

Quarterly Project Report

1. Team Identification

Project Team: Project Coordinators ▼

Budget Year: 2019

Quarter: Q1

2. Scope - Highlights of the Period

Person Days: 0

Accomplishments

- Completed and submitted the 2017-2018 NSERC progress report
- Coordinated and hosted the 2018 RAC meeting, and the BaySys All-Hands Workshop
- Completed the BaySys Amundsen Leg 1 Cruise report
- Updated the BaySys project timeline
- Recieved project extension approval from Manitoba Hydro and began to prepare documents for extension approval from NSERC
- Organized the development of the BaySys sub-group
- created a masterlist of publications that will come out of the project.

Missed Targets No missed targets this quarter.

3. Activity Tracking

<i>ID</i>	<i>Task</i>	<i>% Complete</i>	<i>Status</i>
58	Task 0.4 Field Mobilization	100	Complete
59	Task 0.5 Field Data Acquisition and Pr...	80	Nearing completion as field data continues to be

4. Risk And Issue Updates

<i>ID</i>	<i>Risk Event</i>	<i>Status</i>

5. Budget Information

CURRENT QUARTER SPENDING

Amounts are the cumulative totals to the end of the reporting period.

1. Salaries and Benefits

a) Graduate Students	\$0	n/a
b) PDF's	\$0	n/a
c) Technical Staff	\$62,114.82	Salary payments to: David Landry; Jennifer Lukovich; Greg McCul

2. Equipment or Facility

a) Purchase or Rental	\$0	n/a
b) Operations and Maintenance Cost	\$8,861.03	Equipment shipments and repairs

3. Materials and Supplies

\$5,662.05	Instrument purchases
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4. Travel Expenses

a) Conferences	\$0	n/a
b) Field Work	\$0	n/a
c) Project Related Travel	\$9,573.31	For BaySys HQPs to travel to and from Winnipeg for the BaySys A
d) Central Planning Meetings	\$5,884.5	Food and Parking Passes for BaySys All-Hands/RAC and other me

5. Dissemination Costs


\$0	n/a
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Total **\$92,095.71**

OTHER ORGANIZATIONS IN-KIND CONTRIBUTIONS

Organization	Contribution	Description
Total	\$0	

6. Budget Explanation

Budget Statement	Hydro budget is in good order for the current fiscal year. Waiting for next installmer
Cash Contributions	
Expenditure Tracking	 Click here to attach a file

7. Research Team

<i>Team Member</i>	<i>Overview of Participation and Scientific Contributions</i>
Claire Herbert	Data Manager - Continues to update and improve access to CanWIN system
David Landry	Project Coordinator - Ensures all team have what they need to succeed, co...
Emmelia Wiley	Equipment Manager - Processing all instrument repairs/calibrations and shi...
Lauren Candlish	Senior Research Manager - Oversees all aspects of BaySys project progress
David Barber	BaySys Project Academic Manager
Kevin Sydor	BaySys Project Industry Manager

8. Other

Please provide any additional information/comments as required.

[<< Reasearch Team](#)

Before submitting the form, please confirm that the information contained in this report is complete and accurate to the best of your knowledge.



Upon clicking submit the report will be saved as:

BaySys Quarterly Status Report - Project Coordinators 2019 Q1

Submit

It will then automatically be sent for review and approval by the project team.

Txt Report Status:

Draft In Progress

Quarterly Project Report

1. Team Identification

Project Team: Marine Ecosystem ▼

Budget Year: 2019

Quarter: Q1

2. Scope - Highlights of the Period

Person Days: 11

Accomplishments

- All students, two researchers (Tremblay, Lovejoy) and one RA (Deslongchamps) attended the All-Hands BaySys workshop at University of Manitoba in November 2018.
- HQPs presented their results at the Quebec-Ocean Annual Meeting (Barbedo, Jacquemot, PierreJean, Schembri; Rivière-du-Loup, November 2018) and at the ArcticNet Annual Science Meeting 2018 (Jacquemot, PierreJean, Schembri, Deschepper; Ottawa, December 2018).

Deschepper

- Deschepper was able to debug the NEMO-BIGCIIM model coupling to a sufficient level.
- She completed an internship of 6 weeks in Prof. Paul Myers' laboratory in University of Alberta, Edmonton this fall. It was the second in 2018 in order to complete the development of the coupled NEMO-based ice-ocean dynamic plankton model.
- She presented her preliminary results at the ArcticNet Annual Science Meeting 2018 about "Biogeochemical modelling of coupled pelagic and sympagic ecosystems in a rapidly changing Hudson Bay". At the same venue, she also presented the work of a fellow PhD candidate who could not attend: "Modelling Greenland icebergs: Their pathways as solid ice and meltwater".

PierreJean

- PierreJean started the identification of epibenthic organisms (sampling in 2018) and the modelization of spatial distribution of epibenthic communities with historical data and recent data (2017). The model highlighted 5 areas with a high taxa richness predicted: James Bay with more than 60 taxa richness predicted, the East of the Bay with more than 40 taxa richness predicted, the center of the Bay with almost 30 taxa richness predicted, the East of SI EBSA with 20 taxa richness predicted and the Roes Welcome Sound polynya with 10 taxa richness predicted.
- Next steps will be to finish the identification of benthic organisms (sampling in 2018) and to start the modelization of spatial distribution of benthic communities (incorporating all data).
- PierreJean also participated to the redaction of the IRIS Hudson Bay

Moreau also participated to the reduction of the 1913 Hudson Bay Marine Region and the the report Southampton Island CSAS (DFO).

Lee

- Lee kept working on his data. He found that nitrate concentrations in the main three rivers (Churchill, Nelson and Hayes) are higher especially in winter and that nutrient compositions such as nitrate to phosphate and silicate to nitrate molar ratios are different between regulated and unregulated rivers. For the Hayes river (natural condition), there is a positive relationship between organic nitrogen concentrations and daily river discharges.

Schembri

- Schembri finish the analysis of Arctic cod data in Hudson Bay for freshwater winter refuge hypothesis and further analysis on spatial differences of zooplankton assemblages in Hudson Bay.
- She also sorted out some fish larvae caught during the 2018 BaySys cruise that were not identify fully on the ship.

Matthes

- Matthes advanced her analysis of samples and sensor data collected during the cruise onboard the CCGS Amundsen, which included a trip to the Alfred-Wegener-Institute in Germany in September/October to analyze algal pigment samples, while working up the particulate organic carbon and nitrogen and optical sensor datasets.
- She also presented an outline of the BaySys manuscripts during the BaySys workshop in November 2018 in Winnipeg.

Dalman

- Dalman successfully defended her MSc thesis in December. She has been hired as a Research Associate under the supervision of Dr. Barber as of January 1, 2019 with plans to write up her BaySys thesis chapter into a manuscript format by summer 2019 in order to submit to the BaySys special issue.

Barbedo

- Barbedo kept working on the processing and analysis of in situ radiometric data set collected during the 2018 BaySys expedition.

Jacquemot

- With the aid of an undergraduate intern (Carlee Morency), Jacquemot extracted and sequenced RNA and DNA amplicons from 42 samples from the Nelson River (Eukaryotes large and small fraction) and 40 samples in the from the Churchill River (bacteria and eukaryotes). From this he now has 16 million raw reads that are being processed.
- He also ran flow cytometry samples to count bacteria, and

phytoplankton concentrations from the Churchill River.

Missed Targets

- None for this quarter.

3. Activity Tracking

ID	Task	% Complete	Status
41	Task 3.1 Assess the timing of Primary ...	50	Main sampling was done during the 2018 Amund
42	Task 3.2 Estimate the magnitude of Pr...	80	Main sampling was done during the 2018 Amund
43	Task 3.3 Evaluate nutrient processing ...	50	Main sampling was done during the 2018 Amund
44	Task 3.4 Phase 1 Biogeochemical mod...	100	Completed.
45	Task 3.4 Phase 2 Biogeochemical mod...	90	On track.

4. Risk And Issue Updates

ID	Risk Event	Status

5. Budget Information

CURRENT QUARTER SPENDING

Amounts are the cumulative totals to the end of the reporting period.

1. Salaries and Benefits

a) Graduate Students	\$24,781	Salaries for HQPs
b) PDF's	\$7,697	Salaries for RA
c) Technical Staff	\$0	No Expense

2. Equipment or Facility

a) Purchase or Rental	\$0	No expense
b) Operations and Maintenance Cost	\$0	No expense

3. Materials and Supplies

\$906 Material and chemicals for laboratory and fieldwork

4. Travel Expenses


a) Conferences	\$880	Participation in ArcticNet Meeting in Ottawa (will be reimbursed
b) Field Work	\$0	No Expense
c) Project Related Travel		

	\$4,342	Travel expenses for pigment analyses at AWI in Germany (Matthe
d) Central Planning Meetings	\$0	No Expense
5. Dissemination Costs	\$159	Poster Printing Fees for ArcticNet Meeting
Total	\$38,765	

OTHER ORGANIZATIONS IN-KIND CONTRIBUTIONS

Organization	Contribution	Description
University of Laval	15,000	Contribution from Laval University
Total	\$15,000	

6. Budget Explanation

Budget Statement	All expenditures have been done according to schedule. The only deviation from th
Cash Contributions	
Expenditure Tracking	 Click here to attach a file

7. Research Team

Team Member	Overview of Participation and Scientific Contributions
Frederic Maps	Supervising and training HQP Deschepper.
Jean-Eric Tremblay	Supervising nutrient database and supervising HQPs Deslongchamps, Gagn...
Louis Fortier	Supervising and training HQP Schembri.
Connie Lovejoy	Supervising and training HQP Jacquemot.
Simon Belanger	Supervising and training HQP Barbedo de Freitas
Philippe Archambault	Supervising and training HQP Marie PierreJean.
C.J. Mundy	Supervising and training HQPs Matthes and Dalman.
Gabriele Deslongchamps	Working on nutrient database, coordinating planning, reporting, communic...
Jonathan Gagnon	Preparing equipment and consumables for sampling, contributes to sampli...
Sylvain Blondeau	Preparing equipment and rosette data.
Inge Deschepper	Working on her project. Participated to a 4-month internship in Dr Paul My...
Sarah Schembri	Working on her project. Participated to the 2018 BaySys cruise (leg1) onboa...
Loïc Jacquemot	Working on his project. Participated to the 2018 BaySys cruise (leg1) onboa...
Lucas Barbedo de Freitas	Working on his project. Participated to the 2018 BaySys cruise (leg1) onboa...
Janghan Lee	Working on his project. Participated to the 2018 BaySys cruise (leg1) onboa...
Lisa Matthes	Working on her project. Participated to the 2018 BaySys cruise (leg1) onboa...
Laura Dalman	Working on her project. Participated to the 2018 BaySys cruise (leg1) onboa...

8. Other

Please provide any additional information/comments as required.

[<< Reasearch Team](#)

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BaySys Quarterly Status Report - Marine Ecosystem 2019 Q1

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Txt Report Status:

Draft In Progress

BaySys Project – Individual Team Quarterly Update

Date Submitted: Jan 25, 2019 (Period between Oct 01 and Dec. 21, 2018)

Budget Year Ending: Dec 31, 2019 Quarter: Q1

1. TEAM IDENTIFICATION

Team Number: 4
 Team Name: Carbon Cycling
 Prepared by: Tim Papakyriakou
 Submitted by (University Team Lead): Tim Papakyriakou

2. SCOPE - HIGHLIGHTS OF THE PERIOD

Number of person-days in the field this quarter:

person-days, as detailed below:

Accomplishments

- Presented 2 oral presentations at ArcticNet 2018 in Ottawa, ON.
- Completed IRIS chapter on Hudson Bay Carbon Cycle
- Completed DIC/TA analysis of zodiac/surface water sampling (Else lab)
- Completed DIC/TA from river sampling
- 6 HQP, 4 Principal Investigators participated in All Hands Meeting. Winnipeg, MB – November, 2019 – Brent Else, Lisa Miller, Mohamed Ahmed, Celine Guéguén, Sohidal Islam, Inge Deschepper, David Capelle, Tim Papakyriakou, Zou Zou Kuzyk, Samantha Huyghe.
- Completed 13C-DIC, POC/PLC analysis. 18O analysis and DOC/N to be completed in February. DIC (seawater) to be completed in March or April

Missed Targets

None.

3. TASKS AND COMPLETION STATUS

ID	Task	%Complete	Status
46	4.1 Fall Cruise	100	On Track cruise & sample analysis complete
47	4.2 Winter Camp	100	On Track field program & sample analysis complete
15	2.1 Safety Training	100	On Track students and staff requiring training receive training

BaySys Project – Quarterly Update

18	Procurement, preparation and calibration of sensors/supplies	60	On Track Majority of supplies procured and sensors prepared.
25	3.3 Bay-Wide Survey	60	On Track Cruise cancelled in 2017 and rescheduled for 2018 Cruise is now complete, and awaiting sample analysis for some variables from collaborating laboratories.
82	4.9 Contemporary river discharge impacts on the regional CO2 source/sink status -- Analysis of remote sensing data	15	On Track HQP (Calgary) successfully completed his candidacy exam & and familiarized with existing remote sensing retrieval algorithms. -Field sampling completed -Monthly river water sampling
80	4.9 Contemporary river discharge impacts on the regional CO2 source/sink status - photochemical reduction of OC to IC	15	On Track HQP (Trent) successfully defended his thesis proposal and has scheduled candidacy exams.
71/83	4.8 Biogeochemical Modelling & 4.10 Anticipated future regional CO2 source/sink status of the Bay	15	On Track HQP (PhD 5 shared with Team 3, Laval) successfully completed her candidacy exam and familiarizing with needs for biogeochemical modeling within NEMO. Are arranging for the student to spend time at University of Alberta and she is already in contact with other graduate students there.

Completed **On Track** **Potential Issue**

4. UPDATE RISKS/ISSUES

Update Existing Risk Items	
Risk Item	Status
ID= 2; Sequence of data analysis and model output causes a delay	Normal – entering into the field and modeling phases and are cognizant of our modeling needs.
ID=15; Heavy ice restricts planned Bay-wide survey	Normal – work out contingencies using helicopter
ID=82; Ship-based sensors damaged by elements	Normal – work out contingencies
ID=48; Bay-wide survey of Amundsen	High. Data is needed for Task 4.9 Contemporary river discharge impact on CO2 sources/sink status (T4H1) Task 4.10 Future source/sink status (T4H2)
	On Task 4-9, we have data on river discharge during the winter and fall and have sampled a variety of estuaries

	<p>during the fall season. We've collected data in support of a detailed study of the Nelson C input to the Bay and have data examining the response of the estuary to C received from the river. We had routine collection of river water from Limestone GS on the Nelson and on the Great Whale in support of objectives. We were able to undertake extensive sampling of river water on the western and southwestern rivers of Hudson Bay, but lack extensive coverage of rivers on the eastern shore. Although we had planned to sample several rivers during leg 2A, poor weather prevented sampling via the ship helicopter and hence have 1 of 4 rivers we had hope to sample sampled on that shore. This is not critical as the geology and vegetation of the watershed missed is similar to that sampled.</p> <p>On Task 4.10, the HQP (PhD 5) in Laval is working on the biochemical model in conjunction with the ecosystem modelling initiative (Task 4.8). She has data from 2005 and 2010, in addition to the data we will relay to her from the fall and winter program, and she will receive data, and interpretation of the data in the coming months. Her work is behind schedule owing to the year delay in the Amundsen Hudson Bay cruise.</p> <p>All other HQP affected by the delay in the cruise are behind schedule, (PDF - Dave Capelle and PhD2 Ahmed) but are actively working to make up for lost time.</p> <p>PhD2 is making progress - Mohamed Ahmed. His task is the development of a remote sensing product to made pCO2 and flux distribution in the Bay. As mentioned above (text on task 4.9), the lack of data from a comprehensive summer cruise in the Bay is has slowed progress, although much preparation has been accomplished with past datasets from the Amundsen. With the Bay Wide survey now complete, and samples successfully collected, we anticipate significant work towards accomplishing Task 4.9.</p>
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5. BUDGET TABLES / 6. EXPLANATION

5.1. Salaries and Benefits

a) Graduate Students			
Calgary	875.01	Ahmed (PhD)	
Trent	600.00	Islam (PhD)	
UManitoba	814.48	Yezhova, Mandryk	

BaySys Project – Quarterly Update

	UManitoba	2,500.00	Kazmiruk
b) PDF's			
	Calgary	15,888.70	Butterworth
	UManitoba	13461.03	Capelle
c) Technical Staff			
	Umanitoba	-8869.71	Transferred expenses to GHG fund
5.2. Equipment or Facility			
	a) Purchase or Rental		
b) Operations and Maintenance Cost			
	UManitoba	1276.14	shipping costs
5.3. Materials and Supplies			
a) Materials and Supplies			
	UManitoba	-8600.11	Transferred expenses to GHG fund
5.4. Travel Expenses			
a) Conferences			
b) Field Work			
	UManitoba	-4984.19	Expenses paid for by Coast Guard reimbursement
c) Project related travel			
d) Central planning meetings			
5.5. Dissemination Costs			
	a) Dissemination Costs		
Total Expenses		12961.04	
5.6. Other organizations and in-kind contributions			
	Calgary	12,500.00	Cash: Scholarship to PhD student Ahmed and 30% PDF salary of Butterworth
	Trent	5,705.00	Cash: Scholarship to PhD student Islam
	UManitoba	8,700.00	In-kind: 60% salary of S. Luque this quarter
	UManitoba	3,937.00	In-kind: 25% salary of E. Wiley this quarter
	UManitoba	2,600.00	In-kind: 25% salary of L. Chow this quarter
	ArcticNet, MEOPAR	10,000.00	Graduate Stipends for MSc #1, MSc#4
	NSERC USRA	3,281.32	Scholarships for summer undergrad students (Mandryk and Yezhova)
Total In-Kind Contributions		43442.00	

7. RESEARCH TEAM

Please provide an overview of the participation in and scientific contributions to the project for each member of the research team (principal investigator, co-investigators, collaborators, company and government scientists, research associates, postdocs, students, etc.).

Team Member	Overview of participation and scientific contributions to the project
Bob Gill (Manitoba Hydro)	Industry oversight
Tim Papakyriakou (UM)	Project lead. Recruitment. Steering committee meeting and field planning.
Brent Elise (University of Calgary)	Recruited PhD student to begin work on Task 4.4 (remote sensing of carbon system) and Post Doc working on ship-based flux
Mohamed Ahmed (University of Calgary, PhD)	Completed candidacy exam. (Task 4.4)
Celine Gueguen (Trent University)	Recruitment of PhD student and began work on photochemistry (H4.1)
Sohdul Islam (Trent PhD)	Photodegradation of DOM (H4.1)
Lisa Miller (IOS, DFO)	Analysis of water samples from fall and winter BaySys experiments
Zou Zou Kuzyk (UM)	Recruitment and field planning (H4.1 & 4.2). Organic carbon system and sediment analysis
Zakhar Kazmiruk (UM PhD)	Preparation: mineralization of organic matter in the estuary and Bay (H4.1); Fall cruise and one leg of Winter program
Samantha Huyghe (UM MSc)	Planning: Sediments, organic carbon system and paleo discharge analysis (T4; H4.2)
Dave Capelle (PDF, UM)	Carbon System in Hudson Bay (participated in winter program and led water column and river sampling on for spring 2019 Bay-wide survey)
Brian Butterworth (PDF, Calgary)	ship-based flux system

8. OTHER

Please provide any additional information/comments as required.

"Insert Text Here"

Quarterly Project Report

1. Team Identification

Project Team: Contaminants ▼

Budget Year: 2019

Quarter: Q1

2. Scope - Highlights of the Period

Person Days: 0

Accomplishments

Submission of thesis to committee and public defense (T. Stainton, MSc#1) focused on organic matter fingerprinting in the Hudson Bay watershed.

Participation in BaySys All-Hands Meeting to discuss cross team manuscript preparation and dissemination.

Ongoing laboratory analysis of samples for organic matter fingerprinting and mercury speciation.

Missed Targets

No missed targets.

3. Activity Tracking

ID	Task	% Complete	Status
51	Task 5.1 Relationship between mercur...	65	On target.
52	Task 5.2 Suspended Sediment and Org...	85	On target
53	Task 5.3 Mass balance modeling of m...	70	On target

4. Risk And Issue Updates

ID	Risk Event	Status
11	Availability of Manitoba Hydro sediment data	On target. Additional samples were collected to a
10	Hydro-Quebec historical data is not provided	On target. Team members (F. Wang; K. Munson) c
9	Mercury cross-contamination on the Amundsen	On target. Samples were collected successfully. Ar
2	Sequence of data analysis, and model outputs causes c	Behind schedule. Final integration of observationa

5. Budget Information

CURRENT QUARTER SPENDING

Amounts are the cumulative totals to the end of the reporting period.

1. Salaries and Benefits

a) Graduate Students	\$6,000.23	Graduate student stipends, MSc#1, MSc#4.
b) PDF's	\$17,646.68	PDF#1 salary and benefits
c) Technical Staff	\$0	none

2. Equipment or Facility

a) Purchase or Rental	\$0	none
b) Operations and Maintenance Cost	\$861.03	Analytical costs, instrument maintenance

3. Materials and Supplies

	\$0	none
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4. Travel Expenses

a) Conferences	\$439.96	Travel to Ottawa ArcticNet conference
b) Field Work	\$0	none
c) Project Related Travel	\$842.02	Robie Macdonald visit to U. Manitoba
d) Central Planning Meetings	\$0	none

5. Dissemination Costs


	\$0	none
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Total **\$25,789.92**

OTHER ORGANIZATIONS IN-KIND CONTRIBUTIONS

Organization	Contribution	Description
NSERC CREATE	4,500	PhD#1 stipend
NSERC DG - Wang	3,125	Jeff Gao
University of Manitoba UMGF	3,125	Jeff Gao
Total	\$10,750	

6. Budget Explanation

Budget Statement	
Cash Contributions	NSERC CREATE-H2O (to Lobb) for PhD#1 stipend (M. Goharrokhi) NSERC DG (to Wang) for Jeff Gao's stipend University of Manitoba UMGF for Jeff Gao's stipend
Expenditure Tracking	 Click here to attach a file

7. Research Team

<i>Team Member</i>	<i>Overview of Participation and Scientific Contributions</i>
Feiyue Wang	Project lead- mercury methylation and mass budget, supervision of MSc#2 ...
Allison Zacharias	Project co-lead; coordination of data sharing; discussions of manuscript pre...
Sarah Wakelin	Project co-lead; coordination of data sharing; discussions of manuscript pre...
Kathleen Munson	PDF#1- mercury methylation and mass budget; sample analysis for mercury...
James Singer	MSc#2- mercury methylation and mass budget; manuscript and thesis prep...
Zou Zou Kuzyk	Lead on particulate organic matter sources and transport; submission of Hu...
Tassia Stainton	MSc#1- thesis completion, submission of thesis to committee, public defen...
Samantha Huyghe	MSc#4- processing of bay-wide campaign sediment cores for dating and org...
David Lobb	Sediment budget and fingerprinting (inorganic); training PhD#1 (co-supervi...
Masoud Goharrokhi	PhD#1- sediment budgeting and fingerprinting (inorganic); analysis of sedi...
Robie Macdonald	Visit to Winnipeg to discuss data analysis and participate in student thesis s...
Philip Owens	Sediment budgeting and fingerprinting (inorganic); training PhD#1 (co-supe...
Ellen Petticrew	Sediment and organic matter fingerprinting; supervision of MSc#1.
Gary Stern	Supervision of PDF#1.

8. Other

Please provide any additional information/comments as required.

[<< Research Team](#)

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Txt Report Status:

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Quarterly Project Report

1. Team Identification

Project Team: NEMO Modeling ▼

Budget Year: 2019

Quarter: Q1

2. Scope - Highlights of the Period

Person Days: 0

Accomplishments

Major accomplishments include the completion of simulations for sensitivity studies, training of HQP, dissemination of NEMO output, and continued research and analysis. Specific accomplishments are as follows:

Simulations

Experiments launched with ERA atmospheric forcing and finalized HYPE and Arctic-HYPE river discharge data produced by Team 2 are running and include

- a) ERA-Interim (ERA Interim forcing, calibrated HYPE and Arctic-HYPE)
- b) MIROC (MIROC forcing, calibrated HYPE and Arctic-HYPE)
- c) SAL tide correction for tidal sensitivity analysis (CGRF, monthly runoff, Greenland melt)
- d) AGRIF CAA12 (ERA Interim forcing, calibrated HYPE, HBC runoff and HBC inflow tracers) – not run for BaySys but output will potentially be useful for BaySys

Analysis and evaluation

- a) Initial model evaluation for years prior to BaySys completed in a study led by HQP Natasha Ridenour, in review
- b) Evaluation of freshwater circulation and anomalous features completed by HQP Natasha Ridenour
- c) SST analysis and sensitivity to atmospheric forcing and resolution completed by HQP Shabnam JafariKhasragh and in review
- d) Sensitivity of modeled sea ice volume budget to atmospheric forcing led by Shabnam JafariKhasragh in preparation
- e) Baseline evaluation outlining atmospheric and discharge conditions for 2016-2018 BaySys timeframe in preparation

Planning

- a) Simulations launched (ERA-Interim, MIROC5), historical and future simulations for naturalized flow available in April
- b) BaySys subgroup established to conduct
 - i) baseline evaluation and model-data comparison, and
 - ii) relative climate change and regulation impacts assessment for relevant team variablesInitial baseline evaluation results to be made available in early February.

Missed Targets

RIOPS data is still to be provided by ECCC. As it becomes available for comparison with NEMO output, most likely in February, following which the evaluation requested by the RAC will be conducted

3. Activity Tracking

ID	Task	% Complete	Status

4. Risk And Issue Updates

ID	Risk Event	Status
20	NEMO Model area	As noted in the last quarterly report, this risk has
19	Redo bias correction for climate scenarios	As noted in the last quarterly report, This risk has

5. Budget Information

CURRENT QUARTER SPENDING

Amounts are the cumulative totals to the end of the reporting period.

1. Salaries and Benefits

a) Graduate Students	\$9,000	salary; Please note that this information will need to be provided
b) PDF's	\$14,000	salary
c) Technical Staff	\$0	N/A

2. Equipment or Facility

a) Purchase or Rental	\$0	N/A
b) Operations and Maintenance Cost	\$0	N/A

3. Materials and Supplies

	\$0	N/A
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4. Travel Expenses


a) Conferences	\$0	N/A
b) Field Work	\$0	N/A
c) Project Related Travel	\$0	N/A

d) Central Planning Meetings	\$0	N/A
5. Dissemination Costs	\$0	N/A
Total	\$23,000	

OTHER ORGANIZATIONS IN-KIND CONTRIBUTIONS

Organization	Contribution	Description
Total	\$0	

6. Budget Explanation

Budget Statement	Please note that this and all budget-related sections will need to be completed by a
Cash Contributions	
Expenditure Tracking	 Click here to attach a file

7. Research Team

Team Member	Overview of Participation and Scientific Contributions
Paul Myers	Team 6 co-lead; NEMO modeling, student supervision
Natasha Ridenour	PhD1; freshwater dynamics and circulation, model evaluation
Jennifer Lukovich	Team 6 co-lead; model-data comparison, sea ice dynamics
Shabnam Jarfarikhasragh	model evaluation, SSTs, heat, energy, and momentum fluxes
Kevin Sydor	Manitoba Hydro Team 6 co-lead; NEMO modelling coordination
Karen Wong	Manitoba Hydro Team 6 co-lead; NEMO and MIKE3 modelling coordination

8. Other

Please provide any additional information/comments as required.

[<< Reasearch Team](#)

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