

Planning Our Solid Waste Operations In This Age of Climate Change

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Introduction

- ▶ Accepting and promoting this theme now will bolster your operational planning, funding, and preparedness for natural disasters as we manage our solid waste facilities.
- ▶ What was once known as a ‘naturally occurring anomaly’ appears now to becoming commonplace.
- ▶ This presentation reflects on past successes, improvement areas, lessons learned, and creative operational means and methods.



- ▶ Preparedness comes in many forms, to include safety, security, hazardous conditions, contamination potential, remediation, methods of alternate communications, regulators, funding, and the delivery of services.
- ▶ These skills should become 'second nature' in our ability to execute operations during an impacting event.



Discussion Topics

- Operational Preparedness
- Administrative Preparedness
- Fiscal Preparedness
- Communications
- What about snow removal?
- Procurement
- Summary



Operational Preparedness

- ▶ Always be mindful of weather....look skyward. Many APPS are available that will alert you of any pending event.
- ▶ Hurricane events are predictable. Thus allowing some preparation (increase water storage capacity, enhance litter control devices, plan debris management actions, alert all staffing of potential emergency activation).
- ▶ Tornados are not predictable (maybe only a few minutes). Don't ask "what do I do now?" and instead be prepared for post-event action.



Operational Preparedness (continued)

- ▶ Drive entire site(s) daily. Prioritize repairs and preparations, and get them corrected.
- ▶ Create a “What If” listing of questions, and instruct all staff members on best practices, such as “What if I see black liquid in the stormwater channel? And it’s Sunday evening. What should I do as a manager, operator, laborer?”



Operational Preparedness (continued)

- ▶ Always minimize site exposure, such as smallest possible fill face.
- ▶ Construction project excavations must always include appropriate E/S devices, rather than “hoping for a dry spell for the next few days”.
- ▶ Do not open a new landfill cell with full-cell exposure. Instead, open in phases with planned management of stormwater and be confident of processing planned increases leachate volumes.
 - ▶ A 1” per hour rain event will overwhelm leachate conveyance and storage



Operational Preparedness (continued)

- ▶ Segment waste placement in a new cell to prevent stormwater from becoming leachate.
- ▶ Increase stockpiles of aggregates.
- ▶ Inspect on-site standby generator “day tanks” (fuel) and exercise units.



Operational Preparedness (continued)

- ▶ Designate a single point muster area
- ▶ Provides for dependable electrical power, is 'high and dry', has telephone (landline), has computer with internet, equipped with site-wide radio comms, a large wall-mounted computer monitor (doubles as a training aid), and is properly identified as your Command Center.
- ▶ During an emergency, all reporting/departing personnel check in/out, conduct conference calls appropriately, maintain logs, and assign duties. A manager will man the site and direct each shift and everyone knows who is in charge. A single, common logbook (or electronic version) will hand-off to following manager.
- ▶ All photographs and videos associated with the event must have a date/time stamp. This is critical for post event review. If you have ability to insert descriptions on each, do so. Or provide a handwritten description in the log.



Administrative Preparedness

- ▶ Meet each staff member individually to ensure they understand obligations for emergency response (aka Essential Employee status).
- ▶ Update emergency contact information for each employee. It is the responsibility of the employee to guarantee their new contact information is always current.
- ▶ Update emergency contact information for:
 - ▶ Utilities, Fire Dept. non-emergency, Police Dept non-emergency, local Emergency Operations Center, and up line management.
- ▶ Know name and contact info for your representing Public Information Officer.



Administrative Preparedness

(continued)

- ▶ Create your own chapter within the official (and current) Emergency Response Plan. If you don't have one, create one, and update it at least quarterly. Our operations are quite unique and have many pitfalls, hazards to life and health, potential for regulatory non-compliance (with accompanying civil actions) and potential inability to fulfill your mission.
- ▶ Meet your Emergency Operations Center staffing, become familiar with colleagues, and attend their training.
- ▶ Often they are aware of functions such as police, fire, health and public works departments. Often unaware of waste functions.
- ▶ Know their processes for actual emergency activation and assign staffing to provide essential information through established chain. Visit your State's Emergency Management function and become familiar with their modes of operations, communication protocol, critical needs and how they can help you.



Administrative Preparedness

(continued)

- ▶ Assign and train staff member to gather vital emergency event data that could be used for local/regional reporting, and MEMA/FEMA recovery, to include compiled data from field supervisors (manpower and hours, equipment and hours, materials utilized, volumes and expenses), mutual aid summary, and all inputs to be considered for declared disaster recovery.
- ▶ Storm events are not always regional, and may only impact your small geographical area. Know who to call at MDE, their emergency/after hours contact information. When in doubt, call them" and exchange details of your situation.



Administrative Preparedness (continued)

- ▶ Invite the Fire / Police Department to an onsite tour and overview of operations, hazards, and provide a digitized map of your facilities. Name your roads and get them on the County GIS format utilized by emergency responders. Do this at least 2x/year.
- ▶ Have you created (and exercised) your Debris Management Plan?
- ▶ Once the storm has passed, it is your mission to manage the debris, which includes C&D, tires, MSW, vegetative debris (copious amounts typically), food waste, hazardous materials, and just about anything else.



Administrative Preparedness

(continued)

- ▶ In the event of a man-made influence, be prepared to work with more than usual authorities that now includes:
 - ▶ Forensic debris processing, debris storage, varying levels of hazardous zones and classified zones, and longer than usual time requirements for processing the debris.
 - ▶ It is hard to prepare for this extreme level, however keep in mind a large processing area that may be considered for full-scale debris management.



Administrative Preparedness

(continued)

- ▶ You may consider thinking beyond the limitations of your borders. Many local governments limit their waste acceptance to only waste originating within your jurisdiction. The results of a large-scale hurricane or wandering tornado can devastate a large geographical area, with no regard to Municipal boundaries, County borders, and State borders. If you do not have “mutual aid” agreements with your neighbors, consider the benefits. Think “Regional” when planning your emergency responses to your ability to manage waste and begin to realize that the YoYo (you’re on your own) is better served with regional cooperation, planning and response. This may require possible changes to the County Code or other governing documents. Discuss with your management structure, who may in turn, carry the torch and identify this as a critical component of regional response.



Administrative Preparedness

(continued)

- ▶ Upon completion of the event, and immediately following the event, gather all involved management subordinates and develop a well-rounded After Action Report.
- ▶ Report should provide details of the event (planned event or a surprise) from first notification to final act.
- ▶ Names of employees, what did they do, with what equipment, and for how long.
- ▶ What went well. What needs improvement.
- ▶ Involved contracted services, incidental costs, other direct costs.
- ▶ If a formal declaration has been issued, assign your Point Of Contact, who will gather all required information for upcoming submissions to the State and related meetings with the MEMA representative.
- ▶ Use these details as a training module for your full staffing complement.



Fiscal Preparedness

- ▶ Consistently request a contingency funding source that may be used broadly for storm preparations and for post event activation.
- ▶ Attend budget preparation sessions and educate decision makers on this new normal.
 - ▶ Everyone who testifies in support of your budget should be uniformly presenting



Fiscal Preparedness

- ▶ Provide summary(ies) of prior After Action Reports and focus on funding needs for each event, staffing changes (increase workforce, realign existing workforce, reduce workforce, outsource recommendations, etc.) and all requests are supported with facts gleaned from the After Action Reports.
- ▶ Closely monitor your Capital Improvement Project budget to ensure stormwater projects are inclusive of enhancements required to handle site-wide flood-prone areas.



Communications

- ▶ “But I have a smart phone.....that’s all I need!” Wrong!
 - ▶ They’re compromised –
 - ▶ News/media officials and reporters capture and hold multiple cellular telephone and other communication links for their constant uses,
 - ▶ Everyone attempting to call loved ones to report on health and welfare.
 - ▶ Cell towers may be destroyed, regional internet service providers are either overwhelmed or inoperable, and this cripples that device we have all taken for granted.
- ▶ Align your agency with local amateur radio clubs. These highly trained individuals are licensed by the FCC, and have proven their tremendous value over and over again.



Communications (continued)

- ▶ These trained radio operators prepare for these disasters, and will quickly erase that “You’re On Your Own” (YoYo) feeling.
 - ▶ Example:
 - ▶ Our County was in the midst of a severe snow and ice storm, and our waste operations were quickly halted. Landline telephone were down, and cell phones were spotty. The internet did not work in our Department’s Headquarters. Our Amateur Radio Emergency Response Team, aka ARES (aries) was onsite and in full operation.
 - ▶ Critical emails were transmitted via high frequency digital radio communications to and from the County’s IT structure. Emails were critical as they reported on staffing needs, emergency ration requirements, and equipment status reports.
 - ▶ These same communication volunteers manned the region’s hospitals and activated the Hospital Emergency Communications Coalition.



Communications (continued)

- ▶ Many landfills are equipped with Landfill Gas-to-Energy facilities onsite.
 - ▶ Consider an agreement with your local ARES organization for placement of a communications repeater at your landfill.
 - ▶ Those landfill gas-fired electrical generators have an unlimited source of fuel.
 - ▶ You may also be able to provide room for the organizations' training, drills, and related preparedness exercises. It is a very comforting relationship.



What About “Snow Removal”?

- ▶ Two things in local government that can “make or break”snow removal and trash removal. Snow storms are among the mentioned ‘natural disasters’ that have proven their negative impacts.
- ▶ Often, local government structures have a Public Works Department that handle both functions, and many are separate.
- ▶ Our County has a public works function (snow) and an environmental function (snow and trash). We have a very workable relationship with our public works function and provide supplemental assistance with our trained workforce, and our small fleet of on-road snow plows/salt spreaders (usually pick-up trucks).



What About “Snow Removal”?

(continued)

- ▶ Landfill operations are regulated, which is widely known. During combined operational events (any natural / man-made disaster), our ability to maintain waste operations is paramount, and is obviously regulated.
- ▶ As such, it is highly recommended that waste operations during emergency events remain focused on levels of service delivery and regulatory compliance, while attempting to blend operations with our local public works function.



Procurement

- ▶ Government procurement is always a concern for the operational-types among us, and we often feel that these procurement folks are just out there to make it difficult. Frustrating when you need parts, pumps, contracted services, etc.
- ▶ Procurement professionals have their own sets of rules and regulations that must be followed, just as we operations managers and miracle workers have our rules and regulations.



Procurement (Continued)

- ▶ Conduct routine meetings with your representing procurement individuals and ensure they know what your concerns are for that moment, what catastrophes have happened in the past, and what will now happen in the future (we are now confident with our crystal ball that major weather events will happen sooner than later).
- ▶ Provide them lists of typical preparedness goods and services needs, and ensure your budget includes funding (be a contingency or line item specific.....I prefer a blanket contingency fund).



Procurement (Continued)

- ▶ Give them a mind's eye how you envision the aftermath from the major event, and your intentions for mobilizing staff personnel, contracted service providers, mutual aid (for your neighbors if required), 24-hour, 7-day operations (with overtime compensation at \$##### per day), and required inventories of goods on hand prior to the event.



Procurement (Continued)

- ▶ Provide tours for these individuals, including their superiors. Let them see, smell, touch, feel, step in stuff, and understand “what could / will go wrong”.
 - ▶ Otherwise, the results could be very long lasting, fiscally draining, and you will be unable to fulfill the requirements of your Department’s Mission.
- ▶ After the real event has subsided, welcome them to your onsite Command Center so they continue to see and hear, first hand, the impacts. They genuinely appreciate this exposure, and everyone wins.



Summary

- ▶ Never be comfortable. It is part & parcel in our industry to always be looking for something that will derail your operation. And prevent it from happening. Or be properly prepared for those events beyond your control.
- ▶ Your Training Room should be busy every business day, training small groups in every aspect of BMPs, emergency preparedness, those “What If” lists, Health/Safety, Who are the Regulators?, and the basics of effective operations. Training should extend to your managers, budget managers, procurement managers, Police/Fire/EOC, risk managers, and legal staff. Is also a great step toward a successful succession plan.



Summary (continued)

- ▶ Be consistent in telling your story to Management regarding fiscal preparedness for major weather events. Maryland has had many major events in recent months, and this only supports the requirements.
- ▶ Maintain open communications at all times with all involved regulators, to include Maryland Department of the Environment, Public Service Commission, Health Department, Soil Conservation District, etc. They want to help you help yourself. Or you can be a YoYo.



Questions? Comments?

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