

US EPA ARCHIVE DOCUMENT

Early Assessment Teams

Organization: Washington State Department of Ecology

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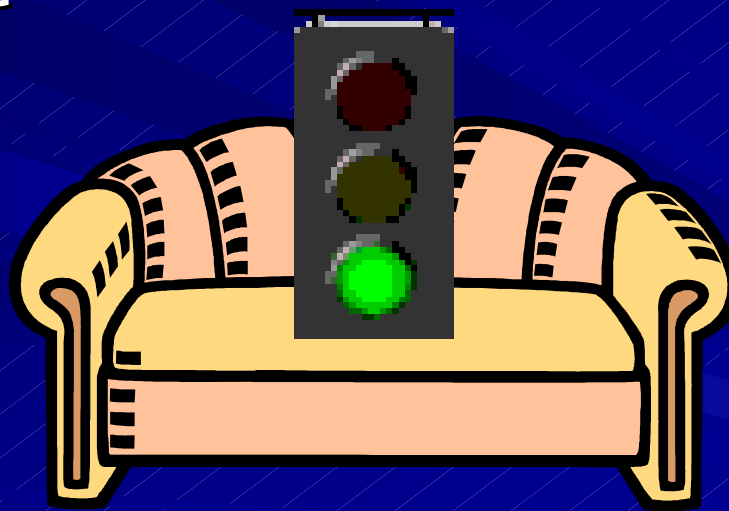
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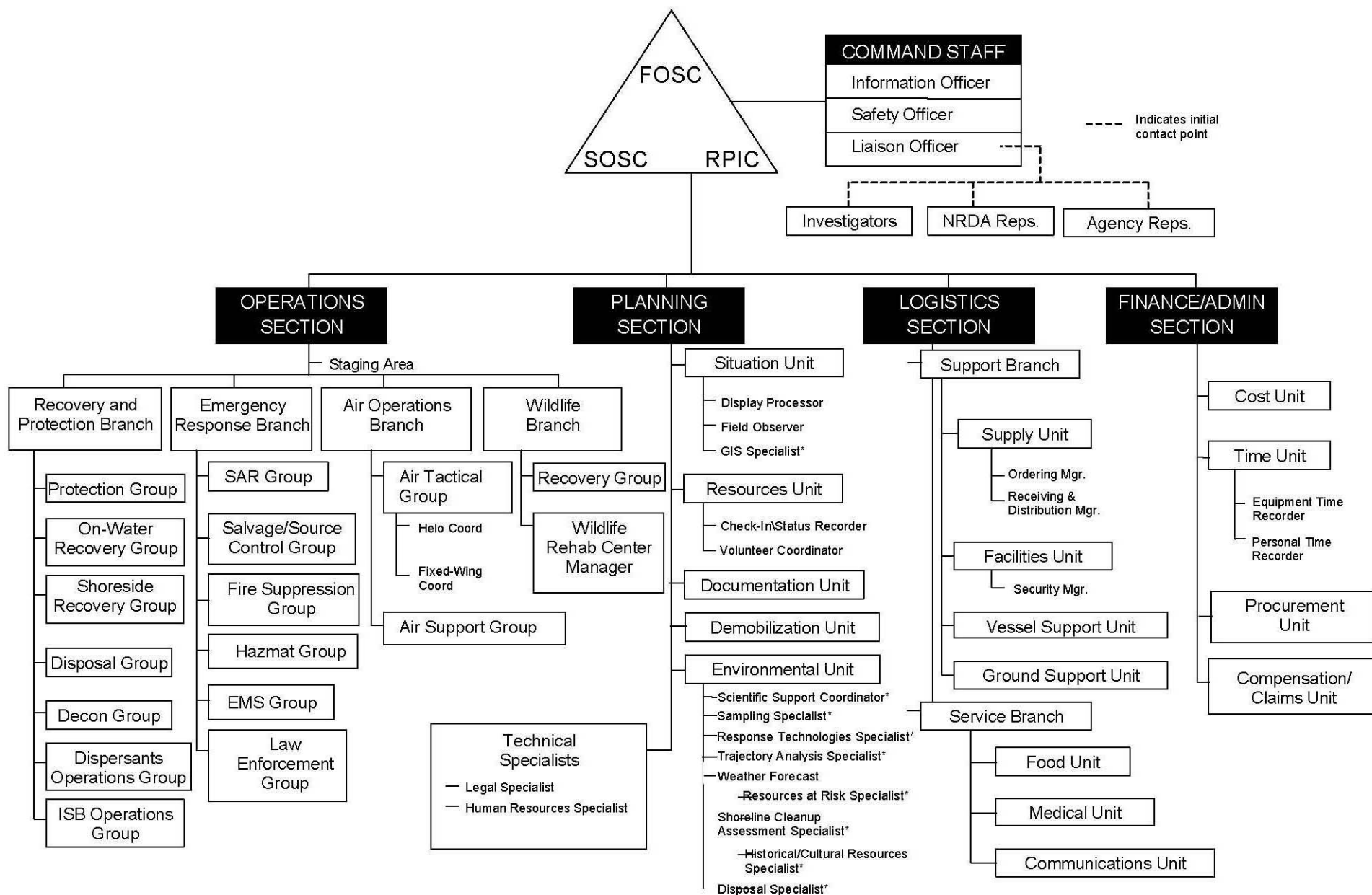
Email: damo461@ecy.wa.gov

Topic: Shoreline Impacts, Response, and Damage
Assessment

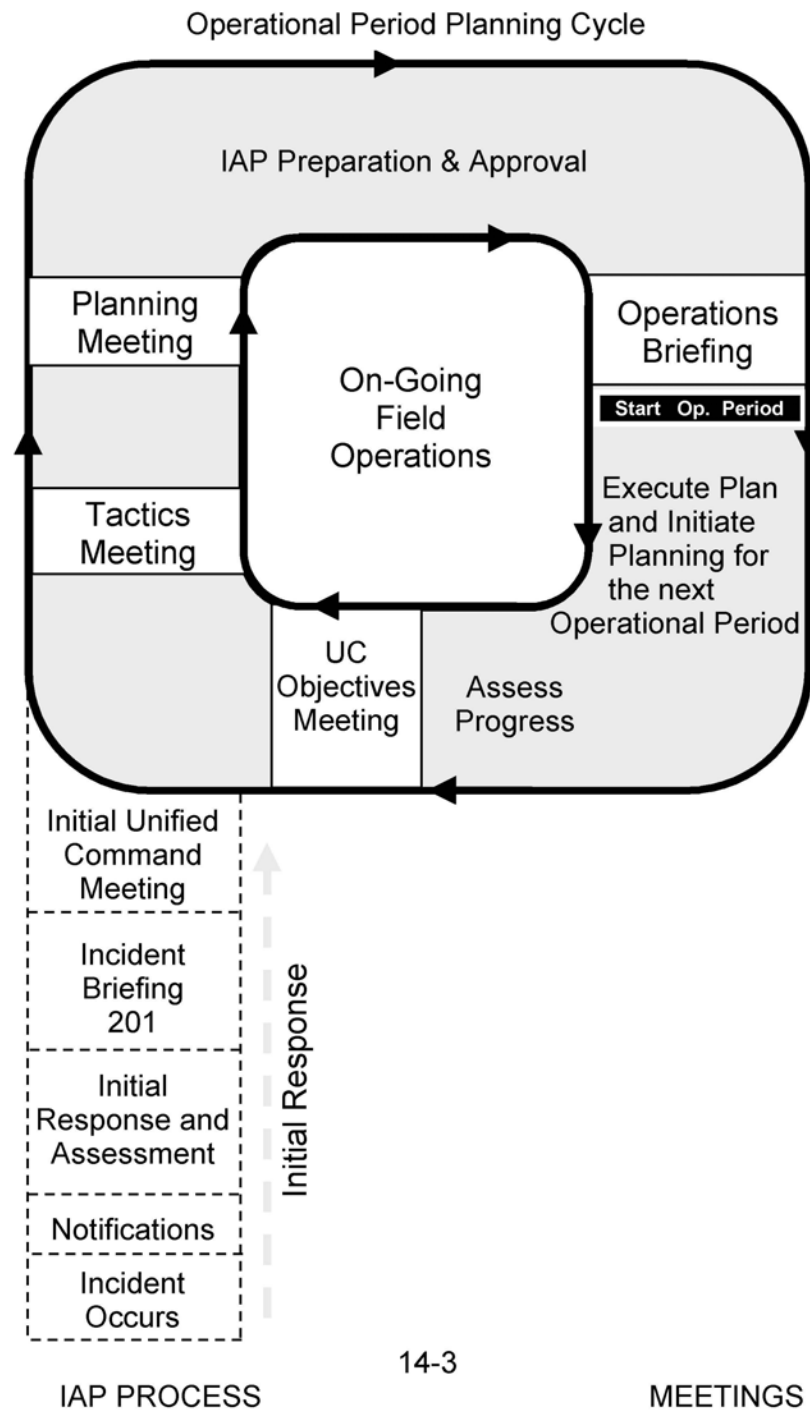
Introduction

High priority on establishing an
Incident Command System and
Command Post





* Possible Assignment of Technical Specialists



RESPONSE
OBJECTIVES

ICS 202

ORG CHART/
ASSIGNMENT
LIST

ICS 207/

RESOURCES
AT RISK
SUMMARY

ICS 232

RESOURCES
STATUS

ICS 219
T-CARDS

MEETING
SCHEDULE

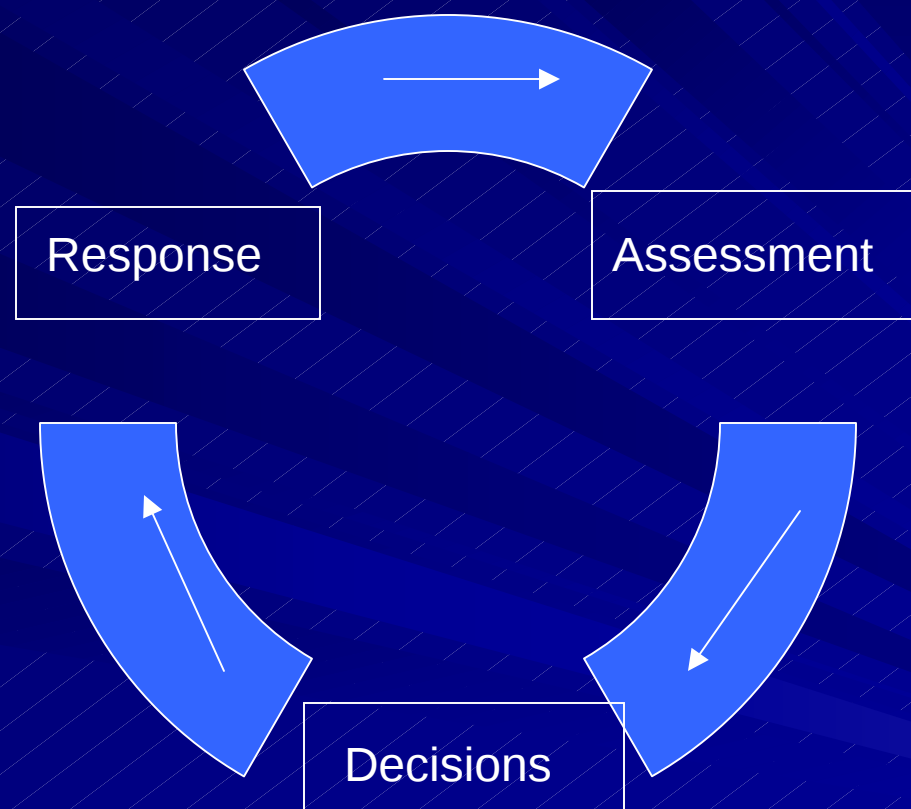
ICS 230

INCIDENT
STATUS
SUMMARY

ICS 209

SITUATION
AND
PLANNING
MAPS





What is going on, What to do, How to do it, Who to do it, Do it

Introduction



- When spills happen we need to act fast
- Response organizations are limited in the number of personnel available to respond
- Possibility exists for acts of organizing or reorganizing to compete with the need to assess
 - both



Introduction

- Effectiveness of assessment/decision/response cycle easily disrupted
 - Need to set up command and command post
 - Need to deal with peripheral issues









Introduction

To avert potential delay dispatching assessment teams, the Washington State Department of Ecology has organized rapid assessment teams called:

EATs ~ Early Assessment Teams

Introduction

Intent of this presentation is to describe EAT and EAT tools:

- Team organization
- Directing EATs
- Data collection
- Reporting from EATs
- Processing field data rapidly into real time reports



Let's EAT!

EAT functions:

- Hazard assessment
 - Air monitoring
- Situational and Environmental assessment
 - What is being impacted right now
 - What is the degree of oiling
- Hot-Shot SCAT (Shoreline Cleanup Assessment Teams)
 - EAT are more than field observers
 - response recommendations
 - monitor initial cleanup efforts
- Physical sampling (pre-impact, post-impact)

EATING

- EATs designed for early hours prior to establishing a full Incident Command System

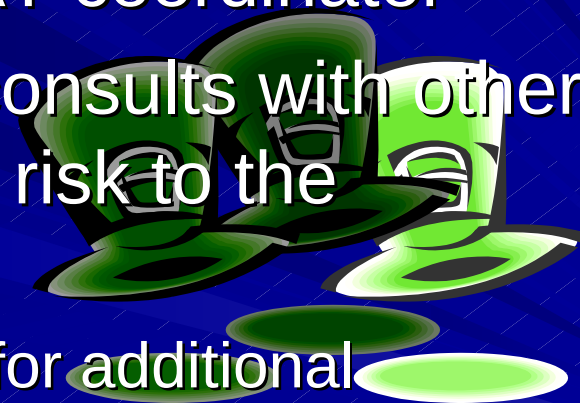
EATing is important because:

- Effectiveness of early response directly proportional to effectiveness of early assessment
- Time is not our friend
 - Encounter rates for skimmers decrease
 - Shoreline impacts increase
 - Penetration and remobilization increase
- Faster than SCAT
- Field verification is critical
 - Aerial observations need field verification and qualification
 - Intent of response being met
- NRDA
 - DATA

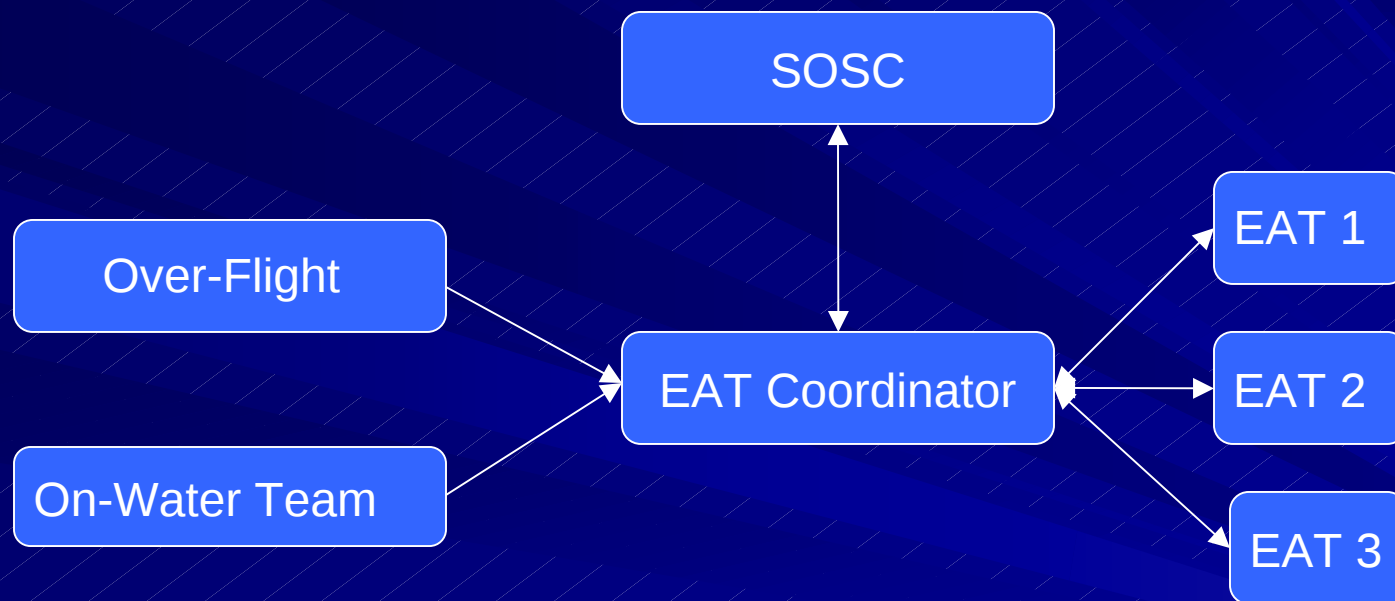
EATING

ICS under EAT Scheme:

- For any spill potentially over 25 gallons the initial responder (State On-Scene Coordinator) notifies the EAT coordinator
- The EAT coordinator then consults with other trustees regarding potential risk to the environment
 - Decision made to either wait for additional information or to recommend gearing up an expanded EAT



Organizing EATs



Note: EATs are more than field observers

Organizing EATs

- EAT from the Air



FEB 15 2006

Organizing EATs

Types of EAT

- EAT from the ground

JAN 14 2003

Organizing EATs

- EAT from the water
- Multiple Aerial and Land
- SCAT
- Multi-Functional
- Sampling Teams



Directing EATs

- EAT Assignment Forms (modified ICS Form 204s)
- Communications
 - Cell Phone
 - Easy to use
 - Generally requires staggered call backs and report times but can leave a message if line is busy
 - Limitations of verbal communications
 - Radio
 - Can have better coverage
 - Opportunity to hear what others are doing (disadvantage too if too busy)

Directing EATs

- Requires a system of staggered call backs to be effective
- Limitations of just verbal communications

Directing EATS

- Use of instant messengers or instant messages from or to phones and computers
 - Easy to use from cell phones, blackberries, or laptops, fitted with cellular phone connection
 - Great for providing clear directions that are repeatable
 - No staggering of call backs required because concurrent messages may be received.
 - Orders can be directed towards groups or individuals

EATING Data

- Hazard Assessment Worksheet
- EAT Coordinator Datasheet
- EAT Datasheet
- Digital Devices: GPS, Photos, and other digital instrumentation

EAT Reporting

Setting up digital link to command via cellular modem

- Instant messages
- E-Mail reports and data-need to be connected to e-mail service or network
- FTP reports and data

Memory Card exchange

- Taken by messenger to data transfer point or command

Use of a data specialist from the field

- Helps transfer hand written to digital
- Sets up digital link from the field

EAT Processing

EAT reports may be developed in the field, at a communications hub, or at the command post

- [Photolink](#)- Joins photographic data with GPS data, plots as a hyperlinked photo on map.
 - Can be enhanced with notation, external and internal notes
- Other types of time files can be joined GPS data using Excel, Access, etc.. (Example GIS plus Air Monitoring using Multirae)
- GIS Report Maps
 - For example if the EAT Coordinator responds to the field and processes field reports, based on direct accounts from the assessment teams

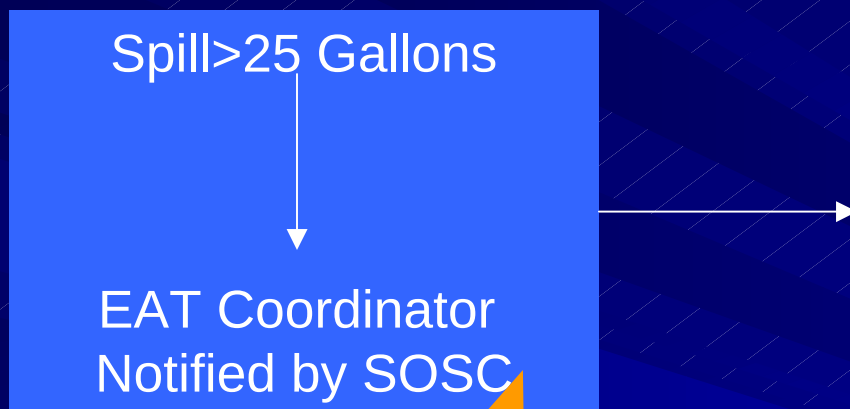
EAT Example



EAT Scenario 1

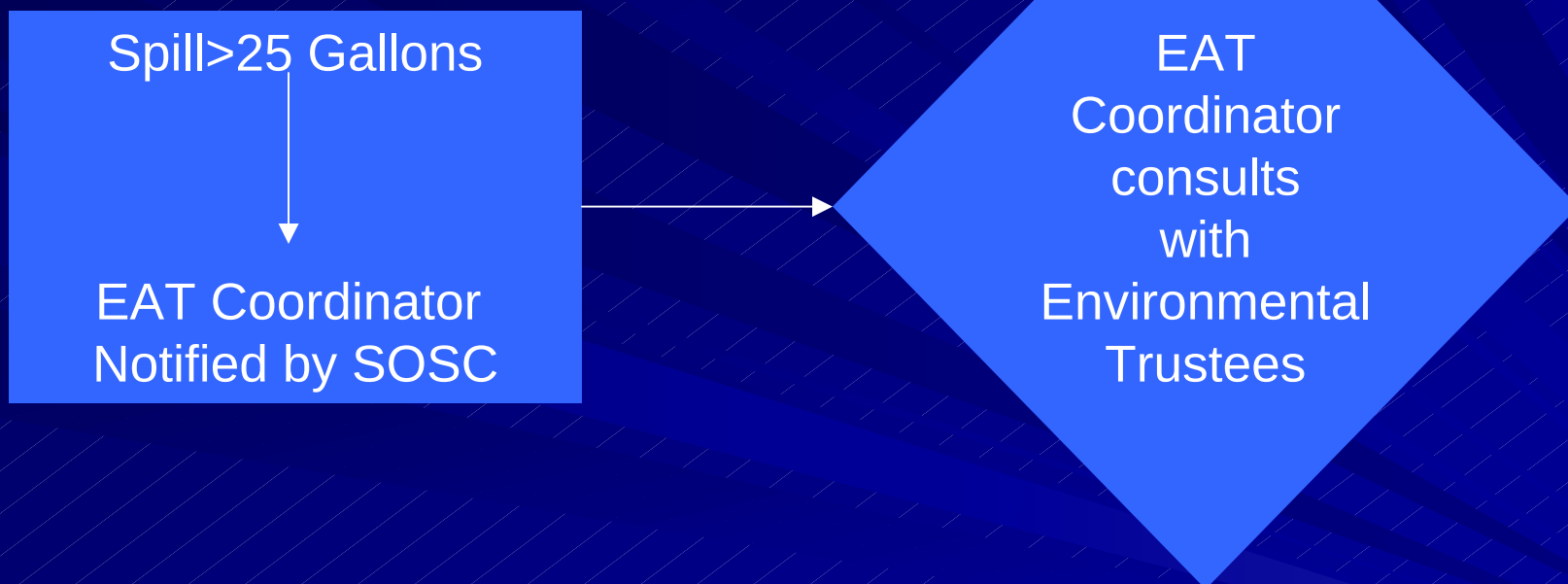
- 10,000 gallon gasoline tanker truck roll-over accident where at least some of the compartments have ruptured
- The wrecked tanker is situated off road in a wetland which in turn drains into a stream and ultimately into a large water body, for example, the Chehalis River

EAT Notification

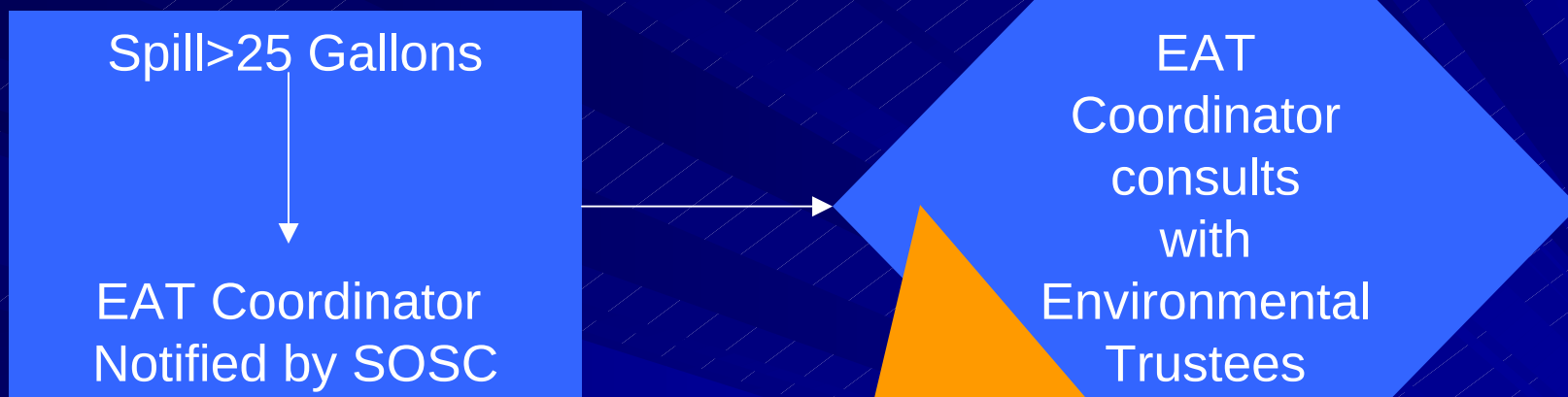


SOSOC conveys situation and requests assistance regarding the assessment of environmental risks

EAT Mobilization



EAT Mobilization

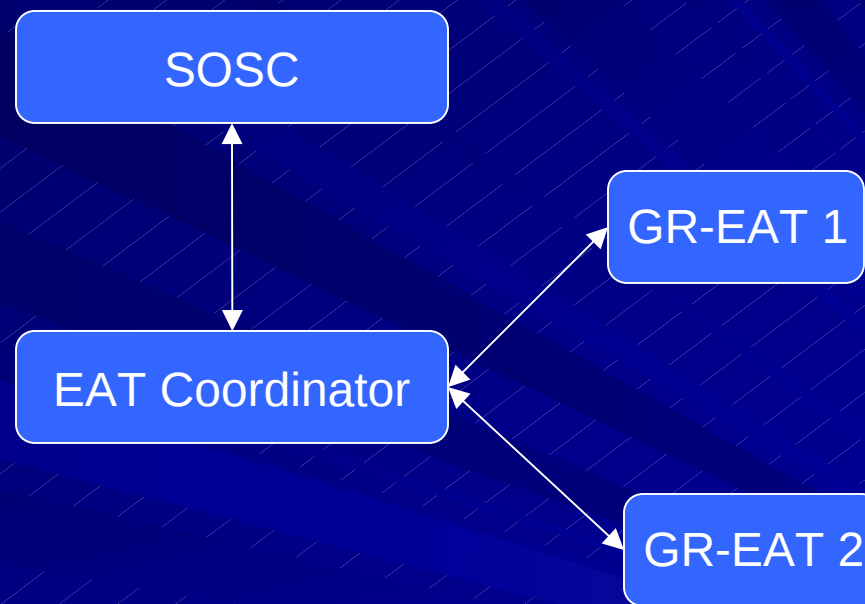


Trustees agree that to better understand risk and potential damage to the environment two ground teams for near the impact area and one on-water EAT should be dispatched. Each team should have an assessment and sampling specialist as well as a specialist trained in air monitoring. The coordinator in this case will be most useful on-scene.

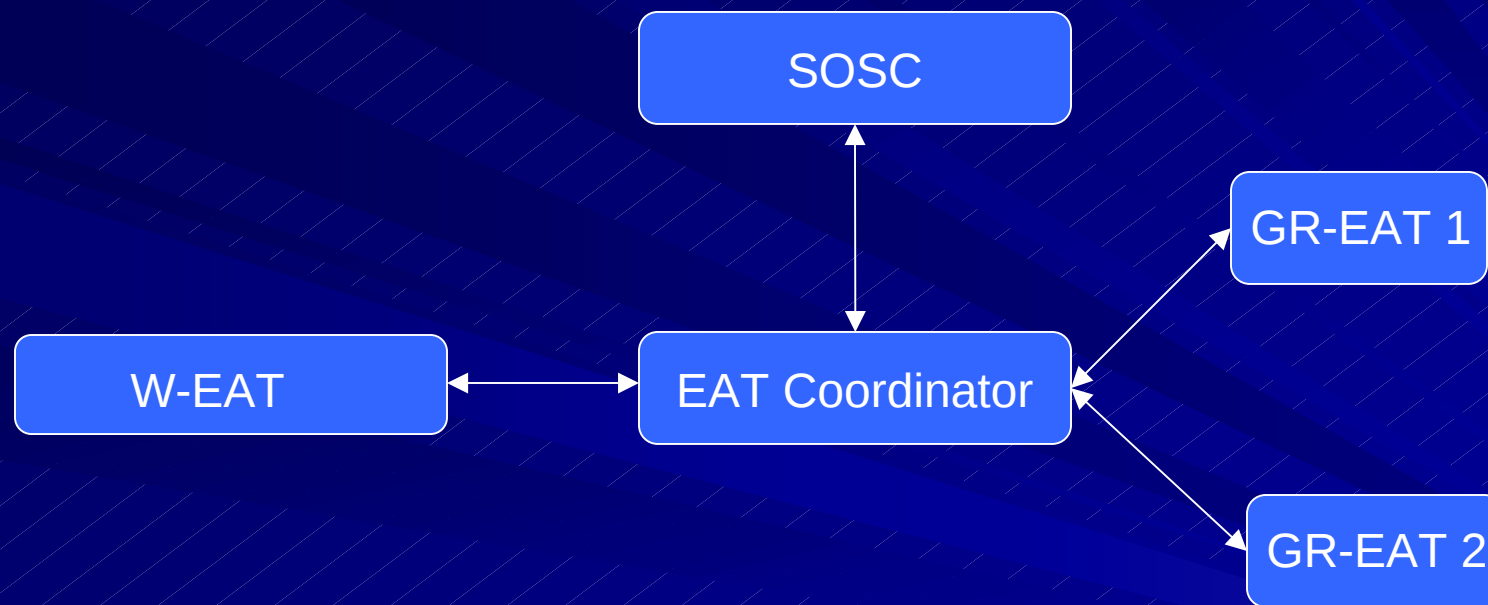
Organization for Rapid Mobilization

SOSC

Organization for Rapid Mobilization



EAT Organization



Directing EATs

Coordinator decides assessment objectives:

- Safely assess the extent of environmental contamination visually
- Identify areas where passive cleanup maybe accomplished
- Assess the effectiveness of existing response strategies
- Collect samples documenting the extent and character of contamination

Directing EATs

Coordinator decides:

- Radios will be used for initial safety assessment
- Each team in succession is to call out position and readings.
 - Coordinator records data on a spread sheet so that results of assessment can be rapidly mapped

Directing EATs

- Maps and EAT Assignment Forms are prepared and used to brief the two ground teams and standardize data collection

I. Information as first reportedType of Incident: Gasoline Location/Site Name: _____ (GPS)

Owner of Property (if known): _____

II. Information upon arrival and BEFORE first perimeter reconnaissanceArrival Time (24 hour clock): 12:00 Wind from the SW at approx. speed of 10 mph/cts

Other Personnel On Scene (fire, police, contractors, etc.):

Local FD, PoliceNearest Hospital and Phone Number: Capitol Med CenterGeneral Site Description & Potential Hazards, as seen from arrival position, and Recon plans:See Attached MapIII. Initial Perimeter Recon PPE used: ☒ Level B ☐ Level C ☐ Level D ☐ PFD ☐ Other _____IV. Site Hazard(s) Identified During Perimeter Recon: Mark all known or suspected hazards.

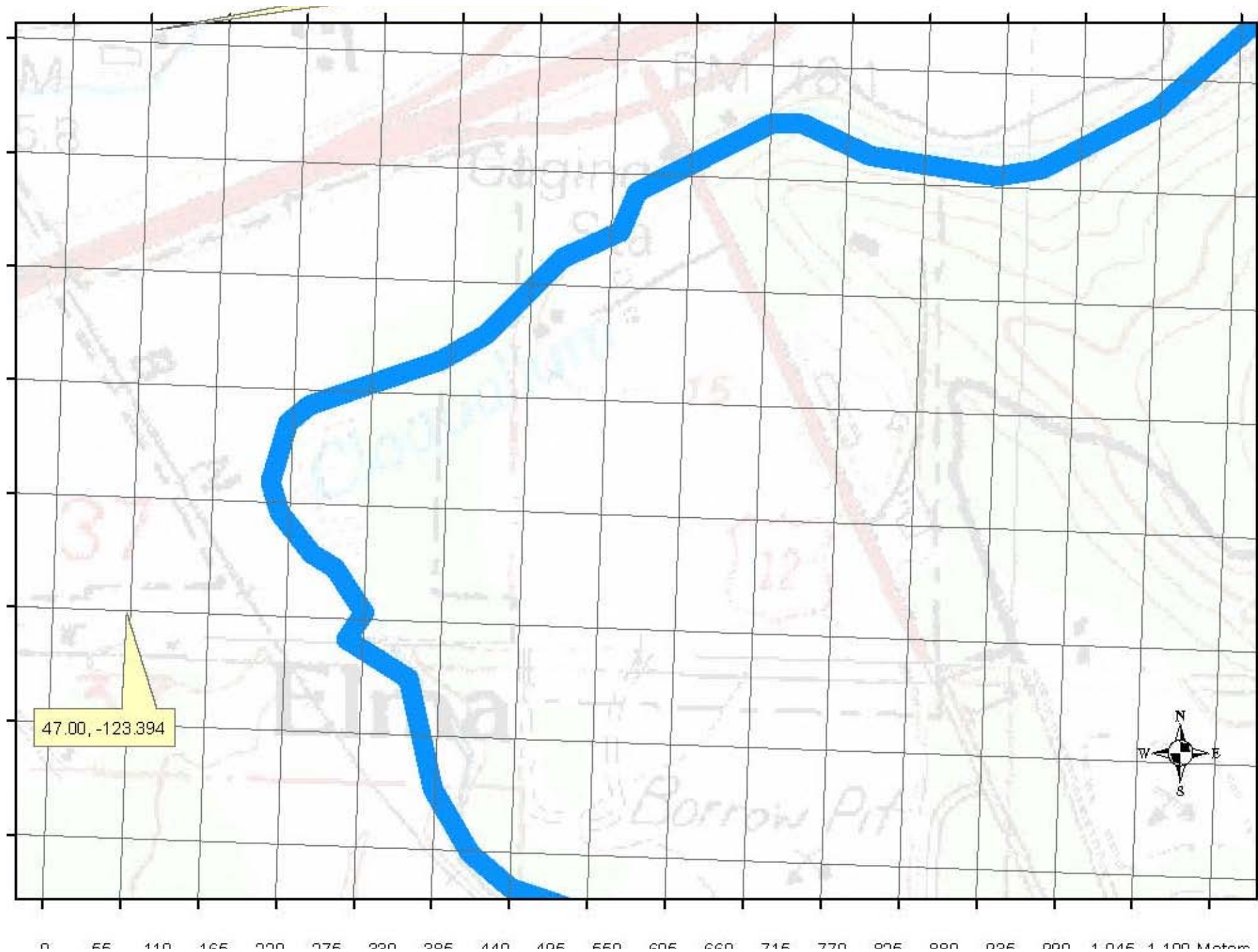
☐ Flammable Liquids ☐ Biohazard/Needles ☐ Vehicles/Traffic safety ☐ Noise
☒ Heat/Cold (temp _____) ☒ Explosive ☐ Slip/Trip/Fall ☐ Fall into Water ☐ Animals
☐ Other (specify) _____

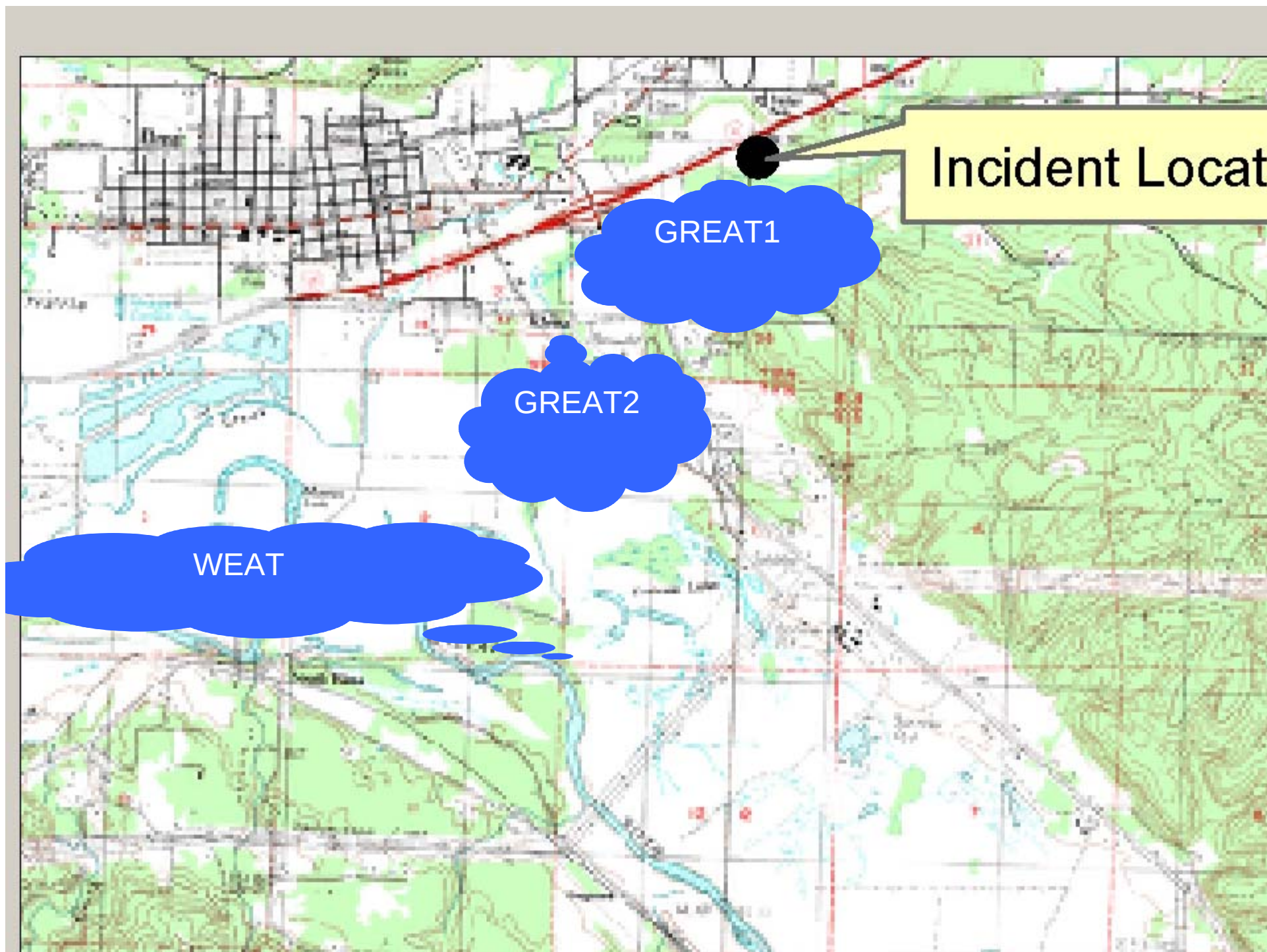
Heat Stress Monitoring: ☐ Yes ☐ No Outside Temp F° 50 Refer to Heat Stress Chart; make debrief comment

Note significant observations during initial recon:

Known or Suspected Compounds and Action Levels, these levels are generally more conservative than PELs etc.

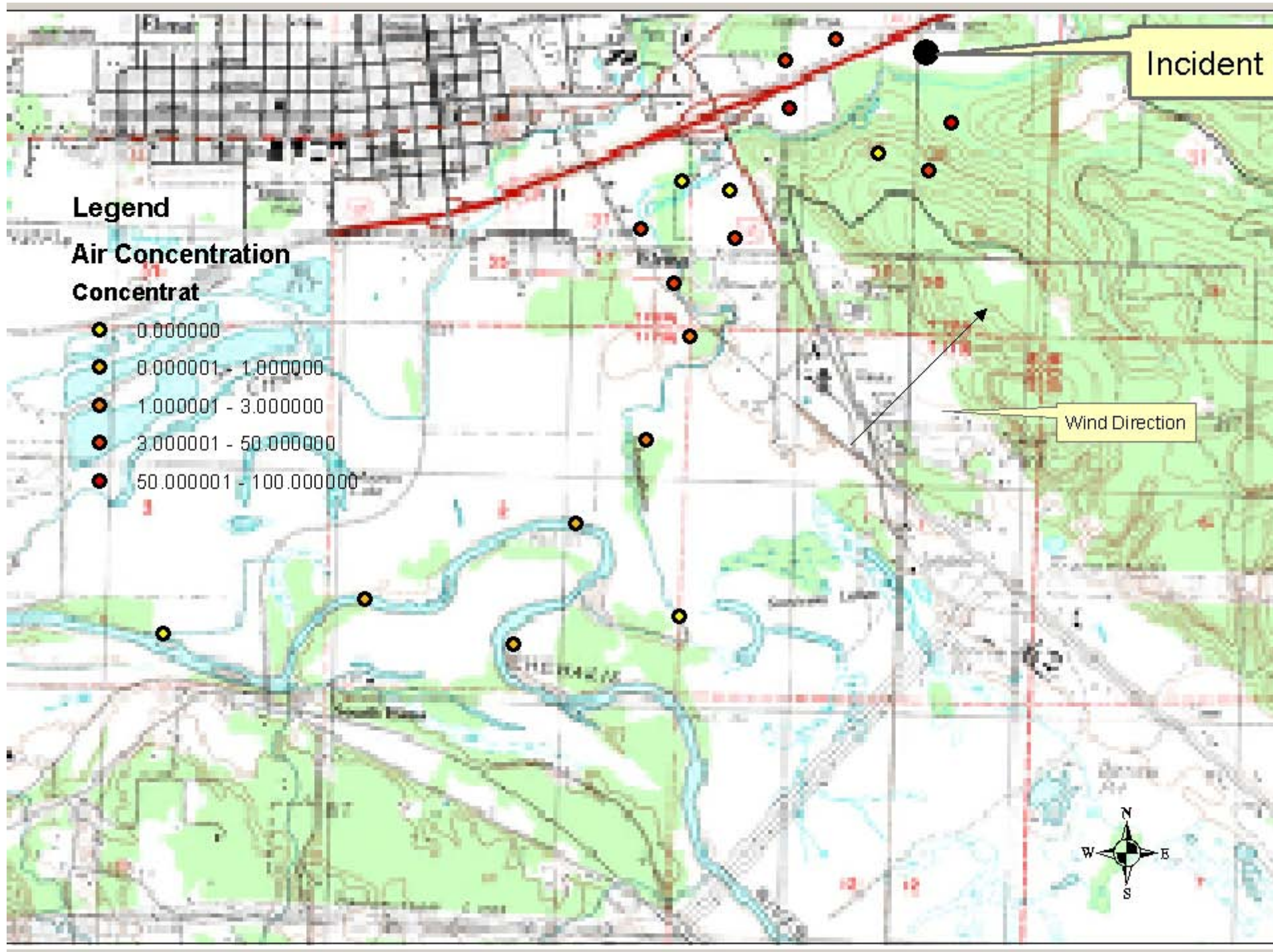
Respirator use strategy (based on full face) Petroleum Type	Breathing Zone Use Respirator @	Breathing Zone Max Respirator Use @	If the following limits are noted outside the breathing zone then leave area & consult with Safety Officer; may be explosive/fire hazard
<u>Gasoline</u> (containing ≤ 4% Benzene)	VOC=10 PPM	VOC=1000 PPM < 10% LEL	VOC ≥ 1000 PPM (THC) At or near 10% LEL
<u>Diesel</u> (in case of fire watch for SO ₂ : must use	VOC=10 PPM	VOC=600 PPM < 10% LEL	VOC ≥ 600 PPM (THC) At or near 10% LEL





Time	EAT TEAM	HC	%LEL	lat	lon
2:00:00 PM	1	0	0	46.561	-122.784
2:01:00 PM	2	10	1	46.563	-122.787
2:02:00 PM	w	15	1	46.565	-122.79
2:03:00 PM	1	7	1	46.567	-122.793
2:04:00 PM	2	3	1	46.569	-122.796
2:05:00 PM	w	7	1	46.571	-122.799
2:06:00 PM	1	100	2	46.573	-122.802
2:07:00 PM	2	5	1	46.575	-122.805
2:08:00 PM	w	50	2	46.577	-122.808
2:09:00 PM	1	10	0	46.579	-122.811
2:10:00 PM	2	0	0	46.581	-122.814
2:11:00 PM	w	0	0	46.583	-122.817
2:12:00 PM	1	0	0	46.585	-122.82
2:13:00 PM	2	0	0	46.587	-122.823

Air Monitoring Reports

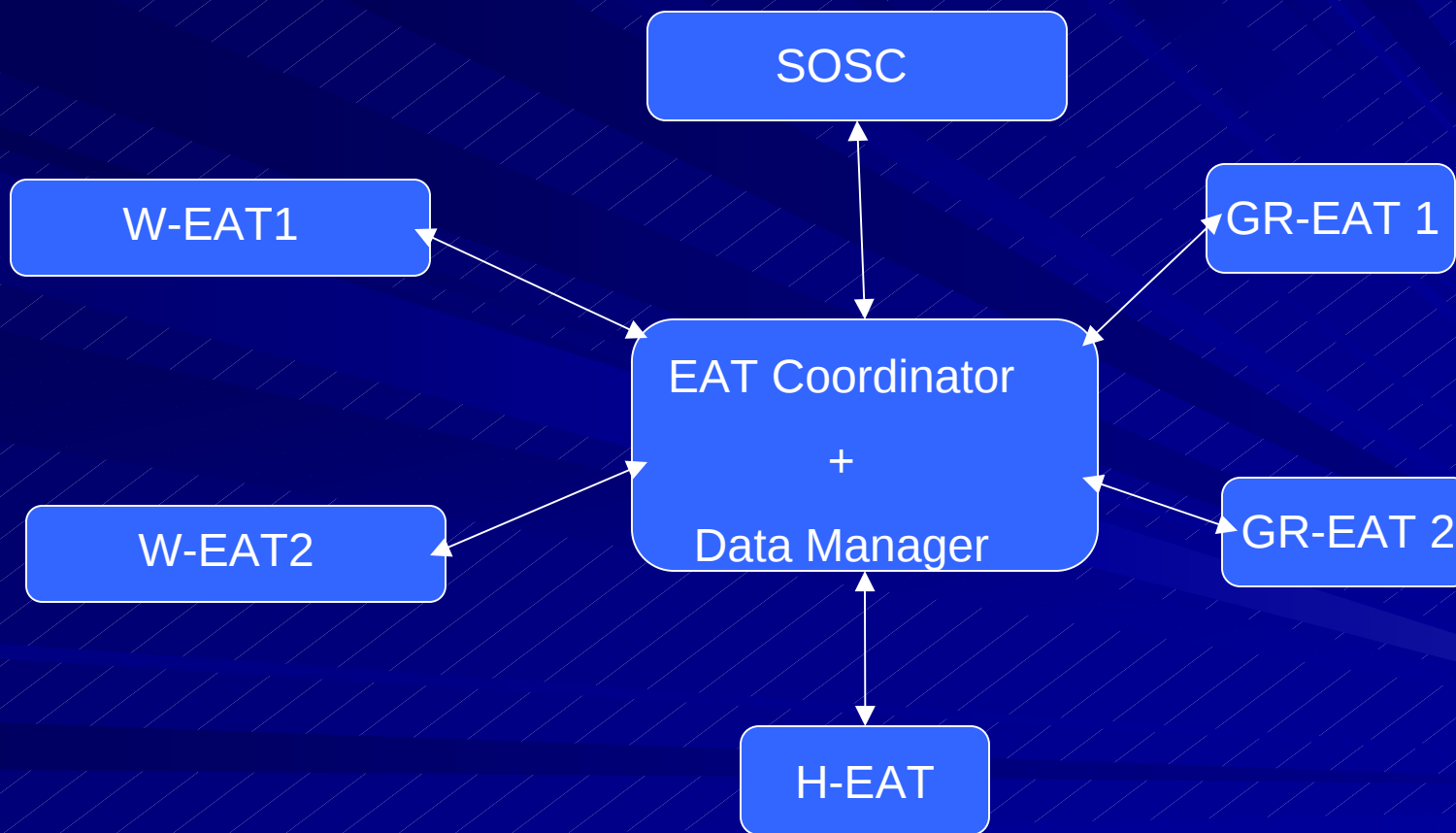


EAT Scenario 2

■ Railroad Accident

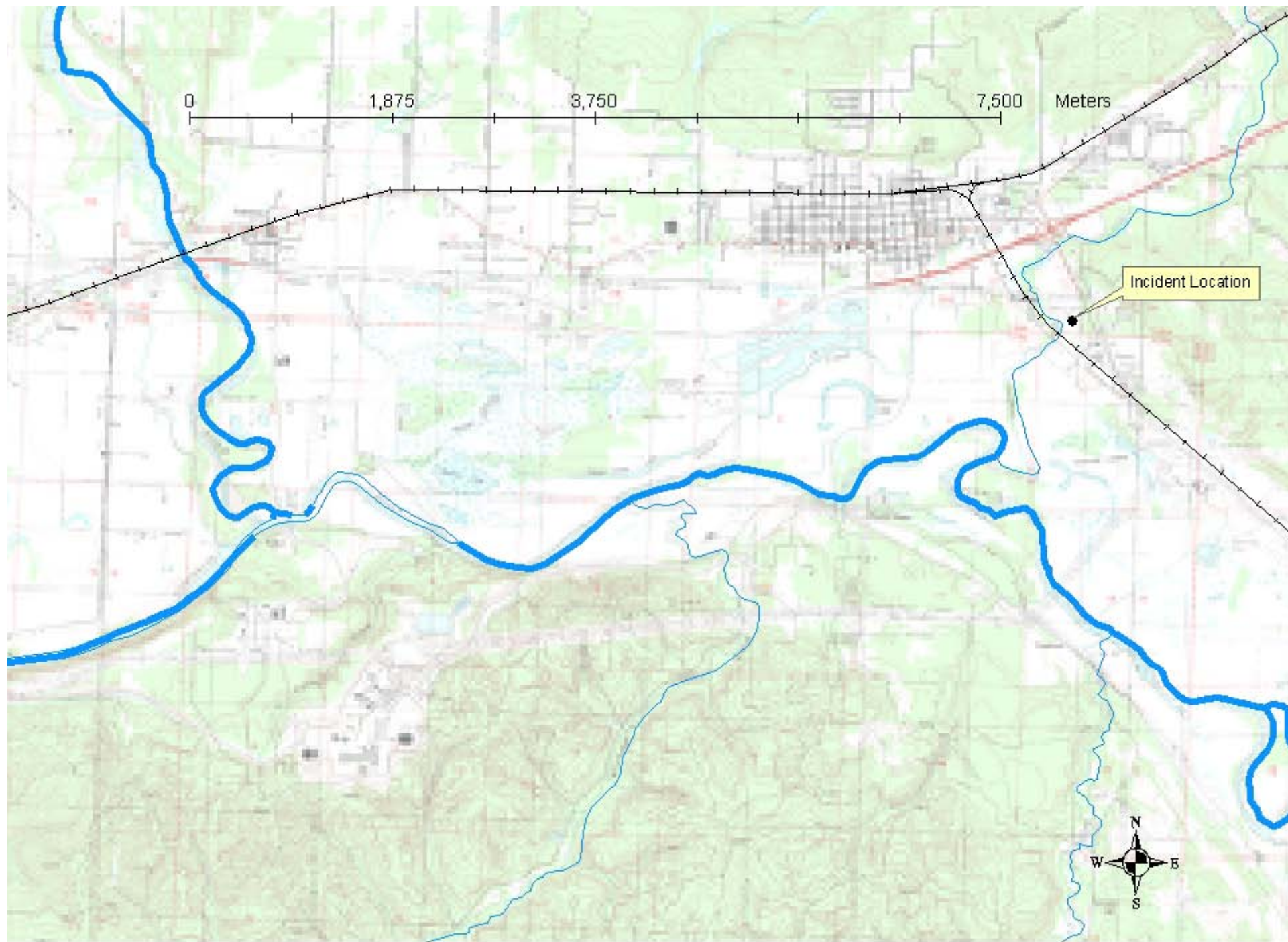
- Two lubricating oil tank cars, each with @30,000 gallons
- Black oil reported to have reached Chehalis River

EAT Organization



EAT Direction

- Maps, EAT Assignment Forms, and Data Collection forms are prepared and distributed



1. Incident Name <u>Dave's Trucking Spill</u>		2. Operational Period (Date/Time) From: <u>5/4/06 0600</u> To: <u>5/5/06 0600</u>		Assignment List EAT 204-OS	
3. EAT Team Number <u>Team 1</u>					
4. Personnel		Name		Affiliation	
		Contact # (s)			
SOSC: <u>Jim Sachet</u>		<u>Ecology SWRO</u>		<u>360-407-xxxx</u>	
EAT Coordinator: <u>Dave Mora</u>		<u>Ecology NRDA</u>		<u>360-407-xxxx</u>	
Team Leader: <u>Doug Stolz</u>		<u>Ecology SWRO</u>		<u>360-407-xxxx</u>	
Team Member: <u>Dale Davis</u>		<u>Ecology NRDA</u>		<u>360-407-xxxx</u>	
Team Member: <u>Dan Doty</u>		<u>WDFW Spill Team</u>		<u>360-902-xxxx</u>	
5. Assessment Area					
Beach segment Identification: <u>Deep Creek from Barnes Road to creek mouth</u>					
Access point: <u>Barnes Road boat ramp</u>					
<u>N</u> end of segment, Latitude <u>48.1234567</u>		Longitude <u>122.1234567</u>		Landmark <u>boat ramp</u>	
<u>S</u> end of segment, Latitude <u>48.5647891</u>		Longitude <u>122.7894561</u>		Landmark <u>Burger King</u>	
6. Transportation Information					
<u>Ecology workboat</u>					
7. Site Specific Safety Considerations					
<u>Boat ramp is frequented by drug dealers, creek may be flooding in places</u>					
8. Specific Information for Team					
Tides: Current height _____ Next high at _____ Height _____ Next low at _____ Height _____					
Forecasted weather: Wind speed <u>10 to 20 mph</u> from the <u>SW</u> Rain <u>30% chance</u> Temperature <u>58^o F</u>					
Sunrise <u>5:35 a.m.</u> Sunset <u>8:26 p.m.</u>					
9. Communications (radio and/or phone contact numbers needed for this assignment)					
Name/Function		Radio: Freq./System/Channel		Phone	
Pager					
<u>Jim Sachet-SOSC</u>		<u>98.6, DNR Common, 10</u>		<u>407-xxxx</u>	
<u>Doug Stolz-Team Leader</u>		<u>Same</u>		<u>407-xxxx</u>	
<u>Dave Mora</u>		<u>Same</u>		<u>407-xxxx</u>	
				<u>971-xxxx</u>	
				<u>786-xxxx</u>	
				<u>971-xxxx</u>	
Emergency Communications					
Medical <u>911</u>		Evacuation <u>407-xxxx</u>		Other _____	
10. Prepared By <u>Dale Davis</u>		Date/Time <u>5/3/06 1700</u>			
ASSIGNMENT LIST		August 2005		EAT 204-OS	

EAT (Early Assessment Team) – Coordinator Shoreline Data Sheet

Date: 5/4/06	Start time (24 hr): 0730	End time: 0945	Incident name: Dave's Trucking spill
EAT #: Team 1	Recorder initials: DD	Accessed by: boat / helo / shore	Shoreline segment: Deep Creek at Barnes Road

Safety Assessment (has a Hazard Assessment Worksheet (HAW) been completed? **Y** / N)

Visual safety assessment: **Shoreline near boat ramp has some oil, rocks are slippery, no breathing hazards**

Beach safe for: ☒ Assessment Team ☒ Cleanup Crews ☐ General Public

Access limitations: **Keep general public away from boat ramp area**

Initial Shoreline Oiling Assessment (rough estimates, report back to coordinator as soon as possible)

Total length of oiled beach: 150 (ft / 5 yds)	Average width of oiled beach: 5 (ft / yds)	Average % oil cover: 50%	Oiling comments: Oil tends to concentrated on the back sides of sand and gravel bars
Segment potential for rapid oil re-float mitigation: High / Medium / Low		Comments: Oil appears to be stranded from a period of higher water	

Fish and Wildlife – Presence and Impacts

Wildlife presence in area: **Resident trout**

Suspected or known impacts: **Six dead fish collected, may be more farther down stream**

On-Scene Conditions

Wind spd (mph): 10	Wind dir. (from): SW	Weather: Light rain	Cloud cover: 100%
Tide stage: high / low / mid-	Wave ht. (ft):	Temp. (F): 50	Weather comments: Periods of heavy rain

General Comments: **Heavier rains may result in higher water that could remobilize the oil**

Sample Number	Date Collected	Time Collected	Lat/Long or GPS Waypoint Number (specify datum if not WGS-84):
Boat ramp - 1	5/4/06	0745	48.1234567 122.1234567
Boat ramp - 2	5/4/06	0800	48.1345678 122.2345678
Creek mouth	5/4/06	0900	48.5678943 122.7891236

EAT Data Collection

Coordinator Data Entry

Data
Digitized
and GIS
mapping
possible

Microsoft Access - [EAT (Early Assessment Team) - Shoreline Assessment Data Sheet]

File Edit View Insert Format Records Tools Window Help Type a question

Date	Start Time	Finish Time	Incident Name	Assessment Mod
				Land
EAT#	Recorder Initials	Segment Name	Start Lon	Start Lat
GREAT1	DGM	Near Wetland	123.7	45.300
			Fin Lat	Fin Lon
			123.8	4

Haw Complete
☒

Visual Safety Assessment
Slips trips and falls, sheening indicates possible presense of vapors

Access Limitations
See HAW regarding respiratory and explosive hazards

Length of Oiled Beach (m)

Average Width of Oiled Beach (m)

Average % Cover

Oiling Comments

Fish and Wildlife Impacts
☒

Wildlife in Area

Record: 1 of 2

Photo Link Report

- Links Photo and Position by time
- Compresses into web sized file
- Links to Internet Maps
- Creates GIS track line shape file, which includes the links to the photo file

Photo Link Report

Address  C:\Program Files\GPS-Photo Link\Photos\2005-11-29 - 3\index.htm  Go  Links >>

  Search Web  My Web  Mail  My Yahoo!  Games >>

Photos

click on photo for location details

[Overview Map](#)

01 : DSC00005 tag.jpg



02 : DSC00006 tag.jpg



Overview Map



The map shows a topographic view of a region with green hills and blue water bodies. A red line runs diagonally across the map. A red 'X' is marked on the map. Blue numbers 1 and 2 are overlaid on the map. The map includes labels for 'Chequamegon' and 'Chequamegon National Forest'.

Address  C:\Program Files\GPS-Photo Link\Photos\2005-11-29 - 3\index.htm  Go  Links >>

  Search Web    My Web  Mail  My Yahoo!  Games >>

Photos

click on photo for location details

[Overview Map](#)

[01 : DSC00005 tag.jpg](#)



[02 : DSC00006 tag.jpg](#)



This photo is looking north. Oil observed in a continuous slick across the entire width of the river. Shoreline substrate includes sand gravel, clay banks, and root overhangs.



Summary

- Assessment is key to mounting a successful spill response
- Washington developed EAT concept to be certain that assessment is a high priority
- Washington is developing tools to improve the quality of rapid assessments, communications, and reporting