



Critical, Immediate Needs Commodities Delivery Post-Disaster

Building Resilience and Emergency Preparedness for State and Local Government

Background:

When communities suffer major damage caused by natural disasters, FEMA's mission is to support and provide immediate response and recovery assistance to impacted state and local governments. As quickly as possible, FEMA procures and distributes immediate needs commodities such as food, water, generators, tarps, shelter, and in some cases, diapers following large scale catastrophic events. To better meet impacted community demands, a comprehensive, flexible and scalable platform to more effectively manage inventories of immediate needs commodities could mitigate delivery and distribution challenges of past disasters. This white paper focuses specifically on the effective and efficient delivery of food and water following large scale events.

In FEMA's 2018 – 2022 Strategic Plan, the first strategic goal outlined is to "Build a Culture of Preparedness." In describing this goal, FEMA issues a strong statement that preparedness "promotes the idea that everyone should be prepared when disaster strikes." The report goes on to say that one of the biggest lessons of 2017 was that "no one department or agency can undertake this (culture of preparedness) effort alone." The first step toward this goal is to "Incentivize investments that reduce risk, including pre-disaster mitigation, and reduce disaster costs at all levels." DRCA members believe that pre-planning the procurement and delivery of immediate needs commodities such as meals and bottled water can be layered into existing emergency plans to increase inventory flexibility and preparedness following natural disasters.

Procurement and Delivery of Bottled Water and Meals Challenges

Various bottled water products, Meals Ready to Eat (MRE's) and shelf stable "just add water" meals ("LTS meals") offer different shelf lives and as such are immensely responsive to those in need post-disaster. When adequate inventories are prepared and planned for, industries providing these products can overcome FEMA's challenges of immediate needs disaster response and support. Below outlines how FEMA's current immediate needs commodities procurement practice can overshadow these vital products' positive benefits.

- **Waste:** Because there does not appear to be a planned approach using data analytics or other forecasting tools to accurately estimate the number of meals and bottled water FEMA will immediately need post-disaster, meals and water with shorter shelf lives often expire before the inventory can be rotated or consumed. Contractors are required to bear the actual cost of the wasted product as well as the disposal costs. Long term, contractors are not able or willing to absorb these lost costs and FEMA may be faced with a shortage of vendors who can't risk the possibility of losing inventory because of FEMA's miscalculated commodity quantities.
- **Availability:** Contractors supply meals and bottled water and exhaust their inventory when a disaster strikes. When there is not a planned approach for anticipated inventory demand surge, suppliers of these products are often unable to produce additional inventory quickly in the hours immediately following a large, federally declared disaster. In the past, vendors have



promised millions of meals and bottles of water and been unable to meet this obligation, per the Tribute Contracting experience in 2017

- **Price:** When post-disaster demand exceeds pre-disaster inventory quantities, it stands to reason that meals and bottled water costs more compared to meals and water ordered and procured in advance.
- **Freight:** Expedited freight charges from a manufacturer to the affected area can cost 4 times more than standard freight pricing before an event.
- **“The Last Mile:”** Depending on local infrastructure and road conditions, it can be incredibly difficult to get meals and bottled water “the last mile” to the impacted region. Puerto Rico after Hurricane Maria in 2017 serves as a very real example.
- **Food & Water Quality:** Under the heading of “you are what you eat,” those impacted by disasters are physically and emotionally exhausted, so it is important to provide water and high quality, nutritional, healthy meals versus low-nutrition cookies, crackers, candy, canned fruits and items that contribute to “sugar highs and lows.”
- **Situational Fit:** Some types of food can be a good solution for their intended purpose, but a poor fit for disaster relief. MREs, which serve our armed forces as they perform active duties requiring many thousands of calories, most likely are not appropriate for disaster victims. (NOTE: Most Hurricane Katrina MRE’s were military meals with 5,000 calories.)

Incorporating various bottled water and meal solutions (MRE’s & LTS) into an overall emergency meal plan will reduce costs and inventory quantity complexity, provide flexibility, and nutritional, healthy options in the immediate aftermath of a natural disaster.

A trusted component of disaster planning, LTS and MRE meal solutions have been utilized throughout the past decade by individual consumers seeking to prepare for emergencies and natural disasters and have gained in popularity as Americans anticipate what is involved with:

- Wildfire fighting and displacement from residences;
- Electrical utility outages;
- Assisted living facility down time;
- Hospital overcrowding;
- Overwhelmed municipal and county government.

Challenges if FEMA Pre-positions and “Reserves Inventories” Pre-Disaster

While advancing bottled water products and various meal procurement quantities can be an effective solution to immediate post-disaster response, there can be significant budget, timing, and awareness challenges to implementing a plan that includes them.

- **Budget:** FEMA can procure meals and bottled water directly or obligate federal dollars to states to procure meals and water following federally declared disaster declarations. In some cases, state governments do not purchase enough meals or water in preparation for future disasters because they rely too heavily on FEMA to provide these commodities immediately following large disasters.
- **Timing:** Funds for emergency meals and water are often not available until *after* a disaster has occurred, which is a significant impediment to procuring supplies before a disaster happens.
- **Awareness:** Counties and municipalities, as part-time emergency responders, may not be aware of all the emergency food and water options that are available to them in emergencies and



natural disasters. To be fair, some state and local governments are more educated on meal and bottled water options than others. Despite a few trade shows and conferences each year, there aren't many opportunities for state and local officials to learn about industry capabilities, innovations and new product offerings. Raising the awareness of the importance of adequately planning and forecasting for immediate needs commodities will lead to the best outcome for optimal disaster response.

Solution

Meals and bottled water included into existing emergency plans provides increases flexibility and preparedness following natural disasters. Since most individual localities have less experience preparing for natural disasters than FEMA, they look to FEMA for guidance. FEMA's mission is to support state governments when they are overwhelmed, with the agency's expectation that states do their best to adequately manage, prepare for, respond to and recover from disasters as best they can. FEMA's Strategic Plan states that for, "Every \$1 that the federal government invests in mitigation saves taxpayers an average of \$6 in future spending." If state governments effectively manage their inventory level of disaster commodities such as meal and water options, they would be in a better position to physically respond to disasters which would ease the burden on FEMA.

With current practices and industry capacity, it may take a few years to build upon appropriate level of inventory. DRCA members encourage FEMA to monitor individual localities to ensure proper planning for meals and bottled water critical commodity acquisition by allocating a portion of their annual budget for these procurements.

Natural disasters occur intermittingly, so communities should have the opportunity to slowly acquire a local source of emergency meals in the interim between large-scale events. When a disaster does occur, the extent to which the community has built up critical commodities' inventories such as food and water will be the extent to which that community will effectively bear a fraction of the cost for those commodities, compared to the cost of acquiring the meals and bottle water immediately following the event. Community leaders and volunteers will also be able to distribute immediate needs commodities to disaster survivors, even if local transportation systems have been compromised.

DRCA's membership welcomes the opportunity to work with FEMA and state and local governments to develop a plan to pre-position critical commodities such as food and water for individual communities which would be valuable for both FEMA and the affected communities. One of the methods to improve planning is to use the tools of the insurance industry when homeowners' insurance companies, as an example, rely on catastrophe models to provide quantities of damaged homes based on various storm path scenarios. This would aid in removing the timing and organizational inefficiencies inherent in the current distribution method for critical commodities including emergency meals and water. A more decentralized and consistent method would also be important to decrease mobilization and operational timeframes, allowing for more immediate reaction.

Conclusion

Provision of critical commodities such as emergency meals and water post-disaster can be improved in a variety of ways, ranging from avoiding inventory management shortfalls, to better managing freight and logistics challenges associated with the "last mile." While not an immediate and all-inclusive solution,



incorporating meals and water solutions into existing emergency planning and procurement over time can lessen the overall costs and impacts of natural disasters.

DRCA will collaborate with FEMA and interested government agencies in a coordinated effort to promote efficiencies and improve disaster response. Our membership believes there is an opportunity to create a model and pre-positioning program which would improve readiness, simplify the process and speed up recovery efforts.