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Chicago Sun-Times 2018 Primary Election Metropolitan Water Reclamation District Questionnaire

Q1. The new Riverwalk has made the Chicago River a popular recreation destination, but surveys show that the river’s water still contains high levels of bacteria from sewage. What further steps should the MWRD take to improve the quality of the river’s water? Is the public being sufficiently informed on this matter, particularly as it relates to public health?

A1. I do not think the public is sufficiently informed about the river water quality. I would like to see a reporting system similar to the beach water quality report posted on a public health website and at all boat docking and rental locations.

The contribution of wildlife must be considered. It’s natural to see ducks on the river, but they are not potty-trained. The portion of fecal coliforms attributable to wildlife can be estimated by source tracking methods that identify bacteria commonly associated with specific species. A wildlife management plan would be required to significantly reduce fecal contamination from wildlife, and such a plan would require wide public support.

MWRD installed UV disinfection at the O’Brien Plant in Spring 2016 and chlorination and dechlorination at other plants. I expect that MWRD considered installing disinfection at the Stickney and Lemont plants, and I’d like to review associated studies. Further optimization of disinfection systems to increase the percent of bacteria killed can be considered.

Q2. Could the MWRD do a better job of working with other government agencies in the Chicago area to manage watersheds? If so, how would you make that happen? What innovations at other sewage districts across the country would you like to bring to Chicago?

A2. I’ll discuss this as two separate issues: stormwater and wastewater. Many municipalities are exploring how to incorporate expected increases in flooding and extreme weather into their planning and ordinances. I would like to survey municipalities in major urban areas and their flood control engineers to identify planning criteria that may accommodate future increases in flooding. For instance, the design flood can be modified and/or addition clearance can be required above the design flood. Examples of potential flood control innovations are further discussed in response to Question 4.

Wastewater quality can be improved before it enters the sewers. Managing our wastewater source is much more economical than significantly changing our treatment systems to address hard-to-treat compounds. MWRD has implemented a pharmaceutical diversion program, and I’d like to see more public outreach to convey the importance and identify drop-off locations, which

are include select police stations¹. Enhanced wastewater source control programs have been developed by Orange County, CA, City of San Diego, and City of Los Angeles² among others to improve wastewater quality upstream of the wastewater treatment plant in preparation for direct potable reuse, where treated wastewater can be fed directly to the drinking water treatment plant. Programs such as technical assistance to business and industrial wastewater operator training can help industrial dischargers continuously improve their wastewater quality. Additional waste diversion programs may target waste from businesses such as dental offices, dry cleaners, and car repair shops. Public education is critical to communicate the value for waste diversion programs for improving our treated wastewater and in-stream water quality.

Q3. The MWRD is Cook County's second largest landowner. The Sun-Times and the BGA have reported on troubling pollution seeping or otherwise being emitted from MWRD properties in recent years. What more can be done to ensure that companies leasing land are good environmental stewards?

A3. Requirements for periodic site inspections performed by a third party should be written into the lease for all leased property. A Phase I Environmental Site Assessment (ASTM 1527) is the first step in evaluating any potential contamination. Due to the sensitive nature of the MWRD lands, it may be reasonable to require lessees to implement an Environmental Management Program for continuous improvement (ISO 14,000) that can be audited during the proposed periodic site inspection.

Q4. Do you support the changes made in the revised Watershed Management Ordinance? What would you have included? What would you have left out?

A4. I like volume control trading (Section 503). I think the requirement to provide flood protection to bottom floors to at least one foot above the design flood will help reduce property damage (Section 502, part 15).

I would like to see the "100-year storm" replaced with the term "one-percent storm" to better convey that it has a 1-percent chance of occurring in any given year. I'd like to consider more extreme design storms such as the 0.5-percent storm (Section 502), or increase clearance above the design flood (Section 502). I'd like to see more incentive for green infrastructure such as permeable surfaces and infiltration trenches integrated in parking lots and alleys. Building on land next to the floodplain, sometimes called the "flood fringe", can be limited.

Ultimately, flood design dictated by ordinance needs to be based on acceptable risk of damage defined by the insurance industry. The current stormwater ordinance recommends design based on data from almost 30 years ago (TB70, 1989)³. We should plan for our future instead of our past. Alternate flood design specifications may decrease risk of flood damage due to extreme weather.

Q5. Do you think the board of commissioners is sufficiently knowledgeable about the corporate purpose of the MWRD? Is the board properly informed on issues that come before it?

A5. The Board makes policies and procedures to implement MWRD's mission which is to "protect the health and safety of the public in its service area, protect the quality of the water

¹ <https://www.mwrld.org/irj/portal/anonymous/unwantedmeds>

² <https://www.werf.org/a/ka/Search/ResearchProfile.aspx?ReportId=Reuse-13-12>

³ <http://www.isws.illinois.edu/atmos/statecli/RF/rf.htm>

supply source (Lake Michigan), improve the quality of water in watercourses in its service area, protect businesses and homes from flood damages, and manage water as a vital resource for its service area"⁴. In order to fulfill this mission, I think the following voices are required: business (i.e., industrial wastewater generators); social justice; environment justice and policy; water quality and treatment; and planning. Additionally, business experts are needed to run an organization the size of MWRD to address issues such as finance, labor relations, and legal matters. Outreach can be conducted to specific groups not represented on the Board, and experts can be consulted as needed, but I think a diversity of expertise on the Board is more efficient.

As a voter, I always look for water resumes among the Commissioner candidates. I have wished for an Environmental Engineer with water quality and treatment experience to run for MWRD Commissioner for over 20 years. I feel having a broader view of water, wastewater, and industrial issues would benefit long term planning as we face increases in extreme weather events. The Great Lakes will increasingly attract businesses from drought stricken areas, and we should have plans in place to both attract new businesses and clean them up before they get here.

Q6. Because of heavy rain, billions of gallons of sewage-tainted water recently were dumped into Lake Michigan. This happens almost every year, but it is not good. Climate change, bringing stronger storms, will only make the problem worse. What would you do, as a commissioner, to limit the impact of climate change on our local waterways and our drinking water?

A6. I would work to minimize the impact of combined sewer overflows (CSOs) by pushing for the replacement of impermeable surfaces with materials that allow infiltration. The ideal is to handle stormwater on-site and eliminate runoff to combined sewers to the extent practical. The Tunnel and Reservoir Plan (TARP) provides overflow buffer capacity before CSO events occur to extreme storms. Local infiltration rate goals can be set based on soil type to limit runoff. We should encourage installation of green infrastructure features such as permeable surfaces, rain gardens, and berms to contain stormwater. Stormwater can be routed to bermed recreation fields that can serve as temporary retention basins.

Q7. With the first phase of the McCook Reservoir project now online, what next should the MWRD do to reduce the threat of sewage overflows? Do you support alternatives to maximizing the capacity of the Tunnel and Reservoir Plan?

A7. Green solutions should be our first course to maximize infiltration. Permeable surfaces should be maximized to reduce stormwater runoff. Results of green alley pilot projects should be reviewed for durability to garbage truck traffic to identify opportunities for improvement. Vacant lots can be repurposed as bermed temporary retention basins that may also be used for recreation. Commercial parking lots should have runoff capture and infiltration zones.

Q8. What more should the MWRD be doing to prevent invasive species from moving into and through Chicago area waterways?

A8. Ship ballast water is a significant source of invasive species transfer, and the Coast Guard requirement to exchange ballast water or seal the ballast tanks have been successful in slowing the spread. Rigorous compliance with anticipated ballast water discharge standards are likely to

4

<http://www.mwrld.org/irj/portal/anonymous?NavigationTarget=navurl://ac86fd166ae2f8997581bde33ae1034a>

help⁵ since shipping traffic between the Chicago Area Water System (CAWS) and Lake Michigan is not likely to decrease. I support the Brandon Road Tentatively Selected Plan consisting of noise repellent, an electrical barrier, and water jets to flush the lock⁶ to keep Asian Carp out of the Great Lakes. I will support future proposed invasive species countermeasures identified by triple bottom line feasibility assessment methods (with consideration of economic, social, and environmental values) that includes appropriate stakeholder involvement and make economic sense for our local economy.

Q9. What do you see as the MWRD's role in controlling litter in our waterways?

A9. Currently, Friends of the River leads litter cleanup efforts along the river banks. I think River Cleanup Day is a great way to engage the public and increase appreciation of this precious resource. I have participated in river cleanup with Girl Scouts, and I appreciate the opportunity for the next generation to learn how to care for our community and enjoy nature. I think MWRD should be responsible for in-stream litter that cannot be reached by land. Litter removal may be coordinated with water quality monitoring.

⁵ <https://www.epa.gov/greatlakes/invasive-species>

⁶ <http://glmris.anl.gov/brandon-rd/>