



The
Lussier Family Heritage Center

For Presentations:

Network Name: Lussier Presentation

Password: daneparks

For basic internet connection use **DaneGuest**
network.

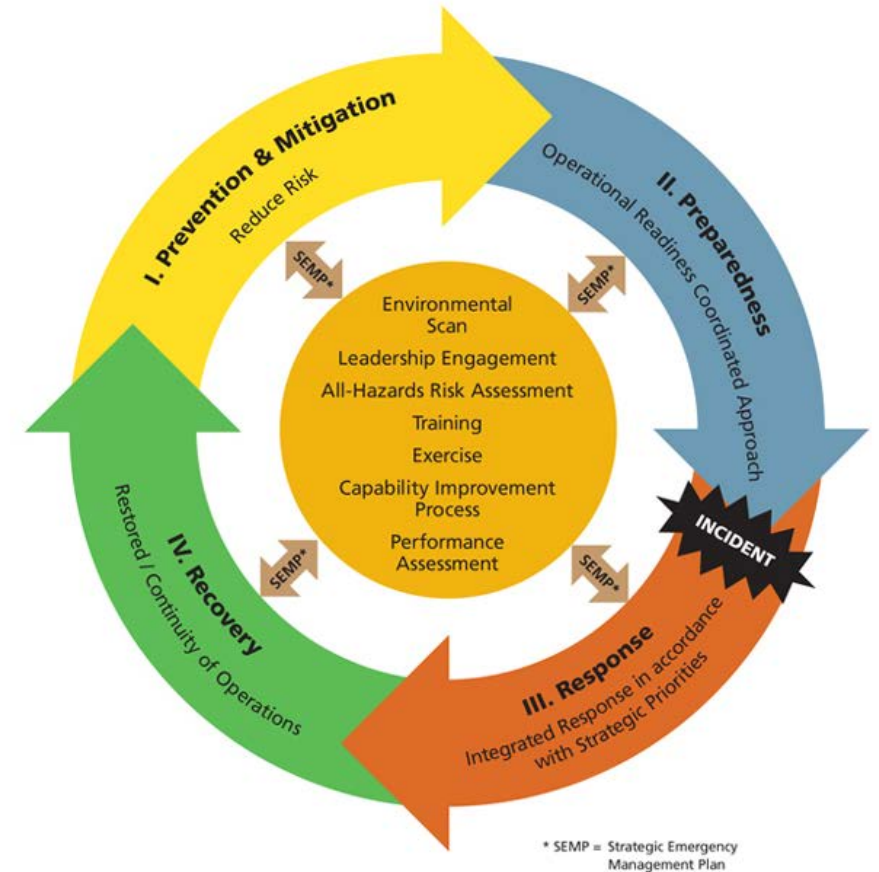
No Password.

Popups must be enabled. Select DaneGuest, wait for
stable connection. Once the window with terms appears,
click Accept.

Science and Technology Subcommittee

Chair: Faith Fitzpatrick fafitzpa@usgs.gov

- 1) Vendor protocol (Scott B) – added to web site -- done
- 2) In situ burning (ISB) (Scott B, Eric Pohl)
- 3) Fate/transport (Faith)
- 4) ESA Response Operations Matrix Screening Tool (Lindy N. and Jerry P.) – workgroup formation
- 5) USCG R&D update – submerged oil, ice
- 6) S&T followup on exercises – post tracking/followup
- 7) UAS – webinar on usage, air monitoring apps
- 8) Shoreline cleaner report
- 9) Blue accounting Source Water Initiative
- 10) New items



Science and Technology Subcommittee

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 completed:
 - post vendor protocol on RRT5 web site with a button or something obvious
 - Mention at NRT meeting next week

Science and Technology Subcommittee

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
- **Scott giving update in tomorrow's main session**

Science and Technology Subcommittee

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

Science and Technology Subcommittee

2) In Situ Burning (cont.)

- Next steps: Email invitation for workgroup participation soon. Set up web call.
- Air monitoring and modeling major issue. Steve Lehman mentioned ICOPAR meeting on this. Re-evaluating ALOFT model. Looking at particulate and toxics too.
- Where could ISB literature reside on web site?

Science and Technology Subcommittee

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
- Much interest in the NRT S&T
- 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. – tentatively DOI-IOSPP funding secured – late winter?
 - Develop contacts with FEMA/IMAC
 - Align with EPA's 4 models in the water division
- Historically models run by NOAA experts with GNOME – for inland/streams will USGS Streamstats travel time app help for planning and rapid response?
- Ice + Great Lakes/river interface/seiche zone – high lake levels, floods

Science and Technology Subcommittee

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.
- **Presentation in main session tomorrow**

Science and Technology Subcommittee

5) 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?

Science and Technology Subcommittee

6) Followup on exercises (more in training subcommittee)

- Sinking oil training needed
- Ethanol/biofuel spill training – on website?
- Talk with training subcommittee on any needs for S&T

Science and Technology Subcommittee

7) 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

- HQ's loosening up on usage? Sectors allowed to purchase? Submersibles as well.
- Other remote sensing applications? New satellites? Fluoremetry, sampling? Remote control helicopter

Science and Technology Subcommittee

8) Shoreline cleaner report – past use was very successful, find report, develop a pre-approval?

- Looking at the after action report, some modifications, take out QW monitoring
- RRT5 approval? State or EPA/USCG only needed?
- Steve Lehman mentioned that regions 1&2 are working on similar, Region 6 has pre-authorization form – interest in bringing to RRT5 – Barbi and Faith?

Science and Technology Subcommittee

9) Blue Accounting Source Water Initiative (GLC/TNC) – protecting drinking water at its source 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
- David B on pre-call – BASWI housed by GLC – one pager that outlines initiative?

Science and Technology Subcommittee

10) New Items?? Do we add any of these to our running list?

- Kalamazoo River NEBA
- Camera/video stage/spill monitoring
- USGS gage data – velocity, ice, seiche currents
- USGS mapping/time of travel Streamstats Tool
- Synchronizing EPA, NOAA, and USGS mapping data

Helpful USGS sites:

USGS Streamstats:

<https://streamstats.usgs.gov/ss/>

USGS gage info Yaraha River example:

https://waterdata.usgs.gov/wi/nwis/measurements?site_no=05429500&agency_cd=USGS&format=html_table_expanded