Indiana Dunes National Park

Job Hazard Analysis

1. Work Project/Activity *PERSONAL SAFETY**	2. Location	3. Originator *Jim Whitenack*	4. Job Title *Volunteer Program Manager*
5. Name of Reviewer	6. Job Title	7. Date Prepared/Revised *12/2022*	8. Number of Pages in this JHA *5*

**This JHA is intended for field related task in the Park.*

General Safety Topics & Hazards

Situational Awareness	○ It is highly recommended to take Trail Safe!, a self-paced online safety training, if you are long-term volunteer. ○ Be aware of your surroundings, potential hazards, and the whereabouts of others. ○ Communicate with others. ○ Let other team members know when you see a hazard. Avoid working near known hazards.
Personal Protective Equipment (PPE)	PPE is equipment worn to minimize exposure to hazards that cause serious injuries. Examples include the following: ○ *Gloves* – Offer protection from hand injuries and exposure. Leather gloves should be worn while using and carrying hand tools and power equipment. ○ *Sturdy work boots or trail shoes* – Offer protection from foot injuries and exposure. Appropriate closed toe footwear is required; open toe shoes such as sandals are prohibited. ○ *Safety eyewear* – Offer protection from eye injuries. Appropriate eyewear should be worn when there is a potential for flying debris, dust, or other material hitting or getting into the eye. This includes, but is not limited to, using hand and power tools, painting, and working next to vegetation. Eyewear should meet or exceed ANSI standard Z87.1. ○ *Hard hats* – Offer protection from head injuries. Hard hats should be worn when there is a possible danger of head injury from impact, falling, or flying objects. ○ *Ear protection, such as ear plugs and earmuffs* – Offer protection from hearing loss. Wear hearing protection when operating power tools and other loud equipment. ○ *High-visibility retro-reflective clothing and/or vests* – Bright, reflective clothing helps ensure people are noticed by others when visibility is reduced or in areas where people may be distracted or otherwise not expecting/looking for others to be present. Should also be worn while working on or along roads and parking areas during special events.

Communication/ Emergency Action Plan	o Address safety concerns and conduct safety talks at the beginning of each workday, including establishing an emergency action plan. At a minimum, the plan shall identify what actions will be taken in the event of an incident, who is first aid and CPR certified, where first aid supplies are located, how to call for emergency assistance, and the location of the nearest hospital and how to get there. o Establish means of communication. Communications must be clear, concise, and understood by everyone involved. o Good communication between volunteers should reinforce individual awareness of potential hazards.
Overexertion	o Be aware of the risks of physical stress associated with physically demanding foot travel and work projects. o Be aware that any work project will be physically demanding if already fatigued, suffering from overexertion, suffering from effects of heat, etc. o Pace yourself. Start slowly and pick up the pace gradually. If your heart pounds and leaves you gasping for breath, STOP all activity, get into a cool area (or at least in shade), and rest, especially if you become lightheaded, confused, weak, or faint. o Adjust to the environment. You will have greater tolerance for the heat if you limit your physical activity until you become accustomed to the heat. o On hot/humid days, when completing moderate and heavy outdoor work, and when projects involve the use of machinery, tasks should be assigned to the cooler parts of the day. o The severity of the effects of environmental heat stress is decreased by reducing the workload, increasing the frequency and/or duration of rest periods, and by introducing measures that will protect from hot environments. Take more frequent rest breaks. When hot, take rest breaks in a cooled or air-conditioned building whenever possible. o ALL PROJECTS CAN BE COMPLETED ANOTHER TIME. Your safety is most important.
Site Hazards	o Look up. Look down. Look all around. Inspect the area prior to beginning any project or task to identify any site hazards. o Point out the hazard(s) to other volunteers working in the area. o Flag/fence off hazard and avoid area.
Slips, Trips, and Falls	o Inspect the area prior to beginning any project or task. o Remove objects that could impede safe operations. o Be familiar with walking surfaces. o Always watch your footing and be aware of wet or frozen surfaces. o Wear footwear with good traction that matches the site conditions.
Rendering First Aid	o Emergency first aid kits shall be available at all project sites. o For seriously injured or ill volunteers needing advanced life support and transport, notify 911, and render first aid until a medical first responder takes over care. o Notify the NPS volunteer program manager as soon as the injured party is safe.

Tick Bite Prevention and Treatment	○ Spray clothing, exposed skin, and ankles with insect repellant as a barrier. ○ Wear light colored clothing that fits tightly at the wrists, ankles, and waist. Cover trouser legs with high socks or boots. ○ Search clothing and the body on a regular basis, especially hair and clothing; ticks generally do no attach for the first couple of hours. ○ If a tick becomes attached, pull it by grasping it as close as possible to the point of attachment and pull straight out with gentle, consistent pressure. Wash skin with soap and water. Then cleanse with rubbing alcohol. Place the tick in an empty container for later identification should you have a reaction. Record dates of exposure and removal. ○ Do not try to remove the tick by burning it with a match or covering it with chemical agents. ○ If you cannot remove the tick, or the head detaches, seek prompt medical help. ○ Watch for warning signs of illness: a large red spot on the bite area, fever, chills, headache, joint and muscle ache, significant fatigue, and facial paralysis are reactions that may appear within two weeks of the bite. Symptoms specific to Lyme disease include confusion, short-term memory loss, and disorientation. ○ Report all tick bites to the NPS volunteer program manager.
Mosquito Bite Prevention and Treatment	○ Avoid heavy scents. ○ Wear long sleeves and pants. Mosquito head nets may also be valuable in some instances. ○ Use insect repellants. ○ Avoid scratching.
Bee/Wasp Sting Prevention and Treatment	○ Be alert to bees and hives. Watch for insects traveling in and out of one location. ○ If you or anyone on the team is known to have allergic reactions to bee stings, tell a competent person and the rest of the crew. Ensure anyone allergic to bee stings always carries emergency medication with them, and others know where it is located. ○ If you are stung, applying a cold pack may bring relief. ○ If a stinger is left behind, scrape it off the skin. Do not use tweezers as this squeezes the venom sack, worsening the injury. ○ If the victim develops hives, asthmatic breathing, tissue swelling, or a drop in blood pressure, seek medical help immediately. ○ Watch for respiratory problems.
Sun/Heat Exposure	○ Check the forecast. Cancel or postpose plans/projects in the event of extreme weather or temperatures. *Sunburn* ○ Apply sunscreen (SPF 15 or higher) when exposed to sun and reapply at least every two hours. ○ Wear long sleeve shirts, long pants, and appropriate headwear to protect skin.

	Dehydration o Wear loose fitting clothing, preferably closely woven fabrics of light colors. o Maintain adequate water intake by drinking water periodically in small amounts throughout the day (about a cup of cool water every twenty minutes). Some over hydration is strongly recommended while continuing to eat throughout the day. o Increase the amount of cool water and appropriate cool drinks (fruit juices and/or sports drinks) to replace sweat loss and to avoid dehydration. o Avoid coffee and tea which contribute to dehydration. Sugary drinks such as soda should be avoided. o Carry more water than you think you will need when doing field work. The amount of water needed during a workday may vary depending on duration in the field, tasks at hand, and weather. *Long-term heat exposure* o Remain aware of the four basic factors that determine the degree of heat stress: air temperature, humidity, air movement, and heat radiation relative to the surrounding work environment. o Know the signs and symptoms of heat exhaustion, heat cramps, and heat stroke. Heat stroke is a true medical emergency requiring immediate emergency response action.
Cold Exposure, Windchill, & Snowy/Icy Conditions	o Check the forecast. Cancel or postpose plans/projects in the event of extreme weather or temperatures. o Be alert to changes in weather while outside. o Wear the appropriate clothing and carry extra warm clothes. o Stay well hydrated and eat high calorie foods to help maintain body heat. o Watch out for ice. Wear traction devices to avoid slipping in icy conditions. o Try not to sweat or become too tired. o Avoid bodies of water or becoming wet. o Carefully watch for signs of cold-weather health problems, like hypothermia and frostbite.
Lightning	o Although most common in the summer, thunder and lightning can occur anytime. o Check your local weather and plan field time accordingly to avoid storms. o If you can see lightning, seek shelter immediately. If you can hear thunder stop all field work and reach safety before the storm hits. Use "30-30 Rule": If time between strike and thunder is less than 30 seconds, SEEK SHELTER. o If caught in a storm away from your vehicle, try to find some form of enclosed building or shelter. DO NOT seek shelter under large trees or in open areas. Seek shelter in low lying areas such as a ditch. Avoid high elevations, open areas, tall objects, single trees, and falling tree hazards. Avoid wet ground and water sources. Sit on pack. Pile tools together and stay clear. (When in groups, spread out at least 15 feet apart.) o When seeking shelter in a building, make sure all windows are closed. o If caught in a storm near a vehicle, return to the vehicle and stay inside while the storm is active. Park the vehicle in a low area away from trees.
Encounters with Illegal Activity	o Be alert. Watch for threatening behavior from others or signs of illegal activity in an area such as dump sites. o Volunteers shall not attempt to enforce laws or policies, investigate suspicious activity, prevent damage to land or resources, or otherwise take action to confront unknown individuals engaging in inappropriate activities. This is outside of the scope of volunteer service. Volunteers may provide information and attempt to educate others to protect people or resources but take no action beyond this. Do not aggravate the situation by arguing with others or trying to prevent them from continuing what they are doing. Any further action shall be limited to calling 911 and retreating to a safe location as the situation warrants. o Follow up with NPS law enforcement. 1-800-PARK-TIP

Tasks/Procedures & Hazards

Task/Procedure & Required PPE	Potential Hazards	Recommended Actions or Procedures
Walking to/from and working around project site **PPE:** ○ Sturdy work boots or trail shoes	Slips, trips, and falls; Twisted ankles and knees; Poor footing	○ Always watch your footing and be attentive to trip hazards. ○ Don't be preoccupied while walking. ○ Plan your day so you don't have to rush over uneven terrain. ○ Inspect the area prior to beginning any operation. ○ Remove objects that could impede safe operations. ○ Be familiar with walking surfaces.
	Struck by tools while walking	○ Maintain safe distance/spacing while walking. ○ Use tool guards, if available. ○ Carry tool at your side below the waist, parallel to ground, gripped at balance point behind tool head, with head forward and with sharp edge down & on down-slope side. ○ Do not carry tools on your shoulders or across your body.
○ Eye protection	Damage to eyes	○ Watch where you walk and work, especially around trees and brush with limbs sticking out.
Litter collection **PPE:** ○ Leather and nitrile gloves ○ Sturdy work boots or trail shoes ○ Pants ○ High-visibility reflective vest	○ Slips, trips, and falls ○ Cuts and scraps ○ Straining back, arms, or other body parts ○ Contact with bodily fluids ○ Contact with hazardous materials	○ Be aware of surroundings and potential slipping, tripping, and falling hazards. ○ Wear leather and nitrile gloves. ○ Bend at the knees when lifting. Use teamwork when carrying heaving items. ○ Do not overfill trash bags. ○ Use long-handled tools to move objects; don't place hands or feet where you cannot see. ○ Do not place any needles directly into trash bags. Use caution when putting needles and other sharp objects in a Sharps container.
	Vehicle traffic along the roadside and parking areas	○ Wear a high visibility safety vest for all work along any roadway or parking areas. ○ Face oncoming traffic. ○ Look both ways before crossing the road. Use crosswalk where available. Wait for traffic to clear before crossing.