

Emergency Preparedness in the Front Range

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Environmental, Health, Safety and Regulatory Manager



Safety Always Comes First –

Protect our people, contractors and communities

Standards

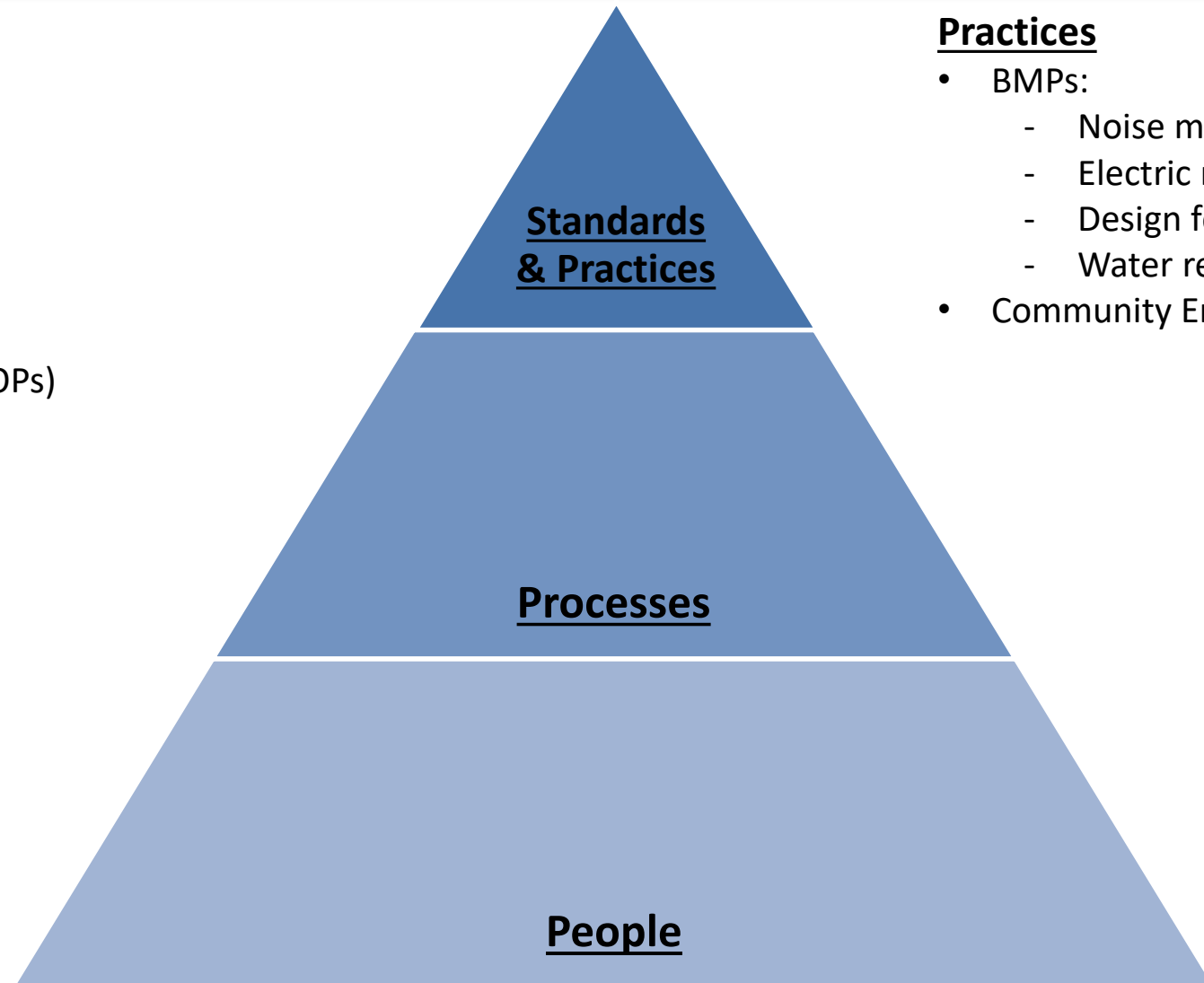
- EHS Manual
- Emergency Response Plans
- SPCC Plans
- Regulatory Compliance Program
- API and other technical standards
- State and Federal Regulations

Processes

- Standard Operating Procedures (SOPs)
- Process Hazard Assessments
- Pre-startup Safety reviews
- Management of Change
- Process Safety Management
- Contractor Management systems
- Automated safety systems
- Peer reviews, audits

People

- Leadership, Experience
- Training
- Local Community collaboration
- Contractor relationships
- Commitment to Excellence



Practices

- BMPs:
 - Noise mitigation
 - Electric rigs/facilities
 - Design features
 - Water recycling
- Community Engagement

Extraction Oil & Gas

Emergency Preparedness and Planning

Trained and Experienced Operations Personnel

- Trained, experienced, professional staff
- ICS 100/200 training for all field staff and working on 300 for field leaders
- Weekly Tailgate discussions
- Monthly table top exercises
- Annual emergency response training



Rigorous Preparedness Planning

- 101 Training for First Responders
- Tactical response plan for all facilities, the majority of which in conjunction with local departments
- Site tours and inspections with local departments
- Simplified Table Top trainings with local departments
- Enhanced Table Top trainings planned and coordinated via third party
- Full Scale on-site drills

What to do when an incident occurs?

1. Initial Incident Response

- If appropriate, perform initial response by mitigating spills, performing first aid, or extinguishing a controllable fire.
- Evacuate the area if necessary and call **911** when appropriate.

2. Initial Notification

- Make contact with your supervisor or EHSR using the numbers listed here or on your response card.
- Operations supervisor, Manager, and EHSR communicate and initiate follow up response.

3. Internal Incident Response

Operations:

- Supervisor/Manager to scene to establish incident command.
- Dispatch additional resources/ equipment needed (eg. Vac. Truck, skid steer).
- Work with EHSR on unified command.

EHSR:

- Dispatch Field Support staff and other support resources necessary.
- Initiate initial notification procedure:
 - If necessary, notify: Public Relations, Vice President, Agencies.

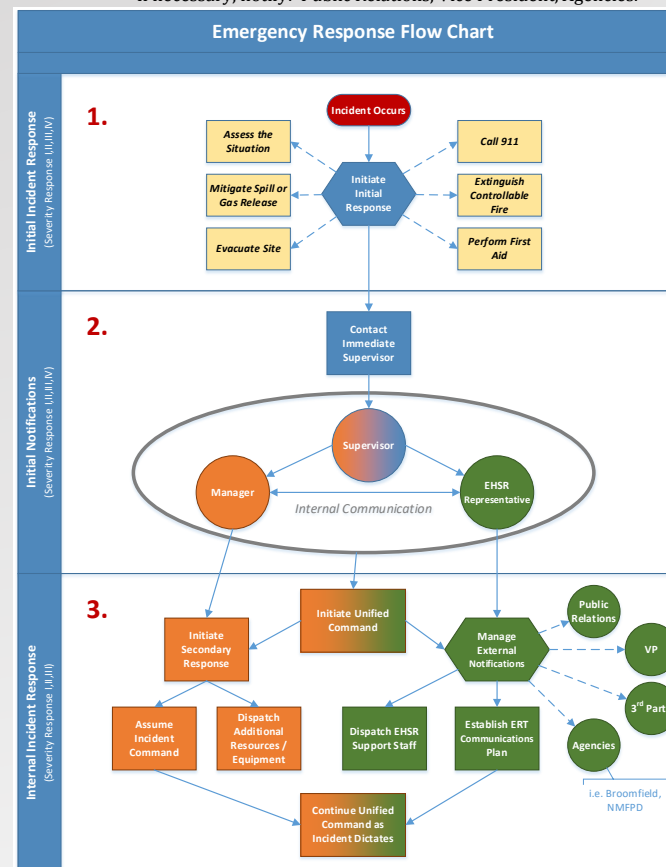
Job Name:

Job Supervisor:

Supervisor #:

Nearest Hospital:

Hospital Address:



“Protecting our people, contractors, and communities.”



ASH 9-B FACILITY

1200 Ash Ave

Greeley, CO

N 40.418287, W -104.671851

NOTIFICATIONS

1. Extraction 24-Hour Hotline
720-370-5540
2. National Response Center:
800-424-8802
3. COGCC Field Supervisors
719-343-0130 or 970-573-1277
4. EPA Region VIII
303-312-6312
5. Weld County Communications
911
6. Weld County OEM
970-350-9600
7. Colorado Oil and Gas Conservation Commission
303-894-2100
8. Colorado Dept of Public Health and Environment
877-518-5608

RESPONSE OBJECTIVES

Ensure safety of the public, first responders, Extraction employees, and contractors. Minimize the impact to the environment and local community. Contain and recover released product to the extent possible.

CRITICAL RECEPTORS

1. Surrounding Businesses
2. Surrounding Residential Areas
3. Poudre River to the North
4. Waste Water Treatment Facility (NW)

Note: This Tactical Response Card is a reference tool and is intended to provide guidance during an actual event or exercise. Placement of resources may need to be adjusted according to environmental variables. It is the responsibility of emergency response personnel to be trained in response and to be able to make adjustments to the card as needed.

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Developed by CTEH, LLC

- Hot Zone
- Warm Zone
- Cold Zone



TACTICAL RESPONSE

After assessing the incident level and contacting the appropriate parties, the following steps will need to be taken for the tactical response:

1. Implement National Incident Management System (NIMS) Incident Command System (ICS)
2. Assess hazards to site, workers, and public
3. Safety Officer should complete form ICS 208 – Safety Message/Plan
4. Conduct Job Safety Briefing
5. Assess property and environmental impacts
6. Develop ICS 201 Incident Briefing and ICS 202 – Incident Objectives
7. Implement response actions:
 - a) Confine spills to tanks/vessels
 - b) Locate leading edge of spilled material
 - c) Contain spills on ground and any surrounding drainage ways
 - d) Recover spilled materials
 - e) Dispose of recovered materials properly
8. Document site conditions and activities
9. Document impacts to natural, economic, and cultural resources
10. Document site restoration/remediation activities

See the Extraction Emergency Response Plan for the full list of NIMS ICS Forms.

PAD STATS

FLOW STATS – 30 DAY AVERAGE IP

Gas (MCF/D)	Oil (BBL/D)	Water (BBL/D)
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WELL PAD LIQUID STORAGE

Oil (BBL)	Water (BBL)
10,400	1,600

RESPONSE RESOURCE CONTACT INFORMATION

EXTRACTION OIL & GAS CONTACT INFORMATION

Name	Main Phone
24-Hour Hotline	720-370-5540

NEAREST LEVEL II TRAUMA CENTERS

Name	Address	24-Hour Phone
North Colorado Medical Center	1301 16th St. Greeley, CO 80639	970-810-4121
Medical Center of the Rockies	2300 Rocky Mountain Avenue Loveland, CO 80538	970-264-2500

STATE, FEDERAL, MUNICIPAL EMERGENCY RESPONDERS

Name	24-Hour Phone
Weld County Communications	911
Weld County OEM	970-350-9600
Weld County Sheriff's Office	970-350-9600
Greeley Fire Dispatch	970-350-9600
National Response Center	800-424-8802
COGCC Field Supervisors	719-343-0130 or 970-573-1277
EPA Region 8	303-312-6312
Department of Transportation	855-388-4200

RESPONSE CONTRACTORS

Contractor Type	Name	24-Hour	Phone
OSRO	Belfor Environmental	800-930-0011	303-425-7526
OSRO	Custom Environmental	800-310-7445	303-423-9949
Well Control	Boots & Coats	281-931-8884	800-BLOWOUT
Well Control	Wild Well	281-784-4700	281-784-4700
Environmental	CTEH, LLC	866-869-2834	501-801-8500
Environmental	APEX Companies, LLC	970-260-5457	307-399-2870
Response Management	CTEH, LLC	866-869-2834	866-869-2834

ADDITIONAL CONTACTS

Name	Main Phone
Varra Sand Pit	970-353-1529

RESPONSE OBJECTIVES

Ensure safety of the public, first responders, Extraction employees, and contractors. Minimize the impact to the environment and local community. Contain and recover released product to the extent possible. The following response objective checklist shall be followed:

SAFETY – PROTECT LIFE

- ❖ Evaluate and account for all personnel
- ❖ Isolate all potential ignition sources
- ❖ Initiate emergency services immediately, as needed (911, Fire, LEPC)
- ❖ Identify hazard(s) of emitted material (obtain SDS)
- ❖ Establish site control (safe perimeter and evacuation routes)
- ❖ Monitor air in impacted areas
- ❖ Develop Site Safety Plan (ICS 208) and Medical Plan
- ❖ Continually assess site hazards and risks

RESPONSE – INCIDENT STABILIZATION

- ❖ Conduct notifications to external agencies and internal personnel
- ❖ Assign on-site liaison to the Fire Dept incident commander
- ❖ Identify and implement staging areas to support response operations
- ❖ Activate response company for equipment and manpower as needed
- ❖ Activate response tactics to contain and recover product/material
- ❖ Establish command post and field communications
- ❖ Implement waste handling and disposal procedures as required
- ❖ Establish flight traffic restriction if required
- ❖ Initiate decontamination and demobilization procedures when appropriate

ENVIRONMENTAL – PROTECT THE ENVIRONMENT

- ❖ Identify, prioritize, and protect environmentally sensitive areas
- ❖ Establish wildlife rescue rehabilitation operations if required
- ❖ Verify release if waters are impacted
- ❖ Conduct visual assessments (spill tracking and surveillance)

Front Range Emergency Resources Cooperative

An Industry Solution to Response Preparedness Working with Local Responders

Our Primary Purpose:

- First Responder training and sharing of response best practices
- Share response resources and abilities among members and first responders and to provide support to members in the event of an emergency in the DJ Basin
- Proactive, non-regulatory initiative by industry to earn social license to operate by improving response preparedness and readiness
- Build relationships to provide Mutual aid support



FRERC Scope

What are we trying to accomplish

- **Response Resource Tracking.**
 - Create, maintain a list of critical available resources, government agencies or other private sector response organizations
 - Establish foam resource list and dispatch capabilities
- **Mutual Aid.**
 - Establish broader mutual aid goals for the basin beyond neighboring districts
- **First Responder Training.**
 - Present oil and gas 101 for Fire Fighters, oil and gas 101 for Law Enforcement
 - Hands on oil and gas training facility for local responders (Noble Energy- Greeley)
 - Wild Well incident command
 - Williams foam proportion training
- **Best Practices.**
 - Identify, coordinate and establish Best Practices and adopted standards
 - Unified Command
 - Examples of Best Practices shared (tactical response plans, spill response plans, etc.)

Participants

- **Industry participants**

- Extraction Oil & Gas, Anadarko Petroleum Corporation, Noble Energy, Great Western, PDC Energy, SRC Energy, Crestone Peak, Bayswater, Enerplus, Bonanza Creek, HighPoint (formerly Bill Barrett), Conoco Phillips, Rose Rock Midstream, Williams Midstream, Noble Midstream, NGL Energy Partners, Wild Well Control

- **Government participants**

- Emergency Managers: Weld County, Broomfield County
- Colorado Oil and Gas Conservation Commission
- 26 Fire Departments participating
- State of Colorado Patrol HAZMAT
- PHMSA, EPA



Case Example: FRERC Foam Subgroup

Evaluating foam resources for response effectiveness

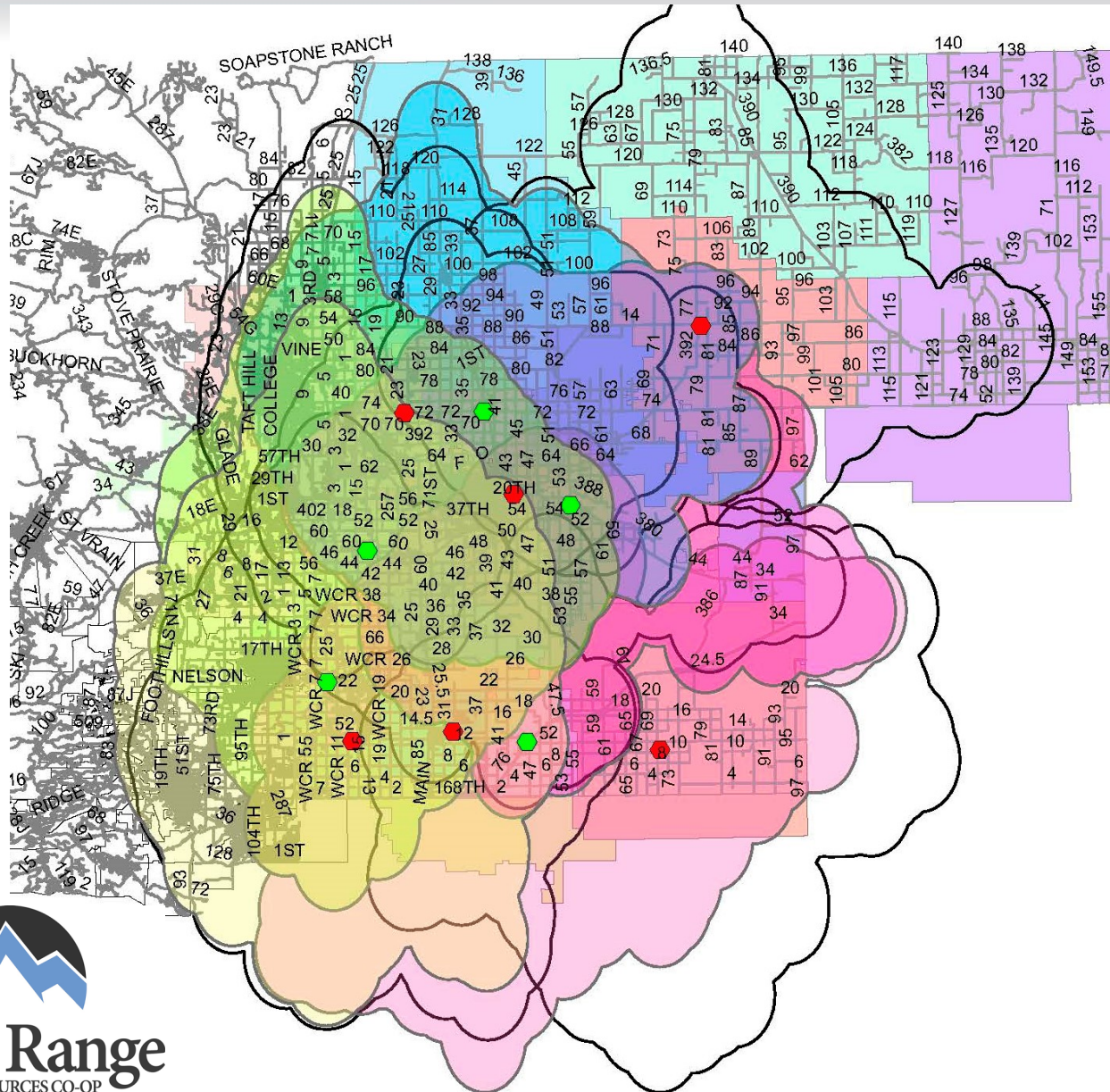
Are there enough foam resources in the basin to handle an emergency?

Facts:

- No single department can handle a large incident alone
- Deployment locations can cover almost all of the DJ within 1-hour
- Standardization of equipment allows for mutual aid
- All first responders trained on same equipment types promotes response effectiveness



Foam Strike Team Evaluation



Focus: Population centers- then response timing

Red = current foam resources

Green = proposed sites for new foam resources

Foam Resource deployment

Based on 1-hour response from full time manned fire stations.

1-hour – used as follows:

10 minute trailer hook-up

40 minute travel at 40mph*

10 minute set-up

* - pickup truck with 6,000lb trailer is not a practical “lights & sirens” response vehicle. “L&S” simply requests “right of way”.

Recommendations

ITEM	Cost	Number of Units	Total Cost
Foam Trailer (2 tote)	\$45,042	5	\$225,210
1% x 3% Thunderstorm Foam Concentrate AR-AFFF 265 gallon totes	\$9,101	10	\$91,010
FP additive to totes or	\$1,060	10	\$10,600
Tote Blankets 12v	\$450	10	\$4,500
			\$326,820 (O&G)
300' of 3" hose	\$1,864	5	\$9,320
Blitzfire Monitor	\$2,788	5	\$13,940
			\$23,260 (FD)



Questions?

