



**MANAGEMENT'S DISCUSSION AND ANALYSIS –  
QUARTERLY HIGHLIGHTS  
FOR THE THREE AND SIX MONTHS ENDED JUNE 30, 2017**

## **Introduction**

The following management's discussion and analysis ("MD&A") of International Wastewater Systems Inc. (the "Company" or "IWS") for the three and six months ended June 30, 2017 has been prepared to provide material updates to the business operations, liquidity and capital resources of the Company since its last annual management discussion & analysis, being the Management Discussion & Analysis ("Annual MD&A") for the year ended December 31, 2016. This Interim MD&A does not provide a general update to the Annual MD&A, or reflect any non-material events since the date of the Annual MD&A.

This MD&A has been prepared in compliance with the requirements of section 2.2.1 of Form 51-102F1, in accordance with National Instrument 51-102 – Continuous Disclosure Obligations. This discussion should be read in conjunction with Annual MD&A, the audited annual consolidated financial statements of the Company for the years ended December 31, 2016 and 2015 and the unaudited condensed consolidated interim financial statements for the three and six months ended June 30, 2017, together with the notes thereto. Results are reported in Canadian dollars, unless otherwise noted. In the opinion of management, all adjustments (which consist only of normal recurring adjustments) considered necessary for a fair presentation have been included. The results for the three and six months ended June 30, 2017 are not necessarily indicative of the results that may be expected for any future period. Information contained herein is presented as at August 28, 2017 unless otherwise indicated.

The unaudited condensed consolidated interim financial statements for the three and six months ended June 30, 2017, have been prepared using accounting policies consistent with International Financial Reporting Standards ("IFRS") as issued by the International Accounting Standards Board ("IASB") and interpretations issued by the International Financial Reporting Interpretations Committee ("IFRIC"). The unaudited condensed consolidated interim financial statements have been prepared in accordance with International Standard 34, Interim Financial Reporting.

For the purposes of preparing this MD&A, management, in conjunction with the Board of Directors, considers the materiality of information. Information is considered material if: (i) such information results in, or would reasonably be expected to result in, a significant change in the market price or value of IWS's common shares; or (ii) there is a substantial likelihood that a reasonable investor would consider it important in making an investment decision; or (iii) it would significantly alter the total mix of information available to investors. Management, in conjunction with the Board of Directors, evaluates materiality with reference to all relevant circumstances, including potential market sensitivity.

Further information about the Company and its operations is available on SEDAR at [www.sedar.com](http://www.sedar.com).

## **Caution Regarding Forward-Looking Statements**

This MD&A contains certain forward-looking information and forward-looking statements, as defined in applicable securities laws (collectively referred to herein as "forward-looking statements"). These statements relate to future events or the Company's future performance. All statements other than statements of historical fact are forward-looking statements. Often, but not always, forward-looking statements can be identified by the use of words such as "plans", "expects", "is expected", "budget", "scheduled", "estimates", "continues", "forecasts", "projects", "predicts", "intends", "anticipates" or "believes", or variations of, or the negatives of, such words and phrases, or state that certain actions, events

or results “may”, “could”, “would”, “should”, “might” or “will” be taken, occur or be achieved. Forward-looking statements involve known and unknown risks, uncertainties and other factors that may cause actual results to differ materially from those anticipated in such forward-looking statements. The forward-looking statements in this MD&A speak only as of the date of this MD&A or as of the date specified in such statement.

Forward-looking statements involve known and unknown risks, uncertainties and other factors that may cause IWS's actual results, performance or achievements to be materially different from any of its future results, performance or achievements expressed or implied by forward-looking statements. All forward-looking statements herein are qualified by this cautionary statement. Accordingly, readers should not place undue reliance on forward-looking statements. The Company undertakes no obligation to update publicly or otherwise revise any forward-looking statements, whether as a result of new information or future events or otherwise, except as may be required by law. If the Company does update one or more forward-looking statements, no inference should be drawn that it will make additional updates with respect to those or other forward-looking statements, unless required by law.

## **Description of Business**

The Company was incorporated under the Business Corporations Act (British Columbia) on February 4, 2011. The Company's shares are listed on the Canadian Securities Exchange (the “CSE”) under the trading symbol “IWS”. The Company provides wastewater heat exchange products and services. The registered office of the Company is located at 1443 Spitfire Place, Port Coquitlam, British Columbia, V3C 6L4.

International Wastewater Heat Exchange Systems Inc. (“IWHES”) was incorporated under the Business Corporations Act (British Columbia) on May 30, 2011. On October 27, 2015, the Company completed the acquisition (the “Acquisition”) of IWHES pursuant to a share exchange agreement dated September 4, 2015 (the “Agreement”). The Acquisition constituted a reverse takeover (“RTO”).

During the year ended December 31, 2014 the Company acquired 51% of IWWS (UK) Ltd. (“IWWS”), in July 2015 the Company acquired an additional 9% and concurrent with the Acquisition the Company acquired the remaining 40% interest.

During the year, the Company has continued to transform itself from being a Research & Development company, to a Company actively commercializing its Research & Development. The following Highlights summarize the news releases released since the start of the year which emphasize this change of direction.

## **Highlights**

- On January 5, 2017, the Company announced that Mr. Steve Moddemeyer, Mr. Qu Yuxiu and Mr. Alfred Ng, have joined as members of the IWS Advisory Board. See press release of January 5, 2017 for detailed biographies of each member.
- On February 7, 2017, the Company announced a partnership with Prospect Silicon Valley, a California-based urban technology accelerator (“Prospect Silicon Valley”). Prospect Silicon Valley focuses on the commercialization of urban technologies for sustainable, smart cities. They bring government,

**INTERNATIONAL WASTEWATER SYSTEMS INC.**  
**Management's Discussion & Analysis – Quarterly Highlights**  
**Three and Six Months Ended June 30, 2017**  
**Dated August 28, 2017**

---

corporations and academia together with pioneering companies to accelerate innovations in transportation, energy and buildings.

Multi-partner projects are developed by Prospect Silicon Valley to bring next-generation approaches to the fore, and to assist early adopters in public sector applications. Prospect Silicon Valley has worked successfully with local governments in California to pilot advanced urban technologies, resulting in over 150 million lbs. of CO2 reductions committed over the next ten years.

Through this partnership, IWS will have access to Prospect Silicon Valley's network of property owners, trade groups and strategic partners in the California buildings sector. IWS will work jointly with Prospect Silicon Valley in the planning and execution of the Company's commercialization strategy, targeting early adopters of IWS's wastewater heat exchange technology in the California market.

- On February 27, 2017 and April 7, 2017, the Company completed a brokered private placement in two tranches pursuant to which the Company issued an additional 5,076,850 units at a price of \$0.30 per share for aggregate gross proceeds of \$1,523,055. Each unit consists of one common share and one common share purchase warrant of the Company. Each warrant entitles the holder to purchase one common share until February 27, 2019 at an exercise price of \$0.40 per share.

In connection with the placement, the Company paid finder's fees of \$91,129 and issued 303,763 finders' warrants. Each finders' warrant entitles the holder to purchase one common share until February 27, 2019 at an exercise price of \$0.30 per share.

- On March 2, 2017, the Company announced that it is currently collaborating with a licensed marijuana cultivator operating an industrial growing facility in the United States ("Cannabis Cultivation Facility").

The collaboration enables IWS and the Cannabis Cultivation Facility to exchange data and evaluate the application of IWS's thermal energy exchange technology in an industrial marijuana growing facility.

- On April 12, 2017, the Company announced that it has completed the installation of a SHARC thermal energy exchange system at the South East False Creek Neighborhood Energy Utility in Vancouver under the collaboration with Metro Vancouver which was originally announced in August 2016.
- On May 2, 2017, the Company announced it has been awarded a US\$330,000 (\$478,000) contract to supply its innovative SHARC thermal energy exchange system to the new headquarters of the District of Columbia Water and Sewer Authority ("DC Water") in Washington, DC.

The new \$60 million headquarters ("DC Water HQ") is being constructed on the waterfront of the Anacostia River in Southeast Washington, DC and will serve as the new public face for the agency. DC Water's green initiatives will be showcased in a deeply innovative facility featuring a bold and distinctive design developed by SmithGroupJJR in collaboration with Skanska. The building is designed to achieve LEED Platinum certification from the U.S. Green Building Council and will also employ many advanced strategies that will surpass LEED Platinum certification.

The SHARC system will allow DC Water HQ to use its own wastewater as a source of thermal energy to condition the building. This project represents a historic HVAC first. The DC Water HQ building will be the first ever deployment of this technology used to both heat and cool a building in the USA.

**INTERNATIONAL WASTEWATER SYSTEMS INC.**  
**Management's Discussion & Analysis – Quarterly Highlights**  
**Three and Six Months Ended June 30, 2017**  
**Dated August 28, 2017**

---

With two-thirds of all the outflow from DC's sewers flowing through the underground infrastructure on the site, the system will have a virtually uninterrupted supply of thermal energy. Utilizing this technology, the design team has calculated that the DC Water HQ will take its place as one of the lowest energy-consuming office buildings in the region.

- On May 8, 2017, the Company announced Yaron Conforti will be leaving his role as the Company's Chief Financial Officer and a member of its Board of Directors, to pursue new opportunities and the appointment of Mr. David Alexander, CA, CPA as the Company's Chief Financial Officer.
- On May 10, 2017, the Company announced IWWS has been awarded grant support to facilitate the installation of SHARC wastewater heat recovery systems at five locations across Scotland totaling £9.8 million.

Funding from the Low Carbon Infrastructure Transition Programme (LCITP) – managed through the Scottish Government – has been granted to enable the development of five new projects that will play a pioneering role in transforming heating systems at various commercial and local authority sites.

Under the plans, SHARC's 'heat-from-wastewater' technology is earmarked to heat Kelvingrove Museum in Glasgow, a leisure centre and public library in Campeltown, a leisure centre in Orkney and a new district heating scheme at the Clyde Gateway regeneration project in Glasgow. The LCITP funding is being matched by commercial finance that will facilitate the required capital investment to establish local energy centres that will generate their income from sales of heat to the customers involved.

- On May 30, 2017 and June 29, 2017, the Company issued two tranches of senior unsecured convertible debenture units with total principal amounts of \$1,320,000 and \$1,023,000. The debentures mature on May 30, 2020 and June 29, 2020, respectively, and bear interest at an annual rate of 12%. The debentures are convertible, in whole or in part, at the option of the holder at any time prior to the maturity date into common shares of the Company at a conversion price of \$0.30 per common share.

Each debenture unit consisted of one \$1,000 principal amount senior unsecured convertible debenture and 2,500 share purchase warrants, each exercisable into one common share of the Company at \$0.30 per share three years from issuance.

- On July 28, 2017, the Company announced the appointment of Mr. Saško (Sashko) Despotovski to its board of directors. Mr. Despotovski is a seasoned investment banker and an active investor in both private and public companies. He is a Canadian national living in the Nordics, with international corporate finance experience in the energy, real estate, and technology sectors. Sashko has held posts within several funds and hedge funds in the investment banking capacity in USA and Canadian markets, as well as on the operational side as management and as a director for a number of companies.
- Subsequent to June 30, 2017, the Company issued 4,750,000 stock options at \$0.18 for a period of one year to directors, management, and employees. As well, the Company cancelled 5,110,000 stock options previously exercisable at \$0.30 until July 12, 2021.

**INTERNATIONAL WASTEWATER SYSTEMS INC.**  
**Management's Discussion & Analysis – Quarterly Highlights**  
**Three and Six Months Ended June 30, 2017**  
**Dated August 28, 2017**

---

- Subsequent to June 30, 2017, the final 87,500 common shares were issued pursuant to a consulting agreement entered into.
- On August 8, 2017, the Company announced the opening of its European Headquarters at Clyde Gateway's Red Tree Building in Bridgeton, Glasgow.

## **Overall Performance**

The unaudited condensed consolidated interim statements of financial position as of June 30, 2017, indicate a cash position of \$2,025,084 (December 31, 2016 - \$373,430) and total current assets of \$3,073,667 (December 31, 2016 - \$1,230,157). Current liabilities at June 30, 2017, total \$639,034 (December 31, 2016 - \$893,243).

Working capital, which is current assets less current liabilities, is \$2,434,633 (December 31, 2016 – working capital of \$336,914).

During the three and six months ended June 30, 2017, the Company reported net loss of \$1,060,720 and \$2,172,101 (\$0.01 and \$0.02 basic and diluted loss per share) on revenue of \$207,387 and a gross margin of \$(102,241) and \$(241,913). This compared to a net income (loss) of \$299,028 and \$(1,078,248) (\$0.00 and \$(0.01) basic and diluted income (loss) per share) for the three and six months ended June 30, 2016 on revenue of \$924,773 and \$950,251 and a gross margin of \$255,561 and \$102,427.

## **Discussion of Operations**

### Three months ended June 30, 2017 compared with three months ended June 30, 2016

IWS's net loss totaled \$1,060,720 for the three months ended June 30, 2017, with basic and diluted loss per share of \$0.01. This compares with net income of \$299,028 with basic and diluted income per share of \$0.00 for the three months ended June 30, 2016. The decrease of \$1,359,748 from net income to a net loss was principally because:

- Most of the loss was due to
  - The costs related to the development of the new Sharc Model 880.
  - The costs related to obtaining sales orders totaling £9.8 million enabling the development of five new projects that will play a pioneering role in transforming heating systems at various commercial and local authority sites. The initial revenue from these sales will commence during the next quarter and should be completed within the next nine months.
  - The costs related to the installation of a SHARC thermal energy exchange system at the South East False Creek Neighborhood Energy Utility in Vancouver under the collaboration with Metro Vancouver which was originally announced in August 2016.
  - The costs related to the contract to supply SHARC's thermal energy exchange system to the new headquarters of the District of Columbia Water and Sewer Authority ("DC Water") in Washington, DC. The new \$60 million headquarters is being constructed on the waterfront of the Anacostia River in Southeast Washington, DC and will serve as the new public face for the agency. DC Water's green initiatives will be showcased in a deeply innovative facility featuring a bold and distinctive design developed by SmithGroupJJR in collaboration with Skanska. The building is designed to achieve LEED Platinum

**INTERNATIONAL WASTEWATER SYSTEMS INC.**  
**Management's Discussion & Analysis – Quarterly Highlights**  
**Three and Six Months Ended June 30, 2017**  
**Dated August 28, 2017**

---

certification from the U.S. Green Building Council and will also employ many advanced strategies that will surpass LEED Platinum certification.

- The costs related to obtaining the certifications required on the Company's Piranha units required to commence marketing of the Piranha units in California.
  
- For the three months ended June 30, 2017, revenue decreased by \$717,386, cost of sales decreased \$359,584 and the gross margin decreased by \$357,802. The decreases were due to their being one contract completed by IWHEs in the three months ended June 30, 2017 versus 2 in the prior period.
- For the three months ended June 30, 2017, the Company had \$172,362 in share-based payments versus \$(726,577) in the comparable period. The share-based payments were the result of the vesting of stock options granted to certain directors, officers, employees and consultants in the current period versus the cancellation of options in the prior period.
- For the three months ended June 30, 2017, wages and benefits increased by \$81,082. The increase is attributable to the increased activity of the Company.
- For the three months ended June 30, 2017, interest and financing expense decreased by \$115,469. The decrease is attributable to the decreased loans payable outstanding during the period.
- For the three months ended June 30, 2016, government grant was \$103,675 due to the receipt of a government grant by IWWS.

### **Liquidity and Financial Position**

As at June 30, 2017, the Company's cash balance was \$2,025,084 (December 31, 2016 - \$373,430) and the Company had working capital of \$2,434,633 (December 31, 2016 – working capital of \$336,914).

As of June 30, 2017, the Company had 99,029,894 common shares issued and outstanding, 14,696,221 warrants outstanding that would raise \$5,134,950 if exercised in full and 5,960,000 options outstanding that would raise \$1,592,000 if exercised in full (see "Highlights" above). The Company does not know when or if the warrants or options will be exercised.

Cash used in operating activities was \$1,886,094 for the six months ended June 30, 2017. Operating activities were affected by the net loss of \$2,172,101 partially offset by non-cash expenses of \$426,104 and a negative change in non-cash working capital balances of \$140,097 largely because of an increase in receivables.

### **Related Party Transactions**

Key management personnel are those persons having authority and responsibility for planning, directing and controlling the activities of the Company, directly or indirectly. Key management personnel include officers and directors.

During the three and six months ended June 30, 2017 (three and six months ended June 30, 2016), the Company incurred the following charges with key management personnel:

**INTERNATIONAL WASTEWATER SYSTEMS INC.**  
**Management's Discussion & Analysis – Quarterly Highlights**  
**Three and Six Months Ended June 30, 2017**  
**Dated August 28, 2017**

---

(i) Consulting fees of \$41,000 and \$71,000, \$10,000, and \$nil, respectively (\$30,000 and \$60,000, \$nil and \$14,713, and \$31,005) to companies controlled by directors, officers and former officers of the Company (Yaron Conforti, David Alexander and Russ Burton).

(ii) Wages and benefits of \$39,000 and \$78,000, \$22,500 and \$45,000, and \$nil respectively (\$39,000 and \$78,000, \$22,500 and \$45,000, and \$17,058 and \$37,608, respectively) to the CEO, director and a director of IWHEs (Lynn Mueller, Daryle Anderson and Russ Burton) of the Company.

(iii) Accounting fees of \$nil (\$nil and \$4,000) to a company controlled by a director (Daryle Anderson) of IWHEs.

(iv) Share-based payments of \$142,111 and \$303,961 (\$599,108) and \$(148,540)) was recognized in connection with the vesting (cancellation) of options granted to directors and officers of the Company and directors of the subsidiaries as follows:



**INTERNATIONAL WASTEWATER SYSTEMS INC.**  
**Management's Discussion & Analysis – Quarterly Highlights**  
**Three and Six Months Ended June 30, 2017**  
**Dated August 28, 2017**

	Three months ended June 30, 2017 (\$)	Three months ended June 30, 2016 (\$)	Six months ended June 30, 2017 (\$)	Six months ended June 30, 2016 (\$)
Lynn Mueller	106,962	(446,144)	228,786	(110,614)
Daryle Anderson	6,113	(25,494)	13,074	(6,321)
Yaron Conforti	10,697	(25,494)	22,879	(6,321)
Paul Lee	-	(25,494)	-	(6,321)
Mark McCooley	6,113	(25,494)	13,074	(6,321)
Russ Burton	6,113	(25,494)	13,074	(6,321)
Ian Craft	-	(25,494)	-	(6,321)
John Williams	6,113	-	13,074	-
<b>Total</b>	<b>142,111</b>	<b>(599,108)</b>	<b>303,961</b>	<b>(148,540)</b>

Other transactions with related parties included:

Rent of \$nil (\$2,700 and \$5,498) and additional cost of sales of \$70,431 and \$73,263 (\$nil and \$1,017) due to a company controlled by a director of IWWS (Ian Craft).

Included in accounts payable is \$107,151 (December 31, 2016 - \$134,729) due to related parties as follows:

	June 30, 2017 (\$)	December 31, 2016 (\$)
Lynn Mueller	516	3,304
Daryle Anderson	105,000	60,000
Yaron Conforti	-	3,065
Company controlled by Ian Craft	1,635	68,360
<b>Total</b>	<b>107,151</b>	<b>134,729</b>

**Loans receivable**

During the year ended December 31, 2015 the Company advanced \$80,000 to the CEO of the Company. During the year ended December 31, 2016, \$40,000 was repaid. The advance bears interest at a rate of 3% per annum and is due on demand. As at June 30, 2017 the outstanding balance was \$42,146 (December 31, 2016 - \$41,211). In addition there is an advance of \$27,702 (December 31, 2016 - \$27,702) to the CEO which is non-interest bearing and is due on demand.

**Risks and Uncertainties**

An investment in the securities of the Company is highly speculative and involves numerous and significant risks. Such investment should be undertaken only by investors whose financial resources are sufficient to enable them to assume these risks and who have no need for immediate liquidity in their investment. Prospective investors should carefully consider the risk factors that have affected, and which in the future are reasonably expected to affect, the Company and its financial position. Please refer to the section entitled "Risk Factors" in the Company's Annual MD&A for the fiscal year ended December 31, 2016, available on SEDAR at [www.sedar.com](http://www.sedar.com).

### **Disclosure of Internal Controls**

Management has established processes to provide them sufficient knowledge to support representations that they have exercised reasonable diligence that (i) the unaudited condensed consolidated interim financial statements do not contain any untrue statement of material fact or omit to state a material fact required to be stated or that is necessary to make a statement not misleading in light of the circumstances under which it is made, as of the date of and for the periods presented by the unaudited condensed consolidated interim financial statements; and (ii) the unaudited condensed consolidated interim financial statements fairly present in all material respects the financial condition, results of operations and cash flows of the Company, as of the date of and for the periods presented.

In contrast to the certificate required for non-venture issuers under National Instrument 52-109 Certification of Disclosure in Issuers' Annual and Interim Filings ("NI 52-109"), this Venture Issuer Basic Certificate does not include representations relating to the establishment and maintenance of disclosure controls and procedures ("DC&P") and internal control over financial reporting ("ICFR"), as defined in NI 52-109. In particular, the certifying officers filing this certificate are not making any representations relating to the establishment and maintenance of:

- i) controls and other procedures designed to provide reasonable assurance that information required to be disclosed by the issuer in its annual filings, interim filings or other reports filed or submitted under securities legislation is recorded, processed, summarized and reported within the time periods specified in securities legislation; and
- ii) a process to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with the issuer's GAAP (IFRS).

The issuer's certifying officers are responsible for ensuring that processes are in place to provide them with sufficient knowledge to support the representations they are making in this certificate. Investors should be aware that inherent limitations on the ability of certifying officers of a venture issuer to design and implement on a cost effective basis DC&P and ICFR as defined in NI 52-109 may result in additional risks to the quality, reliability, transparency and timeliness of interim and annual filings and other reports provided under securities legislation.