



2-51 South Academic Building (SAB) Edmonton, Alberta, Canada T6G 2G7 Tel: 780.492.5353 Fax: 780.492.3189 www.research.ualberta.ca

May 1, 2017

Mayor Tom Flynn Sturgeon County 9613-100 Street Morinville, AB T8R 1L9

Dear Mayor Flynn:

Re: Alberta Resource Recovery Centre Contact: Ken Pacholok, M.Sc., P.Eng.

As the Vice-President (Research) at the University of Alberta I am delighted with the water initiative our academics have led with industry in developing the Alberta Resource Recovery Centre (ARRC). For several years, Drs. Ashbolt and Liu have worked with provincial water regulators, municipalities, utilities and developers (Mr. Pacholok and Mr. Hole) to create the ARRC as a not-for-profit entity to showcase innovation in community water management based on energy, nutrient and water recovery. With the construction of North America's first community source-diverted blackwater treatment facility supported by Alberta Innovates, the University of Alberta in now drawing up legal documents to receive this unique facility as a gift from Mr. Pacholok in order to facilitate consistent operation of the research and develop aspects of the ARRC with our University activities.

It has been particularly pleasing to see substantial funding to University of Alberta researchers in the Faculty of Engineering and School of Public Health for their pathogen-related regulatory reforms and research via Alberta Innovates (\$1.5 million for the Blackwater demonstration, \$800,000 for wastewater reuse, and \$1.4 m for stormwater reuse) and the Canadian Institutes of Health Research (\$2.1M for a national wastewater reuse framework). With this developing conducive regulatory stage and current Federal Government support for water infrastructure and 'green' initiatives, there is a unique but limited period to seize the opportunity to lead the market place with decentralized community water services as being showcased at the ARRC. There is considerable economic merit in starting this conversion to more sustainable water services by working at the edge of existing communities, initially capitalizing on sewer mining opportunities

described in the group's application to the Western Development Program to further facilitate associated decentralized urban development and provide a 'backdoor' to a conventional sanitary sewer as currently required for any failure protection.

I expect to see the ARRC activities broaden by including additional faculty expertise along with SMEs being attracted to this Blue-Tech facility, thereby developing a self-funded aspect possibly including training of local operators for decentralized community water services. The inclusion of home grown SME who have worked with the University of Alberta, such as the Clearflow Group, Source2Source and Aqua-tex, also solidifies the position of our University as one that delivers solutions based on sound science and engineering. Furthermore, the near-term vision of the ARRC to include associated wetland developments and connectivity to the Lois Hole Centennial Provincial Park will benefit the broader community by advancing a 'complete communities' model built around thriving economics, community vitality and wellness, and healthy ecosystems. The University also looks forward to supporting local council applications to the Federation of Canadian Municipalities (FCM) call for water innovations associated with further developments at the ARRC.

As a higher-level comment, it is important to realize that we live in an increasingly complex world of escalating population, resource demands, socio-economic and climate-related challenges. Ensuring water sustainability will be a common denominator to addressing these challenges. Accordingly, today's leaders have a unique opportunity and responsibility to act now to provide successive generations with the necessary tools and knowledge to preserve a prosperous, healthy and just society. Fortunately, technical solutions exist, and will continue to emerge. Now more than ever, the key to successful implementation of transformative innovations, particularly those in the public interest, resides largely within the political realm. The shapers of tomorrow will not only be those who had the vision and expertise to provide these solutions, but also those regulatory and political bodies who had the foresight to rise above the status quo and implement them. We recognize that there are many factors that must be considered for such an initiative. The University of Alberta is eager to assist in any way that can help expedite the decision making process - please let us know how we can assist you.

Sincerely,

Lorne A. Babiuk, OC, SOM, PhD, DSc, FRSC

Vice-President (Research)

Lame & Bales