

The waterways of our nation represent both a challenge and an opportunity for the United States. The challenges include aging infrastructure, waterways that fail to meet water quality standards, legacy pollutants, competing uses and insufficient water supply. To address these challenges, our nation must undertake a comprehensive approach to water resource management. This will require improvements in water treatment, water distribution, wastewater collection, wastewater treatment, storm water management and lake management. These improvements must be made in a manner that minimizes capital costs, operating costs and maintenance costs.

In spite of the tremendous need, introducing new technology remains a challenge. As an example, over the past nine years, as the Oakland County Water Resources Commissioner (WRC), I have been approached numerous times to evaluate and/or endorse various water technologies. The challenge for the creators of these technologies is demonstrating that they work in the field as promised. However, the conservative nature of public works professionals often acts as a deterrent to product introduction. Without a successful demonstration, most engineers will revert to older, proven technology. Thus, it is no surprise that the technology providers wonder how and where they can be given an opportunity to prove the effectiveness of their innovation. This circular argument results in little progress in the development of better and cheaper ways of providing a superior product or service.

That's why H<sub>2</sub>O Opportunities was founded. H<sub>2</sub>O Opportunities is a powerful collaborative that can leverage its extensive knowledge of water needs and advanced manufacturing prowess. It can rely on leadership, along with business acumen, to launch water technology businesses in rapid fashion. H<sub>2</sub>O Opportunities will identify promising technologies, install them in "real world" municipal and industrial applications and quickly transform them into profitable job-creating businesses located in Michigan. Success will require that H<sub>2</sub>O Opportunities identify, select, vet, test and subsequently integrate innovative water technologies and solutions.

H<sub>2</sub>O Opportunities will limit its services to technology validation, regulatory acceptance and assistance with marketing and business planning. Other services can be provided by associated universities, professional service providers, and/or mentor firms. H<sub>2</sub>O Opportunities will also actively support the selected firms in their attempts to obtain funding for future growth. It is anticipated that H<sub>2</sub>O Opportunities will screen businesses annually to identify promising technologies. Once selected, a contract will be executed that details the services to be provided by H<sub>2</sub>O Opportunities in exchange for revenue participation and/or equity in the business. That means that after its initial

funding, H<sub>2</sub>O Opportunities will be able to meet its future funding needs through its relationship with participating businesses.

This new approach to water resources management provides an opportunity to change the way our nation deals with these challenges. The change begins with addressing the technical tools available to public and private water professionals. Municipal and industrial water uses have taken a toll on the nation's water resources and its ability to rapidly respond to these challenges. That has hurt the ecosystem and economy. The problem is exacerbated by the conservative nature of municipal and industrial end-users of water technologies. This has stifled the introduction of technological innovations. As a result, the technological underpinnings of the municipal and industrial end-users often are based upon technologies that cannot adequately meet current challenges.

H<sub>2</sub>O Opportunities will provide a means of allowing technology developers to share the risks and rewards of introducing new products in Michigan with the expectation that this support will result in new jobs and new businesses in Michigan. H<sub>2</sub>O Opportunities is different than typical accelerators in that it can address the largest challenges facing water technology entrepreneurs: full-scale, real world testing, documentation of the findings, regulatory assistance, marketing assistance and business planning assistance. In short, H<sub>2</sub>O Opportunities will use water technologies to create jobs, especially green jobs, technology jobs and manufacturing jobs while promoting an innovation-based environment that attracts talent, companies, corporate investment and private, foundation and venture capital while stimulating entrepreneurship locally. A second, but equally important benefit is to protect Michigan's water resources and ecosystem.