



# COMMUNITY ON CALL

The Strategic Advantage of Volunteer Integration in Flood Preparedness



[info@domistat.com](mailto:info@domistat.com)



# The Infrastructure Gap

Permanent infrastructure is the ultimate goal, requiring deep planning, substantial finance, and long-term construction.

---

However, unmanaged floodwaters pose an immediate annual threat to life, property, and commercial productivity. Immediate 'band-aid' solutions—specifically, locally available Sandbag Depots—are a critical intervening necessity to mitigate loss and reduce crippling insurance claims while awaiting permanent fixes.



# The Strategic Value of Volunteer Management



## Cost Defrayment

Equipping depots with smaller, inexpensive bagging machines manned by citizen volunteers drastically reduces the operational costs of stockpiling.



## Off-Season Scalability


Organizing pre-fill events during the dry season ensures massive quantities of bags are pre-staged and available for immediate distribution before major weather events hit.



## Civic Empowerment

Transforming community anxiety regarding approaching flood seasons into highly productive, structured, and collaborative action.





# Rethinking Recruitment

**“Shift the paradigm from last-minute emergency panic to a proactive, highly anticipated civic event.”**

---

By framing preparation as community teamwork, municipalities can build vast reserves of flood barriers months before a drop of rain falls.



# Community Sandbag Family Day

A structured initiative where municipal resources meet civic energy.

## The Municipal Commitment

The County establishes the depot and delivers all raw materials—clean sand, specialized bags, and bagging machinery.

## The Community Contribution

Local neighborhoods, schools, and community groups provide the hands required to fill and stack bags.

## The Result

A fully stocked, on-call inventory prepared well in advance of the wet season, fostering community bonding and hands-on environmental education.





# Professionalizing the Volunteer Force

Community outreach is only viable when paired with rigorous, professional-grade management.

- 1. Onsite Safety Briefings**  
Mandatory orientation covering proper Personal Protective Equipment (PPE) and heavy lifting techniques.
- 2. Station Rotation**  
Rotating volunteers through Filling, Tying, and Stacking stations to maximize efficiency and minimize physical fatigue.
- 3. Incident Reporting**  
Strict protocols for documenting any accidents or equipment failures immediately.
- 4. Continuous Outreach**  
Sustaining local recruitment efforts to ensure fresh rotations of personnel.



# The Anatomy of a Safe Responder



## Head & Eyes

Wear eye protection and a respirator when necessary. Supervisors must monitor for dizziness, nausea, or signs of fatigue indicating a need for medical aid.

## Core & Back

Enforce proper lifting techniques to prevent musculoskeletal injury. Utilize station rotation to limit repetitive strain.

## Hands

Mandate waterproof gloves. Implement strict hygiene protocols to sanitize hands and any skin exposed to floodwater.

## Feet

Require heavy rubber boots. Train all personnel to avoid downed power lines and submerged electrical equipment.



# Biomechanics & Handling Standards

Consistency in filling and tying dictates the structural integrity of the final flood wall.

## Step 1: Fill Bag 2/3 Full



## Step 1: Fill Bag 2/3 Full

Overfilling creates rigid, useless bags; partial filling allows the bag to mold to the landscape.

## Step 2: Tie Securely



## Step 2: Tie Securely

Utilize a half-hitch knot placed high on the bag to create an integrated carrying handle.

## Step 3: Fold Top Over



## Step 3: Fold Top Over

Prepares the bag for flat, stable stacking.


## Step 4: Flatten & Tamp



## Step 4: Flatten & Tamp

Manually shape the bag into a uniform brick structure, eliminating voids when building the barrier.





# The Preparedness Depot

**Volunteer energy requires permanent infrastructure.**

## **Strategic Placement**

Large barn-style facilities placed in high-risk zones to store massive quantities of pre-filled sandbags.

## **Multi-Use Efficiency**

Depots can double as Public Works storage, National Guard Armories, or enter joint ventures with commercial facilities (e.g., firing ranges utilizing sandbags for sound and impact absorption).



# The **Rapid Fill** Operation

Multiplying volunteer labor through right-sized technology.

Integrating inexpensive, multi-chute bagging machines transforms a slow, back-breaking manual task into a high-speed assembly line.

By assigning volunteers to dedicated funnel stations, municipalities can drastically increase the volume of bags processed per hour, ensuring depots remain fully stocked well ahead of weather warnings.



# Palletizing & Storage Standards

- **Pattern:** Cross-stack in an interlocking pattern

- **Dimensions:** Max height of 4 feet (1.2 meters) for stable cube load

- **Wrapping:** Heavy-duty shrink wrap (minimum 3 layers)

- **Strapping:** 2 vertical and 2 horizontal straps



## Post-Event Disposal Guidelines

### Clean Bags

Rake uncontaminated sand into soil; empty bags go to standard trash.

### Full or Heavy Bags

Direct full bags to local landfills (too heavy for regular pickup).

### Contaminated Bags

Contaminated bags require hazmat protocols, select landfill processing, and strict use of PPE.

# Barrier Matrix: Deploying the Right Tool

A comprehensive depot inventory requires a mix of flexible volunteer solutions and rigid commercial infrastructure.

## Traditional Sandbags



- Highly flexible for complex/uneven terrains.
- Volunteer intensive.
- Low capital cost.
- Ideal for precise, community-driven protection.

## Portable Bladders (Aqua Dams)



- Filled with on-site water.
- Rapid deployment.
- Lightweight before filling.
- Best for large, flat perimeters.

## Modular Walls & Gabions



- Rigid, reusable barriers.
- Pre-filled gravel bags ideal for predictable flood lines.
- Higher capital expense.
- Lower labor requirement.



Depots must also stock non-sandbag supplies including environmental booms, emergency signage, and heavy-duty PPE.

# The Resilience Flywheel

## 1. Outreach (The Engine)

Proactive 'Family Day' events transform community anxiety into reliable civic labor.

## 2. Training (The Governor)

Rigorous onsite safety briefings, PPE enforcement, and biomechanical standards protect the workforce.

## 3. Infrastructure (The Housing)

Rapid-fill machinery and permanent depots organize and multiply volunteer output into perfectly palletized assets.

## 4. Logistics (The Deployment)

Pre-staged hubs, forklift integration, and priority traffic corridors ensure immediate distribution when waters rise.



A DOMISTAT INITIATIVE

**EMPOWER THE COMMUNITY.  
PROTECT THE FUTURE.  
ESTABLISH YOUR DEPOT TODAY.**

