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## Quarterly Progress Report

Reporting Period: January 1st to March 31st, 2016

April 30, 2016

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## Project Purpose

WaterStart aims to make Nevada a global water innovation hub and portal for investment by leveraging the state's leadership and expertise in water. The WaterStart business model involves a joint venture between academic, public, and private sectors. Each partner brings critical resources to create a mechanism to accelerate the economic cycle through applied research. These resources will lead to technology commercialization that will bring high-value, shared services to a broad range of public and private sector clients as well as an advanced workforce with core technology skills and domain expertise to meet employers' needs and attract technology-focused companies to Nevada. At the same time the WaterStart's efforts will enhance Nevada System of Higher Education's goal of strengthening public private partnerships to generate additional sources of nonfederal grants and contracts. By combining the domain expertise of the NSHE institutions, SNWA, and the LVGEA, the NvCOE will:

- Act as a portal for attracting, partnering with, and servicing national and international business in the water domain.
- Deliver high-value, shared services to public and private sector clients while building job skills and assisting DETR to grow Nevada's future workforce.
- Assist with commercializing and distributing the collective domain expertise in water sciences, technology, and management areas with NSHE & Water Utility Partners (SNWA, TMWA, etc).
- Provide additional sources of grants and contracts to NSHE faculty members

## Section I: Proposal Progress

During the reporting quarter, WaterStart has made significant progress toward meeting proposed metrics. Major accomplishments for the current reporting period include:

### Major Accomplishment 1:

Initiated Projects with Three Companies – WaterStart initiated projects with 3 companies, Syrinix, Intelligent Modeling (both based in the United Kingdom) and Alaskan Aviations (a Reno-based company). These generated \$145,000 in matching funds from partners supporting these projects.

### Major Accomplishment 2:

Rebranding – WaterStart (formerly known as the Nevada Center of Excellence) officially introduced the outcome of a rebranding campaign. This included new logos, a new tagline (Channels for Innovation), and a new website ([www.waterstart.com](http://www.waterstart.com)). A press release officially launching the new brand was issued on March 17<sup>th</sup> with positive feedback. Since the launch, there have been over 4,600 visits to the new website.

### Major Accomplishment 3:

Round 3 Commercialization Fund Request for Proposals – The third open request for proposals issued by GOED and WaterStart closed on March 31<sup>st</sup>. Responses to the RFP were submitted by 13 companies interested in working with WaterStart. The origins of the companies varied from Australia, Norway, France, and Israel, as well as several U.S. companies from Nevada, Florida, Illinois, and Michigan. These proposals have been reviewed by a committee representing GOED, WaterStart, SNWA, and DRI. SNWA expressed interest in initiating a feasibility study with one company that develops hydro turbines. Several proposals related to pathogen detection were received. These technologies present a challenge because they need to complete the EPA approval process, which is lengthy and expensive. At

SNWA's urging, the committee decided to create a scientific review panel for evaluating these types of technologies with the intent to become a first adopter and assist with EPA approvals.

**Additional Accomplishments**

- Israeli Partnership Meetings – SNWA and WaterStart hosted a full day of meetings with representatives from Booky Oren Global Water Technologies and two companies from Israel. The objective of the full day workshop/meeting was to refine project descriptions, visit project locations, and begin negotiations. Representatives from GOED and LVGEA also participated in the meetings to assist with the business development needs of the Israeli companies as they assess the Nevada business landscape.
- World Water Tech Investment Conference – Nate Allen presented at the World Water Tech Investment Conference in London. The presentation, which was a part of a panel discussion on public-private partnerships where Nate highlighted the WaterStart business model and successes, received a positive reception and significant interest from other participants. While in London, Nate had an opportunity to follow up with several companies that participated in meetings during the Governor's trade mission to the UK last summer.

**Commercialization / Partnering**

Since becoming a member, WaterStart and MGM have been drafting a list of specific technology needs of which WaterStart can begin sourcing solutions. TMWA (Reno based drinking water utility) has recently finalized their list of technology needs. These technology priorities identified by MGM and TMWA will be included in the next RFP, which is expected to be opened in May.

**Intellectual Property**

NA

**Programmatic & Project Changes**

To date, WaterStart has funded \$155,000 in water technology projects from the Commercialization Fund. Based on our current pipeline of technology companies interested in doing projects we could surpass the \$250,000 of total funds currently committed to our budget. We request additional funds be made available equaling our original requested amount of \$500,000 for the Commercialization Fund.

**Looking Forward**

In the second Quarter of 2016, WaterStart is expecting to accomplish the following:

- WaterStart will be finalizing exhibitor plans and details for Singapore International Water in July (SIWW). SIWW is one of the largest gathering of buyers and sellers of innovative water technologies. WaterStart, as the Nevada Center of Excellence, debuted at SIWW two years ago. WaterStart's objective while at SIWW is to connect with international utilities, large multi-national companies, and tech companies from the Asia-Pacific region interested in breaking into the U.S. market.
- WaterStart will also be outlining the details of its participation in the Governor's trade mission to Australia this summer. Because of the climate similarities, as well as a large agriculture and

mining industry, Australia boasts technologies that could provide solutions to the southwestern U.S. WaterStart's objective during the trade mission is to connect with these tech companies and to foster relationships with these industries.

- WaterStart is expecting to finalize ongoing negotiations and begin projects with SNWA and two new companies, Ionex and FATHOM.
  - Negotiations with Ionex have been ongoing but project implementation is on the horizon. Ionex is a UK-based water treatment company specializing in solutions for treating nitrates and hexavalent chromium. SNWA has identified a project location and Ionex staff have had the opportunity to visit the site. In addition, Ionex has initiated their immigration paperwork and is eager to relocate to Nevada.
  - FATHOM is a Phoenix-based, utility-derived, smartgrid for water company. FATHOM is currently deployed on 4-million meters across 200 utilities in the U.S.. Through WaterStart, FATHOM and SNWA are currently negotiating a small-scale demonstration study of FATHOM's technology and cost-benefits analysis. FATHOM has also began discussions with TMWA. On completion, FATHOM is interested in establishing a research and development center in Las Vegas bringing 20-50 jobs to the Las Vegas area.

**Section II: Performance**

**Table 2: Progress Toward Metrics**



**WaterStart Progress Dashboard**

Metrics as defined by Knowledge Fund	Current Status/Target Status			
	Actual Q1 2016	YTD	Estimated By June 30, 2016	Estimated By June 30, 2017
Companies Moved to Nevada	2*	6*	10	15
Start-up Companies	-		-	-
Jobs Created	2	6	90	180
IP Licenses	-		-	-
IP Revenue	-		-	-
Grants Received	-		\$530,000	\$890,000
Sponsored Research:				
# of Contracts	-	2		
Total \$ Committed	-	\$100,000	\$210,000	\$250,000
Matching Funds	\$20,000	\$55,000		
Patents:				
Filed				
Awarded	4			6
Students placed with Companies	-	1		
Faculty Hired	-		4	2
Gift/Donation/Membership	-	\$165,000	\$725,000	\$1.025M
Student Internships	-	1		

Notes: \*Project has been initiated and agreement is in place with company committed to moving to Nevada.

## Project Scorecard Narrative

Companies Moved to Nevada: Projects have been initiated and agreements signed with two companies from the UK- Syrinix and Intelligent Modeling.

- Syrinix develops technology for detecting leaks and potential pipe failures at a very early stage. Their sales have primarily been targeted to the UK market and have been seeking an opportunity for expansion into the U.S. SNWA will be testing and demonstrating their product called PipeMinder at 10 locations within their infrastructure. Syrinix is currently developing their business plan, which includes considerations for developing supply chains and manufacturing options for lithium batteries and other product components as well as a location for hosting their data servers.
- Intelligent Modeling, a technology company utilizing satellite imagery to map pluvial flood water pathways to predict flooding, has initiated two demonstration projects within the Las Vegas Valley, has established a local office, and begun hiring.

Start-up Companies:

Jobs Created: 2 jobs have been created during Q1: 1 new position within Echologics and 1 within Intelligent Modeling.

IP Licenses:

IP Revenue:

Grants Received:

Sponsored Research: This category now includes a new line item called Matching Funds. Matching funds is defined as additional funding (in-cash) leveraged by the commercialization fund and provided by partners to support projects. During Q1, \$20,000 has been matched to support projects facilitated by WaterStart:

- SNWA matched funds in the amount of \$20,000 to support the project with Syrinix
- In addition, GOED contributed \$125,000 to support Alaskan Aviations ( a Nevada company) for the project titled Development of Unmanned Aircraft Systems for Agricultural Applications, however this amount is not included in the total Matching Funds for Knowledge Fund metrics.

Patents:

Students Placed with Companies:

Impact Faculty Hired:

Gifts/Donations: Correction- the total memberships from Q4 should equal \$90,000, not \$100,000 as reported.

Student Internships:

### Section III: Budget

In the first quarter of 2016, the third quarter of the Phase 2 grant from the Knowledge Fund, the total expenses of the Water Center of Excellence were over the projected quarterly budget. Total Salary & Benefits expenses were under the projected amount although all the projected positions have been filled. Travel expenses were under the projected levels. No significant purchases were made or are projected to be made. Other Direct Costs includes: Marketing (\$15,000.00), General Admin (\$8213.21), International Representation (\$53,758.34), and Commercialization Fund (\$85,754.71) expenses. Due to significantly increased activity related to marketing, technology company recruitment, and initiating pilot projects these expenses are \$89,226.26 over budget for this quarter. The Water Center of Excellence does not anticipate directly funding Graduate Tuition. In total, WaterStart is over budget for this quarter by \$73,891.95.

<b>Water Center of Excellence Expenditures</b>			
For Reporting Period			
Jan. 1 – March 31, 2016			
	<b>Q1 Actuals</b>	<b>Q1 Budget</b>	<b>Year to Date</b> Jul 1, 2015-Mar 31, 2016
<b>Total Salary &amp; Benefits</b>	\$ 118,832.70	\$ 134,000.00	\$ 323,113.06
<b>Equipment</b>	\$	\$	\$
<b>Travel</b>	\$ 7332.99	\$ 7,500.00	\$ 28,933.55
<b>Other Direct Costs</b>	\$ 162726.26	\$ 73,500.00	\$ 281,355.78
<b>Graduate Tuition</b>	\$	\$ -	\$
<b>Total</b>	<b>\$ 288,891.95</b>	<b>\$ 215,000.00</b>	<b>\$ 633,402.34</b>

In the first quarter of 2016, the third quarter of the Phase 2 grant from the Knowledge Fund, the total income of the Water Center of Excellence was under budget. Other contributions made through membership dues were over what was budgeted. The total to be billed to the Knowledge Fund for this past quarter is over the projected funding amount for this past quarter.

<b>Water Center of Excellence Income</b>			
For Reporting Period			
Jan 1 – March 31, 2016			
	<b>Actuals</b>	<b>Budget</b>	<b>Year to Date</b> Jul 1,2015-March 31, 2016
<b>Grants / Contracts*</b>	\$ 0	\$ 225,000.00	\$ 131,080.00
<b>Gifts</b>	\$	\$	\$ -
<b>Cont. ED/ Outreach</b>	\$	\$	\$ -
<b>Other Contributions*</b>	\$ 50,000.00	\$ 80,000.00	\$ 195,000.00
<b>Knowledge Fund</b>	\$ 288,891.95	\$ 230,000.00	\$ 623,173.91
<b>Total</b>	<b>\$ 338,891.95</b>	<b>\$ 535,000.00</b>	<b>\$ 949,253.91</b>