

**INTERNATIONAL CENTRE FOR STURGEON STUDIES
FINAL REPORT TO ISLAND COASTAL ECONOMIC TRUST
NOVEMBER 30, 2011.**



“The International Centre for Sturgeon Studies will become a knowledge and innovation hub supporting the development of a sustainable sturgeon aquaculture industry in BC”

TABLE OF CONTENTS

Project Overview.....	1
Project Goal.....	1
Objectives.....	1
Project Description	2
ICSS Floor Plans	4
Funding Partners.....	5
Construction.....	5
Pictorial overview	5
Design and Construction Team	11
Events – Photo Gallery	11
Economic Impacts	14
Ongoing Activities	15
Appendices.....	17
1 - Letter from the Honourable Lynn Yelich, Minister of Western Diversification	17

PROJECT OVERVIEW

VIU International Centre for Sturgeon Studies – A Knowledge and Innovation Hub

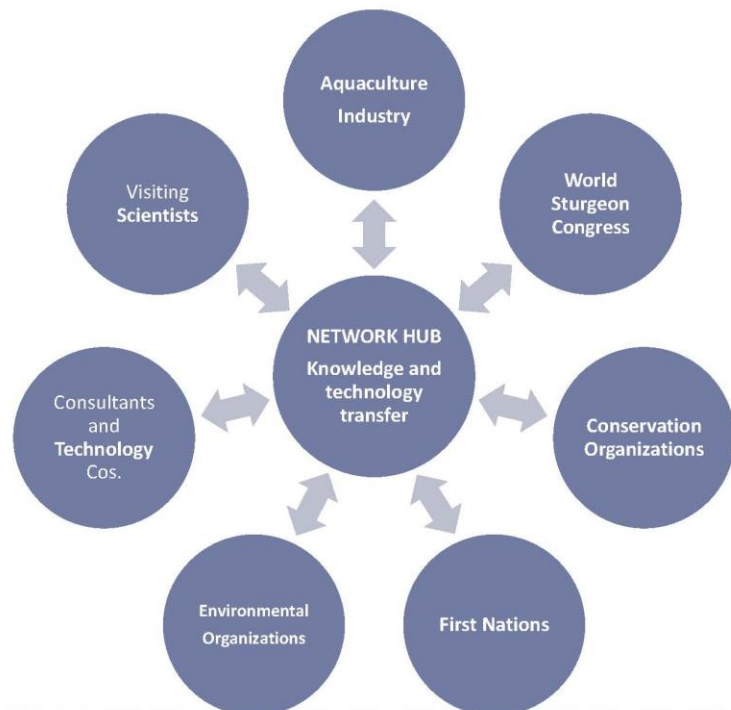
Project Goal

This multi-partner funded infrastructure projects sought to build a state of the art 13,000 sq. ft research facility on VIU's Nanaimo campus. The ICSS building was completed in January 2011. Some of VIU's sturgeon stocks have been moved into the facility and final fit-out of the wet labs is ongoing. The project was completed on time and budget.

ICSS Mission

With the only white sturgeon broodstock at an academic institution in Canada, the ICSS will act as a “business incubator” by:

- Maintaining a healthy White Sturgeon broodstock
- Forming academic / industrial commerce partnerships to provide a secure source of eggs, fry and juveniles to commercial grow-out operators – to grow an industry
- Building on existing models of collaborative success (e.g. as with Target Marine Hatcheries Inc.)
- Becoming a knowledge and Innovation hub to produce, acquire and share the latest scientific knowledge on white sturgeon to BC aquaculture producers and conservation organizations



Project Background

For over 200 million years, sturgeon have been swimming the waters of the world. They outlived the dinosaurs, yet in less than one sturgeon's lifetime, humans have brought this prehistoric fish to the brink of extinction. Almost all species and populations worldwide are in trouble.

Vancouver Island University (VIU) in Nanaimo, British Columbia, has been working with the white sturgeon since 1984 conducting field and laboratory research projects as well as teaching students and the general public about these amazing fish. VIU has also supported the development of the first commercial aquaculture company, Target Marine Hatcheries, that produces sturgeon caviar and meat. To continue developing sturgeon research, VIU has reached a stage that requires an expansion of its facilities. The World Sturgeon Conservation Society has also identified the need for a dedicated sturgeon research centre in North America. To fill these needs, VIU proposed the construction of the International Centre for Sturgeon Studies (ICSS) on campus.



Dual Purpose Applied Research is Imperative

The further development of a commercial sturgeon aquaculture industry as well as efforts to support the conservation of these important fish will require an integrated and collaborative research approach. The ICSS will bring together research activities at the regional, national and international levels involving commercial, conservation and

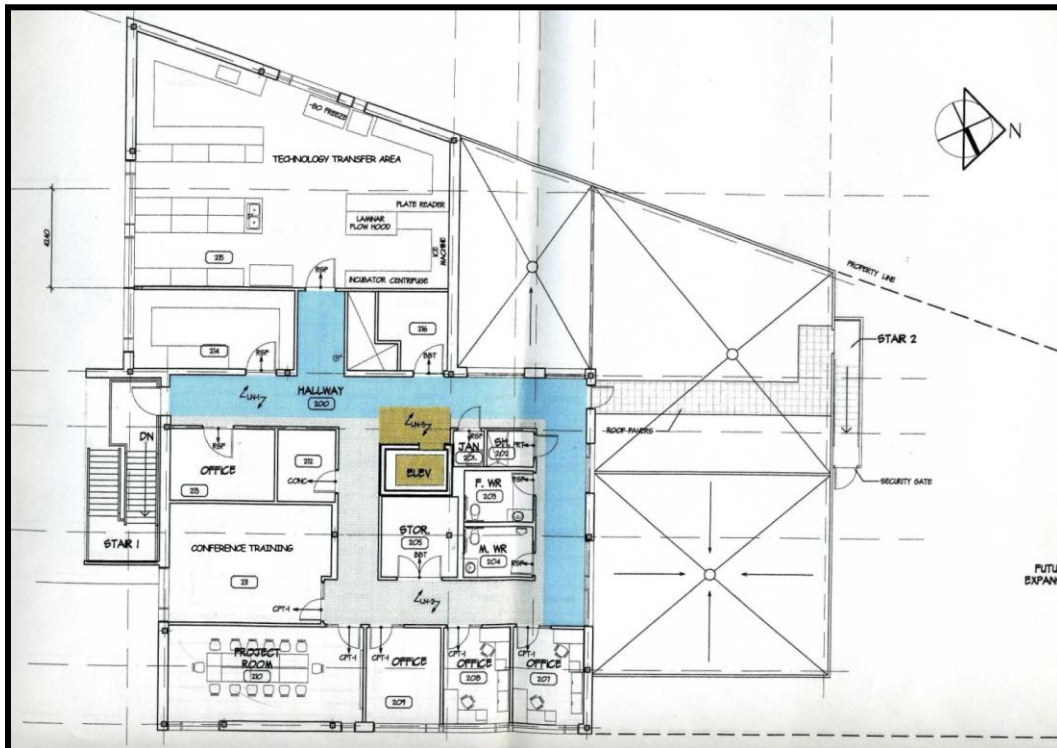
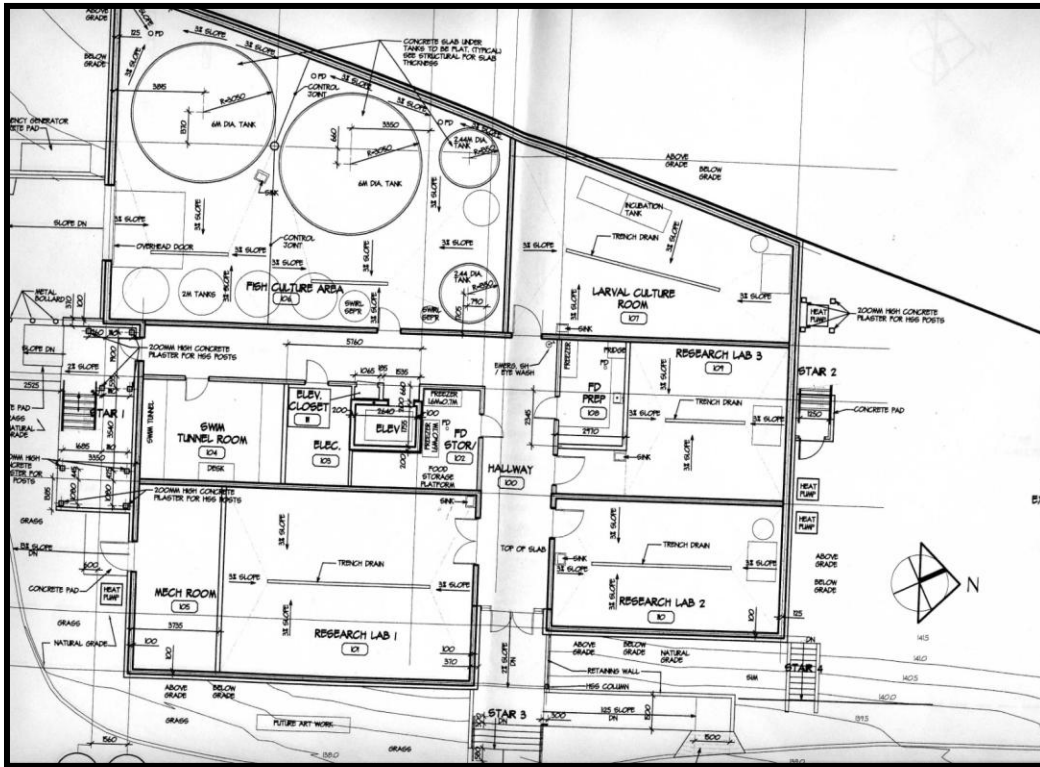
enhancement interests. It will provide facilities for controlled research projects producing peer-review quality scientific research that can be applied in both the aquaculture and conservation sectors. The ICSS will become a place where institutions, government, First Nations, industry and non-governmental organizations can consolidate their activities and learn from each other. The research proposed for the ICSS will have application in support of both the development of a sustainable sturgeon aquaculture industry in BC as well as supporting white sturgeon conservation and restoration initiatives.

A research network will be assembled that includes world-class and emerging new scientists from across Canada, the United States and internationally (Russia, Germany, Iran, France and Italy).

In addition to a research facility, the ICSS will be a place where students and the general public can go to learn about and appreciate these unique “living fossils”. At present, VIU hosts over 1000 visitors a year to their hatcheries.



ICSS Floor Plans



FUNDING PARTNERS

Funding for the ICSS was obtained from the following partners:

- Canada Foundation for Innovation
- BC Knowledge Development Fund
- Island Coastal Economic Trust
- Western Diversification – Community Futures West CCAP
- Marine Harvest Canada
- Vancouver Island University

CONSTRUCTION HISTORY

June 2009

- Site preparation has begun
- Project is out to tender
- Construction is slated to begin in Summer 2009

October 2009

- Ledcor Construction begins erecting forms for foundations and walls





November 2009 to January 2010

- More forms are erected
- Foundations are all poured
- Concrete walls are poured for almost the entire first level



February 2010

- First level walls completed
- Plumbing and electrical ground works completed
- First level concrete floor is poured



March 2010

- Hollow-core second level floor is installed



April to May 2010

- Steel structure for second level walls and roof is installed
- Second level concrete floor and roof are poured



May to June 2010

- Backfilling, mechanical and electrical rough ins
- Block and steel stud wall construction
- Painting





July to August 2010

- Ducting, plumbing and electrical being installed
- Roof and second floor walls completed



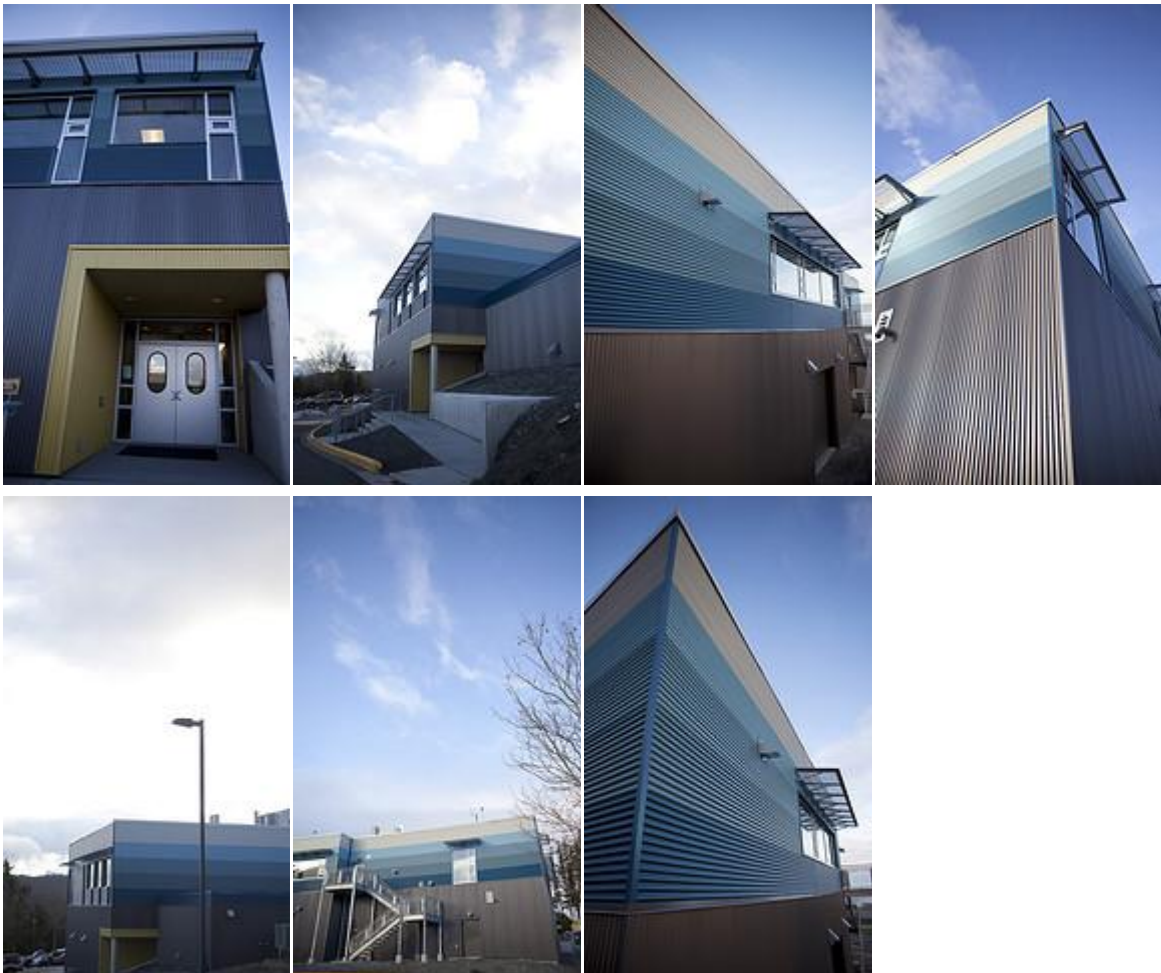
September 2010

- Building nearing completion
- Siding being installed



January 2011

- Building completed



Design and Construction Team

Jensen Chernoff Thompspon Architects
Herold Engineering Ltd.
MMM Group
Ledcor Group of Companies
Cobalt Engineering LLP
Herold Engineering Ltd.
Aquacare Environment Inc.

Architects
Structural Engineers
Electrical Engineers
Construction Managers
Mechanical Engineers
Civil Engineers
Recirculation System

EVENTS

Conferences



World Sturgeon Conservation Society – North America Chapter, 2011 annual meeting at VIU and ICSS. VIU hosted 121 delegates from as far away as Russia, Iran, Italy, France, Germany and China. The 3 day event was a great success. The Executive of the World Sturgeon Society attended the NAC meeting and held a planning meeting for the 7th International Symposium on Sturgeon to be held in Nanaimo in July 2013 at the Vancouver Island Convention Centre.

Western Diversification Funding Announcement



Left to Right. Dr. David Witty, VIU VPAP; Kyla Mohns, VIU Student; Andrew Saxton, MP and Parliamentary Secretary for Western Diversification; Lenora Turcotte, VIU Student; Don Tillapaugh, ICSS Director; Steve Atkinson, Sturgeon Farmer



Spawning, June 2011.



ICSS – Grand Opening, October 3, 2011.



Left to Right. Justin Henry, GM Target Marine Hatcheries caviar producer; Mike Brown, VIU Board Chair; Ken McCrae, Mayor Port Alberni and ICET Director; Phil Kent, Mayor Duncan and ICET Director; Joe Stanhope, ICET Board Director; Alden Thom, youngest donor to ICSS; Dr. Gilles Patry, President and CEO Canada Foundation for Innovation; Don Tillapaugh, ICSS Director; Dr. Ralph Nilson, VIU President and Vice Chancellor



FINANCIAL REPORT

A financial report of this project will be submitted under separate cover from the VIU Finance Department following the template provided by ICET.

ECONOMIC IMPACTS

During the course of construction over 473 man-months of full-time employment were created. In addition, many additional volunteer hours were invested by VIU faculty and staff. Local experts in recirculation technology were employed as sub-contractors.

The following staff positions are currently in place at the ICSS

- Half-time Director – Don Tillapaugh
- Full-time sturgeon technologist – Dave Switzer
- Half-time – administrative assistant – Simah Dodd
- Part-time and week-end fish culture assistants provide the necessary coverage to ensure fish are secure and fish health is maintained.

Discussions are underway with government agencies and funding programs to assemble the required funding to attract and retain our first research scientist. We expect this position to be filled in 2012.

Another BC aquaculture company, Taste of BC Aquafarms Inc. began growing sturgeon for meat as a result of ICSS activities during this inaugural year.

ONGOING ACTIVITIES AT ICSS

Projects.

A research proposal to study white sturgeon early life history was submitted to the Habitat Conservation Trust Fund in October 2011 by Dr. Peter Allen of the University of Mississippi along with Dr. John Morgan from VIU, using ICSS sturgeon juveniles.

Discussions have been held with Canadian Cryogenics and the Freshwater Fisheries Society of BC to undertake a joint research project on the efficacy of cryogenic technology on white sturgeon milt. The outcome of successful application of this project would have positive benefits for both aquaculture producers and conservation initiatives underway in BC.

Egg and juvenile production. Two females were spawned using the expression technique (rather than Caesarian section). 90,000 eggs were fertilized. Approximately 40,000 fry were successfully hatched.

Commercial activities. Taste of BC Aquafarms Inc. (Mr. Steve Atkinson) received 15,000 fry from this year's production to begin their first trial run at sturgeon farming.

Commissioning. The commissioning process for the ICSS building found a few small issues which are being rectified. However, the freshwater recirculation systems supporting all fish culture operations have not met performance expectations. This has required additional time and effort to ensure fish population health is maintained. Staff are in ongoing contact with the system designers and installers so that the necessary steps are taken to ensure the system is brought into line so that it operates, reliably, consistently and with high water quality necessary to support fish husbandry and research needs.

ICSS Fit-out. Additional funding received from Western Diversification provided the financial resources required to completely fit-out the wet labs and dry-lab infrastructure of the ICSS. New recirculation systems will be installed in the remaining labs once the current design/operational issues have been successfully resolved.

7th International Sturgeon Symposium. Preparations are underway for VIU and the City of Nanaimo to co-host the 7th International Sturgeon Symposium from July 21- 25, 2013. Over 600 international delegates are expected to attend. The Vancouver Island Conference Centre has been booked and hotel agreements signed to secure blocks of rooms. A web-site company has been retained and the web-site will be operational by February 2012.

Thank you

On behalf of the Vancouver Island University Executive and Board of Governors, the Faculty of Science and Technology and the Fisheries and Aquaculture Department, I would like to sincerely thank the Island Coastal Economic Trust for facilitating the vision of an International Centre for Sturgeon Studies at VIU. This facility will be instrumental in supporting sustainable sturgeon farming as another vibrant economic activity for BC.



Sincerely,

A handwritten signature in blue ink that reads "Don Tillapaugh".

Don Tillapaugh
Director
International Centre for Sturgeon Studies

Appendix 1

Minister of State
Western Economic Diversification



Ministre d'État
Diversification de l'économie de l'Ouest



I would like to offer my congratulations to Vancouver Island University on the opening of North America's first International Centre for Sturgeon Studies in Nanaimo, British Columbia.

Our Government is proud to have supported this project, as these investments are helping bring about a more prosperous economic future for us all. Already the centre is conducting important research, promoting education, and strengthening the development of a sturgeon aquaculture industry.

On behalf of the Government of Canada, I would like to thank everyone who has helped make the International Centre for Sturgeon Studies possible. Together, we are all working to build a stronger West for a stronger Canada.

Je tiens à féliciter l'Université de l'Île de Vancouver à l'occasion de l'ouverture du tout premier centre international d'étude de l'esturgeon en Amérique du Nord situé à Nanaimo, en Colombie-Britannique.

Notre gouvernement est fier d'avoir soutenu ce projet, car ces investissements aident toute la population à se préparer un avenir plus prospère. Le centre effectue déjà d'importantes études, il contribue aussi à approfondir les connaissances et à renforcer l'industrie aquacole de l'esturgeon.

Au nom du gouvernement du Canada, je tiens à remercier toutes les personnes qui ont contribué à la réalisation du centre international d'étude de l'esturgeon. Nous collaborons tous à renforcer l'Ouest pour édifier un Canada plus fort.

The Honourable / L'honorable Lynne Yelich
October / octobre 2011

Canada 



VANCOUVER ISLAND
UNIVERSITY

International Centre for Sturgeon Studies
Vancouver Island University
Period: September 2009 to November 2011

Project Expenditures

Construction, Materials and Equipment	\$	3,934,388
Engineering and Design		493,131
Project Management		271,517
Gifts in kind		45,370

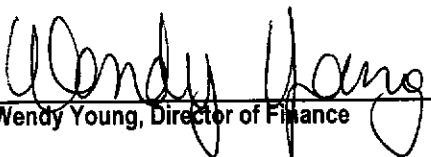
Total Expenditures	\$	4,744,406
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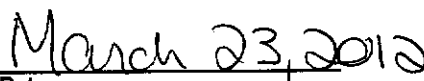
Project Income

Canadian Foundation for Innovation	\$	1,600,000
BC Knowledge Development Fund		1,600,000
Island Coastal Economic Trust		1,139,842
West Coast Community Adjustment Program		250,000
Marine Harvest		109,194
Gifts in Kind - equipment		45,370

Total Income	4,744,406
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I hereby certify that this statement accurately represents all the project expenditures and all sources of project funding


Wendy Young, Director of Finance


Date