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Why MA's Drought Management Task Force Should Be In Statute:

Drought Management Across the United States

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Introduction

In September 2016, the Palmer Drought Index indicated that the entire state of Massachusetts was in Severe Drought except for the far West, which was in Moderate Drought.¹ Towns across the Commonwealth instituted non-essential outdoor water-use bans to promote water conservation measures where possible, dozens of towns faced increasing threats from wildfires, and farmers experienced a 30% loss of crop yields over the course of the drought. This was the worst drought in Massachusetts since the drought of 1961-1969, the worst drought in New England history.² Over the course of the summer and fall of 2016, the drought continued to escalate and Massachusetts Energy and Environmental Affairs (EOEEA) Secretary Matthew Beaton declared increasingly higher stages of drought levels, upon recommendation from the Drought Management Task Force.³ As Massachusetts considers how to best respond to a new climate norm of short-term extreme droughts, one aspect of drought planning that is undergoing additional review is the role of the Massachusetts Drought Management Task Force, the state entity responsible for analyzing and reporting on drought conditions to the Secretary of EOEEA. This report examines how Nebraska, California, Arizona, New Mexico, and New Hampshire have approached this issue of managing their respective Task Force's and in particular, whether or not they pursued statutory authority for these entities.

Background

¹ *Massachusetts Drought Management Task Force - Meeting Summary*. Boston, Drought Management Task Force. 8 September 2016.

² McGuinness, Dylan and Olivia Quintana. "Drought continues to spread across Mass., unabated." *Boston Globe*, 16 September 2016.

³ "Drought Watch, Drought Advisory Issued for Portions of Massachusetts." *Executive Office of Energy and Environmental Affairs*, 8 July 2016, <https://www.mass.gov/news/drought-watch-drought-advisory-issued-for-portions-of-massachusetts>.

Many state governments have delegated the responsibility of leading drought response to teams made up of delegated agency officials and individuals tasked with protecting state water resources. Massachusetts' Drought Management Task Force (DMTF) is one of these teams. The DMTF was created in 2001 in response to a period of precipitation deficiency that began in 1999. Authorities from the Executive Office of Environmental Affairs (now the Executive Office of Energy and Environmental Affairs) and other agencies realized there was no organized system to handle drought in Massachusetts. To solve this problem, The Executive Office of Energy and Environmental Affairs (EOEEA) and the Massachusetts Emergency Management Agency (MEMA) created the Massachusetts Drought Management Plan, a document which outlined how state and federal agencies should use their existing authority in a coordinated drought response. The plan outlined the membership of the new DMTF, gave EOEEA and MEMA the authority to convene the task force, and gave the task force the responsibility of informing the public about droughts, organizing agency actions, and keeping all agencies informed about pending drought conditions.⁴ The plan was most recently updated in 2013 and it is currently undergoing another set of revisions for 2018. The DMTF today is comprised of representatives from the major state and federal environmental agencies including the Executive Office of Energy and Environmental Affairs, the Massachusetts Emergency Management Agency, the Massachusetts Department of Environmental Protection, the United States Geological Survey, the National Weather Service, and the U.S. Army Corps of Engineers.

Massachusetts's DMTF relies on the individual existing statutory authorities of its member agencies. The creators of the drought plan did not try to give the task force statutory

⁴ *Massachusetts Drought Management Plan*. Boston, Executive Office of Environmental Affairs and Massachusetts Emergency Management Agency, 2001.

authority through the legislature, executive order, or any other means. According to Mark P. Smith, current Board President of the Massachusetts Rivers Alliance and former member of the DMTF, the original authors of the Drought Plan were concerned about potential changes to the Plan text if it was to move through the state legislature. When a bill moves through the Massachusetts House and the Senate, things are inevitably removed, changed, or amended as different legislators and outside stakeholders provide input on the process. Mark P. Smith and the other plan creators spoke with members of the State Legislature and decided that the plan and the DMTF did not need statutory authority. The DMTF's effectiveness would come from its member agencies' individual authority, and as all the state agencies had decided to work in tandem, the Plan's creators decided not to pursue statutory authority for the DMTF.⁵

In other states, drought teams are known as Drought Management Task Forces, Governor's Drought Task Forces, and Drought Monitoring Task Forces. All share a similar make-up. They consist of representatives from state agencies, federal agencies, and private interest groups that have stakes in water issues. Some states give statutory authority to their task forces, while others, such as Massachusetts, do not. By enshrining a task force in statute, the government grants the authority to this group to continue its work as a permanent entity.

Many states have already recognized that drought will continue to be a serious economic and environmental threat, and that the threat will only increase with time. As global temperatures continue to rise, droughts in Massachusetts and around the globe are expected to become more severe and more frequent. A research team led by Christopher Schwalm of the Woods Hole Research Center in Falmouth, Massachusetts published a study in August 2017 that found that

⁵ Smith, Mark P. Board President, Massachusetts Rivers Alliance. Personal Interview. 25 July 2018.

drought recovery time, the time needed for ecosystems to return to pre-drought conditions and populations, is taking longer everywhere in the world.⁶ Assuming no new restrictions on greenhouse gas emissions, the time between drought events will likely become shorter than the time needed for ecosystems to recover. A permanent drought management solution is needed to deal with this increasing threat. Strong, permanent drought management assessment and response infrastructure will be needed to mitigate the economic and environmental impacts of drought.

In Massachusetts, *An Act relative to drought management (SD.1828/HD.2398)* filed in 2017 by Rep. Carolyn Dykema (D-Holliston) and Sen. James Eldridge (D-Acton) would give the Massachusetts Drought Management Task Force statutory authority. As Massachusetts considers whether to grant it's Task Force this authority, it is important to consider the potential impacts of this decision by looking at how other states have approached this issue.

Nebraska

Home to the U.S. Drought Monitor at the University of Nebraska, Nebraska serves as a national leader in drought management. Nebraska is a prime example of a state benefiting from putting its drought task force into statute. Being in statute allows a drought task force to prepare for, rather than merely respond to, drought impacts. After being in extreme drought for almost two years during the drought of 1988-1989, Nebraska found that “one of the recognized limitations of [the Drought Assessment and Response Team or DART, the task force at the time,] was that it functioned largely on an ‘ad hoc’ basis with limited authority and little continuity

⁶ Good, Andrew and Dave McGlinchey. “Study finds drought recovery times taking longer.” *Global Climate Change*. NASA Jet Propulsion Laboratory, 14 August 2017.

between administrations.”⁷ The DART only convened during times of drought, and as the name suggests, “responded” to droughts rather than taking steps to prepare for them. To solve this problem, Nebraska’s state legislature passed Legislative Bill 274 in 1991. This bill established a new drought task force, the Climate Assessment Response Committee (CARC), which is tasked with organizing data collection, analysis, and dissemination, with coordinating agency activities, and with advising the governor on drought related actions. CARC prioritizes “preparedness” and “pre-disaster activities designed to increase the level of readiness.” It convenes twice a year. Two subcommittees, the Water Availability and Outlook Committee and the Risk Assessment Committee, each meet three times a year.

Legislative Bill 274 specifically gives CARC the authority to collect, analyze, and disseminate data and advise the governor on drought related actions.⁸ CARC uses this authority to publish biannual reports of climate and water supply conditions. These reports include current conditions, projections of future conditions, and what those projections will mean for Nebraskan agriculture. Agriculture is a \$10 billion industry in Nebraska, and these reports help farmers plan for future growing seasons. These reports, along with reports made by other agencies presented at CARC meetings, are posted on the CARC website where they are easily accessible to farmers. In 2015 farmers knew in advance that heavy rains were likely to recharge subsoils, and that they could expect lower risk in planting their crops that growing season.⁹ Nebraska’s CARC uses its authority to both advise the governor and communicate directly with the farmers that are seriously affected by drought conditions.

⁷ *Drought Mitigation and Response Plan*. Lincoln, Nebraska’s Climate Assessment Response Committee, 26 June 2000.

⁸ *Climate Assessment Response Committee Statutes*. Lincoln, Nebraska Legislature, Revised December 2017.

⁹ *CARC Meeting Minutes*, Lincoln, Climate Assessment Response Committee, 20 May 2015.

Arizona

Arizona's Drought Task Force (DTF) was put into statute in 2003 through an executive order. Then Governor Janet Napolitano created the task force in response to a significant drought in Arizona over the previous four years, citing the need for better planning to prepare for future droughts.¹⁰ Executive Order 2003-12 gives the Drought Task Force the authority to establish a framework to refine Arizona's drought monitoring process, to improve the understanding of drought impacts, and to identify ways of limiting future vulnerability. The DTF used its authority to write Arizona's Drought Preparedness Plan in 2004, which is still used today as a step-by-step framework for how to handle drought. This plan created subgroups tasked with mitigating and assessing drought conditions including the Monitoring Technical Committee, the Interagency Coordinating Group, and the Local Drought Impact Group.

California

Regarded as one of the most progressive water policy states in the United States, California's Governor's Drought Task Force (GDTF) is included in this report as an example of a task force that is not in statute. The task force only meets when convened by the Governor, usually during particularly dry periods. The last Governor's Drought Task Force was convened by Governor Jerry Brown from 2015 to 2016. Similar task forces were assembled during the droughts of the 1980s, 1990s and 2000s and all were disbanded when each drought ended.

The California GDTF is tasked with coordinating agency efforts and advising the governor on drought. In 2016, after the GDTF updated Governor Brown on drought impacts and response efforts, the Governor's Office of Emergency Services approved \$19.7 million in

¹⁰ *Arizona Drought Preparedness Plan*. Phoenix, Governor's Drought Task Force, 8 October 2004.

California Disaster Assistance Act funds for local government assistance to provide emergency water supplies to households without drinking and sanitation water.¹¹ The GDTF is effective when it convenes, but it does not have the statutory authority to convene regularly and in particular convene in the interest of preparing for rather than responding to a drought.

New Mexico

New Mexico's State Drought Task Force (SDTF) previously had statutory authority. Executive Order 2012-006 officially reestablished the task force in 2012. However, the order stated, "I direct the continuation of the New Mexico State Drought Task Force for an additional two years."¹² According to the *NM Political Report*, the SDTF has not convened since 2015.¹³ According to Water Use & Conservation Bureau Chief Molly Magnuson, the full task force only meets when it is convened by the Governor. Nonetheless, officials in New Mexico recognize the importance of regular meeting and planning. Executive Order 2012-006 gave the SDTF the authority to advise the Governor on actions to mitigate drought and to appoint working groups to monitor drought conditions. The Monitoring Working Group is an appointed working group made up of the Task Force's experts on water resources, agriculture, and climate. Unlike SDTF, the Monitoring Working Group meets every month even during times of normal precipitation.¹⁴ The group publishes monthly status reports about drought conditions, and members present data to the group at monthly meetings. Meeting regularly allows the Monitoring Working Group to continuously work to mitigate droughts even before they begin.

¹¹ Drought Update. Sacramento, Office of the Governor, 20 October 2016

¹² Exec. Order No. 2012-006. (11 May 2012)

¹³ Paskus, Laura. "New Mexico back under water storage restrictions on the Rio Grande." *NM Political Report*, 23 May 2018.

¹⁴ Magnuson, Molly. Water Use & Conservation Bureau Chief, New Mexico Office of the State Engineer. Personal Interview. 6 June 2018.

New Hampshire

Similar to California, New Hampshire's Drought Management Team (DMT) also does not have statutory authority. The DMT has a designated lead agency, the New Hampshire Department of Environmental Services (NHDES). The NHDES designates an employee to serve as Chair of the DMT. The Chair has the authority to convene the DMT. Despite not being in statute, the DMT "can advise the Governor, NHDES, and Homeland Security and Emergency Management on actions that should be taken in response to drought."¹⁵ The DMT can declare a stage of drought based on its own criteria or the U.S. Drought Monitor. By declaring stages of drought, the DMT indirectly controls water withdrawals. Many water withdrawal permits have variable permit conditions, and as drought declarations increase as a drought becomes more intense, water withdrawal allowances are lowered. Under state law, towns have the authority to directly control water use by issuing mandatory water bans or restrictions for non-essential outdoor watering. According to Brandon Kernen of the NHDES, the most important role of the DMT is keeping the public informed and educated on drought stages.

Conclusion

Based on the experiences of Arizona, California, Nebraska, New Mexico and New Hampshire, to ensure the long term sustainability of Massachusetts' water resources, Massachusetts should have its task force in statute. Being in statute and having the authority to collect data and convene regularly allows this group to disseminate vital information to constituencies whose livelihood depends on it, as seen with Nebraska's CARC which directly corresponds with the agricultural community. Being in statute provides a permanence to these

¹⁵ Kernen, Brandon. Drinking Water Source Protection, New Hampshire Department of Environmental Services. Personal Interview. 18 July 2018.

advisory bodies which allows them to respond to extended periods of drought, as seen with Arizona's Drought Task Force's authority outlined in Executive Order 2003-12 which turned Arizona into a state well equipped to face long term droughts. In comparison, California's Governor's Drought Task Force and New Mexico's Drought Task Force meet infrequently and miss crucial preparedness opportunities when drought mitigation rather than drought response work can still be done.

The authors of the original Drought Management Plan who created the Drought Management Task Force did not put the DMTF in statutory authority because they thought the potential cost of having their plan changed as it moved through the legislature outweighed the benefit of having the DMTF in statute, which they felt was unnecessary at the time. *An Act relative to drought management (SD.1828/HD.2398)* filed in 2017 by Rep. Carolyn Dykema (D-Holliston) and Sen. James Eldridge (D-Acton) would not change the current makeup of the task force or drought management plan. Instead, this legislation would give the DMTF permanent authority to do what it already does: convene, write and update a revised drought management plan, collect and assess technical information, coordinate member agencies, and advise policymakers on drought response.

Statutory authority would give Massachusetts' Drought Management Task Force greater legitimacy and permanence as an established entity, which will be increasingly important as drought severity and frequency increase in the years to come. States across the US have reaped multiple benefits from putting their drought task forces into statute. Massachusetts should follow their example.