



# SeaStar Ocean Social Stock Exchange Impact Report



October 2016



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#### 1. CEO Overview

SeaStar Ocean ("SeaStar") is a technology development and commercialization company founded in 2014 by William J Kommers to pursue the development of ocean and water-related technologies. We are committed to creating social value. Our corporate strategy and our business model have been designed to deliver on this commitment. Our sought-after membership in the Social Stock Exchange speaks to this commitment and our corporate values.

The first such technology development to come out of SeaStar is the RainWater Maker<sup>™</sup>, a new, water treatment system that leverages Nature's Water Cycle to convert unsafe, undrinkable water as found in estuaries, swamps, stagnant pools, polluted rivers and oceans into clean, safe drinking water for people.

#### The Problem: People using unsafe water for drinking and cooking

Too many people in the world today suffer from the consequences of drinking unsafe water. Here's a snapshot of how bad the problem is:

- 1 in 10 people in the world lack access to safe drinking water.
- Contaminated water transmits diseases including diarrhea, cholera, dysentery, typhoid and polio.
- Each year, water-related diseases affect more than 1.5 billion people and are responsible for over 500,000 deaths caused by diarrhea...most of them children.
- At any one time, one-half of the world's hospital beds are occupied with patients suffering from waterborne diseases.





As bad as this situation is today, it's predicted to get substantially worse in the near future:

In 2025 - less than 9 years from now - 5.5 billion people are expected to be living in water-stressed areas as a result of water use, pollution, population growth, and climate change.

And as in the past, millions will continue to rely on impure water collected from local sources for drinking and cooking...and with life-threatening consequences.

This is a huge, worldwide problem for humanity, and it desperately needs a solution.

Our core business is selling our RainWater Makers to governments and municipalities in water needy areas of the world. We operate in Los Angeles, California, USA where our Water Makers are manufactured. They will be shipped by intermodal carriers out of the Ports of Los Angeles and Long Beach to our customers in every major region of the world, and will be installed and serviced by our local sales and service affiliate, the local Caterpillar equipment dealer in the area. Our first Water Maker shipments to customers are planned for February of 2017.

## Our Contribution to Solving the Problem: The RainWater Maker

Even though the waters in the lakes, swamps, rivers and oceans of the world are full of dissolved impurities, water vapor itself is pure water. When water evaporates, all impurities are left behind.

Nature's Water Cycle is a natural process that involves nothing more than the sun shining on the surface of a body of water, causing some of that water to evaporate as water vapor, with that water vapor rising high into the atmosphere where it is naturally cooled, and then precipitating as rain.

Our RainWater Maker technology mimics Mother Nature, with some added help from our proprietary process which is now Patent Pending at the United States Patent & Trademark Office in Washington, DC.

#### SeaStar as an impact business:

SeaStar is an impact business because its RainWater Makers will provide millions of cubic meters of clean, safe drinking water per year to people around the world.

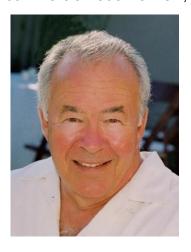
For the peoples who benefit from these new sources of drinking water, lives will be dramatically changed as they will no longer be relegated to consuming tainted, impure water. Hospital beds will be emptied, families will be healthier and their collective overall quality of life will improve.



## The Company's current and planned management

SeaStar's management team is led by William J Kommers, President & CEO

Kommers is an entrepreneur with many years of experience in the development and commercialization of new, breakthrough technologies including the world's first



broadcast satellite pay television business, micro-gas turbine electric power generation systems, electric and gas engine driven utility vehicles and underwater remotely controlled vehicles. More recently, he provided electric power generation and seawater desalination systems to island countries in the Pacific and organized a plan to deliver desalinated seawater using Veolia Water desalination systems installed on ships provided by Maersk Line Limited, which was later abandoned with the collapse of the international seawater desalination equipment industry. SeaStar's current business grew out of those experiences.

The full management team when fully constituted following capitalization of the company will undertake the company's activities from these core groups:





Seasoned professionals who will shortly be joining the company:

- Chief Operating Officer a business professional currently involved in the wind power industry with an extensive background of experience in international business and finance. Will join the company mid-2017.
- Manager, Sales & Marketing a business leader of 30+ years of experience selling and installing major industrial manufacturing systems with automotive and aircraft manufacturers in many countries of the world.
- Manager, Stakeholder-based Water Supply Projects a business development professional with deep experience in major infrastructure businesses including electric power.
- Manager, Stakeholder Relations a proven leader in organizing and implementing customer oriented programs including organizing resultsoriented membership cooperative associations in developing countries.
  - Manager, Operations— an experienced professional in manufacturing outsourcing and dynamic vendor management systems.
- Director, Finance a steady, capable and experienced financial executive with many years of experience with the top US accountancy firms.

## a. Organizational Summary

SeaStar Ocean ("SeaStar") was incorporated in California, USA in March of 2016. At the present time, William J Kommers is the sole employee. The company is at the prerevenue stage of development.

All design elements and engineering have been completed and the company is ready to initiate the fabrication of first piece prototype Water Makers immediately following funding.

Our first prototypes will be operated in a test and demonstration program to be performed in the greater Los Angeles area and conducted in cooperation with major California water utility companies. International humanitarian groups and other parties with an interest in providing clean, safe drinking water to client states will be invited to attend these demonstrations.



SeaStar's customers are national, regional and state governments and municipalities charged with the responsibility of providing their citizens with clean, safe drinking water. Most of these customers will be in Developing Countries.

SeaStar will sell our RainWater Makers in association with local, SeaStar-affiliated Caterpillar dealers (180 in 160 countries) who will deliver, install and commission the Water Maker for our customers, and will also provide continuing maintenance services for the system.

#### b. Commitment to Social Value

SeaStar is committed to providing social value through the operation of its business, and to communicating that social value to stakeholders. Each stakeholder involved has its own special viewpoint on social value, and each will have its own criterion for understanding and evaluating what has and is expected to change as a result of the successful application of SeaStar's business.

For SeaStar, we intend to communicate with all of our stakeholders as to our goals in providing our RainWater Makers to customers, and the activities we take in pursuit of their attainment. These communications will be delivered to stakeholders by email and social media, and will focus on providing in depth coverage and discussion of real life situations we encounter in the marketplace and our actions and responses to those situations.

Using performance metrics in the same way an organization's performance is measured, we intend to create a set of measurement standards designed to measure the social impact on customer groups using our RainWater Maker. We intend to develop these standards within an information program we will conduct together with representatives of the local government entity in each of our customer locations. All stakeholders will be queried for their own specialized input on the creation of these standards, and the program will be reviewed and updated on an annual basis. Social value impact measurement reports will be distributed to all stakeholders on a monthly basis.

We encourage investors to review this Impact Report in detail and to contact us for more detailed information should they require it.

-William J Kommers, President & CEO



## 2. Social Purpose and Context

#### **Mission Statement & Activities**

SeaStar's primary purpose is to bring about a positive change to the lives of people living in areas of severe water stress and who are forced by circumstance to drink unsafe water. We intend to fulfill that purpose by providing populations living in global areas of water scarcity with our RainWater Maker<sup>™</sup> that can convert many kinds of unsafe, polluted sources of water into clean, safe drinking water for people.

#### SeaStar's mission:

To provide its RainWater Maker to populations for use in purifying the sources of non-potable water they drink and cook with every day.

Too many people in the world today suffer from the consequences of drinking unsafe water. Here's a snapshot of how the scale of the problem:

- 1 in 10 people in the world lack access to safe drinking water.
- Contaminated water transmits diseases including diarrhea, cholera, dysentery, typhoid and polio.
- Each year, water-related diseases affect more than 1.5 billion people and are responsible for over 500,000 deaths caused by diarrhea...most of them children.
- At any one time, one-half of the world's hospital beds are occupied with patients suffering from waterborne diseases.

As bad as this situation is today, it's predicted to get substantially worse in the near future:

- In 2025 less than 9 years from now 5.5 billion people are expected to be living in water-stressed areas as a result of water use, pollution, population growth, and climate change.
- And as in the past, millions will continue to rely on impure water collected from local sources for drinking and cooking...and with life-threatening consequences.



## SeaStar's response: The RainWater Maker

SeaStar's response to this problem has been to develop and prepare to bring to market its RainWater Maker, a system and device that can purify these unsafe waters currently being consumed by people.



The RainWater Maker is water purification system that when used with a variety of non-potable source waters can produce an average of about 100 cubic meters (26,400 US gallons) of clean, safe, drinking water per day which meets World Health Organization standards of purity for human consumption. This equates to approximately 36,500 cubic meters (9,636,000 US gallons) per year.

To facilitate market entry for the Water Maker, the company is organizing a series of strategic relationships with regional sales agents, Caterpillar dealers, humanitarian foundations and associations, international development banks and US and world government organizations who can all contribute to and facilitate the placement of Water Makers in world locations where they can serve the drinking water needs of the maximum number of affected persons.

The company will sell its RainWater Makers to municipal and other governmental buyers who will use them in their existing water supply activities, and will also sell them to new water **Stakeholder-based Community Drinking Water** supply projects organized around one or more Water Makers. In the latter instance, SeaStar will be an active organizer and investor in such water projects which will be organized along BOOT (build, own, operate and transfer) guidelines.



#### Social performance:

To support these market-centric activities and its business in general, SeaStar intends to empanel a social performance committee comprised of representatives of stakeholder groups involved in or touched by SeaStar's business. They include national and regional government authorities, local/regional banking institutions, international membership cooperatives, micro-finance companies and multi-national and humanitarian organizations and foundations and citizen consumers. It will be this committee's objective to evaluate and guide SeaStar's social performance in these areas:

- Integrity
- fair and equitable practice
- accountability

This social performance committee will be chaired by a member of SeaStar's Board of Directors. The committee's activities will also be supported by SeaStar's Manager or Stakeholder Relations whose scope of responsibility includes organizing and monitoring the social and environmental performance of the company within the marketplace.

All stakeholder groups will be solicited for their input and participation in local social performance evaluations of water supply projects utilizing RainWater Makers. The information thus gained will become a part of and contribute to the regular social performance committee reports produced and disseminated to all stakeholders and to the Exchange.

#### SeaStar's current status:

At the present time, the company is a development company and having completed the engineering design and sourcing of the various components comprising the RainWater Maker, is seeking to raise operating capital to launch business operations. All of the company's activities to date have been undertaken by Kommers in conjunction with Caterpillar and other suppliers of RainWater Maker components.

Following capitalization of the company, the first order of business is to fabricate, test and confirm the performance of the first prototype RainWater Makers, which which will shortly thereafter go into production.

The rollout of the company's sales activities to target markets around the world has already begun, as evidenced by the two Sales Agency agreements executed by the company for the MENA countries and for separately for Greece and Cyprus. Additionally, Sales and marketing relationships with Caterpillar dealers are in discussion for the Southwestern US and for Oceania as far west as Guam.



The company plans to establish sales and marketing relationships in all the major world regions by early 2017, with the next to be added being India, Southeast Asia and the Caribbean.

By establishing itself in the marketplace, SeaStar will be in position to roll out its RainWater Maker to cities and towns desperately in need of the fresh, clean, safe drinking water it delivers.

Growth of SeaStar's market presence will come through the diligent performance, nurturing and expansion of our positive social impact, and with multiple new locations being added to the body of affected communities touched by the RainWater Maker and the benefits it provides.



#### 3. Who Benefits

Beneficiaries of the positive social impact of SeaStar's RainWater Makers and their application in purifying tainted drinking water in developing countries include the following groups:

**Consumers** of fresh, clean and safe water now being produced by RainWater Makers using the same, unsafe sources of water as were previously consumed without any treatment of any kind. They are the **prime beneficiaries** of the successful operation of RainWater Makers, and they comprise populations living in water stressed areas around the world that otherwise would continue to suffer the health consequences of drinking unsafe water. These populations have the same basic need for clean, safe drinking water as the rest of humankind.

**Numbers of consumers.** Because the Water Maker produces approximately 100 cubic meters (26,400 US gallons) of water per day, we can estimate how many drinking water consumers can benefit from the fresh water produced by a single RainWater Maker. Multiple RainWater Makers can be grouped together to provide additional water output.

The following chart indicates the estimated numbers of people in various countries that might be served by a single RainWater Maker given that country's current drinking water consumption rates:

Country	Water Const <u>Liters</u>	umption per day <u>Gallons</u>	Persons served
Brazil	187	49	539
Peru	173	46	574
Philippines	164	43	614
India	135	36	733
China	86	23	1,173
Bangladesh	46	12	2,200
Kenya	46	12	2,200
Ghana	36	10	2,640
Nigeria	36	10	2,260
Cambodia	15	4	6,600
Ethiopia	15	4	6,600
Haiti	15	4	6,600
Rwanda	15	4	6,600
Uganda	15	4	6,600
Mozambique	4	1	26,400



**Communities** which host RainWater Makers benefit in many ways from the placement and operation of RainWater Makers in their midst.

One of the early benefits includes vocational training and local employment of citizens to work the new water making machines.

A second and most important benefit can be found in a reduction of the societal burdens imposed by the lack of adequate supplies of safe drinking water that reverberate through affected communities.

The most immediate benefit to a community from the operation of a RainWater Maker is the reduction in human sickness (and deaths) caused by the effects of drinking unsafe water. When fewer of its citizens are stricken and fall ill from drinking bad water, a great societal burden is lifted off the shoulders of the community.

Affected communities include the immediate, local community and larger government spheres as well. Health care facilities and the associated costs expended for ministering to persons ill from consuming unsafe water are significant drains on any community. Any alleviation of those costs allows funds to be directed towards community improvement projects and other similar positive expenditures.

**Facilitators** of new safe drinking water supply projects for communities. These include:

- The various humanitarian associations and organizations whose local representatives work directly with the affected community to effect change and improvement in the drinking water health of the local community.
- **Financial institutions** and their investors which champion local water supply projects in water stressed areas. These include regional and international development banks, micro-finance organizations, and local and regional banking institutions that organize local financial support for new water supply projects based on the use of the RainWater Maker.
- Communities and governments who champion and act as host to the establishment of new water supply projects utilizing the RainWater Maker.
- **Investors in SeaStar** who provide the funding to enable the company to undertake and exercise its business plan.

All facilitators benefit from the successful establishment and operation of new water supply projects using RainWater Makers, and each individual member of this group has its own measurement criterion which it applies to the successful outcome of such projects.



- For humanitarian associations and organizations, these projects are a huge win and act to buoy their continued presence in the marketplace and their efforts to effect positive change.
- For the financial institutions that support these new water supply projects, the benefits include increased business opportunities that result from a community that converts from a cash consumer (health care, etc.) to a cash generator as is the case with increased opportunities for citizens and children (who might otherwise be ill from drinking bad water) to find and pursue gainful employment, and the positive multiplier effect which takes place when citizens of a community can be more productive in their own lives (starting new micro-businesses, etc.) because of a reduction in the time they normally would have spent collecting water and dealing with the effects of consuming unsafe waters.
- The range of benefits to communities and governments who host new water supply projects utilizing RainWater Makers includes all the positive outcomes that result from converting a community from water needy, to water healthy. As health care costs related to the effects of drinking unsafe water considerations are reduced, leaders of communities and governments can turn their attention to the process of building a positive future for their citizens as opposed to ministering to them because of their poor health and living circumstances occasioned by the effects of drinking unsafe water.
- Parties who invest in SeaStar will receive growth in the actual and intrinsic
  value of their investments in the company. A major contributor to the intrinsic
  value of their investment is the positive social impact SeaStar's business makes
  on affected populations.



# 4. Activities and Operations

## **Linking Business Activities to Social Outcome**

SeaStar's business is in providing its RainWater Maker to water needy communities in countries around the world. RainWater Makers will be sold to parties who employ the Water Makers to produce clean, safe drinking water for people. SeaStar derives revenue from the sale of its RainWater Makers, and this revenue provides profits, which will be used to expand the sales and marketing activities of the company into other water stressed areas.

Linking SeaStar's sales revenue to the delivery of social benefits and outcomes to populations can be a consequence of the number of persons likely to be served with fresh water produced by a single RainWater Maker:

Country	Water Co <u>Liters</u>	nsumption per day <u>Gallons</u>	Persons served
Bangladesh	46	12	2,200
Kenya	46	12	2,200
Ghana	36	10	2,640
Nigeria	36	10	2,260
Cambodia	15	4	6,600
Ethiopia	15	4	6,600
Haiti	15	4	6,600
Rwanda	15	4	6,600
Uganda	15	4	6,600
Mozambique	4	1	26,400

RainWater Makers are the sole product to be produced and sold by the company. All of the company's Water Makers will be employed in communities in which they are used to convert tainted, unsafe sources of water that was formerly used for drinking and cooking into clean, safe water for human consumption.

In other words, all of the company's commercial activities are focused on producing positive social results and outcomes for affected people around the world. SeaStar has no other purpose.

## **SeaStar's Theory of Change:**

SeaStar's business – and its sole reason for being - is to eliminate the problems caused by the consumption of tainted, unsafe drinking water by people around the world. The company intends to accomplish this goal by giving these affected populations the



systems and abilities to improve the quality of the water they regularly consume: The RainWater Maker.

The achievement of this goal involves the following steps:

- 1. The design and manufacture the RainWater Maker that can purify the existing, unsafe waters that people are consuming every day. As we considered how best to design our RainWater Maker, we made a list of some of the attributes we thought it should have:
  - It should be able to be used with a wide range of different types of water as are found in swamps, rivers, ponds, and lagoons and estuaries all over the world...oceans, too.
  - It should be appropriate for deployment in underdeveloped areas, and be able to operate almost by itself with little, if any operator involvement
  - It should to be able to be powered by a variety of different energy sources –
    ideally, local energy sources should be employed, including renewable
    energy
  - It should be safe for people and the environment, and it should not use and/or discharge toxic chemicals to the environment
  - It should be of a unit size that could serve the needs of a moderate number of people – multiple units could be added to serve more people
  - It should be easily shipped around the world, and be easily installed and put into operation
  - It should have a long and trouble-free service life (10 years, minimum)
  - It should be affordable and deliver good value

A year and a lot of hard work later, we have developed a workable design for a water-making system that is able to use a variety of non-potable source waters to produce an average maximum daily amount of about 100 cubic meters (26,400 US gallons) of clean, safe, drinking water which meets World Health Organization standards of purity for human consumption.

We have assembled a team of highly qualified companies who are ready to contribute their expertise and products to the manufacture and delivery of RainWater Makers to our customers throughout the world.

**2.** Engagement of groups of Facilitators whose active participation will be instrumental in the establishment of new community drinking water supply projects which employ RainWater Makers. These include:



- The various humanitarian associations and organizations whose local representatives work directly with the affected community to effect change and improvement in the drinking water health of the local community.
- Financial institutions which champion local water supply projects in water stressed areas. These include regional and international development banks, micro-finance organizations, and local and regional banking institutions that organize local financial support for new water supply projects based on the use of the RainWater Maker.
- Communities and governments who champion and act as host to the establishment of new water supply projects utilizing the RainWater Maker.
- 3. **Securing the monetary investment** required by SeaStar to enable it to undertake its business plan and to achieve its goals and objectives.

Such investment will concretely create positive social impact as a result of the establishment and operation of new water supply projects in water stressed communities throughout the world.

4. **Establishing and maintaining a high level of communication** with the stakeholders and beneficiaries involved in SeaStar's business. Such communications to be based in large part on the social performance committee reports and will be delivered electronically. See also Section 2: Social Performance.



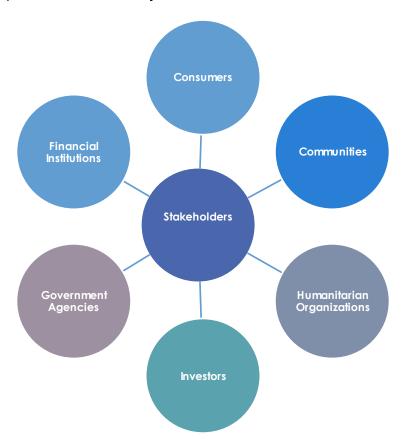
## 5. Stakeholders

SeaStar is associated with and interacts with different groups of stakeholders in different areas of its business.

On the 'supply side' of SeaStar's business, which is characterized as the relationships and interactions required to produce and deliver our RainWater makers, our stakeholders include our component suppliers, fabricators, assembly personnel and commercial shipping companies who collectively construct our RainWater Makers and deliver them to our customers around the world.

On the 'delivery side' of our business, which is characterized by the implementation and operation of RainWater Makers in community water supply projects in water stressed areas of the world, SeaStar has a completely different group of shareholders. These stakeholders include banks, investors, property owners, service organizations, our affiliated Caterpillar dealers, humanitarian organizations and associations, cooperative membership associations and water consumers at large. In most instances, a municipal water supply agency will also be involved. As operating partners in the business, these local stakeholders share in the operation of and benefits from the project's operations.

Taken as a group, SeaStar's "delivery side" Stakeholders can be identified as follows:





**Consumers** of fresh, clean and safe water now being produced by RainWater Makers using the same, unsafe sources of water as were previously consumed without any treatment of any kind.

**Communities** which host RainWater Makers and which benefit in many ways from the placement and operation of RainWater Makers in their midst. The most immediate benefit to a community from the operation of a RainWater Maker is the reduction in human sickness (and deaths) caused by the effects of drinking unsafe water. Affected communities include the immediate, local community and larger government spheres as well.

**Facilitators** of new safe drinking water supply projects for communities. These include:

- The various humanitarian associations and organizations whose local representatives work directly with the affected community to effect change and improvement in the drinking water health of the local community.
- Financial institutions and their investors which champion local water supply
  projects in water stressed areas. These include regional and international
  development banks, micro-finance organizations, and local and regional banking
  institutions that organize local financial support for new water supply projects
  based on the use of the RainWater Maker.
- Government organizations who champion and support the establishment of new water supply projects utilizing the RainWater Maker.

Investors in SeaStar itself.

3<sup>rd</sup> Party investors in new Stakeholder-based water supply projects



## **Stakeholder-based Community Drinking Water Initiatives**

SeaStar will take the lead in bringing together national and regional government authorities, local/regional banking institutions, membership cooperatives, microfinance

companies and multi-national and humanitarian organizations and foundations in the establishment of new water supply businesses based on the use of the RainWater Maker. All of these groups are stakeholders, and they are all important.

Historically, and for a host of different reasons, many past water supply projects in Developing Countries have not succeeded over the long term...one industry source placed the average life expectancy of such systems at about 4 years.



To succeed over the long term, communities that install new drinking water supply services must have a continuing incentive to ensure that these vitally important businesses continue to operate successfully. We believe that the best way to ensure that they do so is to organize them along cooperative association principles.

Each SeaStar-sponsored community drinking water project will be undertaken with local stakeholders. These stakeholders include banks, investors, property owners, our affiliated Caterpillar dealers, cooperative membership associations and water consumers at large. In most instances, a municipal water supply agency will also be involved. As operating partners in the business, these local stakeholders share in the operation of and benefits from the project's operations.

SeaStar will participate financially in water supply businesses which are organized as above, and will contribute up to \$50,000 per RainWater Maker purchased as a direct investment to support local water supply businesses which use RainWater Makers in the water supply business.

SeaStar's investment will be as part of an investment syndicate organized and managed by local and/or regional banking interests who, in addition to providing capital for the enterprise, will provide financial leadership for the new water supply business, and will provide a range of continuing banking services to the enterprise, to include revenue collection and funds disbursement services.

SeaStar's participation in the enterprise will be guided by our Manager of Stakeholder-based Water Supply Projects.



## 6. Evidencing Social Value

#### a. Evidence

SeaStar's business is in providing its RainWater Maker to water-needy communities in countries around the world whose citizens are presently consuming polluted or otherwise unclean water.

Doing so leads to a direct improvement in the social outcome for people in the affected communities. This improvement is quantifiable and easily measured. It's an either/or measurement: either these communities enjoy safe, clean drinking water and freedom from water induced illness and disease, or they don't.

## Estimating the numbers of persons who might be positively impacted

The following chart indicates the estimated numbers of people in various countries that might be served by a single RainWater Maker producing an average of 100 cubic meters (26,400 US gallons) of clean, safe, drinking water per day given that country's per person water consumption rates in Liters:

<u>Liters</u>	<u>Persons</u>
187	539
173	574
164	614
135	733
86	1,173
46	2,200
46	2,200
36	2,640
36	2,260
15	6,600
15	6,600
15	6,600
15	6,600
15	6,600
4	26,400
	187 173 164 135 86 46 46 36 36 15 15

Another way to measure the positive social impact that the operation of RainWater Makers can produce in affected populations is to estimate the number of persons that might be served using the World Health Organization's minimum recommended amount of drinking water per day of about 15 liters per person. We increase that number here.



The figures below are taken from SeaStar's projected RainWater Maker sales over the next three years, and are based on a consumption rate of 20 liters per person per day.

	2017	2018	2019
Southern US RainWater Makers New Persons served	6	7	10
	30,000	35,000	49,000
Caribbean RainWater Makers New Persons served	8	10	13
	40,000	48,000	67,200
Latin America RainWater Makers New Persons served	6	7	10
	30,000	36,000	50,400
Oceania RainWater Makers New Persons served	8	11	15
	40,000	54,000	75,500
AUS+NZ+PNG RainWater Makers New Persons served	5	6	8
	25,000	30,000	42,000
Asian Pacific RainWater Makers New Persons served	8	10	13
	40,000	48,000	58,800
Indo-Asia RainWater Makers New Persons served	8 40,000	9 42,000	12 58,800
Europe RainWater Makers New Persons served	2 10,000	7 36,000	10 49,200
MENA RainWater Makers New Persons served	12	16	22
	60,000	78,000	109,200
Africa RainWater Makers New Persons served	7	8	12
	35,000	42,000	58,800
World Totals RainWater Makers New Persons served Total Persons served	73	90	125
	365,000	449,000	627,000
	365,000	814,000	1,441,000



#### **Operational monitoring:**

The best evidence of the added social value to a community of people who are now drinking and cooking with clean, safe water can be found in the reduction in the number of illnesses and deaths formerly caused by drinking unsafe water.

Operational monitoring of the health of populations consuming waters purified by RainWater Makers is an integral part of SeaStar's operating plan and will form an important part of the regular reports by our social performance committee regarding SeaStar's ongoing business.

Regular monitoring activity will be encouraged of each stakeholder involved in any single water supply project, and by each stakeholder involved in the sale and use of a RainWater Maker in any community in the world.

Regular, electronic media inquiries will be made with the leadership of all stakeholders of any water project using RainWater Makers to learn the current performance status of any Water Maker, and any information regarding the health and well-being of the community of consumers consuming water produced by the Water Maker.

Social performance committee reports generated in this program will be used to produce a comprehensive report on each and every community using a RainWater Maker to purify its drinking water, anywhere in the world. These reports will be regularly distributed to Stakeholders, the Social Stock Exchange and other interested parties.

We intend to establish a series of base line reference points for various key performance indicators in any new consumer water supply project undertaken by the company. It will be our objective to ensure that these Key performance indicators are reliable and based on real information – not hearsay.

#### They include:

- The number of persons (and households) served with the water produced by the RainWater Makers (one or more). This is measured in the field.
- The general state of health of the persons to be served. This is a report compiled by local health officials from historical records.
- Improvements in the quality of life enjoyed by the persons being served as
  compared to before the introduction of the RainWater Maker into the community.
  This information to be obtained by direct interviews, and will cover a) a survey of
  the health of the family members, b) number of visits to local health clinics and
  other health care providers, c) the types of health issues suffered and their
  severity, d) illnesses reported as being directly related to consuming unsafe



water, e) number of deaths, f) changes in the dynamics and relationships within families regarding the availability of clean, safe drinking water and g) other indicators as may from time to time be identified.

#### b. Current management

SeaStar will be reporting on progress against this Plan as well as new developments and disclosures on an annual basis. These progress reports will be compiled by SeaStar's Manager of Stakeholder Relations whose scope of responsibility includes organizing and monitoring the social and environmental performance of the company within the marketplace.

Since part of our understanding of outcomes will be based on discussions with stakeholders, we will continue to enhance and update our understanding in ongoing discussions. This may result in amendments and extensions to existing data collection content and methodology. Such amendments and extensions are likely to include a more focused approach to understanding the community dynamics associated with the introduction and operation of new drinking water supply services, and the results of that understanding will most assuredly influence Company operating policy and procedures.

## c. Future plans

The company intends to actively pursue the following:

- a continuation and expansion of 'municipal customer financial assistance programs' which enable municipalities around the world to purchase RainWater Makers.
- a program of working with allied manufacturers and suppliers to provide a complete, 'end-to-end' solution to its RainWater Maker customers, to include water storage tanks, distribution pipeline infrastructure systems, water customer billing and information management systems, all of which are tailored to the market environment and operating realities in the target market.
- the establishment and active support for a RainWater Maker Users' Group, which will foster education and communication between RainWater Maker users on their applications and use.
- In a program aimed at keeping its RainWater Maker technology preeminent in the marketplace, the company will continue its technology development and product improvement program over the years ahead, and will also maintain an active patent filing activity to secure and protect its intellectual property.



## 7. Risk/ Opportunities Analysis, Negative Externalities & Other Issues

## a. Risks / Opportunities Analysis

SeaStar has identified the following primary risks and opportunities in its activities:

#### Short term risks

#### The ability to attract capital to the marketplace:

The identified market to be addressed by SeaStar with its RainWater Maker is challenging to say the least. Historically, the financial ability of communities in this market to lay out significant sums of money for water purification equipment has been lacking. SeaStar's ability to rally the needed financial support for the initial purchase and ongoing use of its RainWater Makers by communities who desperately need clean water will be tested in the periods immediately ahead.

#### **Competition in the marketplace:**

RainWater Makers will encounter 2 types of competition from other water purification systems in the marketplace.

- The first is from small capacity water purification systems that produce up to about 1,000 liters of water per day. These smaller systems use a variety of different technologies, including those that extract humidity from the atmosphere, very small reverse osmosis-based systems, and a relatively new system called the Slingshot <a href="www.slingshotdoc.com">www.slingshotdoc.com</a> that employs an operating system very similar to that used in the RainWater Maker, but on a much smaller scale. All of these small water purification system represent competition for the RainWater Maker on some level, but none of them are able to deliver a volume of potable water that can supply the needs of large numbers of persons.
- The second type of competition is from commercially sized reverse osmosis systems with an output capacity comparable to the RainWater Maker. In a head-to-head comparison of the RainWater Maker to a good reverse osmosis machine, the Water Maker will be found to have a capital cost that is generally higher than reverse osmosis water treatment systems of the equivalent water output capacity. For instance, a RainWater Maker producing 100 cubic meters of fresh water per day and powered by electricity from a local electric grid will have a capital cost to the buyer of approximately \$5,600



per cubic meter of capacity. A good quality reverse osmosis system of the same output capacity might cost 1/4 to 1/3 less.

In a comparison of the operating costs involved in RainWater Maker's production of potable water versus reverse osmosis, and considering the total (all in) costs per cubic meter of water produced, the RainWater Maker is on a par with the average of good reverse osmosis systems in its output capacity range.

However, the competitive advantages of RainWater Makers versus reverse osmosis systems become most evident when viewed in the context of the operating conditions and environment to be found in the remote and underdeveloped locations where the RainWater Maker will find its greatest application.

The RainWater Maker was designed to be used in relatively unimproved, and in many instances, remote areas that are not generally suitable for reverse osmosis systems because of the R/O's operational requirements, including chemicals and consumables.

Advantages of the RainWater Maker versus reverse osmosis systems:

- it can be used to purify a wide range of different types of source waters
- it can be used to purify a source water that regularly changes composition as is the case with rivers, estuaries and tidal swamp areas during seasonal flooding and droughts
- it's able to operate unattended for long periods of time without operator involvement
- it doesn't use chemicals or other consumables of any kind.

#### RainWater Makers: the "Gold Standard"

The company intends to create and maintain a strong competitive position in the market by establishing the RainWater Maker as the "Gold Standard" in water treatment systems used to purify unclean waters in emerging nations and developing countries.

We intend to create and maintain market dominance through careful, considered, and continued support for and expansion of our sales and marketing relationships with:



- Sales Agents, Caterpillar dealer affiliates, NGOs, Foundations, International Development banking institutions, micro-finance banks, and international membership cooperative organizations, all of whom contribute to the placement and continued operation of the company's RainWater Makers in water-needy communities around the world, and,
- our existing RainWater Maker owners and operators.

#### Long term risk:

Ongoing risks to companies doing business in multiple countries are many, and they include, but are not limited to currency, host government's political stability and legislation, taxes, licensing and other kinds of operating regulations. To mitigate these and similar kinds of risks, SeaStar plans to engage internationally-based legal and accounting firms to assist the company in its international positioning and ongoing operations.

#### b. Negative externalities

The RainWater Maker is a manufactured product that is powered either by a source of electricity (such as an electric power grid or large wind turbine), or by a Caterpillar engine which requires a constant supply of either diesel fuel or acceptable gaseous fuel (biogas, pipeline gas, natural gas or propane). The physical acts involved in manufacturing all of the various components and subassemblies that comprise a RainWater Maker, and those same acts involved in producing and delivering required stocks of fuel are significant, and by themselves constitute negative externalities.

The same is true for the long-term operation of a RainWater Maker in a community in which the system consumes a steady supply of fuel, estimated at about 87,000 US gallons per RainWater Maker per year, and as it is an internal combustion engine, it emits a steady stream of noxious exhaust gases.

However, in any measurement of environmental sensitivity, it must be noted that the Caterpillar engines employed in the RainWater Maker comprise the most modern technologies available anywhere in the world and have the smallest total environmental footprint of any competitive engines.

In the opinion of the company's management, none of these externalities is sufficiently severe as to pose a major threat to the launch and successful conduct of its international business.

This is especially true when measured against the positive social impact the RainWater Makers will have on their host communities.





# SeaStar Ocean Social Stock Exchange Impact Report



October 2016