

Field Activity Risk Assessment - Potential Hazards Register

Field Activity: _____ Dates: _____
 Site Name: _____

	Potential Hazard	Probability of Occurrence					Comments Issues-Mitigators-Scenarios
		A	B	C	D	E	
Natural Environment							
1	<i>Foul Weather: wind, rain, snow, lightning, flash flood</i>						
2	<i>Temperature Extremes (Hot/Cold)</i>						
3	<i>Strong Sunlight (including sunburn)</i>						
4	<i>Darkness/Low Light</i>						
5	<i>Uneven/Slippery Walking Surfaces</i>						
6	<i>Sharp Objects—rocks, vegetation, coral</i>						
7	<i>Heights/Drop-offs (including high elevation)</i>						
8	<i>Falling Objects/Obstructions</i>						
9	<i>Tight Spaces/Narrow Openings/Overhangs</i>						
10	<i>Toxic/Allergic Sources (vegetation, pollen)</i>						
11	<i>Animals: insects, reptiles, mammals, other</i>						
12	<i>Fire Hazard</i>						
13	<i>Water/Current: streams, waves, tides, depth</i>						
14	<i>Smoke/Dust/Fog</i>						
Man-Made Environment (for Pedestrians)							
15	<i>Vehicular Traffic: roads, railroads</i>						
16	<i>Road Shoulders: space restrictions, visibility</i>						
17	<i>Bridges</i>						
18	<i>Fences & Gates</i>						
19	<i>Utility Lines</i>						
20	<i>Local Inhabitants: hunters, crowds/spectators</i>						
Transportation (Auto, Boat, Air)							
21	<i>Vehicle Condition: safety equip, mech, tires, etc.</i>						
22	<i>Driver Qualifications: level of experience needed</i>						
23	<i>Route Conditions: roughness (inc. flat tires)</i>						
24	<i>Route Conditions: traffic congestion</i>						
25	<i>Route Conditions: winding, limited sight line</i>						
26	<i>Pedestrians & Bicyclists</i>						
27	<i>Intersections/Railroad Crossings</i>						
Human Factors / Participant Activities							
28	<i>Exacerbation of Pre-Existing Physical/Medical</i>						
29	<i>Extended Immobility: time in auto, boat, air</i>						
30	<i>Lack of Rest Stops/Facilities</i>						
31	<i>Fatigue/Dehydration</i>						
32	<i>Hiking/Walking: distances, level of intensity, etc.</i>						
33	<i>Separation of Individuals from Group</i>						
34	<i>Individual Behaviors/Risk Acceptance</i>						
35	<i>Lifting/Carrying</i>						
36	<i>Climbing</i>						
37	<i>Use of Tools: hammers, chisels, heavy equipment</i>						
38	<i>Digging/Trenching/Deploying equipment</i>						
39	<i>Swimming/Snorkeling/SCUBA/Boating</i>						
40	<i>Equipment Failure</i>						
41	<i>Food Handling</i>						
42	<i>Language/Culture/Positional Differences</i>						
43	<i>Feelings of isolation on extended excursions</i>						
Other Factors							
44	<i>Limited/Remote Medical Services</i>						
45	<i>Limited Communications</i>						
46	<i>Regional/Political instability</i>						
47	<i>Additional Hazards identified by team?</i>						

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	Include notes on local conditions:	What is the probability of: 1. an occurrence with serious consequences (levels I, II, or III), or 2. many/frequent incidents with level IV consequences during a single session or site visit?	Notes on local issues, important safeguards to use, and scenarios to be assessed
		Potential Hazard	Comments Issues-Mitigators-Scenarios
Natural Environment		<i>Criteria, Limits, Critical Factors to consider:</i>	
1	Foul Weather Considerations – wind, rain, snow, lightning, flash flood:	<i>Local, upstream</i>	<i>Before & During activity</i>
2	Temperature Extremes (Hot/Cold):	<i>Temperature (>30°C, <5°C), Wind, Humidity</i>	<i>Length of Exposure, Season/Day</i>
3	Strong Sunlight (inc. sunburn):	<i>Serious sunburn, “snow” blindness, contributing factor to fatigue</i>	<i>Exposure length, surface albedo</i>
4	Darkness/Low Light:	<i>Contributing factor to other hazards that result in injury</i>	<i>Visibility, Fatigue, Weather</i>
5	Uneven/Slippery Walking Surfaces:	<i>Slip, trip, or fall that results in injury</i>	<i>Cumulative Fatigue, Weather</i>
6	Sharp Objects – rocks, coral, vegetation:	<i>Contact or fall results in penetrating wound/scratched cornea</i>	<i>Visibility, Fatigue, Exact Route</i>
7	Heights/Drop-offs (inc. high elevation):	<i>Fall that results in free-fall drop of more than 2 m</i>	<i>Slope/softness of “landing” zone</i>
8	Falling Objects/Obstructions:	<i>Spontaneous/Participant-caused, capable of causing serious injury</i>	<i>Season, freshness of outcrop</i>
9	Tight Spaces/Narrow Openings/Overhangs:	<i>Results in impact or crushing injury, or panic/distress</i>	<i>Visibility, crowding,</i>
10	Toxic/Allergic Sources (vegetation, pollen):	<i>Causes acute reaction, contributing factor to other hazards</i>	<i>Time of year, EMS access</i>
11	Animals – insects, reptiles, mammals, other:	<i>Cause trauma, envenomation, allergic reaction, pathogens/vectors</i>	<i>Time of year, local experience</i>
12	Fire Hazard:	<i>Hot vehicle exhaust system/discarded cigarette causes fire, traps group, endangers ecosystem</i>	<i>Access to site during fire bans</i>
13	Water/Current:	<i>Fall results in submersion, Strenuous exertion in water triggers pre-existing medical condition</i>	<i>Time of day/year, Hypothermia</i>
14	Smoke/Dust/Fog:	<i>Causes eye/throat/nose injury, contributing factor to other hazards</i>	<i>Time of year/day</i>
Man-Made Environment (for Pedestrians)			
15	Vehicular Traffic – roads, railroads:	<i>Vehicle impacts participant, Group activity causes traffic hazard</i>	<i>Time of day/year</i>
16	Road Shoulders – space restrictions, visibility:	<i>Vehicle impacts participant, Group activity causes traffic hazard</i>	
17	Bridges:	<i>Vehicle impacts participant, Group activity causes traffic hazard</i>	<i>Sidewalk, width of shoulder</i>
18	Fences & Gates:	<i>If gate not available, crossing results in fall, impact, lacerations, penetrating wound</i>	<i>Property owner interactions</i>
19	Utility Lines:	<i>Approach route or portions of outcrop allow contact with power lines, resulting in injury</i>	<i>Alternate routes</i>
20	Local Inhabitants (inc. hunters):	<i>Group provokes hazardous reaction from locals; distraction factor</i>	<i>Time of year/day</i>
Transportation (Auto, Boat, Air)			
21	Vehicle Condition:	<i>Primary or contributing factor to accident/collision</i>	<i>Rental company, local experience</i>
22	Driver Qualification/Experience for location:	<i>Primary or contributing factor to accident/collision</i>	<i>Availability of local drivers</i>
23	Route Conditions – roughness (inc. flat tires):	<i>Rough enough to be contributing factor to accident/collision</i>	<i>Vehicle type, local drivers</i>
24	Route Conditions – congestion:	<i>Enough to be contributing factor to accident, esp. around airport and major cities</i>	<i>Time of day, Route selection</i>
25	Route Conditions – winding, limited sight line:	<i>Enough to be contributing factor to accident/collision</i>	<i>Time of day, Route selection</i>
26	Pedestrians:	<i>Sufficiently numerous or common to be contributing factor to accident</i>	<i>Time of day, Route selection</i>
27	Intersections/Railroad Crossings:	<i>Hazardous/Unguarded/Confusing location contributes to accident</i>	<i>Time of day, Route selection</i>
Human Factors/Participant Activities			
28	Pre-Existing Physical/Medical Needs:	<i>Contributing factor to accident, acute episode of illness</i>	<i>Pre-trip participant information</i>
29	Extended Immobility:	<i>Enough to be contributing factor to accident, trigger pre-existing medical condition</i>	<i>Agenda/Travel planning</i>
30	Lack of Rest Stops/Facilities:	<i>Contributing factor to fatigue, accident</i>	<i>Pre-trip planning</i>
31	Fatigue/Dehydration:	<i>Enough to be contributing factor to accident, trigger pre-existing medical condition</i>	<i>Agenda, Time of year/day</i>
32	Hiking/Walking:	<i>Intensity, length, duration, cumulative exertion sufficient to trigger illness, contribute to injury</i>	<i>Time of day/year, Weather</i>
33	Separation of Individuals from Group:	<i>Contributing factor to accident</i>	<i>Safety briefings, Read backs</i>
34	Individual Behaviors/Risk Acceptance:	<i>Contributing factor to accident</i>	<i>Management letter, briefings</i>
35	Lifting/Carrying:	<i>Improper technique/overloaded backpacks results in injury</i>	<i>Gear selection, individual fitness</i>
36	Climbing:	<i>Requires use of both hands to ascend/descend more than 2 m vertical, exposure to fall & injury</i>	<i>Weather, outcrop condition</i>
37	Use of Tools & Heavy Equipment:	<i>Improper technique/equipment causes injury to self or other participant</i>	<i>Required PPE</i>
38	Digging/Trenching/Deploying equipment:	<i>Injury to self or other participant, Trench collapse causes injury</i>	<i>OSHA rules for deep trenches</i>
39	Swimming/Snorkeling/SCUBA/Boating:	<i>Improper technique/conditioning/equipment causes injury</i>	<i>Pre-trip screening, PFD policy</i>
40	Equipment Failure:	<i>Sufficiently critical and serious to be contributing factor to accident</i>	<i>Pre-trip planning, inspections</i>
41	Food Handling :	<i>Improper technique/equipment contributes to food-borne illness</i>	<i>Training, Sanitation facilities</i>
42	Language/Culture/Positional Differences:	<i>Contributing factor to accident; interpersonal dynamics</i>	<i>Pre-trip participant information; Safety briefings</i>
43	Feelings of isolation on extended excursions:	<i>Contributing factor to accident & illness</i>	<i>Pre-trip participant information</i>
Other Factors			
44	Limited/Remote Medical Services:	<i>Consequence of injury/illness escalates due to remoteness</i>	<i>Pre-trip plan, communications</i>
45	Limited Communications:	<i>Consequence of injury/illness escalates due to delayed access to EMS assistance</i>	<i>Pre-trip planning, field checks</i>
46	Regional/Political instability:	<i>Escalation of risk in all categories</i>	<i>Emergency evacuation plan</i>
47	Additional Hazards identified by team?:	<i>Significantly different, likely to have serious consequences</i>	<i>Consult local experts, experience</i>