

Quarterly Project Report

1. Team Identification

Project Team: Project Coordinators ▼

Budget Year: 2017

Quarter: Q1

2. Scope - Highlights of the Period

Person Days: 0

Accomplishments

- Completion of fall mooring program (Sept 26-Oct 4)
- Organized egress and firearms training for all BaySys field participants
- Coordinators met monthly for continued review of project and sharepoint site development
- Coordinated many field meetings for winter program, preparation/mobilization for field camps underway
- Participated in Hydro Day of learning
- Recieved confirmation of ArcticNet funding (1.2M) for summer Amundsen program
- BaySys teams, coordinators and management participated in ArcticNet conference in Winnipeg (Dec 5-9)-posters and oral presentations
- Hosted an Amundsen planning meeting at ASM Dec 6 and follow up project-wide field planning meeting Dec 21

Missed Targets

- Sharepoint site training for team leads delayed

3. Activity Tracking

<i>ID</i>	<i>Task</i>	<i>% Complete</i>	<i>Status</i>

4. Risk And Issue Updates

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

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	\$0	none
b) PDF's	\$0	none
c) Technical Staff	\$22,322.43	Claire Hornby and Greg M salary + benefits

2. Equipment or Facility

a) Purchase or Rental	\$18,186.63	Winter field equipment
b) Operations and Maintenance Cost	\$11,931.6	Claire Hubert (data manag.) salary + benefits

3. Materials and Supplies

	\$0	none
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4. Travel Expenses

a) Conferences	\$0	none
b) Field Work	\$140,508.66	Accommodation, truck rental and ,membership at CNSC. Deposit
c) Project Related Travel	\$796.39	Travel to Churchill/fall program Claire H.
d) Central Planning Meetings	\$142.68	Lunch for field meeting (Dec.)

5. Dissemination Costs


	\$0	none
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Total **\$193,888.39**

OTHER ORGANIZATIONS IN-KIND CONTRIBUTIONS

Organization	Contribution	Description
Quebec-Ocean	16,800	Sylvain Blondeau participated on fall cruise as roset
Total	\$16,800	

6. Budget Explanation

Budget Statement	No deviations to report in this quarter
Cash Contributions	none
Expenditure Tracking	 Click here to attach a file

7. Research Team

<i>Team Member</i>	<i>Overview of Participation and Scientific Contributions</i>
David Barber	Project University PI and management
Kevin Sydor	Project Hydro PI and management
Claire Hornby	University Coordinator
Michael Morris	Hydro Coordinator

8. Other

Please provide any additional information/comments as required.

[<< Research Team](#)

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BaySys Quarterly Status Report - Project Coordinators 2017 Q1

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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 and Climate System ▼

Budget Year: 2017

Quarter: Q1

2. Scope - Highlights of the Period

Person Days: 32

Accomplishments

Field program:

Fall cruise onboard CCGS Des Groseilliers started on September 26 and was successfully completed on October 4. Four Team 1 participants (Ehn, Dmitrenko, Kirillov, and Basu) were onboard (4 x 8 = 32 person days).

All five moorings has been deployed as planned (Kirillov) and numerous CTD profiles and water samples has been collected. See cruise report for details. Some samples are still awaiting processing.

NEMO model progress includes:

- i) evaluation of freshwater transport in Hudson Bay using NEMO model output (Natasha)
- ii) evaluation of SST and air-sea interactions in Hudson Bay using NEMO model output (Shabnam)
- iii) work started on NEMO validation paper (initiated by Natasha, with contributions and input from Shabnam and other Team 1 participants)
- iv) historical simulation launched with initial integrated HYPE dataset and ongoing
- v) MIROC5 simulation launched with initial integrated HYPE dataset and ongoing

Items to be continued include

- i) historical and MIROC simulation ongoing
- ii) MRI-CGCM3 simulation to be launched
- iii) bias assessment for CMIP5 MRI-CGCM3 scenarios ongoing
- iv) revised and calibrated integrated HYPE will be incorporated in April

Missed Targets

None

3. Activity Tracking

<i>ID</i>	<i>Task</i>	<i>% Complete</i>	<i>Status</i>
32	Task 1.3 Moorings	30	Moorings deployed during CCGS Des Groseilliers I
31	Task 1.2 Spring/summer survey	0	Planning meetings held
30	Task 1.1 Winter estuarine survey	10	Churchill helicopter campaign completed success
33	Task 1.4 Remote sensing	10	Manuscript submitted on remote sensing (IceSat,
34	Task 1.5, Phase 1 NEMO Modeling of f...	50	OT
35	Task 1.5, Phase 2 NEMO Modeling of f...	0	OT

4. Risk And Issue Updates

<i>ID</i>	<i>Risk Event</i>	<i>Status</i>
8	Consider including additional CMIP5 simulation for pro	OT

5. Budget Information

CURRENT QUARTER SPENDING

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

1. Salaries and Benefits

<i>a) Graduate Students</i>	\$10,132	\$10.5k/yr Basu, \$10.5k/yr Petrusevich, \$14.5k/yr Ridenour + \$12
<i>b) PDF's</i>	\$17,933	RA Jennifer Lukovich
<i>c) Technical Staff</i>	\$0	-

2. Equipment or Facility

<i>a) Purchase or Rental</i>	\$1,336	Computer for student (Basu)
<i>b) Operations and Maintenance Cost</i>	\$7,142	2642 Aviation egress, firearms training, 5.5k U. Alberta NEMO

3. Materials and Supplies

	\$1,895	materials for fieldwork \$1895
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4. Travel Expenses

<i>a) Conferences</i>	\$436	Conference registration for Petrusevich and Basu
<i>b) Field Work</i>	\$19,038	4941 Team 1 travel to Churchill, 1 person travel to Quebec for sh
<i>c) Project Related Travel</i>	\$0	-
<i>d) Central Planning Meetings</i>	\$0	-

5. Dissemination Costs

	\$0	-
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Total	\$57,912	
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OTHER ORGANIZATIONS IN-KIND CONTRIBUTIONS

<i>Organization</i>	<i>Contribution</i>	<i>Description</i>
UoM	84,750	U. Manitoba: 100% of 2 salaries (Liu—NEMO mode
UoA	7,940	U. Alberta: \$5,800/year for additional funding for N
Total	\$92,690	

6. Budget Explanation

<i>Budget Statement</i>	<input type="text"/>
<i>Cash Contributions</i>	<input type="text"/>
<i>Expenditure Tracking</i>	<input type="button" value="Click here to attach a file"/>

7. Research Team

<i>Team Member</i>	<i>Overview of Participation and Scientific Contributions</i>
Atreya Basu	PhD research; freshwater distribution and patterns in Hudson Bay using fiel...
David Barber	Project management, student & RA supervision.
David Babb	Sea ice dynamics, field program planning and coordination.
George Liu	NEMO model development.
Greg McCullough	Former team lead, field program planning and participation, assisting with s...
Igor Dmitrenko	Field program planning and participation, moorings design and deployment...
Jennifer Lukovich	NEMO model development; Coordination, supervision and support for NE...
Jens Ehn	Team lead since January 2016, field program planning and participation, stu...
Masayo Ogi	Study of teleconnections between Arctic and Temperate climate, with parti...
Michael Morris	Team co-lead, review of project work plan, participate in team updates and ...
Natasha Ridenour	PhD research; validation and evaluation of NEMO with a focus on freshwate...
Nathalie Theriault	Project coordinator; research using remote sensing to investigate climate-ic...
Paul Myers	NEMO model development; student supervision.
Sergei Kirillov	Field program planning and participation, mooring design and deployment,...
Shabnam Jarfarikhasragh	PhD research; validation of NEMO ice and ocean parameters with emphasis...
Simon Belanger	Remote sensing of freshwater tracers and optical properties, student super...
Vlad Petrusovich	PhD research; tidal driven processes in Nelson estuary and in Hudson Bay.
Wayne Chan	Computer support for modeling team
Yanique Campbell	PhD research; effects of wave dynamics on Hudson Bay water masses and i...

8. Other

Please provide any additional information/comments as required.

[<< Reasearch Team](#)

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BaySys Quarterly Status Report - Marine and Climate System 2017 Q1

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Txt Report Status:

Draft In Progress

Quarterly Project Report

1. Team Identification

<i>Project Team:</i>	Freshwater System ▼
<i>Budget Year:</i>	2017
<i>Quarter:</i>	Q1

2. Scope - Highlights of the Period

<i>Person Days:</i>	0
<i>Accomplishments</i>	<ul style="list-style-type: none"> • Publication of paper detailing historical discharge trends to Hydrology and Earth System Sciences (8 December 2016) • Contribution to Manitoba Day of Learning held 25 November 2016 (poster by M. MacDonald, T. Stadnyk & S. Déry) • Three presentations at ArcticNet Scientific Meeting (M. MacDonald, R. Lilhare, T. Stadnyk, S. Déry) • PDF1: Continued calibration of HYPE model • PDF1: Seasonal and regional analyses of 2021-2070 streamflow projections (2021-2070) • PhD1: Continued calibration of VIC model • PhD1: Passed doctoral candidacy exam • MSc1: continued studies (course work + TA) and literature review
<i>Missed Targets</i>	Delay in providing historical HYPE discharge simulations due to hardware failure of Westgrid server. These will be provided in January 2017. Team 1 has expressed that this will be no delay to their work.

3. Activity Tracking

<i>ID</i>	<i>Task</i>	<i>% Complete</i>	<i>Status</i>
		90	Potential Issue-Initially completed Dec. 5, 2015 by Possible additional simulation(s) to be included –
23	Cluster Analysis (CMIP 5 bias-correcte...	100	complete

4. Risk And Issue Updates

<i>ID</i>	<i>Risk Event</i>	<i>Status</i>
	Export markets/power sales and new generation could	On track
	PhD1 has been allowed to continue as a student in the	Completed
	Resolution of missing dates in CMIP5 future forcing (le	Completed
8	Consider including additional CMIP5 simulation for pro	Potential issue
14	Potential delay in Task 2.1	New risk identified

5. Budget Information

CURRENT QUARTER SPENDING

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

1. Salaries and Benefits

<i>a) Graduate Students</i>	\$8,869	Stipend payments for PhD1 (Rajtantra Lihare) and MSc2 (Andre
<i>b) PDF's</i>	\$12,625	wages and benefits for PDF1 (Matt Macdonald) on track
<i>c) Technical Staff</i>	\$3,144	technical staff (K Wiens) expenses were behind in Q1 & Q2 of ye

2. Equipment or Facility

<i>a) Purchase or Rental</i>	\$0	nothing to report in this quarter
<i>b) Operations and Maintenance Cost</i>	\$2,494	one laptop computer for MSc2 and monitor.

3. Materials and Supplies

\$14,226	Purchase of server (carry over from Year 1) for modelling work a
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4. Travel Expenses

<i>a) Conferences</i>	\$0	n/a
<i>b) Field Work</i>	\$0	n/a
<i>c) Project Related Travel</i>	\$5,666	costs related to Team 2 travel for project-related meeting in Wini
<i>d) Central Planning Meetings</i>	\$0	n/a

5. Dissemination Costs


\$0	n/a
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Total **\$47,024**

OTHER ORGANIZATIONS IN-KIND CONTRIBUTIONS

<i>Organization</i>	<i>Contribution</i>	<i>Description</i>
UNBC	1,553	UNBC tuition waiver for Rajtantra Lihare (PhD1) in
Ouranos	1,350	Provided 15 hours @ \$90/hour (\$1350) of in-kind v
Total	\$2,903	

6. Budget Explanation

<i>Budget Statement</i>	Budget deviations from year 1 resulted in extra funds for year 2. Computing server has been ordered and is being setup at UM; salary transfers for Ms. Wiens are complete; recruitment of PhD2 to replace MSc1 complete (to start April 1, 2017) for uncertainty assessment in LNRB. Deviations from the originally funded budget proposal are justified below under individual cost items.
<i>Cash Contributions</i>	Rajtantra Lihare continues to receive a tuition waiver from UNBC in the amount of
<i>Expenditure Tracking</i>	 Click here to attach a file

7. Research Team

<i>Team Member</i>	<i>Overview of Participation and Scientific Contributions</i>
Tricia Stadnyk	University team lead: participated in team meetings and supervision of PDF...
Stephen Dery	Co-investigator: participation in team meetings and supervision of PDF1 an...
Genevieve Ali	Co-investigator: participation in team meetings & co-supervisor for PhD2 (f...
Marco Braun	Ouranos collaborator: participation in team meetings; bias-correction of C...
Rene Roy	Hydro-Quebec collaborator
Kristina Koenig	Industry Team Lead- team coordination, organized team meetings, coordina...

8. Other

Please provide any additional information/comments as required.

In Q6 of Year 1, Team 2 submitted 1 publication to Hydrol. Earth Sys. Science (HESS) that updates the trend analysis for northern Canadian river discharge – an effort that also saw the development of the gap-filled streamflow dataset for BaySys.

MSc2 (A Tefs, Task 2.3) started on Sep 2, 2016, and “MSc1” was recruited from more than 100 applications and 3 skype interviews held jointly by Dr. Ali and Dr. Stadnyk. “MSc1” (Task 2.2, uncertainty analysis) is in the process of applying to UM for a PhD (project expanded in light of 1 MSc only being required for Task 2.3 now). Because of the freed salary from MSc3, there will be sufficient funds for a second PhD.

In subsequent reports, MSc1 will now be referred to as PhD2. Anticipated start date is May 2017.

Preparation and submission of 3 abstracts for the ArcticNet conference (Winnipeg, MB Dec 2016), and 1 abstract for AGU were also accomplished.

[<< Reasearch Team](#)

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BaySys Quarterly Status Report - Freshwater System 2017 Q1

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Txt Report Status:

External PC Review

Quarterly Project Report

1. Team Identification

Project Team: Carbon Cycling

Budget Year: 2017

Quarter: Q1

2. Scope - Highlights of the Period

Person Days: 16

Accomplishments

- Collected samples for DIC, CDOM, and POC samples in Hudson Bay as part of the fall cruise of the Des Groseilliers
- Participated in planning meetings: October 14; November 23; December 6; December 21
- Finalized personnel in the field, planning and necessary procurement for winter programs in Churchill and first cycle of Nelson River Program.
- Finalized and submitted input for the June Amundsen cruise and submitted berth requests for personnel in the field.
- Currently working with Amundsen technicians to reserve space, and integrate specialized equipment onto the Amundsen.
- Reconfiguring the ship flux system (for air-sea exchange) for summer deployment.
- Started procurement of sampling supplies for the Amundsen cruise.
- Continuing the analysis of 2012 ArcticNet data in preparation for a journal article.
- Working on a synthesis document focused on the carbon system of Hudson Bay bringing together all relevant literature.
- Coordinating access to databases managed by other researchers outside of BaySys.
- Coordinating river sampling on the south-east coast of the Bay for carbon system parameters with colleagues in Quebec.

Missed Targets none

3. Activity Tracking

<i>ID</i>	<i>Task</i>	<i>% Complete</i>	<i>Status</i>
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ID	Task	% Complete	Status
46	Task 4.1 Fall Cruise (Mooring Deploym...	100	Our team will use data, but will not deploy sensor
47	Task 4.2 Winter Camp	10	Planning is in place. Procurement of supplies is u
48	Task 4.3 Bay-Wide Survey	10	Planning is in place. Procurement of supplies is u
49	Task 4.4 Remote Sensing	10	HQP has been recruited, and we are in preparatio
50	Task 4.5 Biogeochemical Modeling	5	HQP is in place. Introductions have been made. I

4. Risk And Issue Updates

ID	Risk Event	Status
2	Sequence of data analysis, and model outputs causes c	normal - entering into the field and modelling con

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	\$1,250	top up stipend for Mohamed Ahmed
b) PDF's	\$15,523	salaries for Brian Butterworth (Calgary) and Dave Capelle (Manit
c) Technical Staff	\$0	none

2. Equipment or Facility

a) Purchase or Rental	\$2,984.85	Contribution toward purchase of clean air generator for flux syst
b) Operations and Maintenance Cost	\$0	none

3. Materials and Supplies

\$2,871.29	Purchase of sample bottles and supplies for operations at Calgar
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4. Travel Expenses

a) Conferences	\$1,000.42	Calgary HQP to Winnipeg ArcticNet Meeting
b) Field Work	\$996.13	Trent HQP to Churchill (partial); shipping fees
c) Project Related Travel	\$1,052.33	Training courses: aviation egress, wilderness first aid
d) Central Planning Meetings	\$0	none

5. Dissemination Costs

\$0	none
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Total \$25,678.02

OTHER ORGANIZATIONS IN-KIND CONTRIBUTIONS

Organization	Contribution	Description
Calgary	6,250	Cash: Tuition - scholarship for Ahmed
Trent	4,000	Cash: Tuition - scholarship for Sohedul Islam
Manitoba	7,767.9	Cash: Sensor calibration (motion sensor) covered b
Manitoba	6,173.3	Cash: Contribution toward the purchase of purge a
Manitoba	28,450	Cash: Contribution toward equipment repair from c
Manitoba	4,350	In-kind: 30% salary from S. Luque (this quarter)
Manitoba	3,937	In-Kind: 25% salary from E. Wiley (this quarter)
Manitoba	2,600	In-kind: 25% salary of L. Chow (this quarter)
Total	\$63,528.2	

6. Budget Explanation

Budget Statement	
Cash Contributions	Values have been reported in budget table.
Expenditure Tracking	No file attached

7. Research Team

Team Member	Overview of Participation and Scientific Contributions
Bob Gill	Participation in BaySys science planning meeting
Brent Else	-Recruitment and training of PhD Student (Mohamed Ahmed PhD#2) -Recr...
Celine Gueguen	Photo and microbial degradation of dissolved organic matter in Hudson Bay...
Lisa Miller	Continued Analysis of 2010 and 2012 data from ArcticNet cruises in Hudson...
Tim Papakyriakou	Project lead. Recruitment. Steering committee meeting and field planning ...
Zou Zou Kuzyk	Sediment and organic matter fingerprinting; supervision of PhD#4 MSc#1(c...

8. Other

Please provide any additional information/comments as required.

Note, had reported the expenditure of \$7767.90 in last quarter report. This expense was move to another budget c

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BaySys Quarterly Status Report - Carbon Cycling 2017 Q1

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Txt Report Status:

Draft In Progress

Quarterly Project Report

1. Team Identification

<i>Project Team:</i>	Contaminants ▼
<i>Budget Year:</i>	2017
<i>Quarter:</i>	Q1

2. Scope - Highlights of the Period

<i>Person Days:</i>	33
<i>Accomplishments</i>	<ul style="list-style-type: none"> • Presentation of progress at ArcticNet 2016 annual science meeting (PDF#1, PhD#1, MSc#1, MSc#2) • Laboratory analysis of CAMP water body field samples • Preparation of sediment and organic matter samples for analysis • Training of field personnel for upcoming winter and spring field campaigns (PAL, first-aid, winter survival, snowmobile, and immersion training) • Transfer of bathymetry and winter ice data from Manitoba Hydro for spring sediment coring fieldwork preparation. • Completed water sampling for sediment and carbon endpoints and successfully installed three sediment traps on moorings deployed from aboard the CCGS Des Groseilliers in October 2016 • Completed sample preparation and first round of analyses on soil and instream samples collected in August 2016
<i>Missed Targets</i>	Transfer of Hydro-Quebec historical mercury data.

3. Activity Tracking

<i>ID</i>	<i>Task</i>	<i>% Complete</i>	<i>Status</i>
52	Task 5.2 Suspended Sediment and Org...	20	On track
53	Task 5.3 Mass balance modeling of m...	5	On track
51	Task 5.1 Relationship between mercur...	30	On track

4. Risk And Issue Updates

ID	Risk Event	Status
9	Mercury cross-contamination on the Amundsen	Potential issue
11	Availability of Manitoba Hydro sediment data	Behind schedule
10	Hydro-Quebec historical data is not provided	Behind schedule

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	\$6,551	James Singer, Zakhar Kazmiruk, Tassia Stainton; Samantha Huygh
b) PDF's	\$16,128	K. Munson
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

	\$3,700	Lab and field consumables
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4. Travel Expenses

a) Conferences	\$3,000	ArcticNet ASM
b) Field Work	\$4,575	Nelson Estuary
c) Project Related Travel	\$940	Robie Macdonald visit
d) Central Planning Meetings	\$0	n/a

5. Dissemination Costs

	\$0	n/a
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Total **\$34,894**

OTHER ORGANIZATIONS IN-KIND CONTRIBUTIONS

Organization	Contribution	Description
University of Manitoba	3,000	Sample analysis
O'Brien	3,000	Donated her time to take part in BaySys cruise and
Total	\$6,000	

6. Budget Explanation

Budget Statement	n/a
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<i>Cash Contributions</i>	University of Manitoba: GETS program (Wang) of \$2,625 per quarter toward the sti NSERC CREATE-H2O (Lobb): \$4500, stipend of PhD#1 (Goharrokhi) ArctiNet: partial stipend for Huyghe
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<i>Expenditure Tracking</i>	 Click here to attach a file
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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 PDF#1...
Allison Zacharias	Project co-lead; participation in planning meetings for spring and summer fi...
Sarah Wakelin	Project co-lead; participation in planning meetings for spring and summer fi...
Kathleen Munson	PDF#1 – project coordination, mercury methylation and mass budget; plan...
James Singer	MSc#2 – mercury methylation and mass budget; enrolled in graduate cours...
Zou Zou Kuzyk	Sediment and organic matter fingerprinting; supervision of MSc#1(co-super...
Tassia Stainton	MSc#1 – sediment and organic matter fingerprinting; enrolled in graduate c...
Samantha Huyghe	MSc#4 – sediment and organic matter fingerprinting; enrolled in graduate c...
David Lobb	Sediment budget and fingerprinting - Supervision of PhD#1;
Masoud Goharrokhi	PhD#1 – sediment budgeting and fingerprinting (inorganic); sample prepara...
Hoda Pahlavan	Technician (Lobb) – assisting PhD#1
Philip Owens	Sediment budgeting and fingerprinting - Supervision of PhD#1; planning of ...
Ellen Petticrew	Sediment and organic matter fingerprinting - Supervision of MSc#1; plannin...
Gary Stern	Co-supervisor of PDF#1; Participation in planning meetings for summer crui...
Robie Macdonald	Traveled to Winnipeg to meet and discuss with the team and students

8. Other

Please provide any additional information/comments as required.

[<< Reasearch Team](#)

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BaySys Quarterly Status Report - Contaminants 2017 Q1

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