Early Assessment Teams

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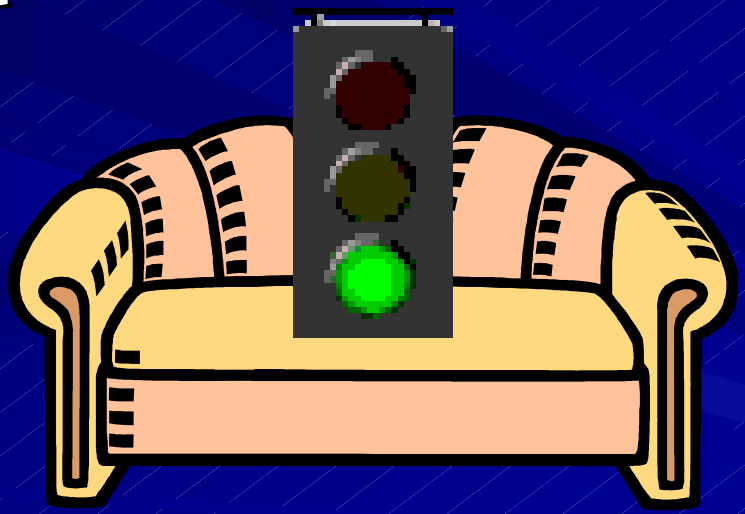
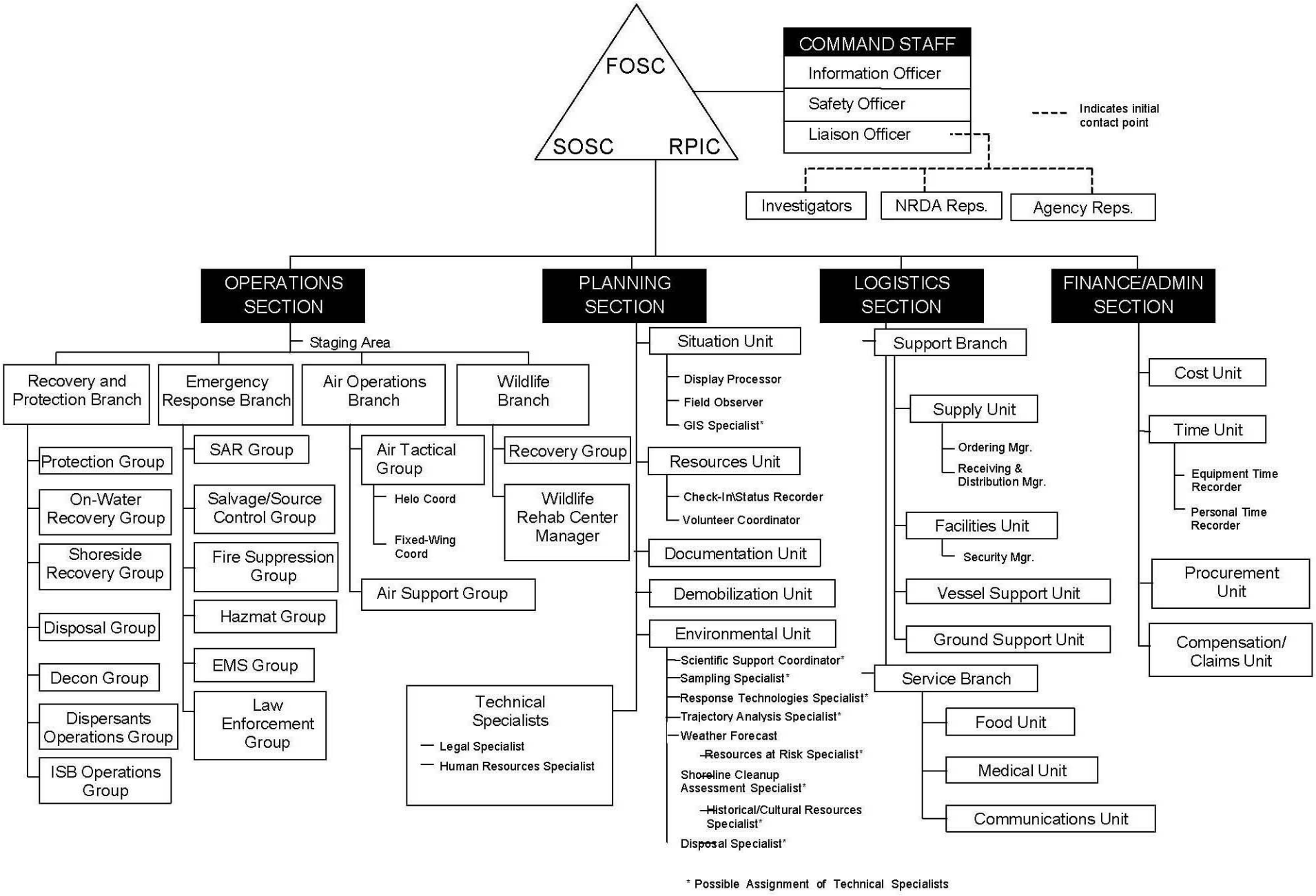
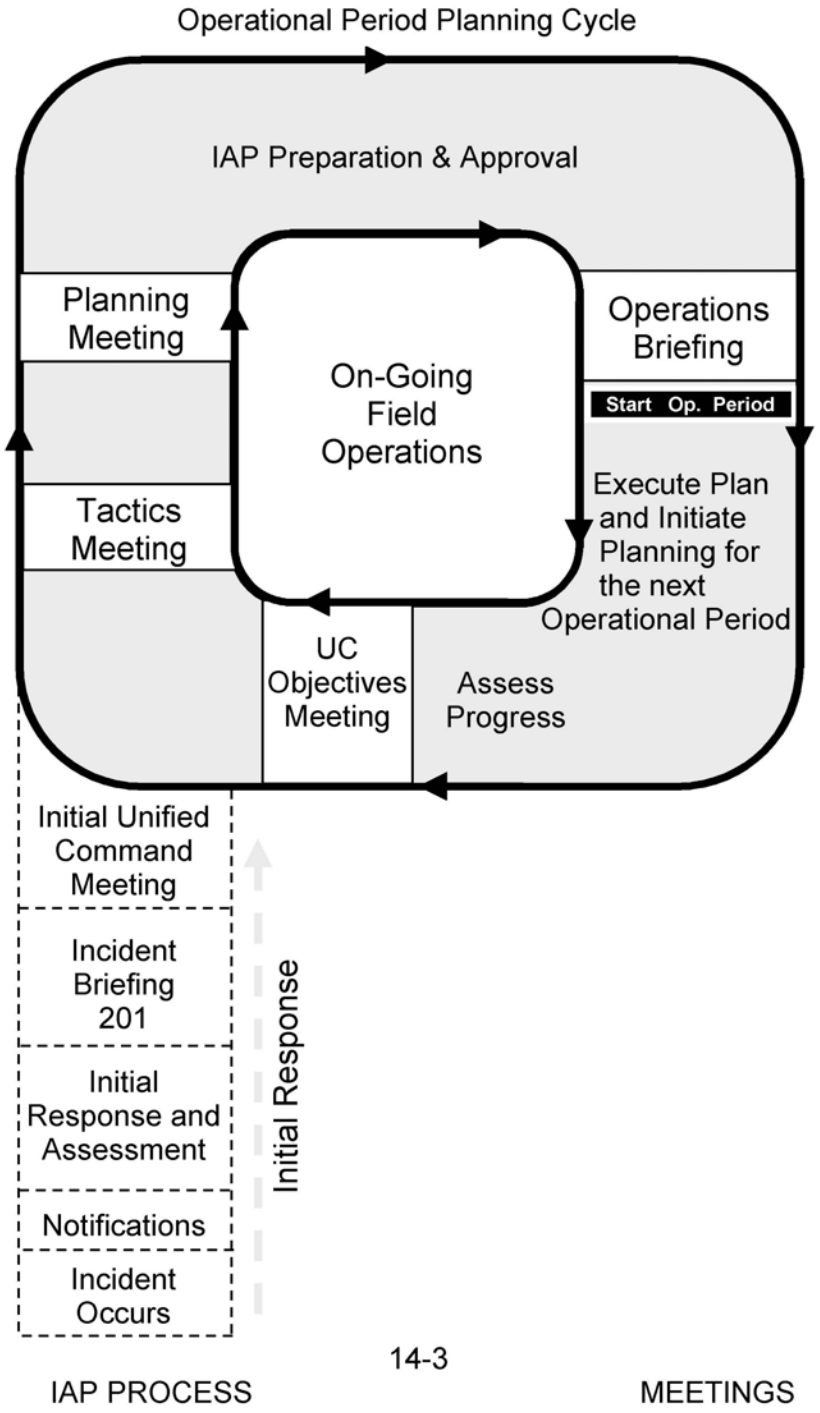
Topic: Shoreline Impacts, Response, and Damage Assessment

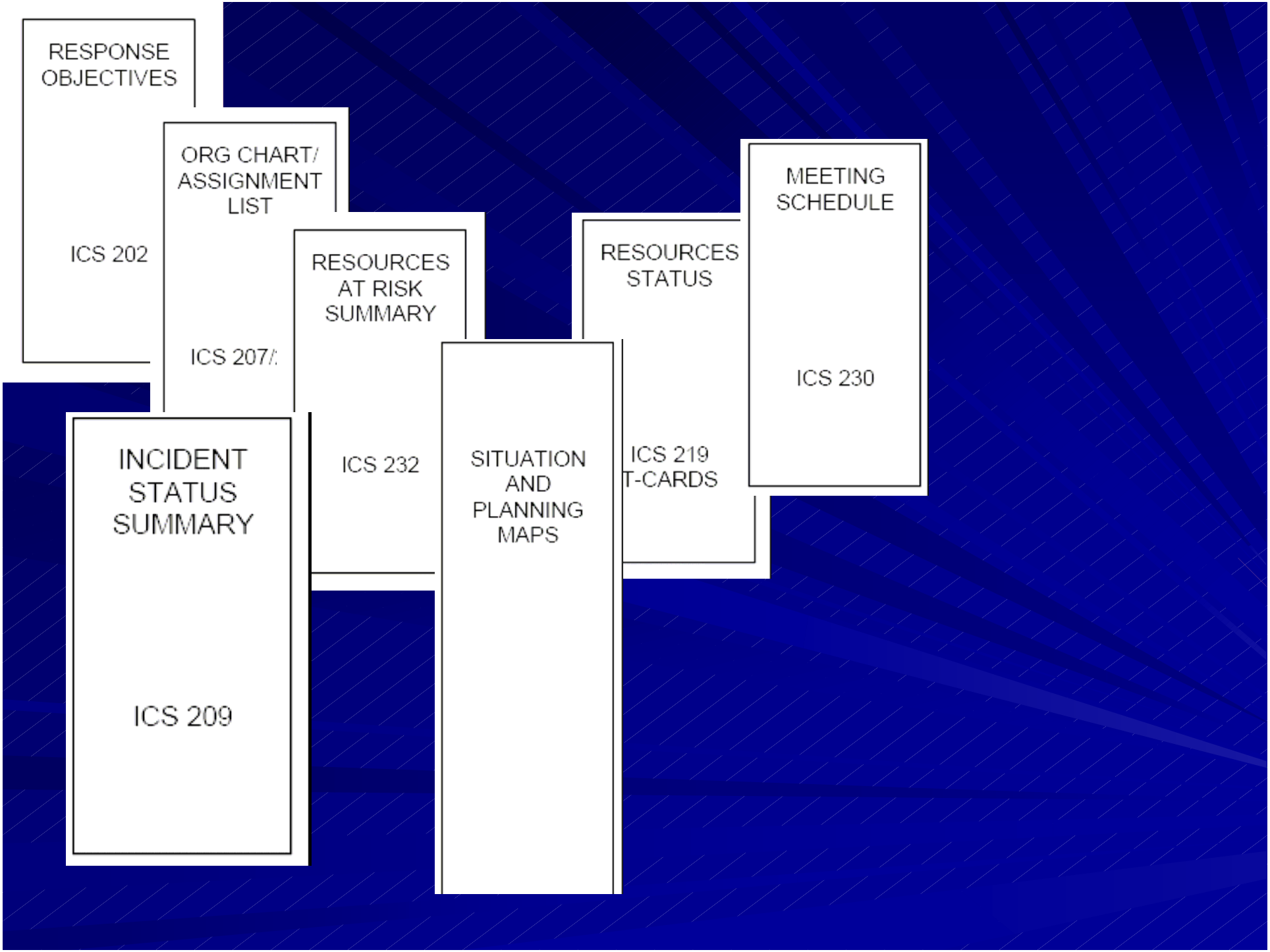
Introduction

High priority on establishing an Incident Command System and Command Post

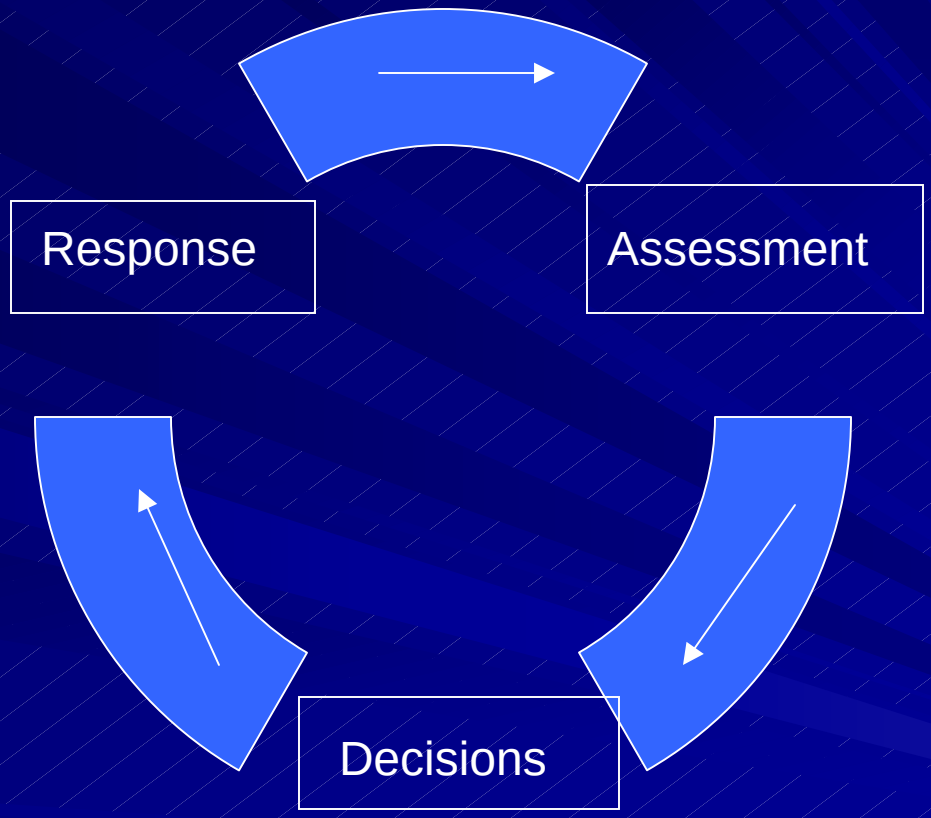



FOSC
SOSC
RPIC
COMMAND STAFF
Information Officer
Safety Officer
Liaison Officer
Indicates initial contact point
Investigators
NRDA Reps.
Agency Reps.
OPERATIONS SECTION
PLANNING SECTION
LOGISTICS SECTION
FINANCE/ADMIN SECTION
Staging Area
Recovery and Protection Branch
Emergency Response Branch
Air Operations Branch
Wildlife Branch
Protection Group
On-Water Recovery Group
Shoreside Recovery Group
Disposal Group
Decon Group
Dispersants Operations Group
ISB Operations Group
SAR Group
Salvage/Source Control Group
Fire Suppression Group
Hazmat Group
EMS Group
Law Enforcement Group
Air Tactical Group
Helo Coord
Fixed-Wing Coord
Air Support Group
Recovery Group
Wildlife Rehab Center Manager
Technical Specialists
Legal Specialist
Human Resources Specialist
Situation Unit
Display Processor
Field Observer
GIS Specialist*
Resources Unit
Check-In\Status Recorder
Volunteer Coordinator
Documentation Unit
Demobilization Unit
Environmental Unit
Scientific Support Coordinator*
Sampling Specialist*
Response Technologies Specialist*
Trajectory Analysis Specialist*
Weather Forecast
Resources at Risk Specialist*
Shoreline Cleanup Assessment Specialist*
Historical/Cultural Resources Specialist*
Disposal Specialist*
Support Branch
Supply Unit
Ordering Mgr.
Receiving & Distribution Mgr.
Facilities Unit
Security Mgr.
Vessel Support Unit
Ground Support Unit
Service Branch
Food Unit
Medical Unit
Communications Unit
Cost Unit
Time Unit
Equipment Time Recorder
Personal Time Recorder
Procurement Unit
Compensation/ Claims Unit
* Possible Assignment of Technical Specialists


Operational Period Planning Cycle
IAP Preparation & Approval
Planning Meeting
Operations Briefing
On-Going Field Operations
Start Op. Period
Tactics Meeting
Execute Plan and Initiate Planning for the next Operational Period
UC Objectives Meeting
Assess Progress
Initial Unified Command Meeting
Incident Briefing 201
Initial Response and Assessment
Notifications
Incident Occurs
Initial Response
IAP PROCESS
MEETINGS

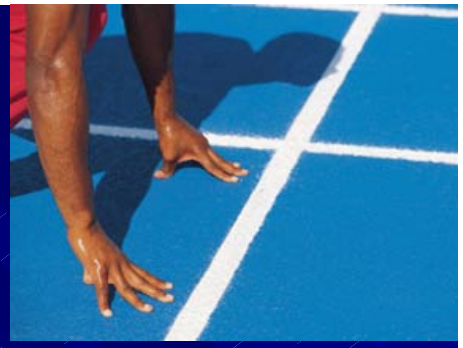

RESPONSE OBJECTIVES
ICS 202
ORG CHART/ ASSIGNMENT LIST
ICS 207/
RESOURCES AT RISK SUMMARY
ICS 232
SITUATION AND PLANNING MAPS
RESOURCES STATUS
ICS 219 T-CARDS
MEETING SCHEDULE
ICS 230
INCIDENT STATUS SUMMARY
ICS 209


ENVIRONMENTAL INFORMATION
SITUATION INFORMATION
AUTION



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

Introduction

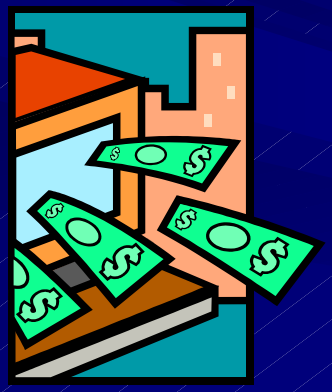


- When spills happen we need to act fast
- Response organizations are limited in the number of personnel available to respond
- Possibility exits for acts of organizing or reorganizing to compete with the need to assess
  - bth

Introduction

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


WILCOX & FLEGEL
JAN 13 2003



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

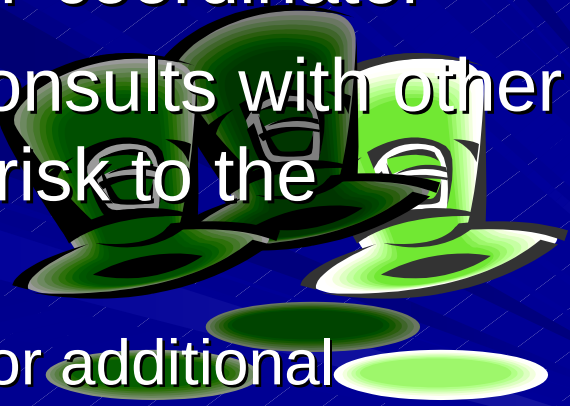
EATing is important because:

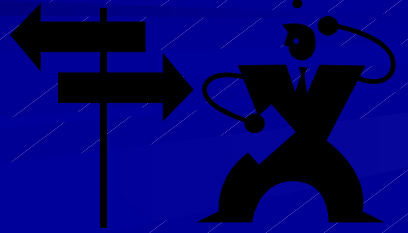
- Effectiveness of early response directly proportional to effectiveness of early assessment
- Time is not our friend
  - Encounter rates for skimmers decrease
  - Shoreline impacts increase
  - Penetration and remobilization increase
- Faster than SCAT
- Field verification is critical
    - Aerial observations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

EATING

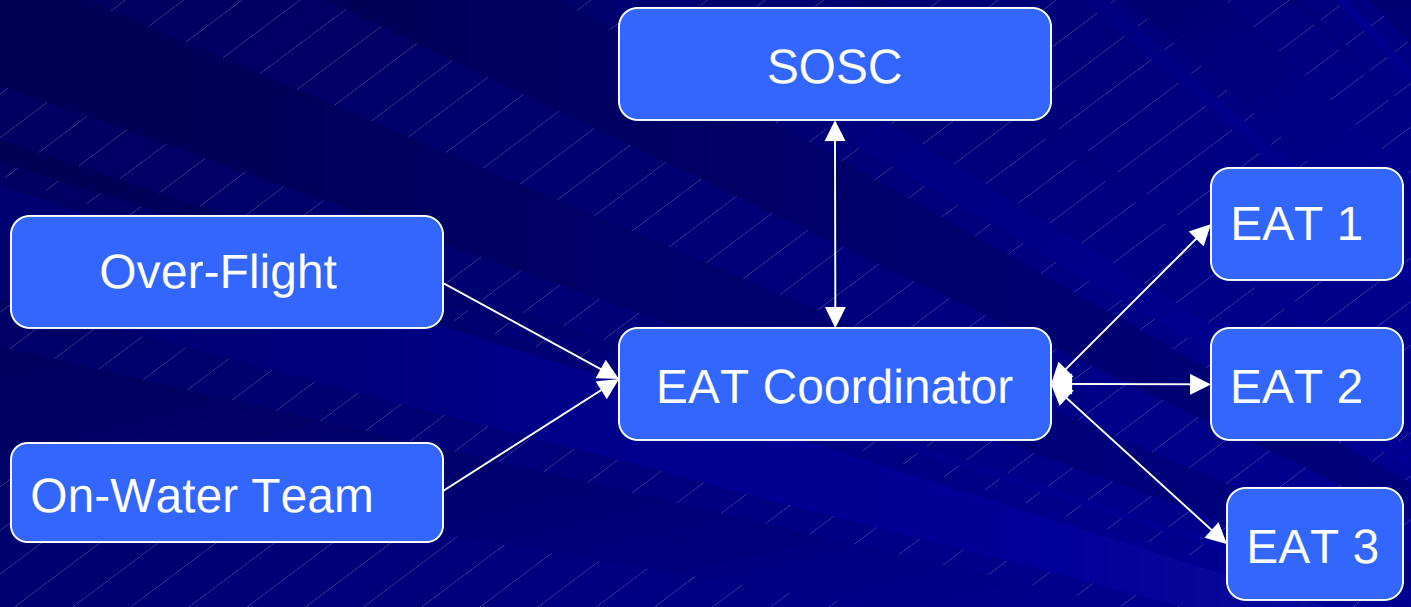
ICS under EAT Scheme:

- 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

Organizing EATs

Types of EAT

- EAT from the ground

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

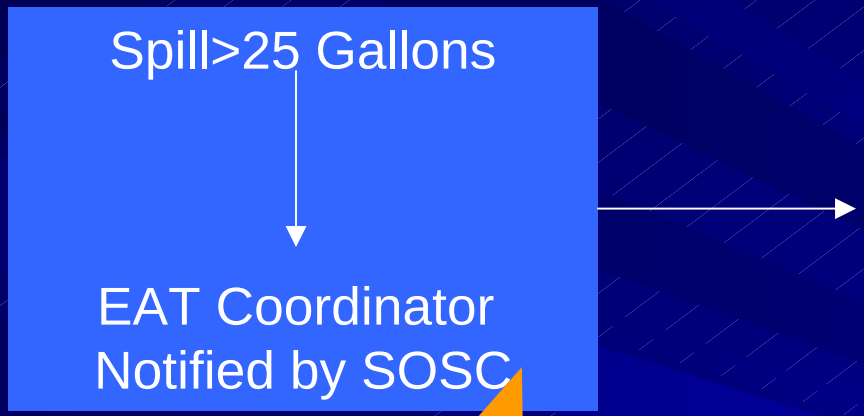
EAT Example

EAT Scenario 1

- 10,000 gallon gasoline tanker truck roll-over accident where at least some of the compartments have ruptured

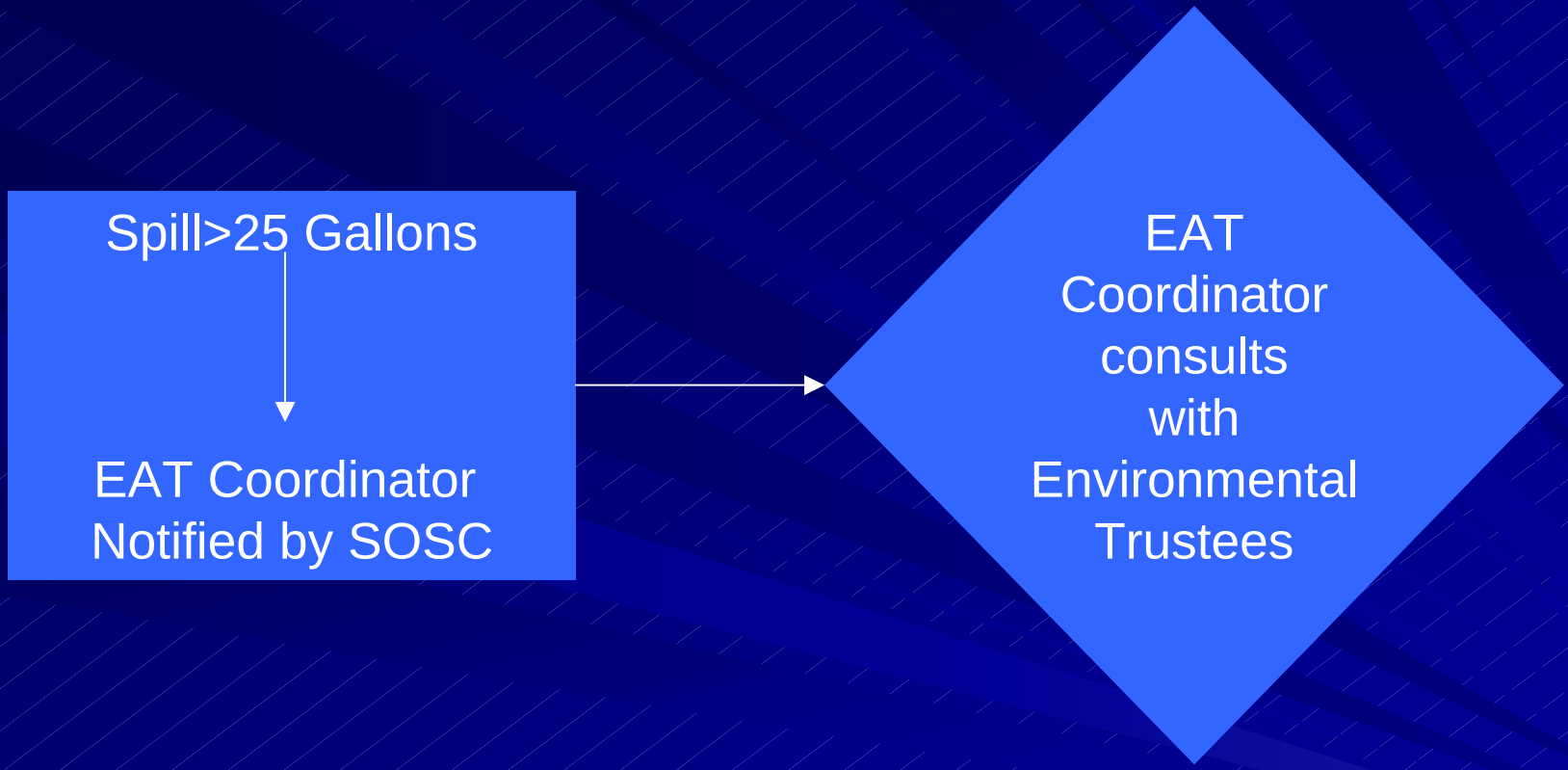
- The wrecked tanker is situated off road in a wetland which in turn drains into a stream and ultimately into a large water body, for example, the Chehalis River

EAT Notification

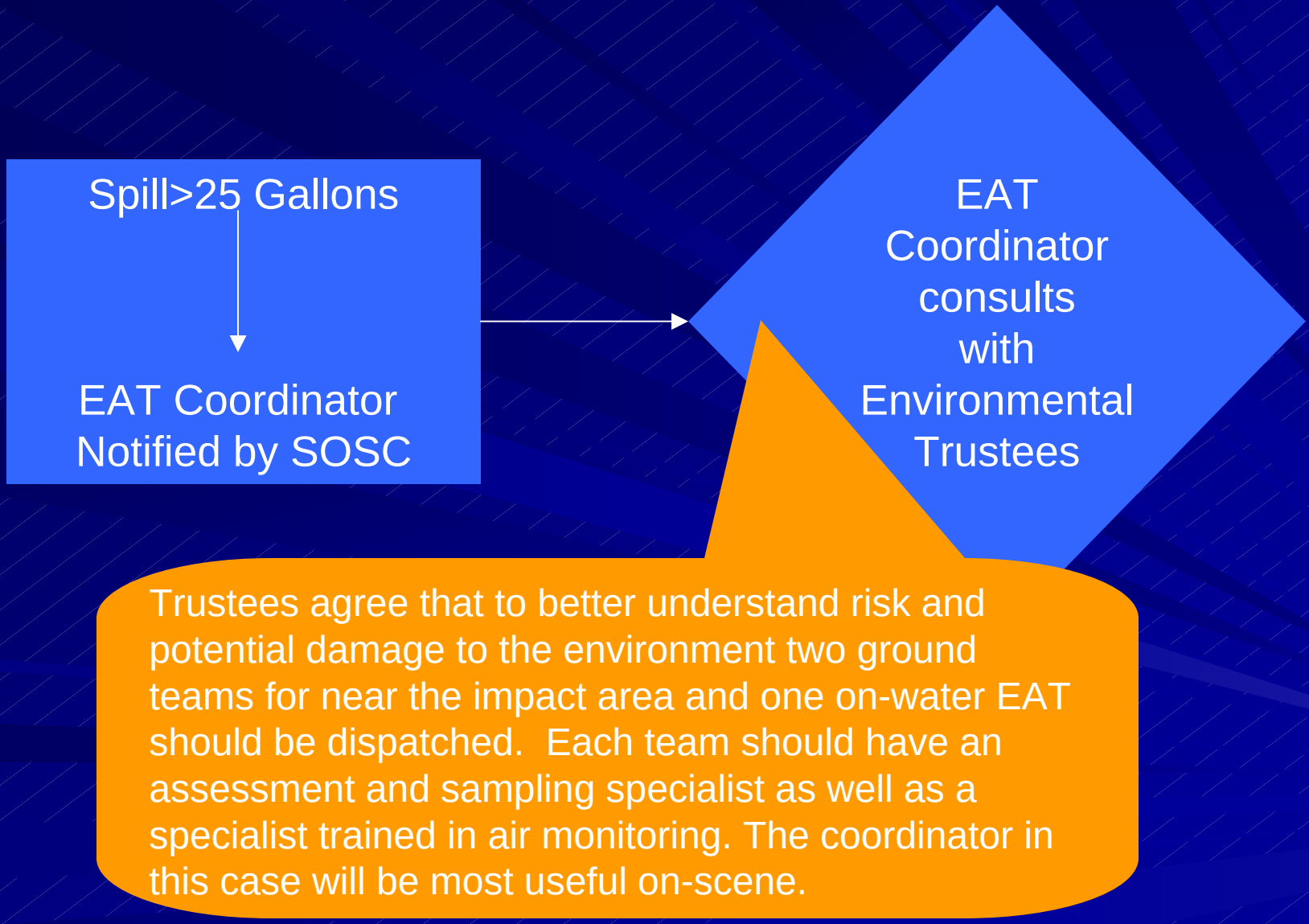


SOSC conveys situation and requests assistance regarding the assessment of environmental risks

EAT Mobilization



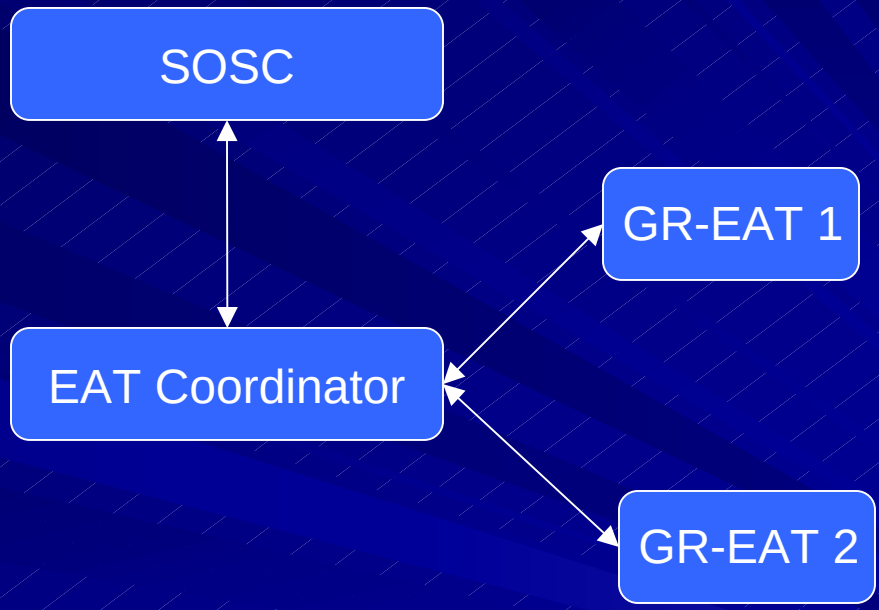
EAT Mobilization



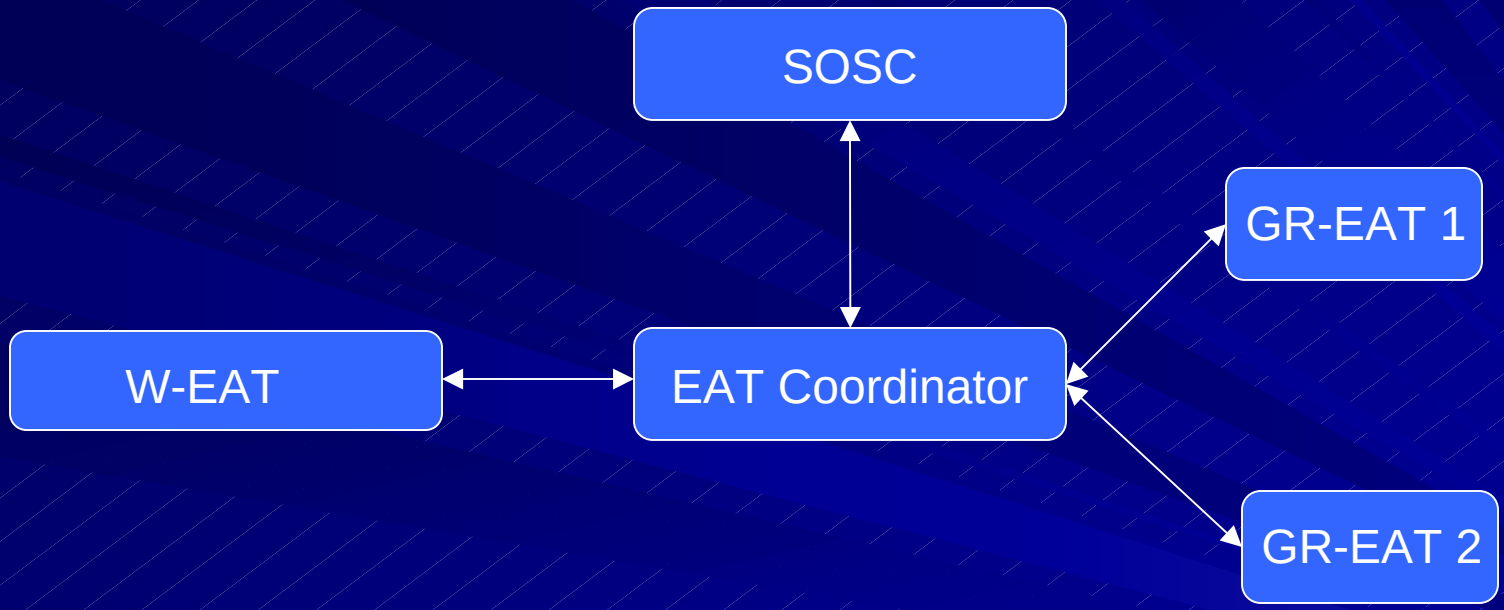
Organization for Rapid Mobilization

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 reported

Type of Incident: Gasoline **Location**/Site Name: _____(GPS)

Owner of Property (if known): _____

II. Information upon arrival and BEFORE first perimeter reconnaissance

Arrival Time (24 hour clock): 12:00 **Wind** from the SW at approx. speed of 10 mph/kts

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

Local FD, Police

Nearest Hospital and Phone Number: Capitol Med Center

General Site Description & Potential Hazards, as seen from arrival position, and Recon plans:

See Attached Map

III. 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.

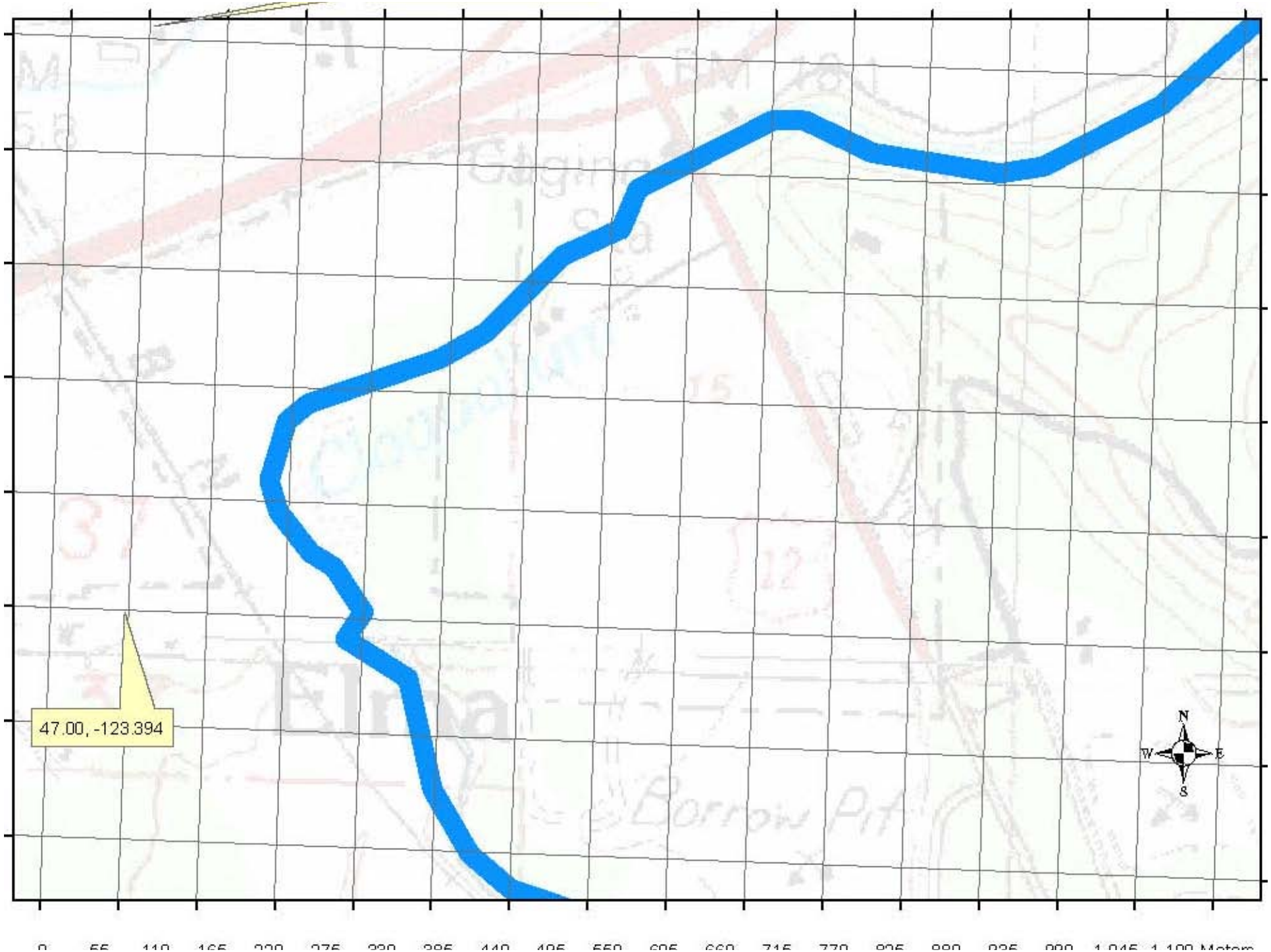
__Flammable Liquids __Biohazard/Needles __Vehicles/Traffic safety __Noise
X Heat/Cold (temp _____) X Explosive __Slip/Trip/Fall __Fall into Water __Animals
__Other (specify)_____

Heat Stress Monitoring: ☐ Yes ☐ No **Outside Temp F^0** 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**
Gasoline (containing ≤ 4% Benzene)	VOC=10 PPM	VOC=1000 PPM < 10% LEL	VOC ≥1000 PPM (THC) **At or near 10% LEL**
Diesel (in case of fire watch for SO2; must use	VOC=10 PPM	VOC=600 PPM < 10% LEL	VOC ≥600 PPM (THC) At or near 10% LEL


47.00, -123.394
N
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110
165
220
275
330
385
440
495
550
605
660
715
770
825
880
935
990
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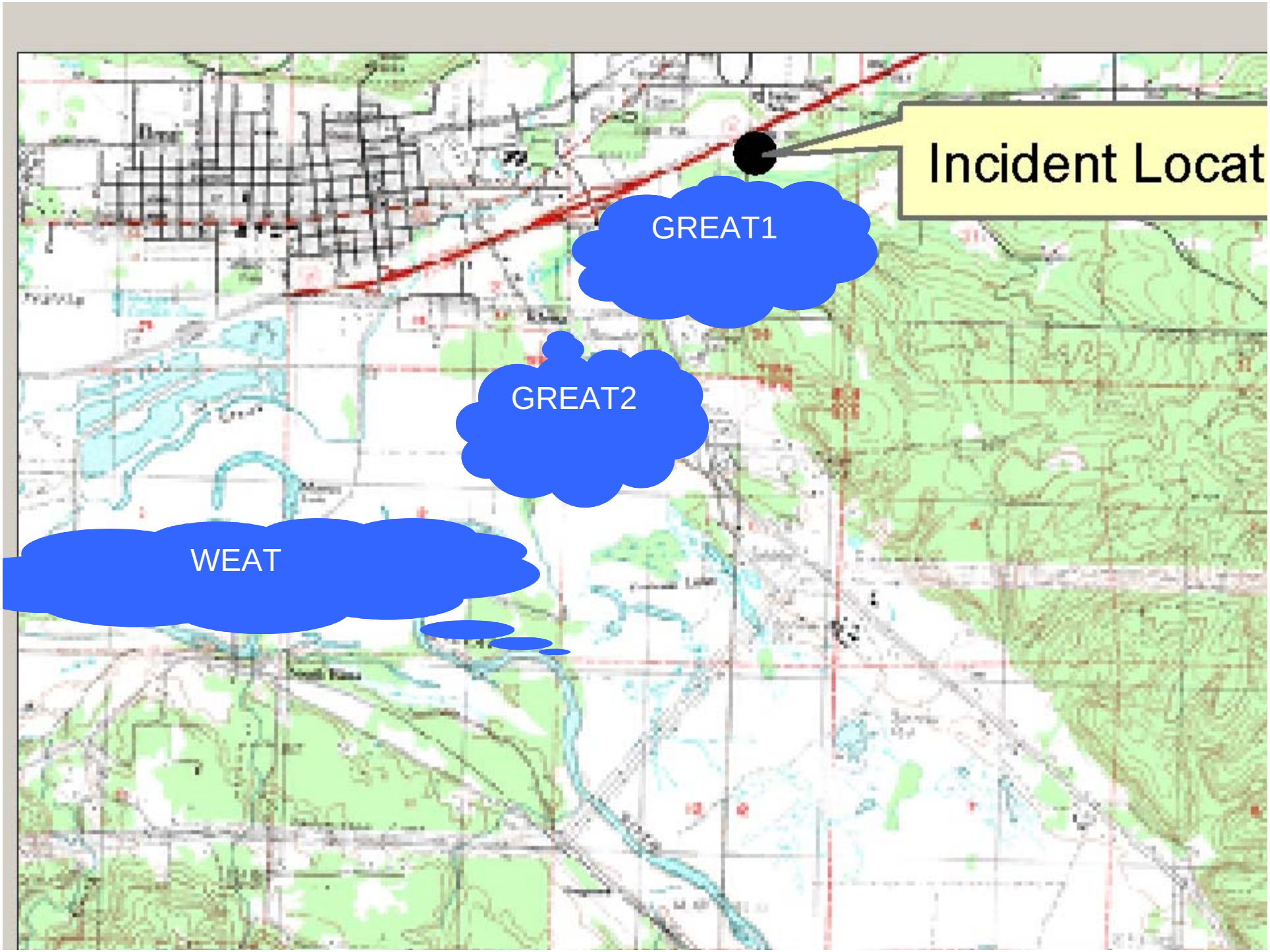
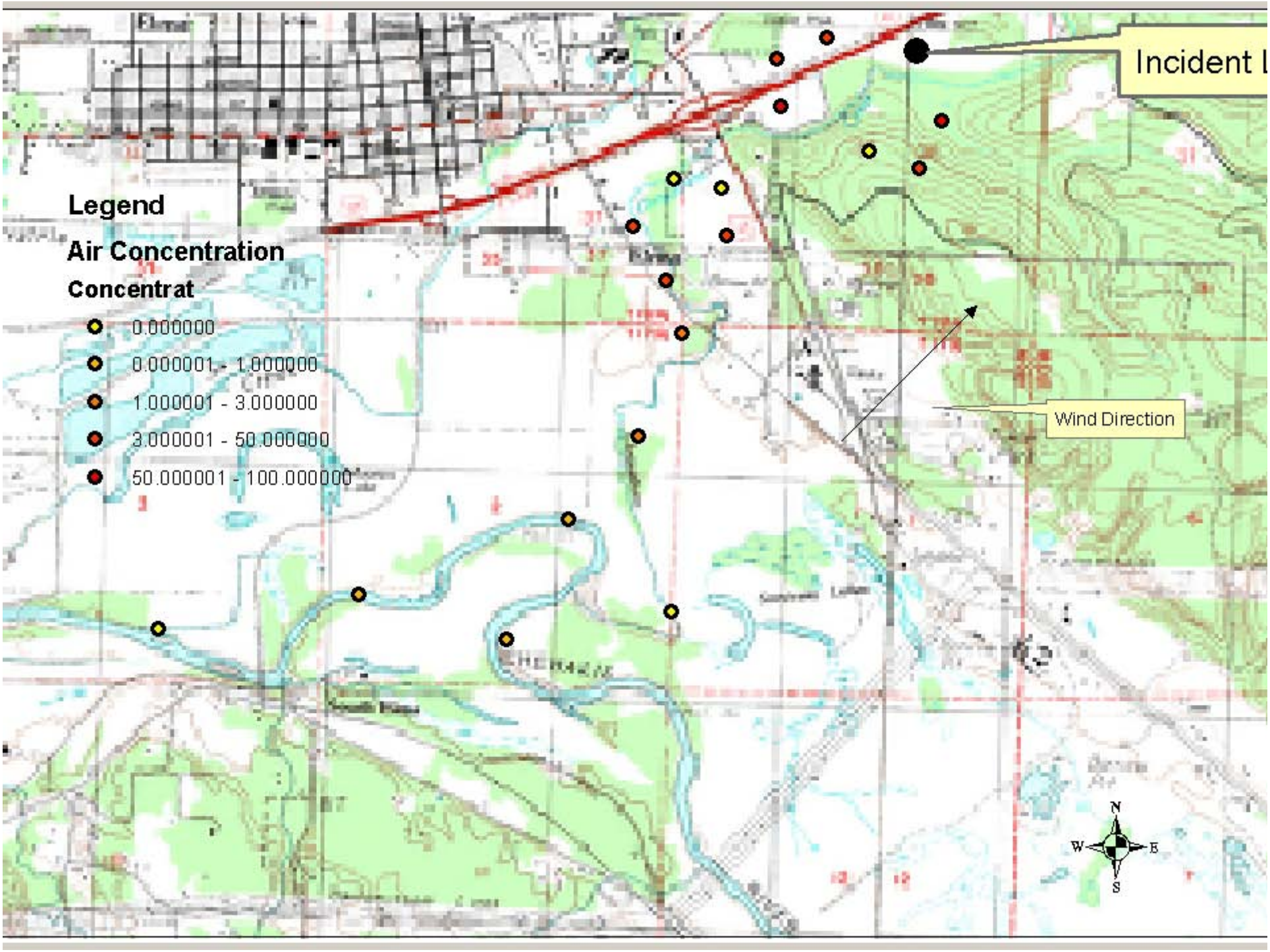
1,100 Meters


Incident Locat
GREAT1
GREAT2
WEAT

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

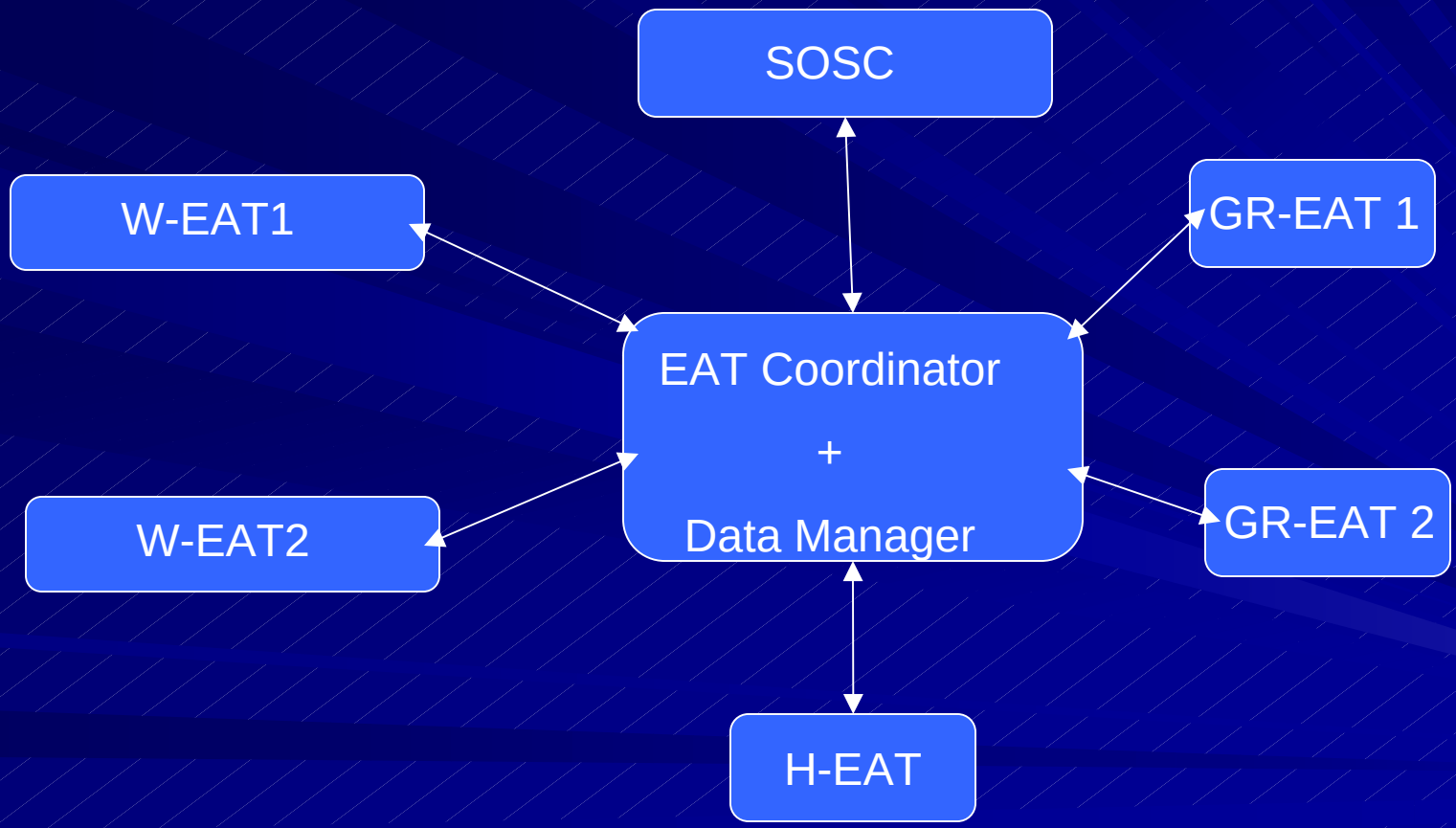
Air Monitoring Reports


Incident l
Legend
Air Concentration
Concentrat
0.000000
0.000001 - 1.000000
1.000001 - 3.000000
3.000001 - 50.000000
50.000001 - 100.000000
Wind Direction
N
W
E
S

EAT Scenario 2

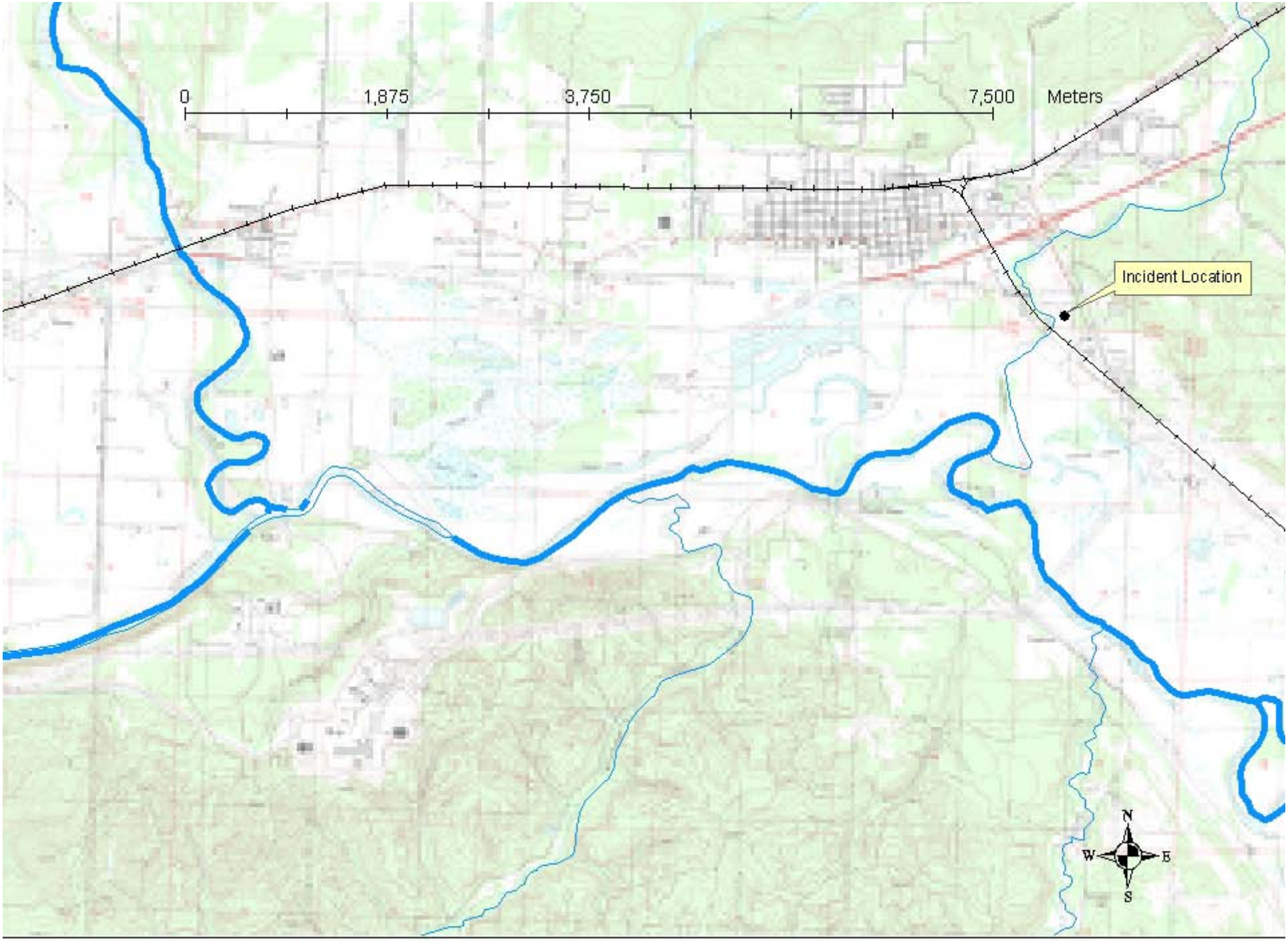
- Railroad Accident
  - Two lubricating oil tank cars, each with @30,000 gallons
  - Black oil reported to have reached Chehalis River

EAT Organization



EAT Direction

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


0
1,875
3,750
7,500
Meters
Incident Location
N
W
E
S

1. Incident Name	2. Operational Period (Date/Time)	Assignment List
Dave's Trucking Spill	From: 5/4/06 0600 To: 5/5/06 0600	EAT 204-OS

3. EAT Team Number
Team 1

4. Personnel

	Name	Affiliation	Contact # (s)
SOSC:	Jim Sachet	Ecology SWRO	360-407-xxxx
EAT Coordinator:	Dave Mora	Ecology NRDA	360-407-xxxx
Team Leader:	Doug Stolz	Ecology SWRO	360-407-xxxx
Team Member:	Dale Davis	Ecology NRDA	360-407-xxxx
Team Member:	Dan Doty	WDFW Spill Team	360-902-xxxx

5. Assessment Area

Beach segment Identification: Deep Creek from Barnes Road to creek mouth

Access point: Barnes Road boat ramp

N	end of segment, Latitude	48.1234567	Longitude	122.1234567	Landmark boat ramp
S	end of segment, Latitude	48.5647891	Longitude	122.7894561	Landmark Burger King

6. Transportation Information

Ecology workboat

7. Site Specific Safety Considerations

Boat ramp is frequented by drug dealers, creek may be flooding in places

8. Specific Information for Team

Tides: Current height _____ Next high at _____ Height _____ Next low at _____ Height _____

Forecasted weather: Wind speed 10 to 20 mph from the SW Rain 30% chance Temperature 58° F

Sunrise 5:35 a.m. Sunset 8:26 p.m.

9. Communications (radio and/or phone contact numbers needed for this assignment)

Name/Function	Radio: Freq./System/Channel	Phone	Pager
Jim Sachet-SOSC	98.6, DNR Common, 10	407-xxxx	971-xxxx
Doug Stolz-Team Leader	Same	407-xxxx	786-xxxx
Dave Mora	Same	407-xxxx	971-xxxx

Emergency Communications

Medical 911 Evacuation 407-xxxx Other _____

10. Prepared By	Date/Time
Dale Davis	5/3/06 1700

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: X Assessment Team X 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 / 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

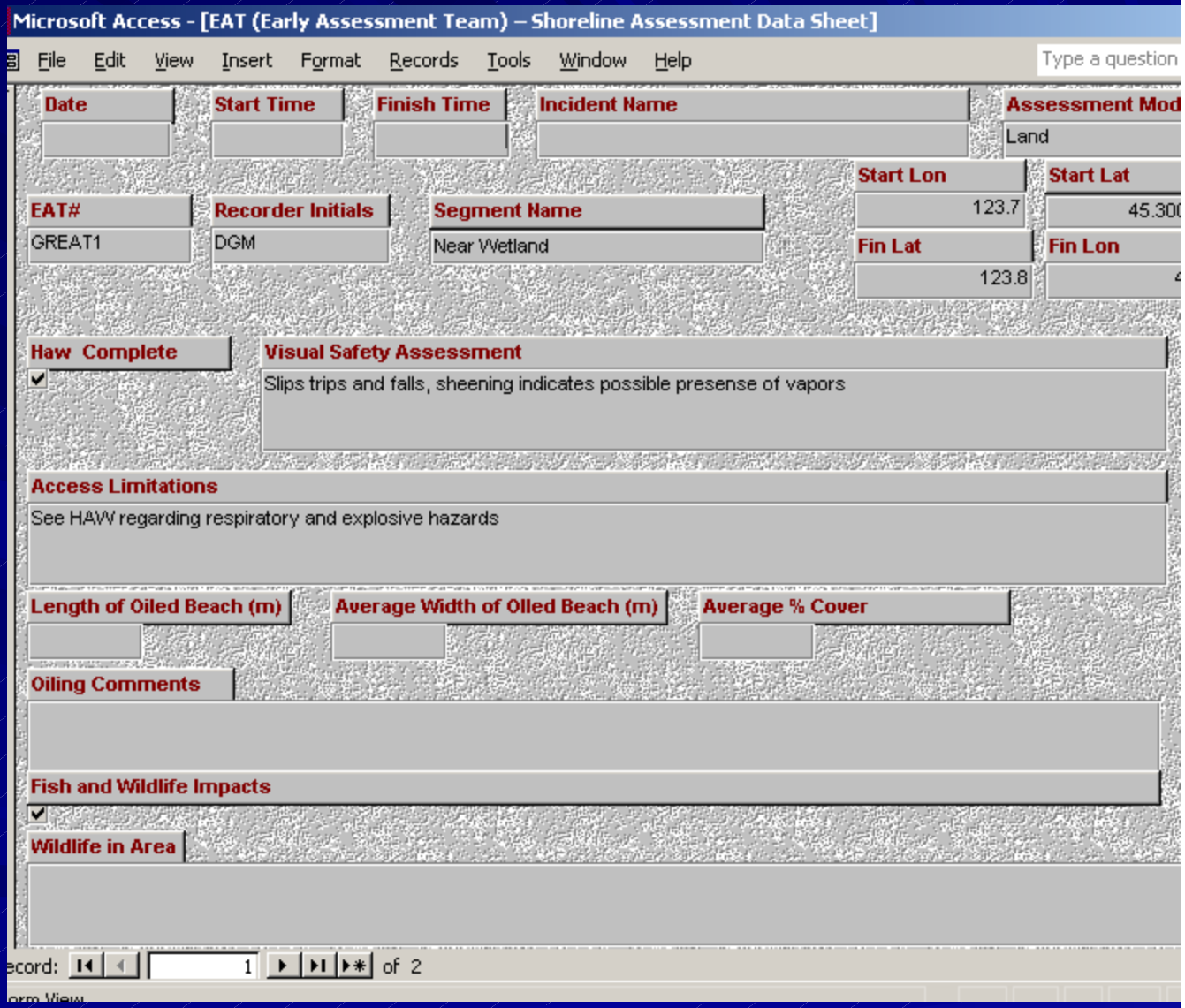
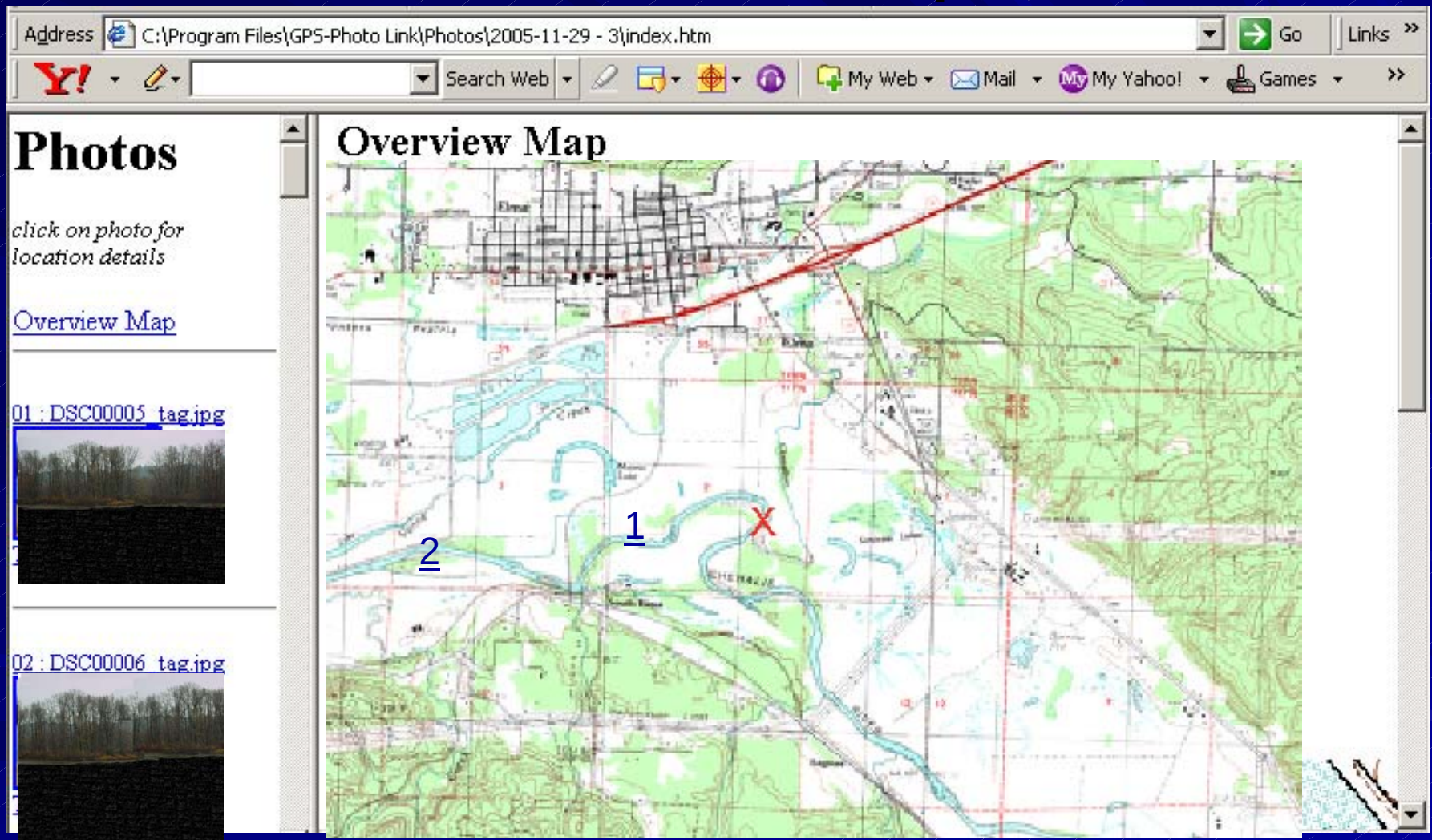


Photo Link Report

- 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

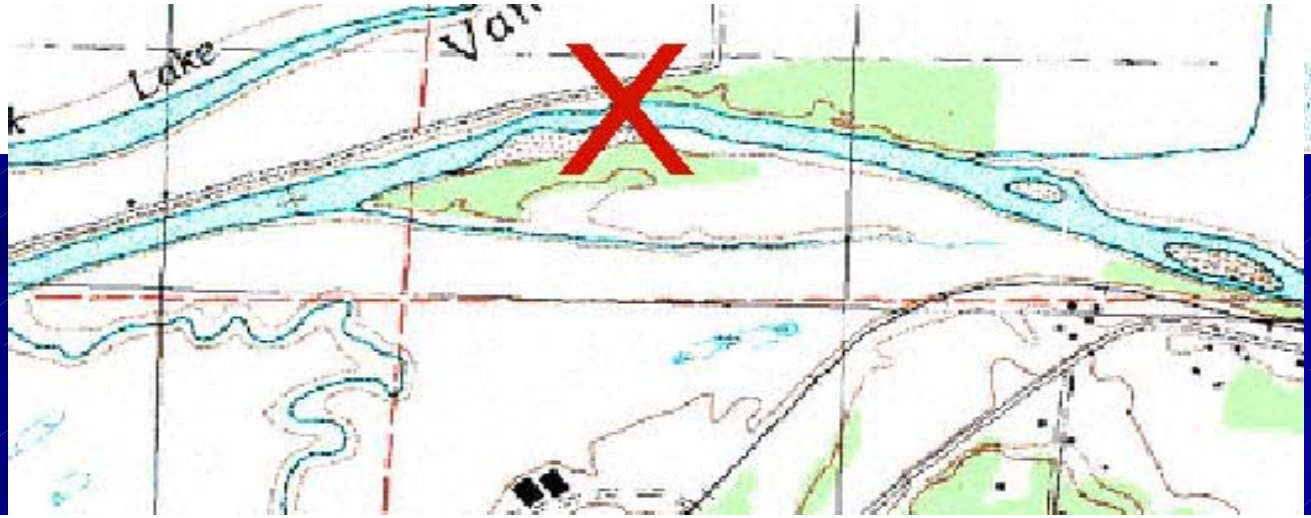
Overview Map

01 : DSC00005_tag.jpg

02 : DSC00006_tag.jp

1

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