

THE CORPORATION OF THE
CITY OF WHITE ROCK
 CORPORATE REPORT



DATE: January 13, 2020

TO: Mayor and Council

FROM: Dr. Saad Jasim, P.Eng., Manager, Utilities

SUBJECT: Patent Submission for the White Rock Water Treatment Plant

RECOMMENDATIONS

THAT Council:

1. Receive for information the corporate report dated January 13, 2020, from the Manager, Utilities titled “Patent Submission for the White Rock Water Treatment Plant”; and
 2. Approve the request to proceed with the submission of a Patent for the Water Treatment Plant.
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INTRODUCTION

A patent is a legal title protecting an invention. For a technology or a system to be patented, the product or process must include a novel approach, involve an inventive step and be susceptible of industrial application. Patents grant their owner a set of rights of exclusivity over an invention. The legal protection conferred by a patent gives its owner the right to exclude others from making, using, selling, offering for sale or importing the patented invention for the term of the patent, which is usually 20 years from the filing date, and in the country or countries where the patent has been filed (and subsequently granted). This set of rights provides the patentee with a competitive advantage.

The value of individual patents has an importance due to the significance in its application. Many patents have very low value, the distribution is skewed, due to the lack of potential application in the industry.

The economic benefits of the patent system are derived from its roles in promoting innovation, and encouraging investment, economic growth, knowledge sharing and the efficient use of resources. In addition, possessing a patent may help the organization to grow by capitalizing on the market potential of its inventions.

The City of White Rock Water Treatment Plant was designed and built based on the research finding conducted at the City of White Rock in collaboration with the Reseau-WaterNet, which was introduced to the proponents for the Design Build Project. The system included specific sequence of applications that were not present in the literature surveyed.

A detailed discussion took place between Dr. Saad Jasim, Manager, Utilities, Dr. Madjid Mohseni, Scientific Director, Reseau-WaterNet, Professor at UBC, and Rob Bruent, Patent Attorney, Brunet & Co., regarding the process, its novelty and significance to the health of the

community and to the water industry were highlighted. Mr. Bruent indicated that there is a good potential for the application to be patented.

Options were discussed regarding the cost for the submission of the application. The fee for submission, and cost of filing is between \$10,000-\$12,000 (as quoted in May 2019). When the patent is filed, potential additional cost for applications and communication is around \$30,000 over 5 years.

PAST PRACTICE / POLICY / LEGISLATION

The cost of filing a patent for the inventor is mandatory for public disclosure of the description of the technology, which makes following the design easier and facilitates future technological developments.

ANALYSIS

The economic benefits of the patent system are derived from its roles in promoting innovation, and encouraging investment, economic growth, knowledge sharing and the efficient use of resources. In addition, possessing a patent may help the organization to grow by capitalizing on the market potential of its inventions. Patents impact on economic growth of regional and national industry would happen due to potential investments from governments, local, regional and national industries to develop and expand the application of such patents. Profits generated by patent exploitation can be invested in further research and development in infrastructure, employment, which may stimulate commercial and industrial growth.

The findings in this patent application would provide significant savings on capital and operational cost to new applicants of this process.

BUDGET IMPLICATIONS

A budget of approximately \$15,000 (\$12,000 was the cost indicated by the lawyer in May 2019) is required for the cost of filling the Patent. Future cost when the patent is in the market is expected to be approximately \$30,000 over 5 years.

RISK MANAGEMENT

The delay in submitting the Patent Application could cause obstacles due to the available information.

CONCLUSION

The submission of a patent for the design of the White Rock Water Treatment Plant would benefit the City of White Rock financially and provide a higher profile for the performance and development at the City of White Rock. The recommendation is to approve the award of \$15,000 to Brunet & Co. for the Patent submission, and budget \$30,000 cost over 5 years.

Respectfully submitted,



Dr. Saad Jasim, P.Eng.
Manager, Utilities

Comments from the Chief Administrative Officer:

This corporate report was prepared in response to a resolution of Council to review the possibility of obtaining a patent for the water treatment system.

It is very rare that I have a contrary view to City staff. However, this is one of those occasions. To spend \$15,000 to apply for a patent and then a further \$30,000 over the next five years as described in this report would not serve to benefit the City of White Rock. I believe this would be a sunk cost with very little potential for any cost recovery or return on investment. It has been my experience that local governments in British Columbia and across Canada as well as North America freely share their best practice experiences, programs, processes, policies, and bylaws to the betterment of all taxpayers. This is a practice that should continue to be supported.

What is the objective of the Patent Application? The corporate report provides the following answers, which I will provide my comments:

1. The economic benefits of the patent system are derived from its roles in promoting innovation, and encouraging investment, economic growth, knowledge sharing and the efficient use of resources.

Local governments are continually working to improve processes. Knowledge sharing between local governments occurs regularly at the regional level and by attending conferences at the national and international level.

2. In addition, possessing a patent may help the organization to grow by capitalizing on the market potential of its inventions.

It is my understanding that this "invention" is more of a combination of the proven process of using Ozone for oxidization and the process of using AdEdge Technologies E33 filter media for Arsenic reduction in drinking water. Potentially, there could be other jurisdictions combining these two well established processes for the same purpose. It is unclear in this corporate report how the City of White Rock will grow from the Patent Application.

3. Patents impact on economic growth of regional and national industry would happen due to potential investments from governments, local, regional and national industries to develop and expand the application of such patents.

It is comforting to think that our Patent Application could lead to further economic growth at the regional and national level. However, I remain doubtful that this would occur as a result of our Patent Application. Further, I fail to understand how this benefits the City of White Rock and our taxpayers.

4. Profits generated by patent exploitation can be invested in further research and development in infrastructure, employment, which may stimulate commercial and industrial growth.

I remain doubtful that our Patent Application will generate a cost recovery for the cost of the patent and associated costs over the next five years as outlined in this corporate report. This corporate report does not provide a business case on how the City would benefit or achieve results from granting licences or obtaining royalties to use our design process. Imposing our right to such revenue may come at the cost of legal litigation that would require proving that another entity used our specific design process. Further, I do not believe it would necessarily be in the interests of the taxpayer to launch legal action for patent infringement by any local government who wishes to use our particular design process with the hopes of trying to obtain some revenues from granting licences or

royalties. Again, no business case to evaluate the level of revenues against the costs that are being requested.

5. The findings in this patent application would provide significant savings on capital and operational cost to new applicants of this process.

It is true that any organization (including academics) would benefit from the knowledge of this process. This is one reason why the City hosted students from the British Columbia Institute of Technology last year. However, the City would be able to accomplish this objective by speaking at conferences or submitting papers for publication regarding our design processes to the various utility associations such as the Canadian Water and Wastewater Association.

Unlike the private sector, the City does not need to have a patent to be used as a competitive advantage over others. We simply do not compete against other cities (with the exception of talented employees).

I am not supportive of applying for a patent. However, should the City ultimately take the position to pursue a Patent Application, I would assume that we would do so as cost sharing partners with the University of British Columbia as they were participants in the pilot project which was referenced by NAC Constructors in their Design Build proposal that the City accepted for the Water Treatment Plant.



Dan Bottrill
Chief Administrative Officer