

THE MID-MICHIGAN DRINKING WATER CONSORTIUM (MMDWC): COLLABORATING TO PURCHASE WATER SUPPLIES

Location: Central Michigan, Lower Peninsula
Issues Addressed: Political Will, Financing and Funding, Affordability
and Assistance



North Lansing dam

In 2012, prices for water softening chemical increased, hitting service providers in the center of Michigan's lower peninsula particularly hard. These mid-Michigan utilities, clustered around the capital city of Lansing, draw water from the Saginaw Aquifer. Saginaw Aquifer water is particularly hard, and requires a number of chemical inputs to soften it for use and consumption. These rising chemical costs put extra pressure on water utilities as they attempted to distribute safe and high quality water, while keeping rate increases modest.

As a result of the price increases, central Michigan communities began exploring ways to cut costs and keep rates low. In 2014, the Lansing Board of Water and Light, the East Lansing-Meridian Water and Sewer Authority (East Lansing-Meridian), and the City of Jackson started meeting with the Groundwater Management Board in Lansing and the Michigan Chapter of the American Water Works Association to explore opportunities for cost savings. Water infrastructure consultants at the meeting suggested that the joint chemical purchasing arrangement in the Holland-Grand Rapids area might offer an approach that central Michigan communities could replicate to save on chemical costs. After speaking with Holland and Grand Rapids utilities, in 2014 the Lansing Board of Water and Light and East Lansing-Meridian formed a chemical purchasing group, the Mid-Michigan Drinking Water Consortium (MMDWC).

Setting up a purchasing consortium

The Lansing Board of Water and Light and East Lansing-Meridian established rules for how MMDWC coordinates joint chemical purchasing. Initially consortium members used the structure to bulk purchase chemicals commonly used by all members – an approach that ensured the deepest cost savings for all members. In practice, the Lansing Board of Water and Light handles all bulk chemical purchasing through its purchasing department. The Lansing utility annually collects chemical use information from consortium members and issues requests for bids on behalf of MMDWC, encouraging suppliers to provide the best price to the consortium. After evaluating bids to select the best one for each chemical, Board of Water and Light issues necessary contracts for their own chemical needs and individual consortium members do the

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Argo Pond, Ann Arbor, Michigan.

same – facilitating their own ordering and purchase of chemicals over the life of the contract. Members are only required to participate in the bids and enter contracts for those chemicals which they need.

Bid packages are coordinated through members' purchasing departments, avoiding unnecessary oversight from formal decision-making bodies at the council and administrative levels, since purchasing departments only require oversight from the utility's board of directors. The only aspect of the MMDWC that involves municipally elected decision-makers is the initial decision for communities to join.

The MMDWC meets quarterly. It requires no fees to join or participate in the group and non-members are able to attend and participate in quarterly meetings. This allows both coordination throughout the region and provides opportunities for non-members to learn about the potential benefits of participating in the consortium. With these barriers to participation removed, many communities come to see MMDWC as an easy way to save on costs without requiring substantial time or resources. The group is facilitated by representatives of East Lansing-Meridian and the Tri-County Regional Planning Commission.

First year joint bid results

In its first year, 2014, the MMDWC compiled a bid package for four common chemicals: lime, sodium hypochlorite, ammonia, and fluoride. The Lansing Board of Water and Light purchasing department coordinated the bid. The results were immediately evident:

2014 Cost Savings for Select MMDWC Members and Chemicals Through Joint Purchasing

	CITY OF ADRIAN	CITY OF ANN ARBOR*	EAST LANSING-MERIDIAN WATER AND SEWER AUTHORITY	LANSING BOARD OF WATER AND LIGHT	CITY OF JACKSON*
Gross Chemical Budget	\$260,000	\$1,371,283	\$367,237	\$2,828,895	~\$700,000
Lime Savings	\$3,937	~\$75,000	\$2,394	\$100,000	\$60,756
Sodium Hypochlorite Savings	\$6,352	~\$20,000	\$2,040	\$8,928	Did not join bid
Fluoride Savings	\$1,514	\$699	Did not join bid	\$3,000	\$3,848
Total Joint Purchasing Cost Savings	\$11,803 (5%)	\$97,311 (7%)	\$4,434 (1%)	\$111,928 (4%)	~\$68,124 (10%)
Amount of time invested in chemical purchasing since joining	Less	Same	Less (2 hrs/wk)	-	Same

* Through jointly bidding for Ferric Chloride, the City of Ann Arbor saved an extra \$1,612.85 and the City of Jackson saved \$3,520.

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Jackson, Michigan. Photo by Lane Montgomery

For the City of Jackson, saving ten percent on the chemical budget allowed the city to invest in capital improvement projects. At the time of the first joint bid, Jackson was in a two-year planning process for a \$2.3 million high-service pump station at the water treatment plant. The savings on jointly purchased chemicals made it easier for Jackson to decide to move ahead with the project.

Lansing Board of Water and Light passed the savings directly to their customers in the form of a reduction in their Power Chemical Adjustment fee. These savings helped Lansing Board of Water and Light accomplish two important goals. They preserved affordability for ratepayers, delaying rate adjustments, and kept the water production budget level.

The MMDWC recently began discussing ways members could collaborate beyond joint chemical purchasing. Regular quarterly meetings allow member to explore additional areas where cooperation could lower costs and help them function more effectively. They have worked on solutions to common problems such as well bore rehabilitation, lime repurposing, water quality testing, and sludge disposal. They have already begun to experience the benefits of joint well bore rehabilitation bidding. Since MMDWC members primarily use groundwater, they regularly need to rehabilitate their well bores to keep them producing water at an appropriate rate. Joint bidding has brought costs down from a variable \$8,000-\$12,000 per well bore to a flat \$8,000 per rehabilitated well bore.

PROCESS USED

1. Lansing Board of Water and Light (LBWL) and East Lansing-Meridian Water and Sewer Authority (ELMWSA) formed the consortium.
2. LBWL and ELMWSA located multiple communities within the three counties under the Tri-County Regional Planning Authority with similar chemical purchasing needs and invited them to join the group.
3. Members set up a governance system for the group:
 - a. Selected leadership (ELMWSA and the Tri-County Regional Planning Authority)
 - b. Created open bid membership and meeting participation
 - c. Established a regular meeting schedule
 - d. Determined a bid process for the group
4. Used meetings to coordinate bids and explore other opportunities for collaborating.

MMDWC members also realized the non-monetary benefits of a more regional approach to water infrastructure in central Michigan. The MMDWC provides an open communication channel among utilities and operators throughout the region. Quarterly meetings create a collaborative, information-sharing environment where members share best practices, lessons, and strategies. For example, the MMDWC has helped cultivate better working relationships among regional operators, who now work together to develop solutions to common problems. Generally, members find that participating in the group has helped to transition the region away from isolated, individual community goals toward seeking and realizing collaborative opportunities on a regional scale.

Resources required

To participate in the MMDWC, utilities need political approval to collaborate regionally and the ability to reallocate the time of participating personnel for attending joint meetings.

Political will

Regional collaboration requires a willingness to cooperate and negotiate collectively. To minimize political issues, the group has low barriers to entry and maximizes autonomy for member utilities. The utilities participate in the consortium through their purchasing departments. Elected officials only address the decision to join the consortium. This creates the space for members to collaborate without overt political concerns.

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The policy of allowing non-members to attend meetings eases prospective members into the idea of regional collaboration. Representative of other utilities can learn about the benefits, costs, and guiding principles of the group by attending as observers. These two methods of overcoming political barriers have resulted in very little political opposition from the member communities and typically council resolutions to join the group pass unanimously.

Time reallocation

MMDWC members report that joint purchasing required as much or less time as bidding through their own purchasing departments (see Table 1). However, members reported that they needed to reallocate some of the time they spent on the bidding process in the past to attending quarterly MMDWC meetings. While attending meeting is not required, it does allow members to maximize the benefits of participating.

Lessons learned

- Having one entity handle bids keeps the bidding process simple and organized for everyone. It also allows members to devote personnel time they had previously allocated to coordinating bids to other important tasks.
- Members receive from the consortium what they put into it. Greater cooperation and information sharing helps all parties involved but requires active participation. Putting more time into the group results in greater monetary and non-monetary benefits.
- Open participation results in greater cooperation and greater benefits. Open membership, without fee or specific time commitment, means that participation is possible by even resource-restricted communities. It increases regional participation, allowing for greater idea and information exchange. It also keeps the door open for prospective members to join, which improves future opportunities.
- Cost savings can be realized by non-member communities when bulk purchasing drives prices down for all customers in a given region.

Project status

The MMDWC currently has nineteen members, with more joining each year. Seven members chose to participate in the most recent (2016) online bid: the cities of Ann Arbor, Jackson, Lansing and Adrian, as well as the Lansing Board of Water and Light, East Lansing-Meridian, and Delhi Township.

The MMDWC is actively exploring other aspects of regionalism, such as the prospect of a jointly-owned lime kiln. This idea is still in early discussion; however, the fact that it is being considered points to a future where MMDWC is a more complex regional body rather than merely a joint-purchase group.

What other communities have implemented similar projects?

The west Michigan joint purchasing group is implementing joint purchasing endeavors similar to the MMDWC although not at the same scale.

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