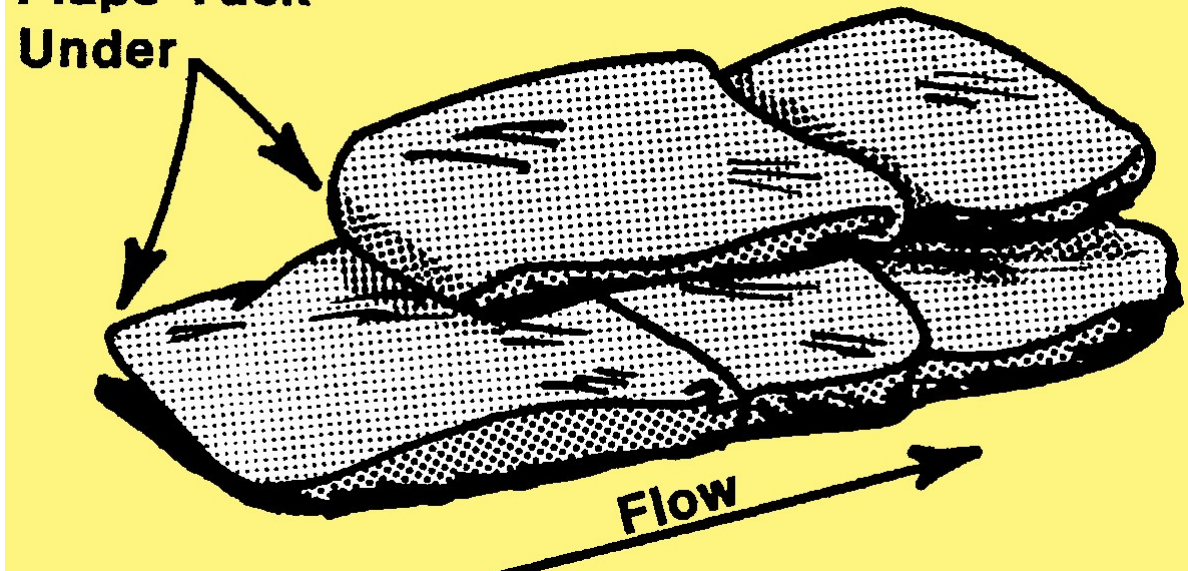
Bags should be filled between one-third ($1/3$) to one-half ($1/2$) of their capacity. This keeps the bag from getting too heavy, and permits the bags to be stacked with a good seal.

For large scale operations, filling sandbags can be expedited by using bag-holding racks, metal funnels, and power loading equipment. However, the special equipment required is not always available during an emergency.

Sandbag placement

Remove any debris from the area where the bags are to be placed.

Flaps Tuck Under



Fold the open end of the unfilled portion of the bag to form a triangle. If tied bags are used, flatten or flare the tied end.

Place the partially filled bags lengthwise and parallel to the direction of flow, with the open end facing against the water flow. Tuck the flaps under, keeping the unfilled portion under the weight of the sack.

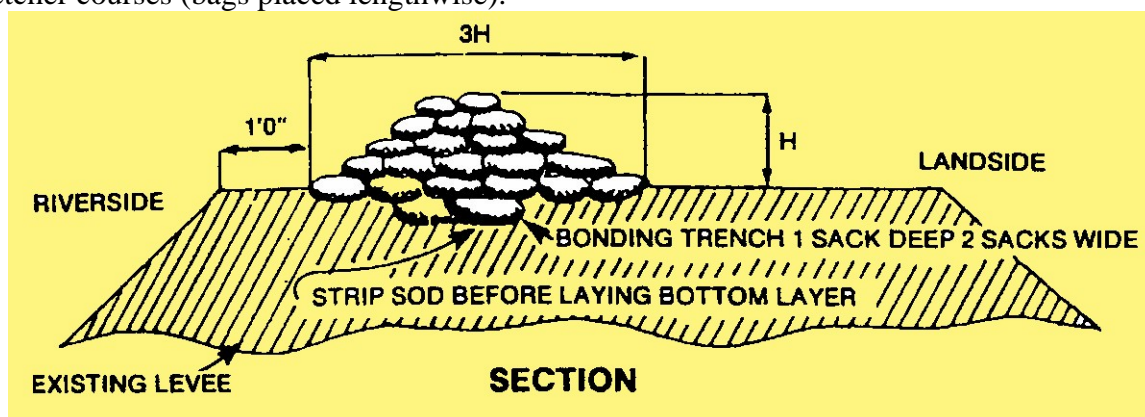
Place succeeding bags on top, offsetting by one-half ($1/2$) filled length of the previous bag, and stamp into place to eliminate voids, and form a tight seal.

Stagger the joint connections when multiple layers are necessary. For unsupported layers over three (3) courses high, use the pyramid placement method.

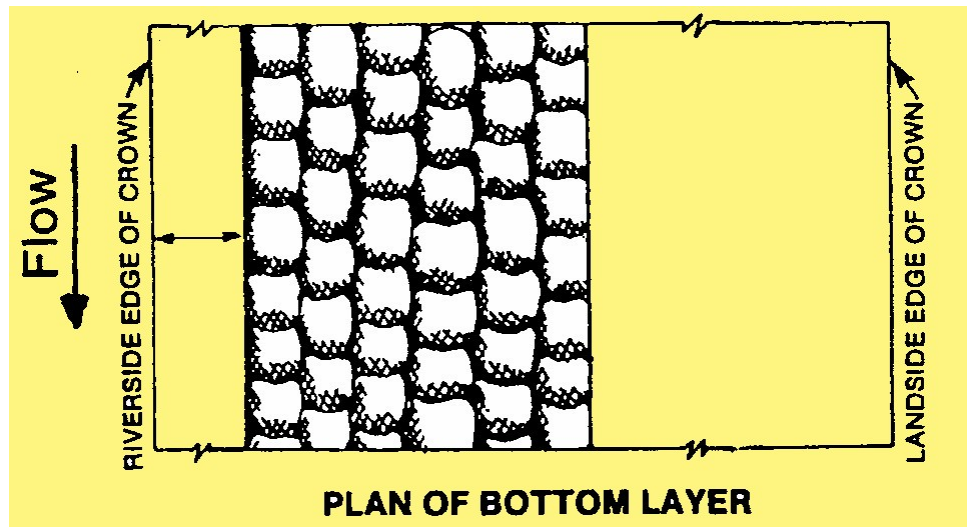
Pyramid Placement Method

The pyramid placement is used to increase the height of sandbag protection.

Place the sandbags to form a pyramid by alternating header courses (bags placed crosswise) and stretcher courses (bags placed lengthwise).



Stamp each bag in place, overlap sacks, maintain staggered joint placement, and tuck in any loose ends.



Ringling boils

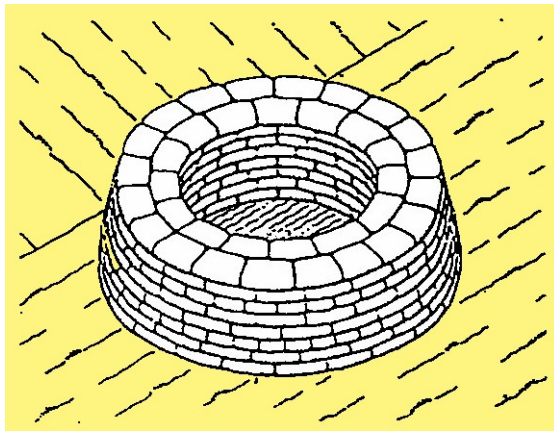
A boil is a condition where water is flowing through or under an earth structure (such as a levee) that is retaining water. Free flowing water wants to move to lower elevations. If a levee is stopping floodwaters, the water may be able to find weak points to enter. This action is called "piping". If the water finds a large enough path, the flow will become visible, and is a serious threat to the integrity of the levee. Most boils occur in sand, silt, or some combination.

A boil is found on the landward side of the levee, or in the ground past the levee toe (the exact distance varies with local conditions). Possible boil sites can be identified by free standing or flowing water (other than culverts, pumps, etc). A boil can be found only by close inspection. A prime indicator is water bubbling (or "boiling"), much like a natural spring. Another is obvious water movement in what appears to be standing water.

Carefully examine the water for movement. Boils will have an obvious exit (such as a rodent hole), but the water may be cloudy from siltation, or the hole very small. If there is any movement in the water, carefully approach the site, disturbing the water as little as possible. Let the water settle, and look at the suspected site. If you see the hole, examine it carefully. If the water flow is clear, there are no problems as yet. If there is no distinct hole, the water flow is not a threat. Monitor the site regularly for changes, and take no other actions.

A dirty water flow indicates that the soil is being eroded by the water, and that could mean failure of the levee. A boil ring is the best solution. The idea is to reduce the water flow until the water is flowing clear, but not to stop the water flow. This acts as a relief valve for the water pressure; the water continues to flow, but is not eroding the material. If the water flow is stopped, the pressure will remain, and another boil will form.

Ring the boil with sandbags, with the first bags back 1-2 feet from the boil. More, if the soil is unstable. Build the first layer in a circle, 2-4 bags across, and then build up, bringing each layer in. If possible, keep the interior face straight. Build the ring wall with the means for water to flow out, leaving a gap in the wall, or using pipes. Adjust the flows until the water slows, and becomes clear. Monitor the ring wall constantly. Raise or lower the height of the wall as necessary, maintaining a slow, clear flow.

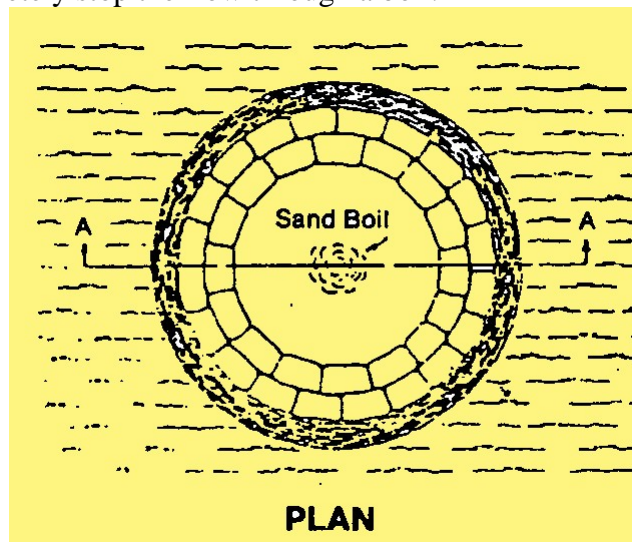


The height should be only enough to create enough head to slow flow so that no more material is displaced, and the water runs clear.

Notes:

Do not sack a boil which does not put out material.
The entire base should be cleared of debris and scarified.
Tie into the levee if the boil is near a toe.

All joints must be staggered.
Be sure to clear the sand discharge.
Never attempt to completely stop the flow through a boil.



Corps of Engineers Sandbag Policy

Local governments, flood control districts, and other government agencies, are responsible for maintaining a supply of sandbags adequate to cover anticipated emergencies.

Reproduction and further information

This document is not copyrighted and can be reproduced as required. Send inquiries to Corps of Engineers, Walla Walla District, Emergency Management Branch, 201 North 3rd Avenue, Walla Walla, WA 99362-1876. Our 24 hour phone is 509-527-7146, or you can e-mail to CENWW-EOC@nww01.usace.army.mil.