

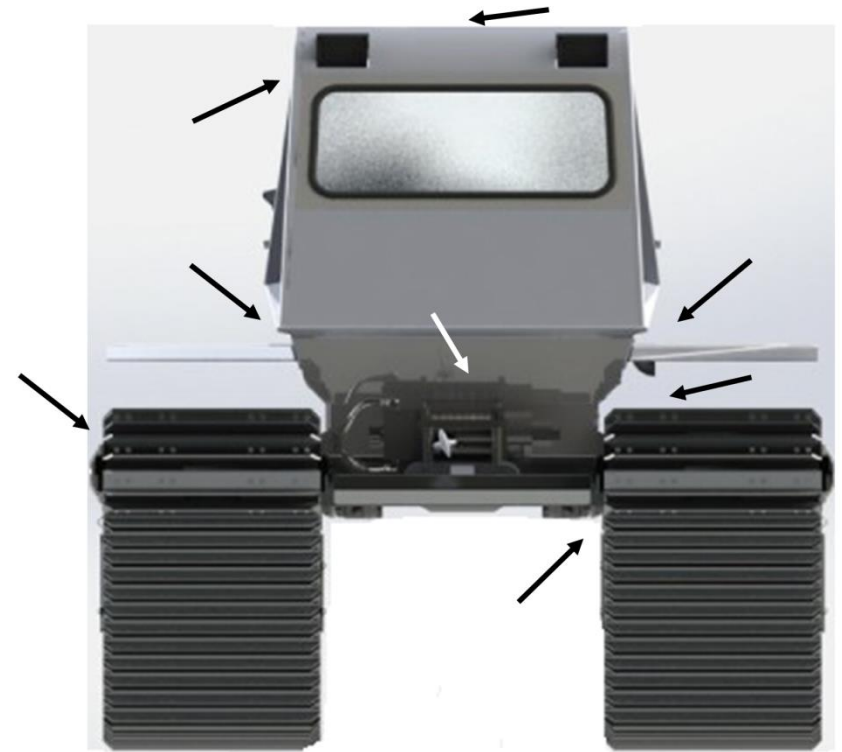
| Equipment                                   | Decontamination Method by Risk Level for Aquatic Activities and Equipment                                                          |                                                                                                                                                                                                                                |                                                                                                                                                                                                          | Equipment Needed                                                                                                                                                                 | Estimated Time                            |
|---------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|
|                                             | Low                                                                                                                                | Medium                                                                                                                                                                                                                         | High                                                                                                                                                                                                     |                                                                                                                                                                                  |                                           |
| Boots, Waders, or (Nomex)                   | Visually inspect and remove mud and debris before leaving and upon entering a new site. Rinse and dry.                             | Follow steps for low risk. Clean with pressure washer. (Follow manufacturer's directions for laundering Nomex)                                                                                                                 | Follow steps for medium risk. Whenever possible, dry for > 5 days before using at new site. If not possible, disinfect hot water pressure washer (Follow manufacturer's directions for laundering Nomex) | Scrub brush, rinse water, towels, heated pressure washer, pressure washer.                                                                                                       | 5-15 minutes (or 5 days dry time)         |
| Kayaks and Canoes                           | Visually inspect and remove mud and debris before leaving and upon entering a new site. Rinse and air or towel dry when necessary. | Follow steps for low risk. Disinfect interior and exterior with bleach solution or hot water pressure washer before moving between waterbodies. Or, if possible, dry equipment and gear for > 5 days before using at new site. |                                                                                                                                                                                                          | Scrub brush, rinse water, towels; bleach solution: ½ cup [4 oz] bleach to 5 gallons of water or 1/10 cup bleach per one gallon to water <u>10 minutes contact time</u>           | 5-15 minutes (or 5 days dry time)         |
| Boats and Trailers                          | Inspect and clean exterior surfaces, removing visible vegetation, dirt and debris. Drain bilge, live wells, etc.                   | Follow steps for low risk. Flush motor cooling system. Hot water pressure wash (140°F/60°C for <u>10 second contact time</u> ) or spray with bleach solution.                                                                  |                                                                                                                                                                                                          | Brush, motor flusher, pressure washer, towels; bleach solution: ½ cup [4 oz] bleach to 5 gallons of water or 1/10 cup bleach per one gallon water <u>10 minutes contact time</u> | 10-45 minutes (or 5 days dry time)        |
| Water Pumps/ Portable Pumps                 | Inspect and clean exterior surfaces, removing visible vegetation, dirt and debris. Drain.                                          | Follow steps for low risk. Clean, pressure wash, drain, and dry. Dry for ≥5 days when possible. Switch foot valves to dry or decontaminate between water sources.                                                              |                                                                                                                                                                                                          | Brush, pressure washer or pump sprayer. DO NOT USE BLEACH.                                                                                                                       | 10-20 minutes (or 5 days dry time)        |
| Tracked/Wheeled Vehicles in Aquatic Habitat | Inspect and clean exterior surfaces, removing visible vegetation, dirt and debris.                                                 | Follow steps for low risk. Spray with pressure washer to clean.                                                                                                                                                                | Follow steps for medium risk. Disinfect before entering new waterbodies, hot water pressure wash, or dry for >5 days                                                                                     | Brush, heated pressure washer, pressure washer;                                                                                                                                  | 10 minutes - 3 hours (or 5 days dry time) |

**Emergency situations (e.g. wildland fires) may preclude the use of high level decontamination and work in highly valued sites (e.g. protected areas) may require additional decontamination. Managers should use best professional judgment and provide guidance to staff on a situational basis.**

| Aquatic Decontamination Equipment                                                                                                                                                                                                                                             | Instructions for Use                                                                                                                                                                                                                                                                                                                                                                                                |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Gloves <input type="checkbox"/><br>Safety glasses <input type="checkbox"/><br>Brush <input type="checkbox"/><br>Towels <input type="checkbox"/><br>Bleach <input type="checkbox"/><br>Garbage bags <input type="checkbox"/><br>Handheld pump sprayer <input type="checkbox"/> | Provided is a list of equipment that you may need to conduct Invasive Species Decontamination in the field. <b>Ensure you have the necessary items before leaving for the field.</b> The table below provides guidance on the appropriate decontamination procedures based on level of risk. <b>For additional guidance on assessing risk level, please see the risk table on the flip side of this check-list.</b> |
| Boats, Portable Pumps, other vehicles                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Portable Pressure Washer <input type="checkbox"/><br>Water Source (for Pressure Washer) <input type="checkbox"/><br>Heated Pressure Washer <input type="checkbox"/>                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                     |

| Personal Decontamination in Aquatic Situations                                                                                                                                                                                                                       | Low | Medium | High |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|--------|------|
| Inspect and remove debris from boots, waders, Nomex, etc.                                                                                                                                                                                                            | x   | x      | x    |
| Rinse with pressure washer                                                                                                                                                                                                                                           |     | x      | x    |
| Disinfect with bleach, heated pressure wash or dry for > 5 days                                                                                                                                                                                                      |     |        | x    |
| Kayaks and Canoes                                                                                                                                                                                                                                                    | Low | Medium | High |
| Inspect and remove mud & debris (rinse, dry)                                                                                                                                                                                                                         | x   | x      | x    |
| Disinfect vessel with bleach solution or heated pressure wash, or Dry for > 5 days                                                                                                                                                                                   |     | x      | x    |
| Boats                                                                                                                                                                                                                                                                | Low | Medium | High |
| Inspect and remove mud and debris                                                                                                                                                                                                                                    | x   | x      | x    |
| Clean, drain, dry including bilges, live wells, etc.                                                                                                                                                                                                                 | x   | x      | x    |
| Disinfect with bleach solution or heated pressure wash or dry for >5 days                                                                                                                                                                                            |     | x      | x    |
| Portable Pumps                                                                                                                                                                                                                                                       | Low | Medium | High |
| Inspect and remove mud and debris                                                                                                                                                                                                                                    | x   | x      | x    |
| Pressure wash, drain and dry. If possible dry for >5 days                                                                                                                                                                                                            |     | x      | x    |
| Tracked/Wheeled Vehicles in Aquatic Habitat                                                                                                                                                                                                                          | Low | Medium | High |
| Inspect and remove debris.                                                                                                                                                                                                                                           | x   | x      | x    |
| Clean equipment with pressure washer                                                                                                                                                                                                                                 |     | x      | x    |
| Clean with heated pressure wash or dry for >5 days                                                                                                                                                                                                                   |     |        | x    |
| <b>For additional guidance on terrestrial equipment and work environments, refer to instructions contained within Terrestrial Decontamination Materials. For more information on methods or special situations, refer to the Forest Resources Guidance Document.</b> |     |        |      |

### Seed, Mud, and Plant Matter Collection Points



### Additional Resources

**Best Control Practice Guides – Information on species ecology, control and treatment**  
<http://www.michigan.gov/invasivespecies> and click on publications  
**MISIN – Resources for identification, species distribution and reporting**  
<http://www.misin.msu.edu/>  
**Invasive Species Contact List – Species-specific contacts for information or reporting invasive species occurrences**  
[http://www.michigan.gov/documents/dnr/Invasive\\_Species\\_Contact\\_Table\\_411161\\_7.pdf](http://www.michigan.gov/documents/dnr/Invasive_Species_Contact_Table_411161_7.pdf)

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