

# Science and Technology Subcommittee

New Chair: Faith Fitzpatrick [fafitzpa@usgs.gov](mailto:fafitzpa@usgs.gov)

- 1) **Vendor protocol**
- 2) **In situ burning (ISB)**
- 3) **Fate/transport**
- 4) **Endangered Species Act Response Operations Matrix Screening Tool**
- 5) **New items**

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## 1) Vendor protocol

- Scott Binko lead (1-page overview), subcommittee approval at fall 2018 meeting
- Vendor process for presenting new technologies to the RRT.
- Steps for approval: 1) contact RRT5 coordinator, 2) coordinators work with S&T subcommittee, S&T may accommodate vendor presentation at RRT5 meeting or webinar
- Next steps:
  - post vendor protocol on RRT5 web site with a button or something obvious
  - Mention at NRT meeting next week

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## 2) In Situ Burning (Scott Binko/Eric Pohl) leads)

- Form S&T working group – operational, air, flora/fauna, application to other regions, include industry
  - Assemble what's happening – chance to give input on objectives and output
  - Provide permitting support – have data available for what is needed to fulfill permits. big proponent is photos/visual aids, especially in tourism areas – offshore and coastal/shoreline
  - Put together scope for working group
  - Provide list of questions for ISB demonstrations
- Questions on permitting process with states
- Multiple trainings/exercises in ISB happening

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## 2) In Situ Burning (cont.)

- Aug 2017 Mackinaw City TTX – multiple docs generated
- Nov 2018 – ACOE cold regions lab Hanover, NH – cold water burns led by BSEE – arctic conditions
- March 2019 CG R&D Joint Marine test facility, Mobile AL – small burns on fresh water
- Jul 2019 ACOE cold regions lab – incorporate waves and veg, mesoscale, inform design of full scale in Sept
- Sep 2019 CG R&D joint marine test facility – large scale burns, 3.5' water, variable oil thickness, waves, veg, air monitoring
- Ongoing SL Ross lab – ignitability of fresh, weathered, and emulsified samples
- Ongoing – International Institute for Sustainable development Canada experimental lakes – multiple burns, started summer 2018

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## 2) **In Situ Burning (cont.)**

- Next steps: Email invitation for workgroup participation soon. Set up web call.

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## 3) **Fate and Transport – Faith Fitzpatrick lead**

- Quickly developing and changing environment of tools and models
- No unified approach for rapid modeling, various tools and models used amongst various gov't agencies, industry, and contractors
- Next steps:
  - hold webinar in late summer or fall to present available data sources on time of travel, velocity, tools, and modeling approaches. Multiple presentations, drawing on Dec 2017 USGS workshop.
  - Develop contacts with FEMA/IMAC
  - Align with EPA's 4 models in the water division

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## **4) Endangered Species Act Response Operations Matrix Screening Tool - Lindy Nelson and Jerry Popiel leads**

- Matrix tool developed. Links endangered species with response action and level of impact it might have on that species.
- Consensus in fall meeting for developing in RRT5
- Still deciding on whether they go on web site or as appendix for area plans
- Form workgroup that spans R&T and planning subcommittees
- Next step to have planning call and possible in person meeting.

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## 5) **Additional topics**

- USCG R&D
  - awaiting submerged oil recovery/underwater booming report (?)
  - Oil in Ice Center of Excellence – continued discussion
  - Research repository, library for RRT5 on web site
- Exercises – S&T make more effort to get after action items, is there better way for S&T to track and follow up?



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## 5) Additional topics (cont.)

- Training needs
  - Tribal jurisdictions and communication (maybe belongs with planning)
  - Sinking oil training needed
  - Ethanol/biofuel spill training – on website?
  - Talk with training subcommittee on leads
- Recent IJC report on ecological impacts of crude oil in Great Lakes

<https://ijc.org/sites/default/files/2018-11/Potential%20Ecological%20Impacts%20of%20Crude%20Oil%20Transport%20in%20the%20Great%20Lakes%20Basin%20-%20Oct%202018.pdf>

## Potential Ecological Impacts of Crude Oil Transport in the Great Lakes Basin



Prepared by the  
Great Lakes Science Advisory Board  
Science Priority Committee  
Energy Transport and Water Quality Work Group  
  
Submitted to the International Joint Commission

October 2018

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## 5) **Additional topics (cont.)**

- Unmanned aerial systems – use growing exponentially –agency restrictions vary. Uses in situational awareness, operations, science, monitoring, fate/transport. Have webinar in the fall on examples of usage, including air monitoring
- Shoreline cleaner – past use was very successful, find report, develop a pre-approval?

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## 5) Additional topics (cont.)

- Additional S&T issues or topics from Clean Waterways conference?
- Linkages to Blue Accounting Source Water Initiative (GLC/TNC) – protecting drinking water at its source [www.blueaccounting.org](http://www.blueaccounting.org), Program Manager = Nicole Zacharda
  - Minimizing nutrient inputs, instituting source water protection plans, preventing and responding to spills, monitoring and addressing emerging contaminants, building binational consistency
- Please email Faith Fitzpatrick [fafitzpa@usgs.gov](mailto:fafitzpa@usgs.gov) with questions and ideas, follow-up

