

Aquatic Invasive Species Watercraft Access Analysis

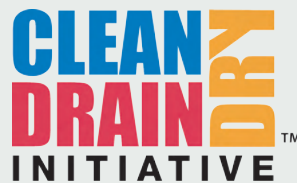
Risk Assessments + Site Prescriptions

St. Louis County Project Report

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Photo by Clint Austin, Duluth News



Project summary

Wildlife Forever is a leader in the conservation community, working to identify solutions to mitigate and prevent the spread of Aquatic Invasive Species (AIS). Through an extensive partnership with St. Louis County, Wildlife Forever performed a comprehensive Risk Assessment of watercraft accesses to determine risk levels for inbound and outbound spread of invasive species on St. Louis County and neighboring waterways. Through the risk analysis process, an assessment was also conducted to determine the availability of necessary tools and educational prompts to help watercraft users perform Clean Drain Dry best management practices. The outcomes of this project provide the county with a site analysis, overview of threats and a mitigation/prevention plan to address the findings and reduce the risk of AIS spread.

Building upon previous mitigation and prevention work in the county, Wildlife Forever initiated a stakeholder driven process to identify high priority public watercraft accesses. After consultation and review, fifteen sites were identified for the Risk Assessment and Access Enhancement analysis. Priority was given to high use accesses in and around existing infestations.

During the assessments of the fifteen selected sites, five common themes were identified among them.

- **AIS signage was inconsistent, incomplete, and often hidden or otherwise unkempt**
- **AIS prevention tools and cleaning stations were present at just two sites**
- **Watercraft inspectors were not regularly stationed**
- **7 decon stations countywide were inconsistently operational and averaged fewer than 50 decons**
- **All fifteen accesses were within twenty miles of at least three AIS infestations**

Each of these themes individually adds a high degree of risk to AIS spread by overland watercraft transport. These risk factors multiply when layered together. As described in subsequent pages of this report, 93% of sites identified in this project were evaluated as having medium- or high-risk of AIS spread due to their lack of existing mitigation strategies.

To combat these risks, fifteen site prescriptions lay out recommendations of watercraft cleaning tools and equipment and Clean Drain Dry educational AIS signage. Signage includes general best practices, watch species, and stenciled pavement markings. Summarily, the prescription describes a comprehensive approach to awareness, prevention, and community outreach.

While each prevention tactic independently has value, the affect multiplies when they are combined. Integration of a broad scoped plan, incorporating physical prevention tools at the access with outreach and education throughout the community are paramount to success.

Inspection and decontamination, accompanied by watercraft cleaning infrastructure and paired with a well-planned, broad scoped multimedia and social marketing campaign, closes gaps and constitutes a holistic approach to AIS prevention.

Prescriptions are typically tailored specifically for the individual sites based on the demographics and use cases of each. With all sites in this project falling within the borders of a single county, the prescriptions for each are vastly similar and may serve as a framework for future projects aimed at mitigating risk at public water accesses across St. Louis County.

A special thank you to Adam Doll, Jessamyn Foley, Doug Jensen, Chandra Kreidler, Ryan Logan, Jon Utecht, and the St. Louis County Board Committee of the Whole for supporting this important project to identify gaps in AIS prevention, and more importantly, key solutions to the growing risk from AIS and the need for enhanced public engagement and strategic mitigation measures to protect our public waters.



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Glossary of AIS

| | | | | | |
|---|-----------------------------|--------------------------------------|--------------------------------|--------------------------------------|------------------------------------|
| D: Didymo | RS: Rainbow smelt | BMS: Banded mystery snail | QM: Quagga mussel | CLPW: Curly-leaf pondweed | NLC: Narrow leaf cattail |
| H: Heterosporis | R: Ruffe | CMS: Chinese mystery snail | RC: Rusty crayfish | CR: Common reed | PL: Purple loosestrife |
| VHS: Viral hemorrhagic septicemia | TG: Tubenose goby | FS: Faucet snail | SWF: Spiny waterflea | EWM: Eurasian watermilfoil | RCG: Reed canary grass |
| RG: Round goby | AC: Asian clam | NZMS: New Zealand mudsnail | ZM: Zebra mussel | HC: Hybrid cattail | |

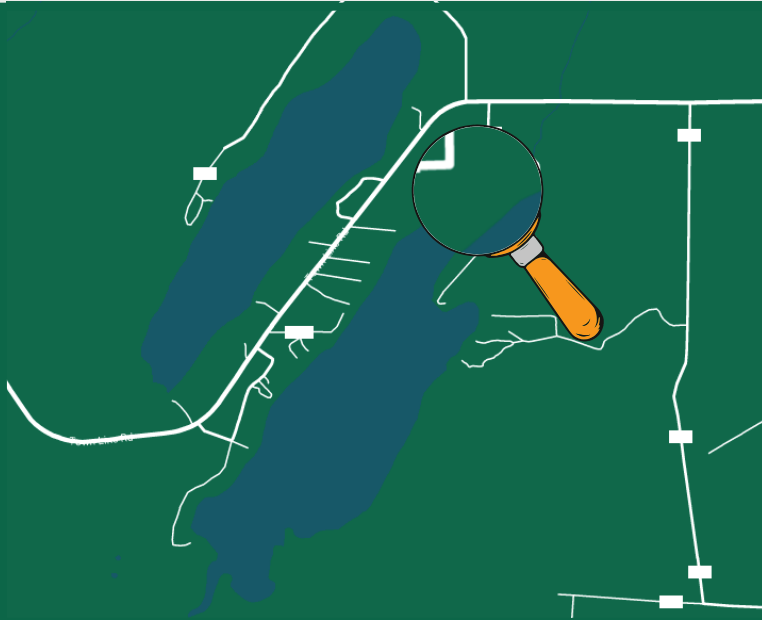




Bassett Lake Public Water Access Site

Bassett Lake | 47°22'.8"N, 91°54'19.75"W

Brimson, MN



Access Ownership: Bassett Township

KEY

- = boat ramp
- = signage
- = trash receptacles (N/A)
- = parking
- ← = inbound route
- = outbound route

Access Checklist

| | |
|-------------------------------|---|
| # of parking spaces (trailed) | 5 (2) |
| Cleaning tools present | None |
| # of signs (AIS related) | 9 (1) |
| Current infestations | <input type="checkbox"/> D <input type="checkbox"/> RS <input type="checkbox"/> BMS <input type="checkbox"/> QM <input type="checkbox"/> CLPW <input type="checkbox"/> NLC <input type="checkbox"/> H <input type="checkbox"/> R <input type="checkbox"/> CMS <input type="checkbox"/> RC <input type="checkbox"/> CR <input type="checkbox"/> PL <input type="checkbox"/> VHS <input type="checkbox"/> TG <input type="checkbox"/> FS <input type="checkbox"/> SWF <input type="checkbox"/> EWM <input type="checkbox"/> RCG <input type="checkbox"/> RG <input type="checkbox"/> AC <input type="checkbox"/> NZMS <input type="checkbox"/> ZM <input type="checkbox"/> HC |
| Occurances within 20 miles | <input type="checkbox"/> D <input type="checkbox"/> RS <input type="checkbox"/> BMS <input type="checkbox"/> QM <input checked="" type="checkbox"/> CLPW <input checked="" type="checkbox"/> NLC <input type="checkbox"/> H <input type="checkbox"/> R <input checked="" type="checkbox"/> CMS <input checked="" type="checkbox"/> RC <input type="checkbox"/> CR <input checked="" type="checkbox"/> PL <input type="checkbox"/> VHS <input type="checkbox"/> TG <input type="checkbox"/> FS <input type="checkbox"/> SWF <input type="checkbox"/> EWM <input checked="" type="checkbox"/> RCG <input type="checkbox"/> RG <input type="checkbox"/> AC <input type="checkbox"/> NZMS <input type="checkbox"/> ZM <input checked="" type="checkbox"/> HC |
| Bidirectional threats | 7 |
| Specific conductivity (µS/cm) | N/A |
| Dissolved Calcium (mg/L) | 9.2 |
| AIS Explorer ZM risk rating | 0.2465 |
| AIS Explorer SS risk rating | 0.0045 |
| Nearest Decontamination | 32.5 miles |



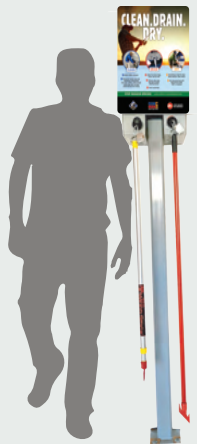
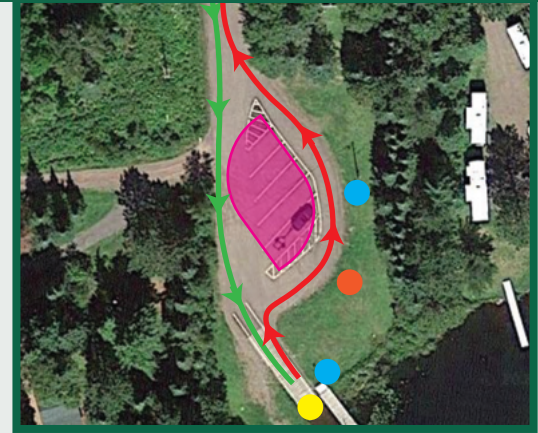
Bassett Lake is classified as: LOW RISK

- Due to**
- Existing signage
 - Low use access
 - No existing infestations



KEY

- = boat ramp
- = signage
- ← = inbound route
- = tools/equipment
- = parking
- = outbound route



Access Recommendations:

Watercraft cleaning equipment: Inbound

- Landing Station cleaning system: MAJK Solutions
 - Clean Drain Dry (Angler) sign
 - Aqua Weed Stick
 - Extendable Brush

Signage: Inbound/Outbound

- Install Clean Drain Dry & Educational signage at access entry
 - Risk Species: **Rusty crayfish, Reed canary grass, Chinese mystery snail**
- Signage near watercraft cleaning equipment
 - Describes how and why to use cleaning equipment

Community Outreach, Prevention, & Awareness Recommendations:

Distribute Clean Drain Dry outreach materials

- Brushes, boat towels, brochures, decals, other Clean Drain Dry branded products are available at CleanDrainDry.org
- Use watercraft inspectors or volunteer outreach at local events, fairs, bait shops, visitor centers, and retailers to educate the community and distribute outreach materials.

Media & Marketing

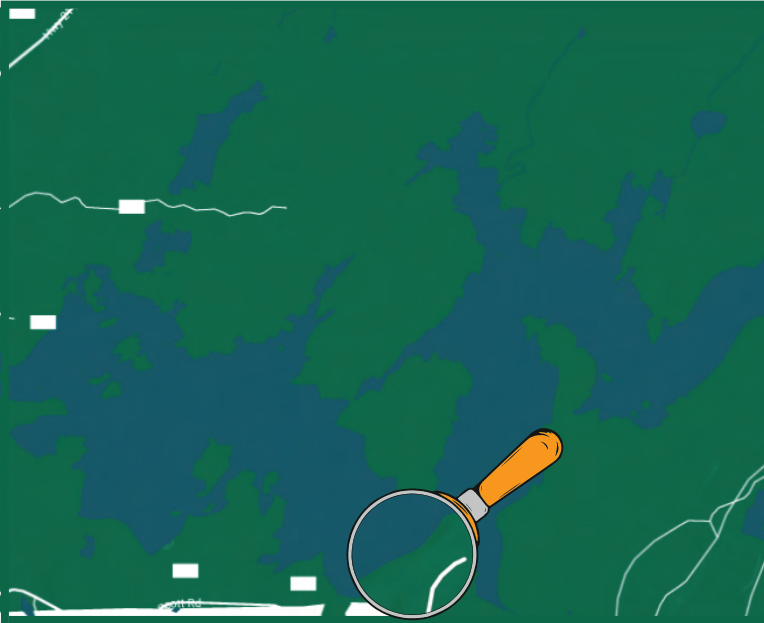
- Deploy Clean Drain Dry outreach campaign
 - Streaming ads, outdoor billboards, gas stations, social, radio, print ads
 - Targeted social media: Facebook and Instagram ads
 - Geofenced digital web and mobile device ads
 - Target users who have visited certain areas. Setting up digital fences around this access and others around it allow us to target users continually.



Birch Lake South Public Water Access

Birch Lake | 47°42' 59.1"N, 91°53'24.1"W

Birch Lake, MN



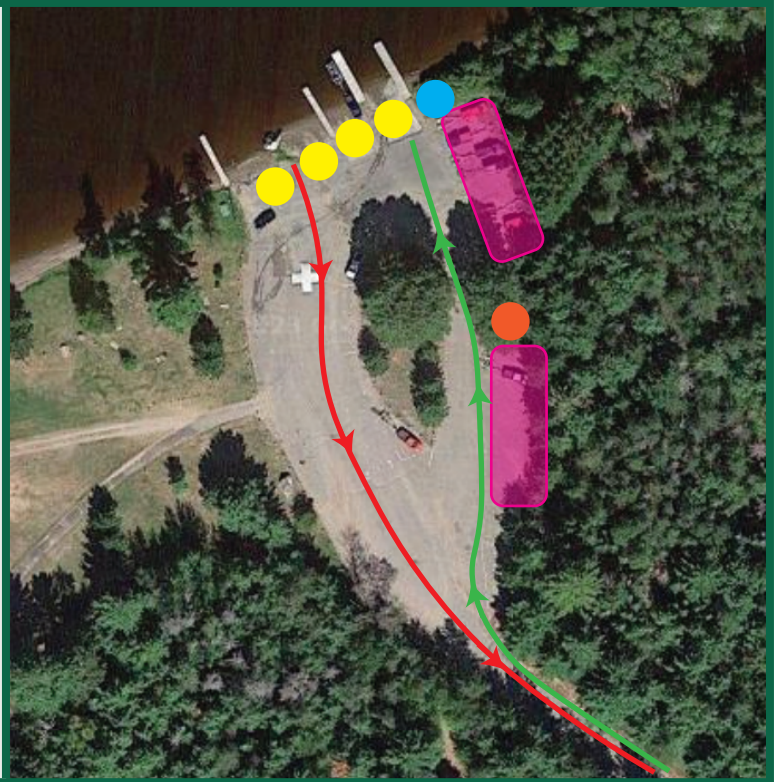
Access Ownership: City of Babbitt

KEY

- = boat ramp
- = signage
- = CD3 cleaning station
- ▭ = parking
- ← = inbound route
- = outbound route

Access Checklist

| | |
|-------------------------------|--|
| # of parking spaces (trailed) | 24 (30) - campground |
| Cleaning tools present | CD3 Solar Wayside |
| # of signs (AIS related) | 5 (3) |
| Current infestations | <input type="checkbox"/> D <input type="checkbox"/> RS <input type="checkbox"/> BMS <input type="checkbox"/> QM <input type="checkbox"/> CLPW <input type="checkbox"/> NLC <input type="checkbox"/> H <input type="checkbox"/> R <input type="checkbox"/> CMS <input checked="" type="checkbox"/> RC <input type="checkbox"/> CR <input type="checkbox"/> PL <input type="checkbox"/> VHS <input type="checkbox"/> TG <input type="checkbox"/> FS <input type="checkbox"/> SWF <input type="checkbox"/> EWM <input type="checkbox"/> RCG <input type="checkbox"/> RG <input type="checkbox"/> AC <input type="checkbox"/> NZMS <input type="checkbox"/> ZM <input type="checkbox"/> HC |
| Occurances within 20 miles | <input type="checkbox"/> D <input checked="" type="checkbox"/> RS <input type="checkbox"/> BMS <input type="checkbox"/> QM <input checked="" type="checkbox"/> CLPW <input checked="" type="checkbox"/> NLC <input checked="" type="checkbox"/> H <input type="checkbox"/> R <input checked="" type="checkbox"/> CMS <input checked="" type="checkbox"/> RC <input type="checkbox"/> CR <input checked="" type="checkbox"/> PL <input type="checkbox"/> VHS <input type="checkbox"/> TG <input type="checkbox"/> FS <input type="checkbox"/> SWF <input type="checkbox"/> EWM <input checked="" type="checkbox"/> RCG <input type="checkbox"/> RG <input type="checkbox"/> AC <input type="checkbox"/> NZMS <input type="checkbox"/> ZM <input type="checkbox"/> HC |
| Bidirectional threats | 8 |
| Specific conductivity (µS/cm) | 99.79 |
| Dissolved Calcium (mg/L) | 3.18 |
| AIS Explorer ZM risk rating | 0.625 |
| AIS Explorer SS risk rating | 0.015 |
| Nearest Decontamination | 21 miles |



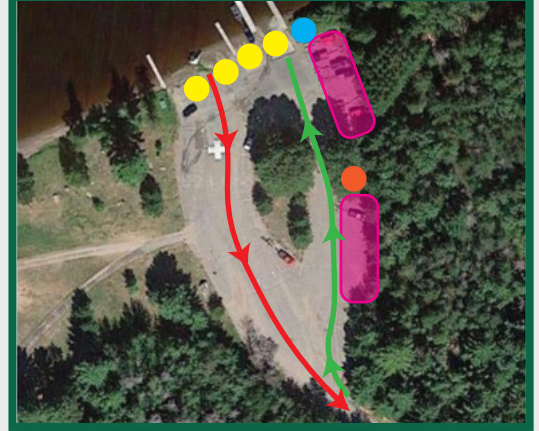
Birch Lake is classified as: MEDIUM RISK

- Due to**
- Existing signage & cleaning tools
 - High use access
 - Limited existing infestations



KEY

- = boat ramp
- = signage
- ← = inbound route
- = tools/equipment
- = parking
- = outbound route



Access Recommendations:

Signage: Inbound/Outbound

- Install Clean Drain Dry & Educational signage at access entry
 - Risk Species: **Rainbow smelt, Spiny waterflea, Reed canary grass**

Community Outreach, Prevention, & Awareness Recommendations:

Distribute Clean Drain Dry outreach materials

- Brushes, boat towels, brochures, decals, other Clean Drain Dry branded products are available at CleanDrainDry.org
- Use watercraft inspectors or volunteer outreach at local events, fairs, bait shops, visitor centers, and retailers to educate the community and distribute outreach materials.



Media & Marketing

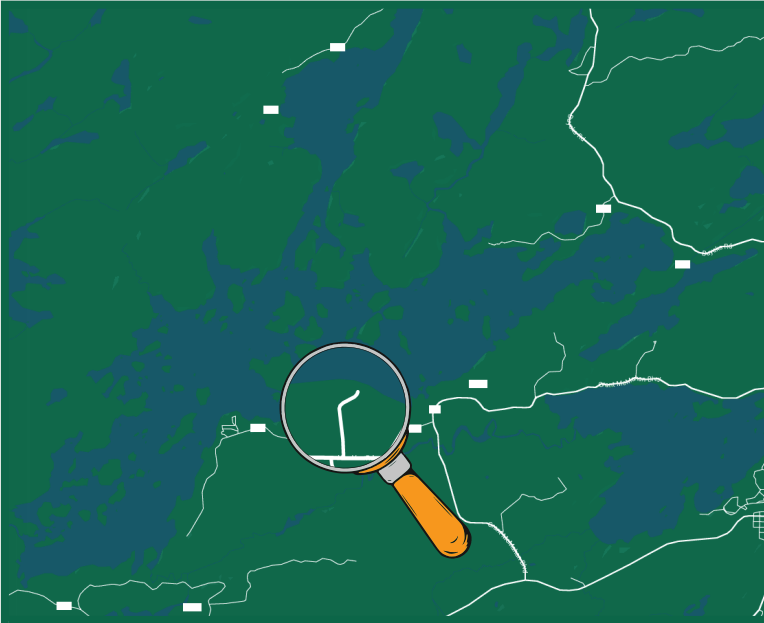
- Deploy Clean Drain Dry outreach campaign
 - Streaming ads, outdoor billboards, gas stations, social, radio, print ads
 - Targeted social media: Facebook and Instagram ads
 - Geofenced digital web and mobile device ads
 - Target users who have visited certain areas. Setting up digital fences around this access and others around it allow us to target users continually.



Co Rd 404 Public Water Access Site

Burntside Lake | 47°55'13.2"N, 91°58'28.1"W

Burntside Lake, MN



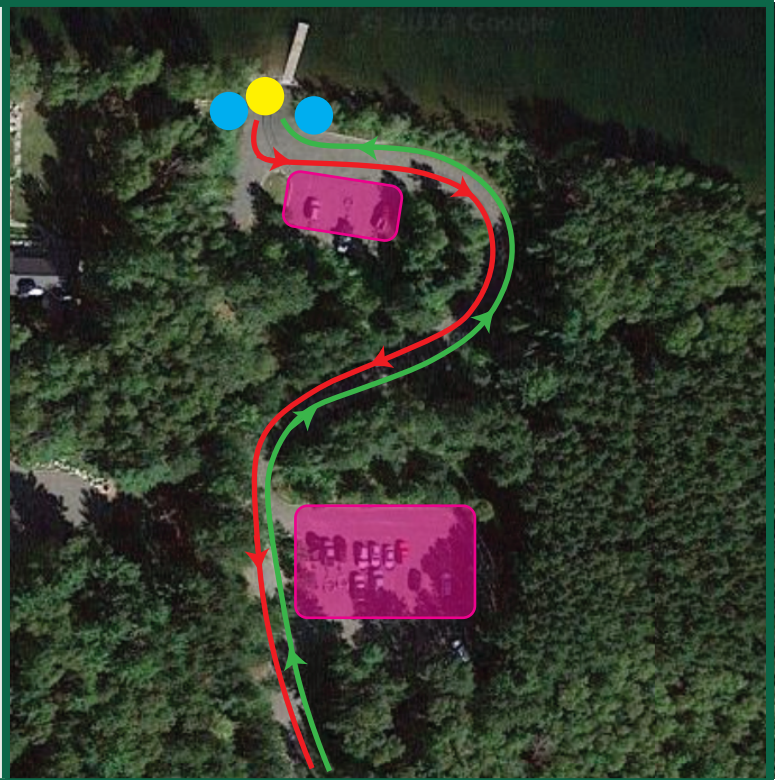
Access Ownership: DNR Division of Parks & Trails

KEY

- = boat ramp
- = signage
- = trash receptacles (N/A)
- = parking
- ← = inbound route
- = outbound route

Access Checklist

| | |
|-------------------------------|---|
| # of parking spaces (trailer) | 11 (29) - campground |
| Cleaning tools present | None |
| # of signs (AIS related) | 9 (4) |
| Current infestations | <input type="checkbox"/> D <input checked="" type="checkbox"/> RS <input type="checkbox"/> BMS <input type="checkbox"/> QM <input type="checkbox"/> CLPW <input type="checkbox"/> NLC <input type="checkbox"/> H <input type="checkbox"/> R <input checked="" type="checkbox"/> CMS <input type="checkbox"/> RC <input type="checkbox"/> CR <input type="checkbox"/> PL <input type="checkbox"/> VHS <input type="checkbox"/> TG <input type="checkbox"/> FS <input checked="" type="checkbox"/> SWF <input type="checkbox"/> EWM <input type="checkbox"/> RCG <input type="checkbox"/> RG <input type="checkbox"/> AC <input type="checkbox"/> NZMS <input type="checkbox"/> ZM <input type="checkbox"/> HC |
| Occurrences within 20 miles | <input type="checkbox"/> D <input checked="" type="checkbox"/> RS <input type="checkbox"/> BMS <input type="checkbox"/> QM <input checked="" type="checkbox"/> CLPW <input checked="" type="checkbox"/> NLC <input checked="" type="checkbox"/> H <input type="checkbox"/> R <input checked="" type="checkbox"/> CMS <input checked="" type="checkbox"/> RC <input type="checkbox"/> CR <input checked="" type="checkbox"/> PL <input type="checkbox"/> VHS <input type="checkbox"/> TG <input type="checkbox"/> FS <input checked="" type="checkbox"/> SWF <input type="checkbox"/> EWM <input checked="" type="checkbox"/> RCG <input type="checkbox"/> RG <input type="checkbox"/> AC <input type="checkbox"/> NZMS <input type="checkbox"/> ZM <input type="checkbox"/> HC |
| Bidirectional threats | 6 |
| Specific conductivity (µS/cm) | 35 |
| Dissolved Calcium (mg/L) | 3.4 |
| AIS Explorer ZM risk rating | .6065 |
| AIS Explorer SS risk rating | .007 |
| Nearest Decontamination | On-site |



Burntside Lake is classified as: MEDIUM RISK

- Due to**
- Existing signage & cleaning tools
 - High use access
 - Limited existing infestations



KEY

- = boat ramp
- = tools/equipment
- = signage
- = parking
- ← = inbound route
- = outbound route



Access Recommendations:

Watercraft cleaning equipment: Inbound/Outbound

- Solar powered Wayside cleaning station: CD3 Systems
 - Clean Drain Dry wrap
 - Aqua Weed Stick
 - Extendable Brush
 - Plug wrench
 - Pressurized Air hose
 - Vacuum

Signage: Inbound/Outbound

- Install Clean Drain Dry & Educational signage at access entry
 - Risk Species: **Rusty crayfish, Reed canary grass, Purple loosestrife**
- Signage near watercraft cleaning equipment
 - Describes how and why to use cleaning equipment

Community Outreach, Prevention, & Awareness Recommendations:

Distribute Clean Drain Dry outreach materials

- Brushes, boat towels, brochures, decals, other Clean Drain Dry branded products are available at CleanDrainDry.org
- Use watercraft inspectors or volunteer outreach at local events, fairs, bait shops, visitor centers, and retailers to educate the community and distribute outreach materials.

Media & Marketing

- Deploy Clean Drain Dry outreach campaign
 - Streaming ads, outdoor billboards, gas stations, social, radio, print ads
 - Targeted social media: Facebook and Instagram ads
 - Geofenced digital web and mobile device ads
 - Target users who have visited certain areas. Setting up digital fences around this access and others around it allow us to target users continually.



Crane Lake Public Water Access Site

Crane Lake | 47°55'13.2"N, 91°58'28.1"W

Crane Lake, MN



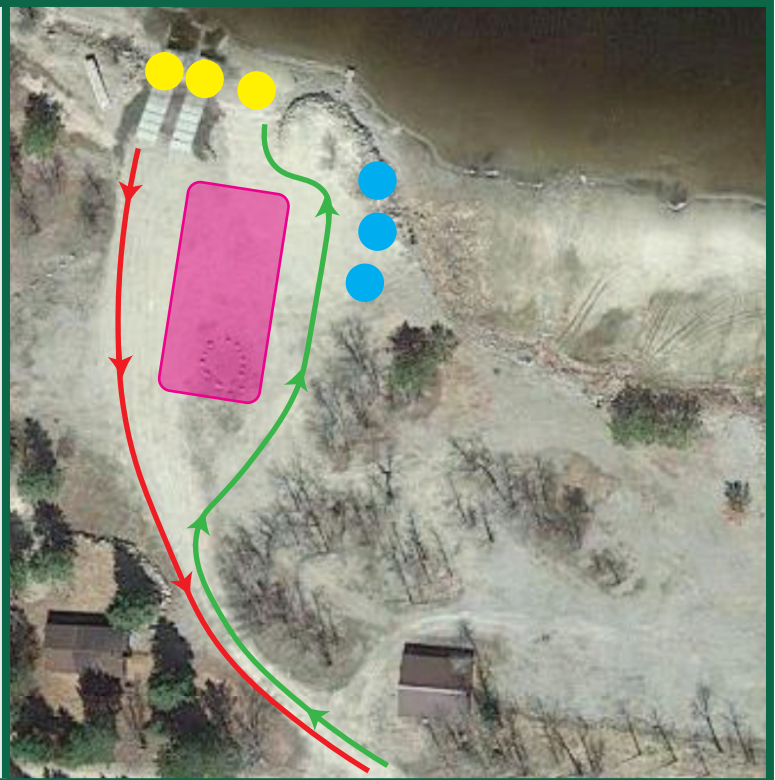
Access Ownership: DNR Division of Parks & Trails

KEY

- = boat ramp
- = signage
- = trash receptacles (N/A)
- = parking
- ← = inbound route
- = outbound route

Access Checklist

| | |
|-------------------------------|--|
| # of parking spaces (trailed) | 5 (34) - campground |
| Cleaning tools present | None |
| # of signs (AIS related) | 20 (4) |
| Current infestations | <input type="checkbox"/> D <input type="checkbox"/> RS <input type="checkbox"/> BMS <input type="checkbox"/> QM <input type="checkbox"/> CLPW <input type="checkbox"/> NLC <input type="checkbox"/> H <input type="checkbox"/> R <input type="checkbox"/> CMS <input checked="" type="checkbox"/> RC <input type="checkbox"/> CR <input checked="" type="checkbox"/> PL <input type="checkbox"/> VHS <input type="checkbox"/> TG <input type="checkbox"/> FS <input checked="" type="checkbox"/> SWF <input type="checkbox"/> EWM <input type="checkbox"/> RCG <input type="checkbox"/> RG <input type="checkbox"/> AC <input type="checkbox"/> NZMS <input type="checkbox"/> ZM <input type="checkbox"/> HC |
| Occurances within 20 miles | <input type="checkbox"/> D <input checked="" type="checkbox"/> RS <input type="checkbox"/> BMS <input type="checkbox"/> QM <input checked="" type="checkbox"/> CLPW <input type="checkbox"/> NLC <input type="checkbox"/> H <input type="checkbox"/> R <input type="checkbox"/> CMS <input checked="" type="checkbox"/> RC <input type="checkbox"/> CR <input checked="" type="checkbox"/> PL <input type="checkbox"/> VHS <input type="checkbox"/> TG <input type="checkbox"/> FS <input checked="" type="checkbox"/> SWF <input type="checkbox"/> EWM <input checked="" type="checkbox"/> RCG <input type="checkbox"/> RG <input type="checkbox"/> AC <input type="checkbox"/> NZMS <input type="checkbox"/> ZM <input type="checkbox"/> HC |
| Bidirectional threats | 3 |
| Specific conductivity (µS/cm) | 86.17 |
| Dissolved Calcium (mg/L) | 14.81 |
| AIS Explorer ZM risk rating | .4735 |
| AIS Explorer SS risk rating | .009 |
| Nearest Decontamination | On-site |



Crane Lake is classified as: MEDIUM RISK

- Due to**
- Existing signage
 - High use access
 - Existing infestations



KEY

- = boat ramp
- = tools/equipment
- = signage
- = parking
- ← = inbound route
- = outbound route



Access Recommendations:

Watercraft cleaning equipment: Inbound/Outbound

- Solar powered Wayside cleaning station: CD3 Systems
 - Clean Drain Dry wrap
 - Aqua Weed Stick
 - Extendable Brush
 - Plug wrench
 - Pressurized Air hose
 - Vacuum



Signage: Inbound/Outbound

- Install Clean Drain Dry & Educational signage at access entry
 - Risk Species: **Rainbow smelt, Curly leaf pondweed, Reed canary grass**
- Signage near watercraft cleaning equipment
 - Describes how and why to use cleaning equipment



Community Outreach, Prevention, & Awareness Recommendations:

Distribute Clean Drain Dry outreach materials

- Brushes, boat towels, brochures, decals, other Clean Drain Dry branded products are available at CleanDrainDry.org
- Use watercraft inspectors or volunteer outreach at local events, fairs, bait shops, visitor centers, and retailers to educate the community and distribute outreach materials.

Media & Marketing

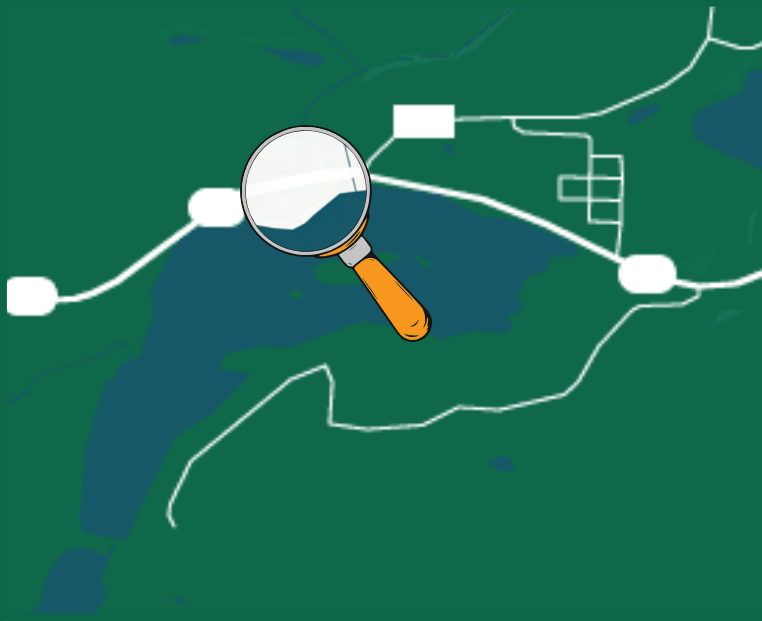
- Deploy Clean Drain Dry outreach campaign
 - Streaming ads, outdoor billboards, gas stations, social, radio, print ads
 - Targeted social media: Facebook and Instagram ads
 - Geofenced digital web and mobile device ads
 - Target users who have visited certain areas. Setting up digital fences around this access and others around it allow us to target users continually.



Embarrass Lake (N) Public Water Access Site

Biwabik, MN

Embarrass Lake | 47°32'9.6"N, 92°18'54.4"W



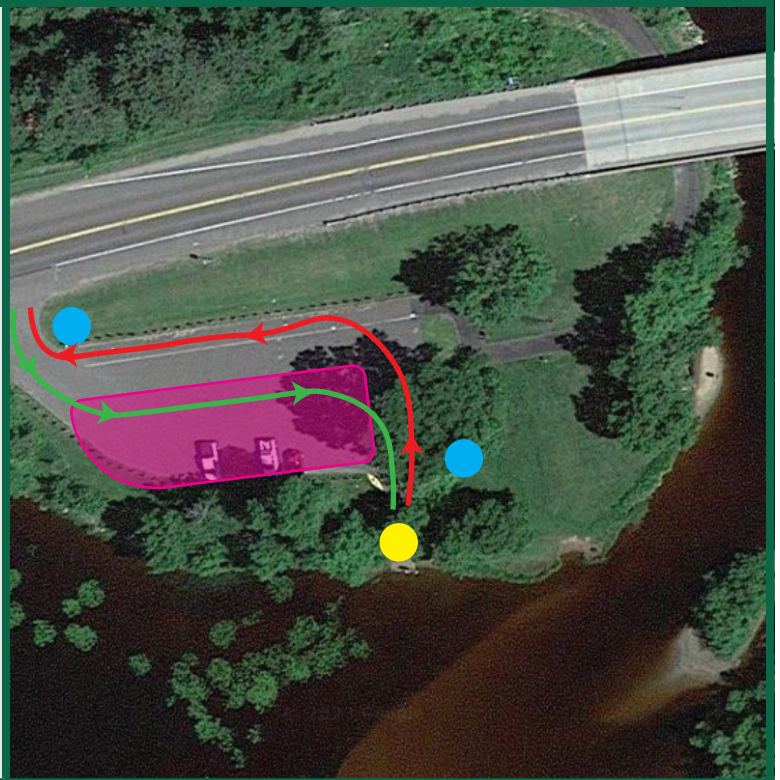
Access Ownership: DNR Division of Parks & Trails

KEY

- = boat ramp
- = signage
- = trash receptacles (N/A)
- = parking
- ← = inbound route
- = outbound route

Access Checklist

| | |
|-------------------------------|--|
| # of parking spaces (trailed) | 10 (22) |
| Cleaning tools present | None |
| # of signs (AIS related) | 3 (1, damaged) |
| Current infestations | <input type="checkbox"/> D <input type="checkbox"/> RS <input type="checkbox"/> BMS <input type="checkbox"/> QM <input type="checkbox"/> CLPW <input type="checkbox"/> NLC <input type="checkbox"/> H <input type="checkbox"/> R <input checked="" type="checkbox"/> CMS <input checked="" type="checkbox"/> RC <input type="checkbox"/> CR <input type="checkbox"/> PL <input type="checkbox"/> VHS <input type="checkbox"/> TG <input type="checkbox"/> FS <input type="checkbox"/> SWF <input type="checkbox"/> EWM <input type="checkbox"/> RCG <input type="checkbox"/> RG <input type="checkbox"/> AC <input type="checkbox"/> NZMS <input type="checkbox"/> ZM <input type="checkbox"/> HC |
| Occurrences within 20 miles | <input type="checkbox"/> D <input checked="" type="checkbox"/> RS <input type="checkbox"/> BMS <input type="checkbox"/> QM <input checked="" type="checkbox"/> CLPW <input checked="" type="checkbox"/> NLC <input checked="" type="checkbox"/> H <input type="checkbox"/> R <input checked="" type="checkbox"/> CMS <input checked="" type="checkbox"/> RC <input type="checkbox"/> CR <input checked="" type="checkbox"/> PL <input type="checkbox"/> VHS <input type="checkbox"/> TG <input type="checkbox"/> FS <input checked="" type="checkbox"/> SWF <input checked="" type="checkbox"/> EWM <input checked="" type="checkbox"/> RCG <input type="checkbox"/> RG <input type="checkbox"/> AC <input type="checkbox"/> NZMS <input checked="" type="checkbox"/> ZM <input checked="" type="checkbox"/> HC |
| Bidirectional threats | 10 |
| Specific conductivity (µS/cm) | 201.3 |
| Dissolved Calcium (mg/L) | 12.1 |
| AIS Explorer ZM risk rating | .3175 |
| AIS Explorer SS risk rating | .023 |
| Nearest Decontamination | 12 miles |



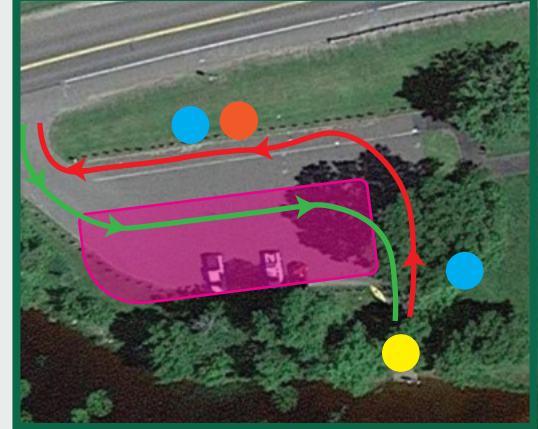
Embarrass Lake is classified as: HIGH RISK

- Due to**
- High use access
 - Several local infestations
 - Limited access to mitigation



KEY

- = boat ramp
- = signage
- ← = inbound route
- = tools/equipment
- = parking
- = outbound route



Access Recommendations:

Watercraft cleaning equipment: Inbound/Outbound

- Solar powered Wayside cleaning station: CD3 Systems
 - Clean Drain Dry wrap
 - Aqua Weed Stick
 - Extendable Brush
 - Plug wrench
 - Pressurized Air hose
 - Vacuum



Signage: Inbound/Outbound

- Install Clean Drain Dry & Educational signage at access entry
 - Risk Species: **Rainbow smelt, Curly leaf pondweed, Reed canary grass**
- Signage near watercraft cleaning equipment
 - Describes how and why to use cleaning equipment



Community Outreach, Prevention, & Awareness Recommendations:

Distribute Clean Drain Dry outreach materials

- Brushes, boat towels, brochures, decals, other Clean Drain Dry branded products are available at CleanDrainDry.org
- Use watercraft inspectors or volunteer outreach at local events, fairs, bait shops, visitor centers, and retailers to educate the community and distribute outreach materials.

Media & Marketing

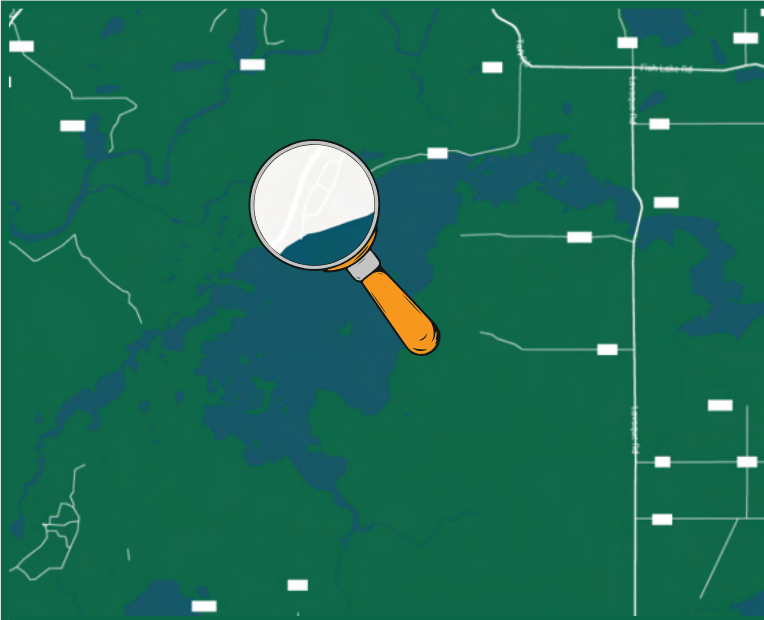
- Deploy Clean Drain Dry outreach campaign
 - Streaming ads, outdoor billboards, gas stations, social, radio, print ads
 - Targeted social media: Facebook and Instagram ads
 - Geofenced digital web and mobile device ads
 - Target users who have visited certain areas. Setting up digital fences around this access and others around it allow us to target users continually.



High Banks (N) Public Water Access Site

Fredenberg, MN

Fish Lake Flowage | 46°57'25.0"N, 92°16'38.8"W



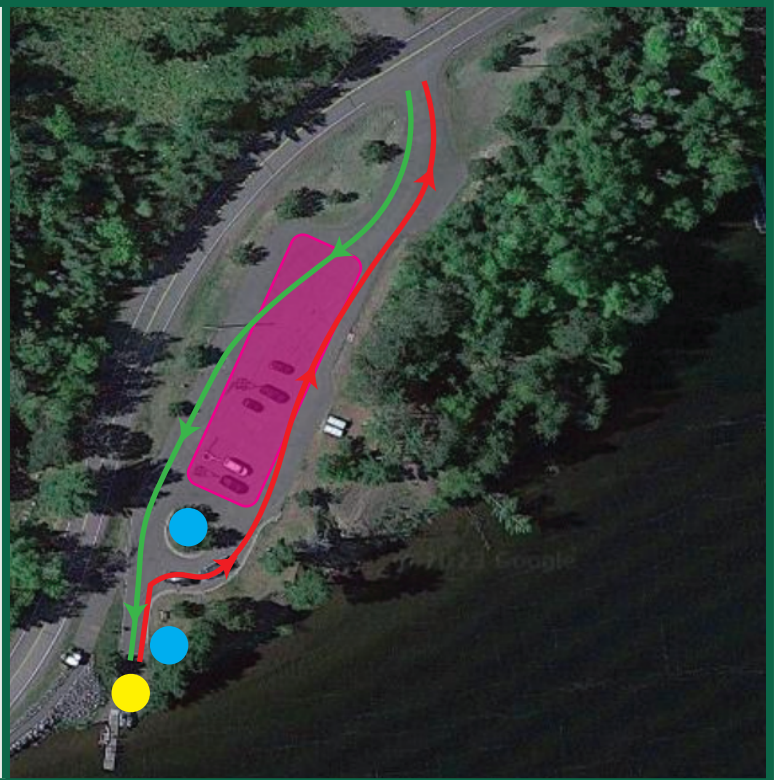
Access Ownership: Minnesota Power

KEY

- = boat ramp
- = signage
- = trash receptacles (N/A)
- = parking
- ← = inbound route
- = outbound route

Access Checklist

| | |
|----------------------------------|--|
| # of parking spaces (traileered) | 7 (21) |
| Cleaning tools present | None |
| # of signs (AIS related) | 14 (2) |
| Current infestations | <input type="checkbox"/> D <input type="checkbox"/> RS <input type="checkbox"/> BMS <input type="checkbox"/> QM <input type="checkbox"/> CLPW <input type="checkbox"/> NLC <input type="checkbox"/> H <input type="checkbox"/> R <input checked="" type="checkbox"/> CMS <input type="checkbox"/> RC <input type="checkbox"/> CR <input type="checkbox"/> PL <input type="checkbox"/> VHS <input type="checkbox"/> TG <input type="checkbox"/> FS <input checked="" type="checkbox"/> SWF <input type="checkbox"/> EWM <input type="checkbox"/> RCG <input type="checkbox"/> RG <input type="checkbox"/> AC <input type="checkbox"/> NZMS <input type="checkbox"/> ZM <input type="checkbox"/> HC |
| Occurances within 20 miles | <input checked="" type="checkbox"/> D <input checked="" type="checkbox"/> RS <input type="checkbox"/> BMS <input checked="" type="checkbox"/> QM <input checked="" type="checkbox"/> CLPW <input checked="" type="checkbox"/> NLC <input checked="" type="checkbox"/> H <input checked="" type="checkbox"/> R <input checked="" type="checkbox"/> CMS <input checked="" type="checkbox"/> RC <input checked="" type="checkbox"/> CR <input checked="" type="checkbox"/> PL <input checked="" type="checkbox"/> VHS <input checked="" type="checkbox"/> TG <input checked="" type="checkbox"/> FS <input checked="" type="checkbox"/> SWF <input checked="" type="checkbox"/> EWM <input checked="" type="checkbox"/> RCG <input checked="" type="checkbox"/> RG <input checked="" type="checkbox"/> AC <input checked="" type="checkbox"/> NZMS <input checked="" type="checkbox"/> ZM <input checked="" type="checkbox"/> HC |
| Bidirectional threats | 20 |
| Specific conductivity (µS/cm) | 125.4 |
| Dissolved Calcium (mg/L) | 12.9 |
| AIS Explorer ZM risk rating | .63 |
| AIS Explorer SS risk rating | .012 |
| Nearest Decontamination | 11 miles |



Fish Lake Flowage is classified as: HIGH RISK

- Due to**
- High use access
 - Several local infestations
 - Limited access to mitigation



KEY

- = boat ramp
- = signage
- ← = inbound route
- = tools/equipment
- = parking
- = outbound route



Access Recommendations:

Watercraft cleaning equipment: Inbound/Outbound

- Solar powered Wayside cleaning station: CD3 Systems
 - Clean Drain Dry wrap
 - Aqua Weed Stick
 - Extendable Brush
 - Plug wrench
 - Pressurized Air hose
 - Vacuum

Signage: Inbound/Outbound

- Install Clean Drain Dry & Educational signage at access entry
 - Risk Species: **Rusty crayfish, Chinese mystery snail, Reed canary grass**
- Signage near watercraft cleaning equipment
 - Describes how and why to use cleaning equipment

Community Outreach, Prevention, & Awareness Recommendations:

Distribute Clean Drain Dry outreach materials

- Brushes, boat towels, brochures, decals, other Clean Drain Dry branded products are available at CleanDrainDry.org
- Use watercraft inspectors or volunteer outreach at local events, fairs, bait shops, visitor centers, and retailers to educate the community and distribute outreach materials.

Media & Marketing

- Deploy Clean Drain Dry outreach campaign
 - Streaming ads, outdoor billboards, gas stations, social, radio, print ads
 - Targeted social media: Facebook and Instagram ads
 - Geofenced digital web and mobile device ads
 - Target users who have visited certain areas. Setting up digital fences around this access and others around it allow us to target users continually.



Indian Lake Campground

Indian Lake | 47°16'21.7"N, 91°50'53.8"W

Ault Township, MN



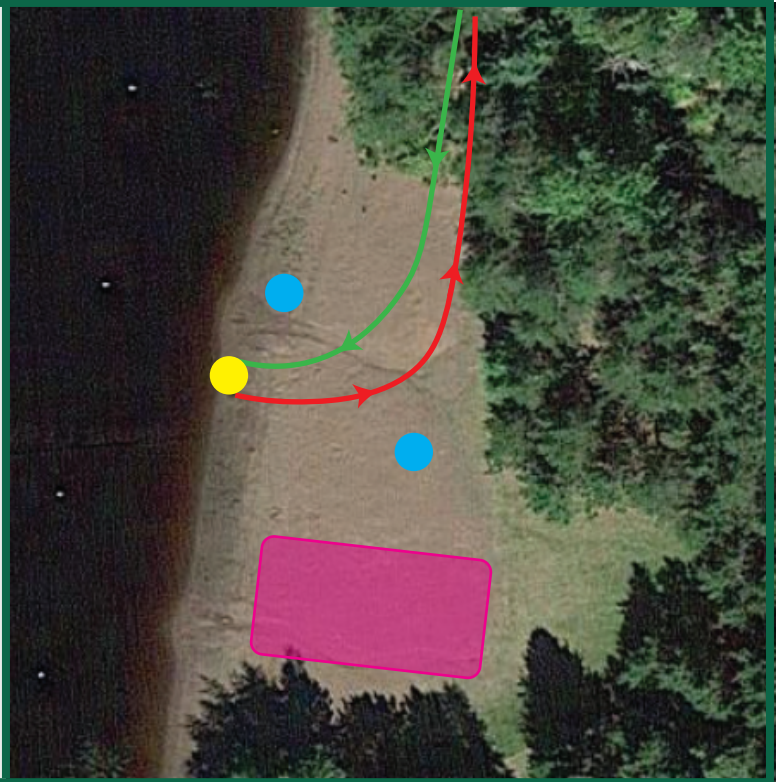
Access Ownership: DNR Division of Parks & Trails

KEY

- = boat ramp
- = signage
- = trash receptacles (N/A)
- ▭ = parking
- ← = inbound route
- = outbound route

Access Checklist

| | |
|-------------------------------|---|
| # of parking spaces (trailer) | 6 (25) - campground |
| Cleaning tools present | None |
| # of signs (AIS related) | 15 (2) |
| Current infestations | <input type="checkbox"/> D <input type="checkbox"/> RS <input type="checkbox"/> BMS <input type="checkbox"/> QM <input type="checkbox"/> CLPW <input type="checkbox"/> NLC <input type="checkbox"/> H <input type="checkbox"/> R <input type="checkbox"/> CMS <input type="checkbox"/> RC <input type="checkbox"/> CR <input type="checkbox"/> PL <input type="checkbox"/> VHS <input type="checkbox"/> TG <input type="checkbox"/> FS <input type="checkbox"/> SWF <input type="checkbox"/> EWM <input type="checkbox"/> RCG <input type="checkbox"/> RG <input type="checkbox"/> AC <input type="checkbox"/> NZMS <input type="checkbox"/> ZM <input type="checkbox"/> HC |
| Occurrences within 20 miles | <input checked="" type="checkbox"/> D <input checked="" type="checkbox"/> RS <input type="checkbox"/> BMS <input checked="" type="checkbox"/> QM <input checked="" type="checkbox"/> CLPW <input type="checkbox"/> NLC <input checked="" type="checkbox"/> H <input checked="" type="checkbox"/> R <input type="checkbox"/> CMS <input checked="" type="checkbox"/> RC <input type="checkbox"/> CR <input type="checkbox"/> PL <input checked="" type="checkbox"/> VHS <input checked="" type="checkbox"/> TG <input checked="" type="checkbox"/> FS <input checked="" type="checkbox"/> SWF <input checked="" type="checkbox"/> EWM <input checked="" type="checkbox"/> RCG <input checked="" type="checkbox"/> RG <input type="checkbox"/> AC <input checked="" type="checkbox"/> NZMS <input checked="" type="checkbox"/> ZM <input checked="" type="checkbox"/> HC |
| Bidirectional threats | 17 |
| Specific conductivity (µS/cm) | N/A |
| Dissolved Calcium (mg/L) | 10.9 |
| AIS Explorer ZM risk rating | .0875 |
| AIS Explorer SS risk rating | .0015 |
| Nearest Decontamination | 35 miles |



Indian Lake is classified as: MEDIUM RISK

- Due to**
- Unimproved access
 - Several local infestations
 - Limited access to mitigation



KEY

- = boat ramp
- = signage
- ← = inbound route
- = tools/equipment
- = parking
- = outbound route

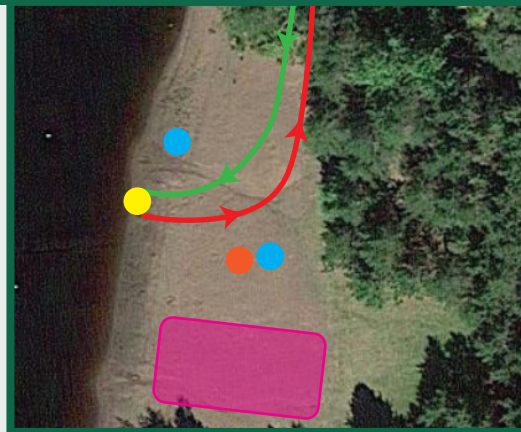


Access Recommendations:

Watercraft cleaning equipment:

Inbound/Outbound

- Landing Station cleaning station: MAJK Solutions
 - Clean Drain Dry (angler) sign
 - Aqua Weed Stick
 - Extendable Brush



Signage: Inbound/Outbound

- Install Clean Drain Dry & Educational signage at access entry
 - Risk Species: **Rusty crayfish, Chinese mystery snail, Reed canary grass**
- Signage near watercraft cleaning equipment
 - Describes how and why to use cleaning equipment

Community Outreach, Prevention, & Awareness Recommendations:

Distribute Clean Drain Dry outreach materials

- Brushes, boat towels, brochures, decals, other Clean Drain Dry branded products are available at CleanDrainDry.org
- Use watercraft inspectors or volunteer outreach at local events, fairs, bait shops, visitor centers, and retailers to educate the community and distribute outreach materials.

Media & Marketing

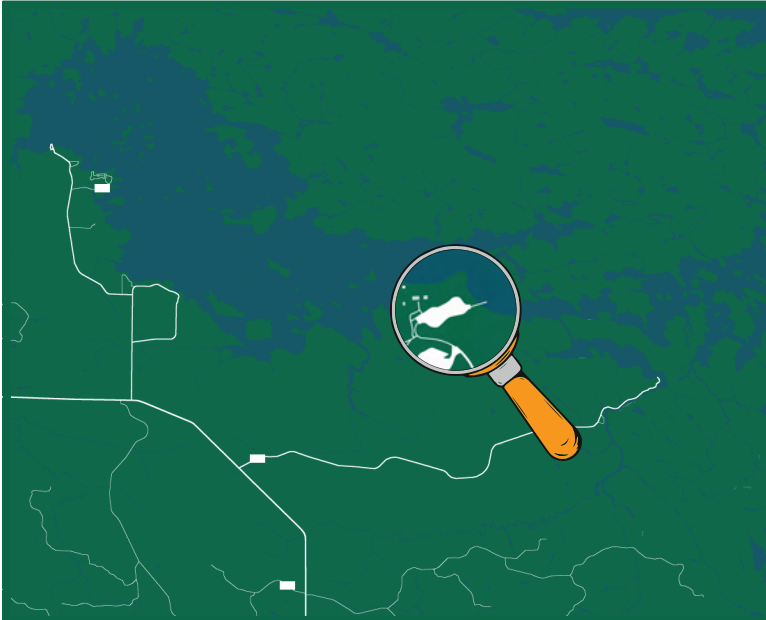
- Deploy Clean Drain Dry outreach campaign
 - Streaming ads, outdoor billboards, gas stations, social, radio, print ads
 - Targeted social media: Facebook and Instagram ads
 - Geofenced digital web and mobile device ads
 - Target users who have visited certain areas. Setting up digital fences around this access and others around it allow us to target users continually.



Ash River Visitor Center Public Water Access Site

Orr, MN

Kebetogama Lake | 48°26'7.9"N, 92°50'53.7"W



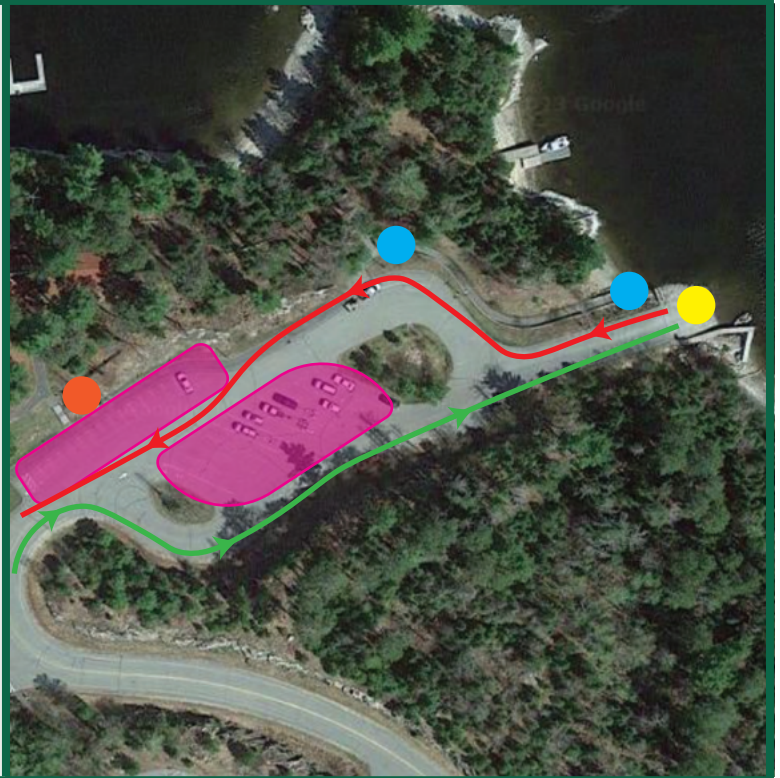
Access Ownership: National Park Service

KEY

- = boat ramp
- = signage
- = trash receptacles
- = parking
- ← = inbound route
- = outbound route

Access Checklist

| | |
|-------------------------------|--|
| # of parking spaces (trailed) | 20 (106) - campground |
| Cleaning tools present | None |
| # of signs (AIS related) | 9 (2) |
| Current infestations | <input type="checkbox"/> D <input checked="" type="checkbox"/> RS <input type="checkbox"/> BMS <input type="checkbox"/> QM <input type="checkbox"/> CLPW <input checked="" type="checkbox"/> NLC <input type="checkbox"/> H <input type="checkbox"/> R <input checked="" type="checkbox"/> CMS <input type="checkbox"/> RC <input type="checkbox"/> CR <input checked="" type="checkbox"/> PL <input type="checkbox"/> VHS <input type="checkbox"/> TG <input type="checkbox"/> FS <input checked="" type="checkbox"/> SWF <input type="checkbox"/> EWM <input checked="" type="checkbox"/> RCG <input type="checkbox"/> RG <input type="checkbox"/> AC <input type="checkbox"/> NZMS <input type="checkbox"/> ZM <input type="checkbox"/> HC |
| Occurrences within 20 miles | <input type="checkbox"/> D <input checked="" type="checkbox"/> RS <input type="checkbox"/> BMS <input type="checkbox"/> QM <input checked="" type="checkbox"/> CLPW <input type="checkbox"/> NLC <input type="checkbox"/> H <input type="checkbox"/> R <input type="checkbox"/> CMS <input checked="" type="checkbox"/> RC <input type="checkbox"/> CR <input checked="" type="checkbox"/> PL <input type="checkbox"/> VHS <input type="checkbox"/> TG <input type="checkbox"/> FS <input checked="" type="checkbox"/> SWF <input type="checkbox"/> EWM <input checked="" type="checkbox"/> RCG <input type="checkbox"/> RG <input type="checkbox"/> AC <input type="checkbox"/> NZMS <input type="checkbox"/> ZM <input type="checkbox"/> HC |
| Bidirectional threats | 4 |
| Specific conductivity (µS/cm) | 90.9 |
| Dissolved Calcium (mg/L) | 12.5 |
| AIS Explorer ZM risk rating | .6305 |
| AIS Explorer SS risk rating | .0165 |
| Nearest Decontamination | 35 miles |



Kabetogama Lake is classified as: HIGH RISK

- Due to**
- High use access
 - Several local infestations
 - Limited access to mitigation



KEY

- = boat ramp
- = tools/equipment
- = signage
- = parking
- ← = inbound route
- = outbound route



Access Recommendations:

Watercraft cleaning equipment: Inbound/Outbound

- Solar powered Wayside cleaning station: CD3 Systems
 - Clean Drain Dry wrap
 - Aqua Weed Stick
 - Extendable Brush
 - Plug wrench
 - Pressurized air hose
 - Vacuum



Signage: Inbound/Outbound

- Install Clean Drain Dry & Educational signage at access entry
 - Risk Species: **Rusty crayfish, Chinese mystery snail, Curly-leaf pondweed**
- Signage near watercraft cleaning equipment
 - Describes how and why to use cleaning equipment

Community Outreach, Prevention, & Awareness Recommendations:

Distribute Clean Drain Dry outreach materials

- Brushes, boat towels, brochures, decals, other Clean Drain Dry branded products are available at CleanDrainDry.org
- Use watercraft inspectors or volunteer outreach at local events, fairs, bait shops, visitor centers, and retailers to educate the community and distribute outreach materials.

Media & Marketing

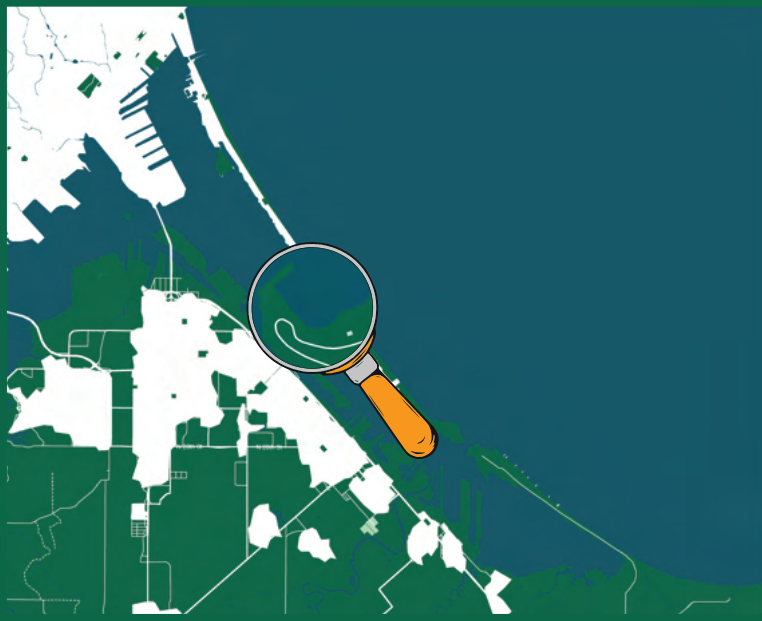
- Deploy Clean Drain Dry outreach campaign
 - Streaming ads, outdoor billboards, gas stations, social, radio, print ads
 - Targeted social media: Facebook and Instagram ads
 - Geofenced digital web and mobile device ads
 - Target users who have visited certain areas. Setting up digital fences around this access and others around it allow us to target users continually.



Park Point Boat Launch

St. Louis River Estuary | 46°43'55"N, 92°03'22.2"W

Duluth, MN



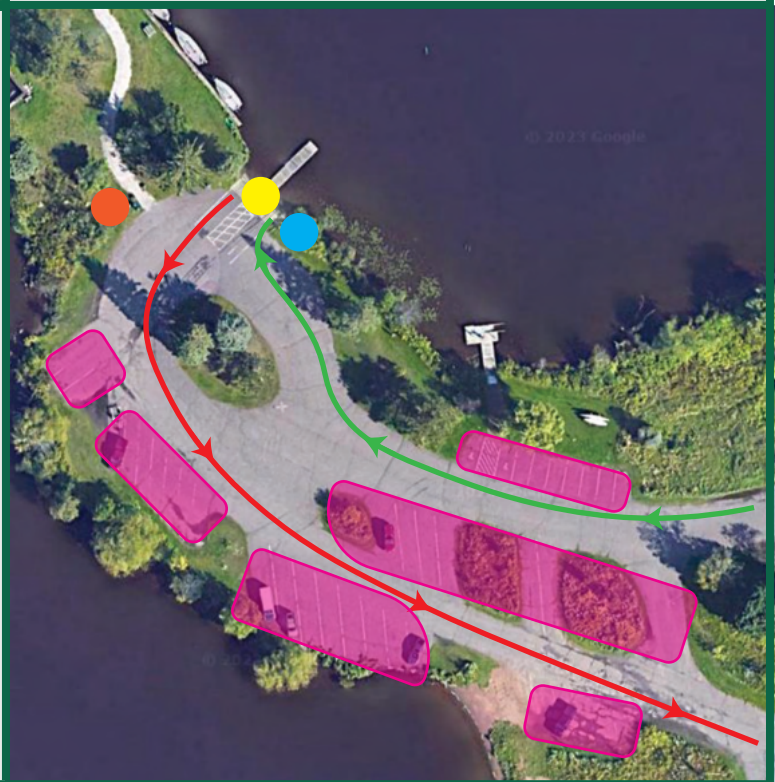
Access Ownership: City of Duluth

KEY

- = boat ramp
- = signage
- = trash receptacles
- = parking
- ← = inbound route
- = outbound route

Access Checklist

| | |
|-------------------------------|---|
| # of parking spaces (trailed) | 16 (23) |
| Cleaning tools present | None |
| # of signs (AIS related) | 9 (2) |
| Current infestations | <input type="checkbox"/> D <input checked="" type="checkbox"/> RS <input type="checkbox"/> BMS <input checked="" type="checkbox"/> QM <input checked="" type="checkbox"/> CLPW <input checked="" type="checkbox"/> NLC <input type="checkbox"/> H <input checked="" type="checkbox"/> R <input type="checkbox"/> CMS <input checked="" type="checkbox"/> RC <input checked="" type="checkbox"/> CR <input checked="" type="checkbox"/> PL <input checked="" type="checkbox"/> VHS <input checked="" type="checkbox"/> TG <input checked="" type="checkbox"/> FS <input checked="" type="checkbox"/> SWF <input checked="" type="checkbox"/> EWM <input checked="" type="checkbox"/> RCG <input checked="" type="checkbox"/> RG <input checked="" type="checkbox"/> AC <input checked="" type="checkbox"/> NZMS <input checked="" type="checkbox"/> ZM <input checked="" type="checkbox"/> HC |
| Occurrences within 20 miles | <input checked="" type="checkbox"/> D <input checked="" type="checkbox"/> RS <input type="checkbox"/> BMS <input checked="" type="checkbox"/> QM <input checked="" type="checkbox"/> CLPW <input type="checkbox"/> NLC <input checked="" type="checkbox"/> H <input checked="" type="checkbox"/> R <input checked="" type="checkbox"/> CMS <input checked="" type="checkbox"/> RC <input type="checkbox"/> CR <input checked="" type="checkbox"/> PL <input checked="" type="checkbox"/> VHS <input checked="" type="checkbox"/> TG <input checked="" type="checkbox"/> FS <input checked="" type="checkbox"/> SWF <input checked="" type="checkbox"/> EWM <input checked="" type="checkbox"/> RCG <input checked="" type="checkbox"/> RG <input type="checkbox"/> AC <input checked="" type="checkbox"/> NZMS <input checked="" type="checkbox"/> ZM <input type="checkbox"/> HC |
| Bidirectional threats | 7 |
| Specific conductivity (µS/cm) | N/A |
| Dissolved Calcium (mg/L) | N/A |
| AIS Explorer ZM risk rating | N/A |
| AIS Explorer SS risk rating | N/A |
| Nearest Decontamination | 26 miles |



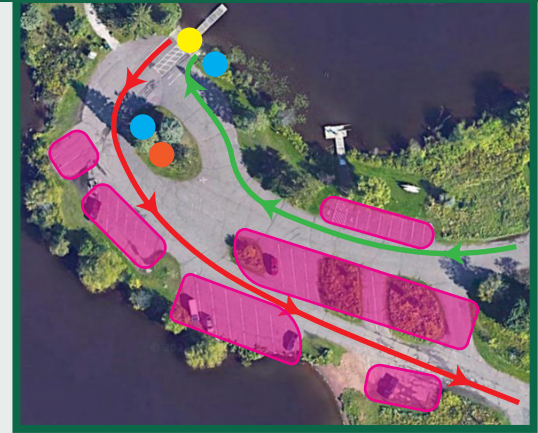
St. Louis River Estuary is classified as: MEDIUM RISK

- Due to**
- High use access
 - Several local infestations, proximity to Lake Superior
 - Limited access to mitigation



KEY

- = boat ramp
- = signage
- ← = inbound route
- = tools/equipment
- = parking
- = outbound route



Access Recommendations:

Watercraft cleaning equipment: Inbound/Outbound

- Solar powered Wayside cleaning station: CD3 Systems
 - Clean Drain Dry wrap
 - Aqua Weed Stick
 - Extendable Brush
 - Plug wrench
 - Pressurized air hose
 - Vacuum



Signage: Inbound/Outbound

- Install Clean Drain Dry & Educational signage at access entry
 - Risk Species: **Asian clam, Common Reed, Narrowleaf cattail**
- Signage near watercraft cleaning equipment
 - Describes how and why to use cleaning equipment

Community Outreach, Prevention, & Awareness Recommendations:

Distribute Clean Drain Dry outreach materials

- Brushes, boat towels, brochures, decals, other Clean Drain Dry branded products are available at CleanDrainDry.org
- Use watercraft inspectors or volunteer outreach at local events, fairs, bait shops, visitor centers, and retailers to educate the community and distribute outreach materials.

Media & Marketing

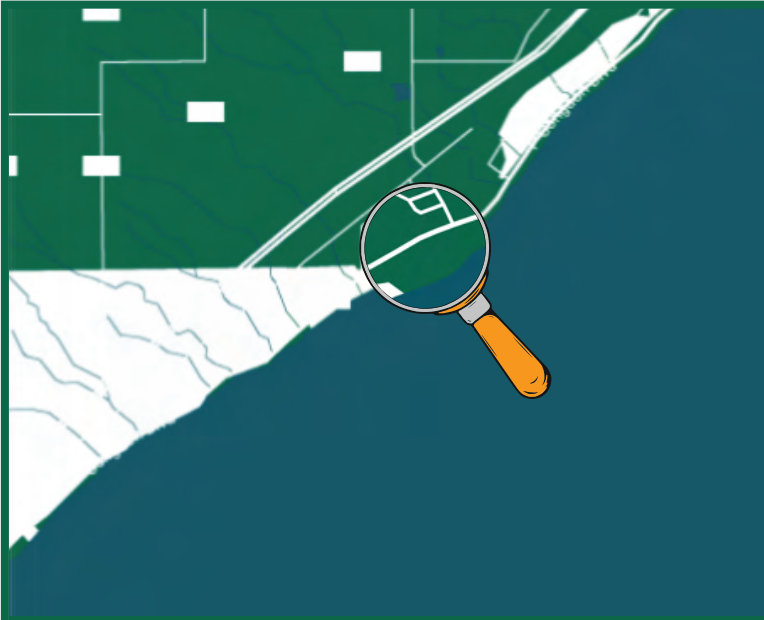
- Deploy Clean Drain Dry outreach campaign
 - Streaming ads, outdoor billboards, gas stations, social, radio, print ads
 - Targeted social media: Facebook and Instagram ads
 - Geofenced digital web and mobile device ads
 - Target users who have visited certain areas. Setting up digital fences around this access and others around it allow us to target users continually.



McQuade Small Craft Harbor

Lake Superior | 46°52'50.2"N, 91°55'16.2"W

Duluth, MN



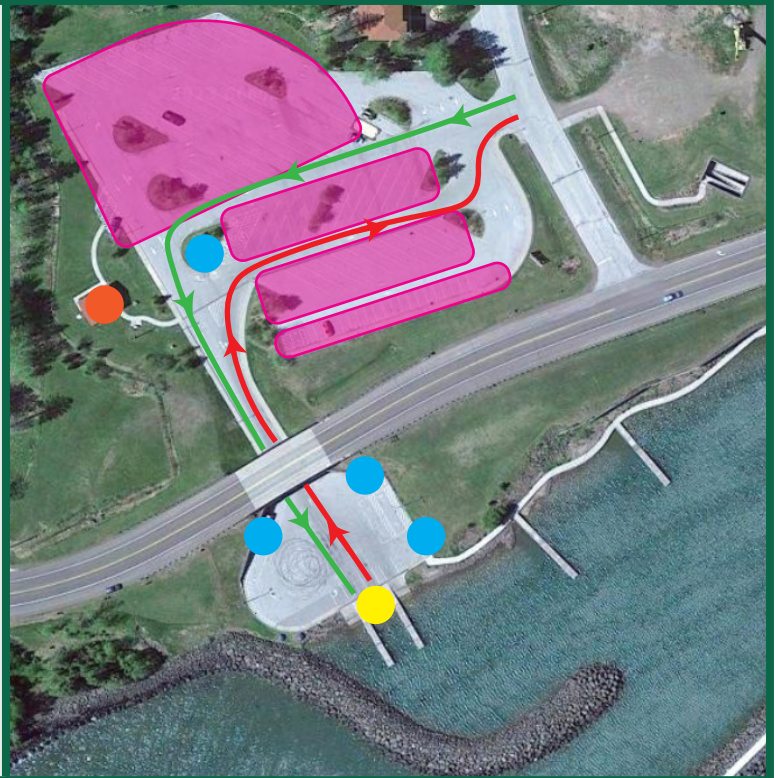
Access Ownership: DNR Division of Parks & Trails

KEY

- = boat ramp
- = signage
- = trash receptacles
- = parking
- ← = inbound route
- = outbound route

Access Checklist

| | |
|-------------------------------|--|
| # of parking spaces (trailed) | 23 (54) |
| Cleaning tools present | None |
| # of signs (AIS related) | 20 (5) |
| Current infestations | <input checked="" type="checkbox"/> D <input checked="" type="checkbox"/> RS <input type="checkbox"/> BMS <input checked="" type="checkbox"/> QM <input checked="" type="checkbox"/> CLPW <input type="checkbox"/> NLC <input checked="" type="checkbox"/> H <input checked="" type="checkbox"/> R <input type="checkbox"/> CMS <input checked="" type="checkbox"/> RC <input type="checkbox"/> CR <input checked="" type="checkbox"/> PL <input checked="" type="checkbox"/> VHS <input checked="" type="checkbox"/> TG <input checked="" type="checkbox"/> FS <input checked="" type="checkbox"/> SWF <input checked="" type="checkbox"/> EWM <input type="checkbox"/> RCG <input checked="" type="checkbox"/> RG <input type="checkbox"/> AC <input checked="" type="checkbox"/> NZMS <input checked="" type="checkbox"/> ZM <input type="checkbox"/> HC |
| Occurrences within 20 miles | <input checked="" type="checkbox"/> D <input checked="" type="checkbox"/> RS <input type="checkbox"/> BMS <input checked="" type="checkbox"/> QM <input checked="" type="checkbox"/> CLPW <input checked="" type="checkbox"/> NLC <input checked="" type="checkbox"/> H <input checked="" type="checkbox"/> R <input checked="" type="checkbox"/> CMS <input checked="" type="checkbox"/> RC <input checked="" type="checkbox"/> CR <input checked="" type="checkbox"/> PL <input checked="" type="checkbox"/> VHS <input checked="" type="checkbox"/> TG <input checked="" type="checkbox"/> FS <input checked="" type="checkbox"/> SWF <input checked="" type="checkbox"/> EWM <input checked="" type="checkbox"/> RCG <input checked="" type="checkbox"/> RG <input checked="" type="checkbox"/> AC <input checked="" type="checkbox"/> NZMS <input checked="" type="checkbox"/> ZM <input checked="" type="checkbox"/> HC |
| Bidirectional threats | 6 |
| Specific conductivity (µS/cm) | N/A |
| Dissolved Calcium (mg/L) | N/A |
| AIS Explorer ZM risk rating | 1 |
| AIS Explorer SS risk rating | .0795 |
| Nearest Decontamination | 22 miles |



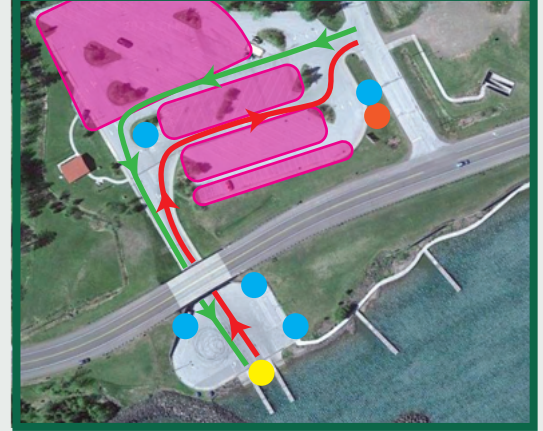
Lake Superior is classified as: HIGH RISK

- Due to**
- High use access
 - Several local infestations
 - Limited access to mitigation



KEY

- = boat ramp
- = tools/equipment
- = signage
- = parking
- ← = inbound route
- = outbound route



Access Recommendations:

Watercraft cleaning equipment: Inbound/Outbound

- Solar powered Wayside cleaning station: CD3 Systems
 - Clean Drain Dry wrap
 - Aqua Weed Stick
 - Extendable Brush
 - Plug wrench
 - Pressurized air hose
 - Vacuum



Signage: Inbound/Outbound

- Install Clean Drain Dry & Educational signage at access entry
 - Risk Species: **Zebra mussel, Spiny waterflea, Chinese mystery snail**
- Signage near watercraft cleaning equipment
 - Describes how and why to use cleaning equipment

Community Outreach, Prevention, & Awareness Recommendations:

Distribute Clean Drain Dry outreach materials

- Brushes, boat towels, brochures, decals, other Clean Drain Dry branded products are available at CleanDrainDry.org
- Use watercraft inspectors or volunteer outreach at local events, fairs, bait shops, visitor centers, and retailers to educate the community and distribute outreach materials.

Media & Marketing

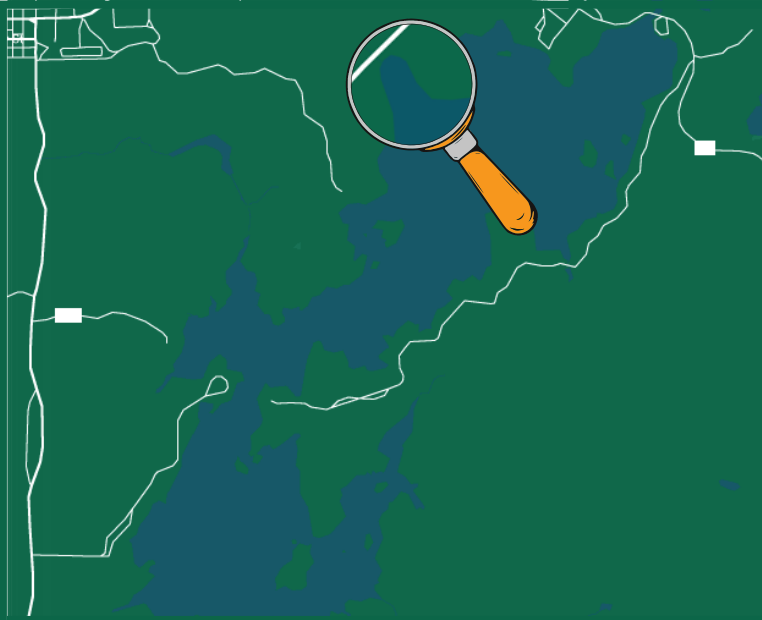
- Deploy Clean Drain Dry outreach campaign
 - Streaming ads, outdoor billboards, gas stations, social, radio, print ads
 - Targeted social media: Facebook and Instagram ads
 - Geofenced digital web and mobile device ads
 - Target users who have visited certain areas. Setting up digital fences around this access and others around it allow us to target users continually.



White Iron Lake Public Access Site

White Iron Lake | 46°52'50.2"N, 91°55'16.2"W

Ely, MN



Access Ownership: DNR Division of Parks & Trails

KEY

- = boat ramp
- = signage
- = trash receptacles (N/A)
- = parking
- ← = inbound route
- = outbound route

Access Checklist

| | |
|-------------------------------|---|
| # of parking spaces (trailer) | 0 (12) |
| Cleaning tools present | None |
| # of signs (AIS related) | 8 (2) |
| Current infestations | <input type="checkbox"/> D <input type="checkbox"/> RS <input type="checkbox"/> BMS <input type="checkbox"/> QM <input type="checkbox"/> CLPW <input type="checkbox"/> NLC <input type="checkbox"/> H <input type="checkbox"/> R <input type="checkbox"/> CMS <input checked="" type="checkbox"/> RC <input type="checkbox"/> CR <input type="checkbox"/> PL <input type="checkbox"/> VHS <input type="checkbox"/> TG <input type="checkbox"/> FS <input type="checkbox"/> SWF <input type="checkbox"/> EWM <input checked="" type="checkbox"/> RCG <input type="checkbox"/> RG <input type="checkbox"/> AC <input type="checkbox"/> NZMS <input type="checkbox"/> ZM <input type="checkbox"/> HC |
| Occurrences within 20 miles | <input type="checkbox"/> D <input checked="" type="checkbox"/> RS <input type="checkbox"/> BMS <input type="checkbox"/> QM <input checked="" type="checkbox"/> CLPW <input checked="" type="checkbox"/> NLC <input checked="" type="checkbox"/> H <input type="checkbox"/> R <input checked="" type="checkbox"/> CMS <input checked="" type="checkbox"/> RC <input type="checkbox"/> CR <input checked="" type="checkbox"/> PL <input type="checkbox"/> VHS <input type="checkbox"/> TG <input type="checkbox"/> FS <input checked="" type="checkbox"/> SWF <input type="checkbox"/> EWM <input checked="" type="checkbox"/> RCG <input type="checkbox"/> RG <input type="checkbox"/> AC <input type="checkbox"/> NZMS <input type="checkbox"/> ZM <input type="checkbox"/> HC |
| Bidirectional threats | 7 |
| Specific conductivity (µS/cm) | 47.5 |
| Dissolved Calcium (mg/L) | 5.4 |
| AIS Explorer ZM risk rating | .4805 |
| AIS Explorer SS risk rating | .009 |
| Nearest Decontamination | 6 miles |



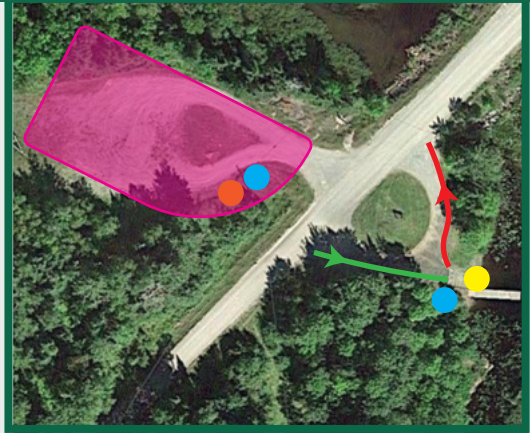
White Iron Lake is classified as: MEDIUM RISK

- Due to**
- Limited use access
 - Several local infestations
 - Limited access to mitigation



KEY

- = boat ramp
- = tools/equipment
- = signage
- = parking
- ← = inbound route
- = outbound route



Access Recommendations:

Watercraft cleaning equipment:
Inbound/Outbound

- Landing Station cleaning system: MAJK Solutions
 - Clean Drain Dry (angler) sign
 - Aqua Weed Stick
 - Extendable Brush

Signage: Inbound/Outbound

- Install Clean Drain Dry & Educational signage at access entry
 - Risk Species: **Rainbow smelt, Spiny waterflea, Purple loosestrife**
- Signage near watercraft cleaning equipment
 - Describes how and why to use cleaning equipment

Community Outreach, Prevention, & Awareness Recommendations:

Distribute Clean Drain Dry outreach materials

- Brushes, boat towels, brochures, decals, other Clean Drain Dry branded products are available at CleanDrainDry.org
- Use watercraft inspectors or volunteer outreach at local events, fairs, bait shops, visitor centers, and retailers to educate the community and distribute outreach materials.

Media & Marketing

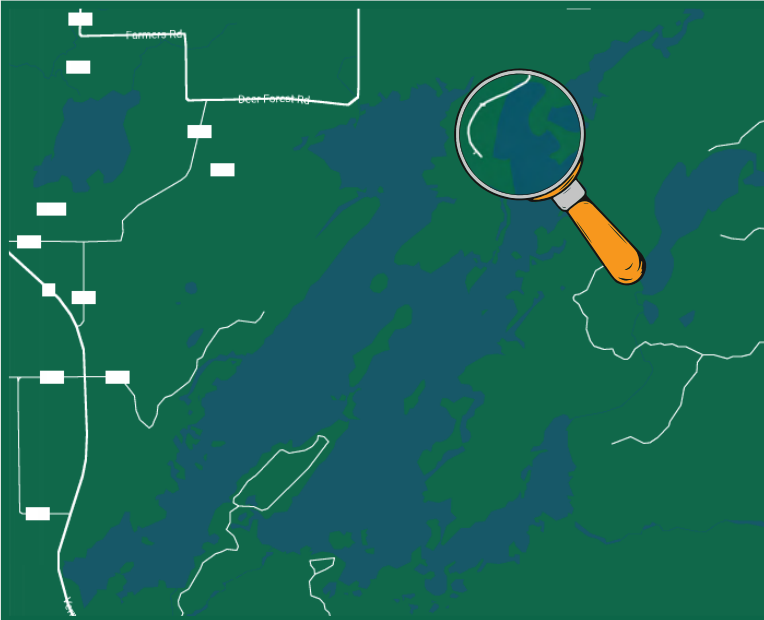
- Deploy Clean Drain Dry outreach campaign
 - Streaming ads, outdoor billboards, gas stations, social, radio, print ads
 - Targeted social media: Facebook and Instagram ads
 - Geofenced digital web and mobile device ads
 - Target users who have visited certain areas. Setting up digital fences around this access and others around it allow us to target users continually.



Whiteface Reservoir Campground

Whiteface Reservoir | 47°19'42.3"N, 92°8'50"W

Markham, MN



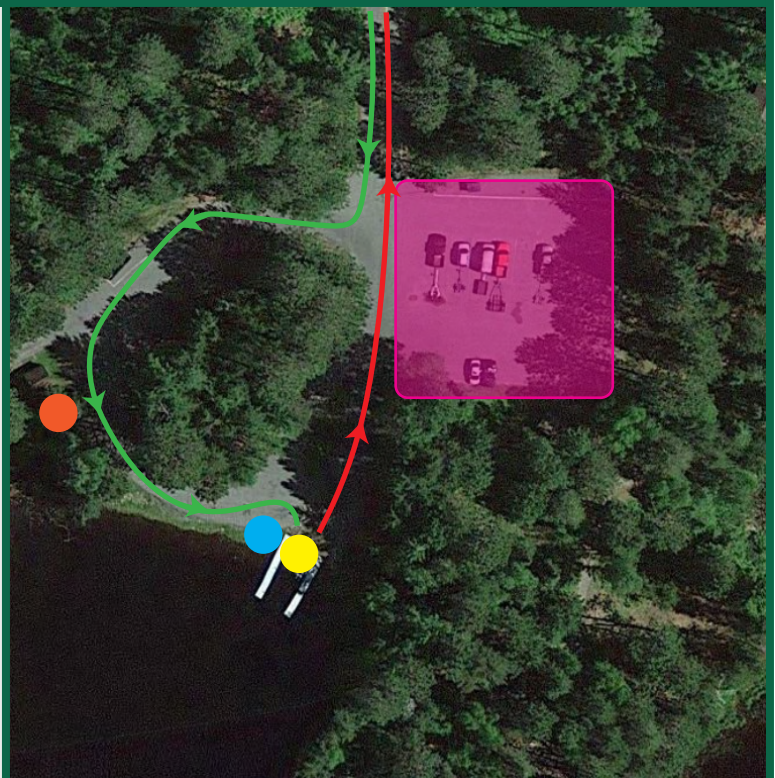
Access Ownership: U.S. Forest Service

KEY

- = boat ramp
- = trash receptacles
- ← = inbound route
- = signage
- = parking
- = outbound route

Access Checklist

| | |
|-------------------------------|---|
| # of parking spaces (trailed) | 19 (14) - campground |
| Cleaning tools present | None |
| # of signs (AIS related) | 8 (2) |
| Current infestations | <input type="checkbox"/> D <input type="checkbox"/> RS <input type="checkbox"/> BMS <input type="checkbox"/> QM <input type="checkbox"/> CLPW <input type="checkbox"/> NLC <input type="checkbox"/> H <input type="checkbox"/> R <input type="checkbox"/> CMS <input type="checkbox"/> RC <input type="checkbox"/> CR <input type="checkbox"/> PL <input type="checkbox"/> VHS <input type="checkbox"/> TG <input type="checkbox"/> FS <input type="checkbox"/> SWF <input type="checkbox"/> EWM <input checked="" type="checkbox"/> RCG <input type="checkbox"/> RG <input type="checkbox"/> AC <input type="checkbox"/> NZMS <input type="checkbox"/> ZM <input checked="" type="checkbox"/> HC |
| Occurances within 20 miles | <input type="checkbox"/> D <input type="checkbox"/> RS <input type="checkbox"/> BMS <input type="checkbox"/> QM <input checked="" type="checkbox"/> CLPW <input checked="" type="checkbox"/> NLC <input type="checkbox"/> H <input type="checkbox"/> R <input checked="" type="checkbox"/> CMS <input checked="" type="checkbox"/> RC <input type="checkbox"/> CR <input checked="" type="checkbox"/> PL <input type="checkbox"/> VHS <input type="checkbox"/> TG <input type="checkbox"/> FS <input checked="" type="checkbox"/> SWF <input checked="" type="checkbox"/> EWM <input checked="" type="checkbox"/> RCG <input type="checkbox"/> RG <input type="checkbox"/> AC <input type="checkbox"/> NZMS <input checked="" type="checkbox"/> ZM <input type="checkbox"/> HC |
| Bidirectional threats | 9 |
| Specific conductivity (µS/cm) | 59.86 |
| Dissolved Calcium (mg/L) | 6.3 |
| AIS Explorer ZM risk rating | .53 |
| AIS Explorer SS risk rating | .013 |
| Nearest Decontamination | 24 miles |



Whiteface Reservoir is classified as: HIGH RISK

- Due to**
- High use access
 - Several local infestations
 - Limited access to mitigation



KEY

- = boat ramp
- = tools/equipment
- = signage
- = parking
- ← = inbound route
- = outbound route



Access Recommendations:

Watercraft cleaning equipment: Inbound/Outbound

- Landing Station cleaning system: MAJK Solutions
 - Clean Drain Dry (angler) sign
 - Aqua Weed Stick
 - Extendable Brush



Signage: Inbound/Outbound

- Install Clean Drain Dry & Educational signage at access entry
 - Risk Species: **Chinese mystery snail, Rusty crayfish, Hybrid cattail**
- Signage near watercraft cleaning equipment
 - Describes how and why to use cleaning equipment

Community Outreach, Prevention, & Awareness Recommendations:

Distribute Clean Drain Dry outreach materials

- Brushes, boat towels, brochures, decals, other Clean Drain Dry branded products are available at CleanDrainDry.org
- Use watercraft inspectors or volunteer outreach at local events, fairs, bait shops, visitor centers, and retailers to educate the community and distribute outreach materials.

Media & Marketing

- Deploy Clean Drain Dry outreach campaign
 - Streaming ads, outdoor billboards, gas stations, social, radio, print ads
 - Targeted social media: Facebook and Instagram ads
 - Geofenced digital web and mobile device ads
 - Target users who have visited certain areas. Setting up digital fences around this access and others around it allow us to target users continually.



Whitewater Lake Public Water Access Site

Hoyt Lakes, MN

Whitewater Lake | 47°30'17.8"N, 92°10'17.9"W



Access Ownership: City of Hoyt Lakes

KEY

- = boat ramp
- = signage
- = trash receptacles
- = parking
- ← = inbound route
- = outbound route

Access Checklist

| | |
|-------------------------------|--|
| # of parking spaces (trailer) | 6 (18) |
| Cleaning tools present | None |
| # of signs (AIS related) | 11 (3) |
| Current infestations | <input type="checkbox"/> D <input type="checkbox"/> RS <input type="checkbox"/> BMS <input type="checkbox"/> QM <input type="checkbox"/> CLPW <input checked="" type="checkbox"/> NLC <input type="checkbox"/> H <input type="checkbox"/> R <input type="checkbox"/> CMS <input checked="" type="checkbox"/> RC <input type="checkbox"/> CR <input type="checkbox"/> PL <input type="checkbox"/> VHS <input type="checkbox"/> TG <input type="checkbox"/> FS <input type="checkbox"/> SWF <input type="checkbox"/> EWM <input checked="" type="checkbox"/> RCG <input type="checkbox"/> RG <input type="checkbox"/> AC <input type="checkbox"/> NZMS <input type="checkbox"/> ZM <input type="checkbox"/> HC |
| Occurances within 20 miles | <input type="checkbox"/> D <input type="checkbox"/> RS <input type="checkbox"/> BMS <input type="checkbox"/> QM <input checked="" type="checkbox"/> CLPW <input checked="" type="checkbox"/> NLC <input type="checkbox"/> H <input type="checkbox"/> R <input checked="" type="checkbox"/> CMS <input checked="" type="checkbox"/> RC <input type="checkbox"/> CR <input checked="" type="checkbox"/> PL <input type="checkbox"/> VHS <input type="checkbox"/> TG <input type="checkbox"/> FS <input checked="" type="checkbox"/> SWF <input checked="" type="checkbox"/> EWM <input checked="" type="checkbox"/> RCG <input type="checkbox"/> RG <input type="checkbox"/> AC <input type="checkbox"/> NZMS <input checked="" type="checkbox"/> ZM <input checked="" type="checkbox"/> HC |
| Bidirectional threats | 7 |
| Specific conductivity (µS/cm) | 234 |
| Dissolved Calcium (mg/L) | 22.7 |
| AIS Explorer ZM risk rating | .343 |
| AIS Explorer SS risk rating | .0085 |
| Nearest Decontamination | 22 miles |



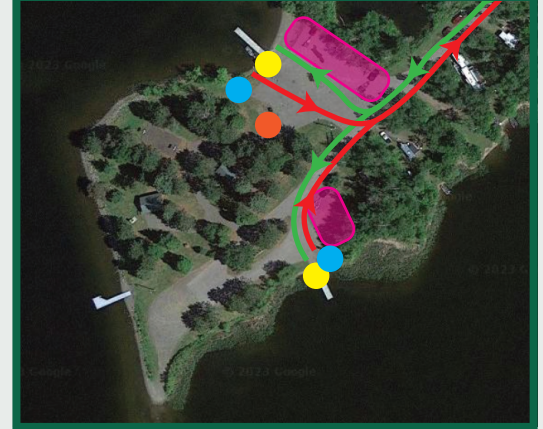
Whitewater Lake is classified as: HIGH RISK

- Due to**
- High use access
 - Several local infestations
 - Limited access to mitigation



KEY

- = boat ramp
- = signage
- ← = inbound route
- = tools/equipment
- = parking
- = outbound route



Access Recommendations:

Watercraft cleaning equipment: Inbound/Outbound

- Solar powered Wayside cleaning system: CD3 Systems
 - Clean Drain Dry wrap
 - Aqua Weed Stick
 - Extendable Brush
 - Plug wrench
 - Pressurized air hose
 - Vacuum

Signage: Inbound/Outbound

- Install Clean Drain Dry & Educational signage at access entry
 - Risk Species:
 - **Chinese mystery snail, Curly-lead pondweed, Purple loosestrife**
- Signage near watercraft cleaning equipment
 - Describes how and why to use cleaning equipment

Community Outreach, Prevention, & Awareness Recommendations:

Distribute Clean Drain Dry outreach materials

- Brushes, boat towels, brochures, decals, other Clean Drain Dry branded products are available at CleanDrainDry.org
- Use watercraft inspectors or volunteer outreach at local events, fairs, bait shops, visitor centers, and retailers to educate the community and distribute outreach materials.

Media & Marketing

- Deploy Clean Drain Dry outreach campaign
 - Streaming ads, outdoor billboards, gas stations, social, radio, print ads
 - Targeted social media: Facebook and Instagram ads
 - Geofenced digital web and mobile device ads
 - Target users who have visited certain areas. Setting up digital fences around this access and others around it allow us to target users continually.



Boyscout Public Water Access Site

St. Louis River Estuary | 46°43'55"N, 92°03'22.2"W

Duluth, MN



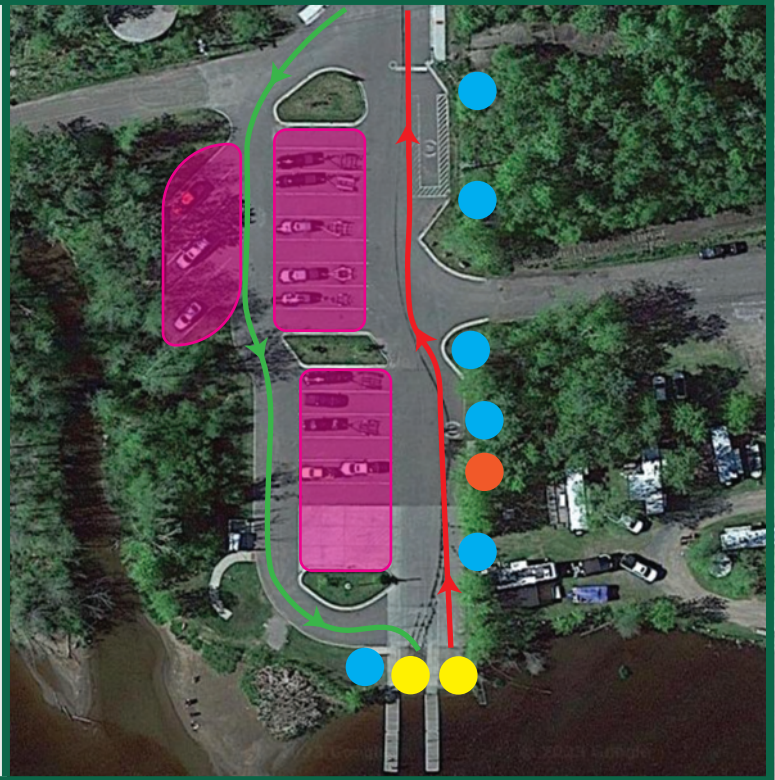
Access Ownership: DNR Division of Parks & Trails

KEY

- = boat ramp
- = signage
- = CD3 cleaning station
- = parking
- ← = inbound route
- = outbound route

Access Checklist

| | |
|-------------------------------|---|
| # of parking spaces (trailed) | 10 (10) |
| Cleaning tools present | CD3 Solar Wayside |
| # of signs (AIS related) | 23 (7) |
| Current infestations | <input type="checkbox"/> D <input checked="" type="checkbox"/> RS <input type="checkbox"/> BMS <input checked="" type="checkbox"/> QM <input checked="" type="checkbox"/> CLPW <input checked="" type="checkbox"/> NLC <input type="checkbox"/> H <input checked="" type="checkbox"/> R <input type="checkbox"/> CMS <input checked="" type="checkbox"/> RC <input checked="" type="checkbox"/> CR <input checked="" type="checkbox"/> PL <input checked="" type="checkbox"/> VHS <input checked="" type="checkbox"/> TG <input checked="" type="checkbox"/> FS <input checked="" type="checkbox"/> SWF <input checked="" type="checkbox"/> EWM <input checked="" type="checkbox"/> RCG <input checked="" type="checkbox"/> RG <input checked="" type="checkbox"/> AC <input checked="" type="checkbox"/> NZMS <input checked="" type="checkbox"/> ZM <input checked="" type="checkbox"/> HC |
| Occurrences within 20 miles | <input checked="" type="checkbox"/> D <input checked="" type="checkbox"/> RS <input type="checkbox"/> BMS <input checked="" type="checkbox"/> QM <input checked="" type="checkbox"/> CLPW <input type="checkbox"/> NLC <input checked="" type="checkbox"/> H <input checked="" type="checkbox"/> R <input checked="" type="checkbox"/> CMS <input checked="" type="checkbox"/> RC <input type="checkbox"/> CR <input checked="" type="checkbox"/> PL <input checked="" type="checkbox"/> VHS <input checked="" type="checkbox"/> TG <input checked="" type="checkbox"/> FS <input checked="" type="checkbox"/> SWF <input checked="" type="checkbox"/> EWM <input checked="" type="checkbox"/> RCG <input checked="" type="checkbox"/> RG <input type="checkbox"/> AC <input checked="" type="checkbox"/> NZMS <input checked="" type="checkbox"/> ZM <input type="checkbox"/> HC |
| Bidirectional threats | 7 |
| Specific conductivity (µS/cm) | N/A |
| Dissolved Calcium (mg/L) | N/A |
| AIS Explorer ZM risk rating | N/A |
| AIS Explorer SS risk rating | N/A |
| Nearest Decontamination | 26 miles |

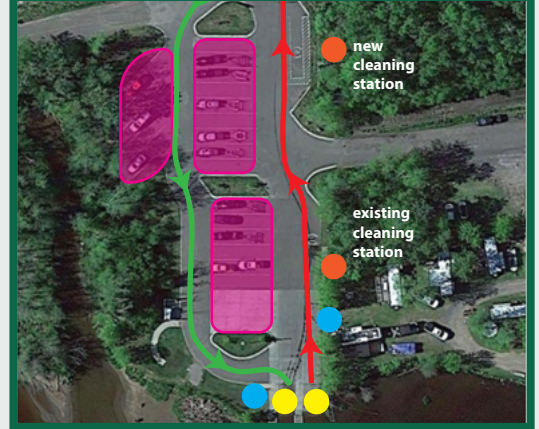


St. Louis River Estuary is classified as: MEDIUM RISK

- Due to**
- High use access
 - Several local infestations, proximity to Lake Superior
 - Sign fatigue/overload



- KEY**
- = boat ramp
 - = signage
 - ← = inbound route
 - = tools/equipment
 - = parking
 - = outbound route



Access Recommendations:

Watercraft cleaning equipment: Inbound/Outbound

- Landing Station cleaning station: MAJK solutions
 - Clean Drain Dry (angler) sign
 - Aqua Weed Stick
 - Extendable Brush

Signage: Inbound/Outbound

- Install Clean Drain Dry & Educational signage at access entry
 - Risk Species: **Asian clam, Common Reed, Narrowleaf cattail**
- Signage near watercraft cleaning equipment
 - Describes how and why to use cleaning equipment
- Remove duplicative signage

Community Outreach, Prevention, & Awareness Recommendations:

Distribute Clean Drain Dry outreach materials

- Brushes, boat towels, brochures, decals, other Clean Drain Dry branded products are available at CleanDrainDry.org
- Use watercraft inspectors or volunteer outreach at local events, fairs, bait shops, visitor centers, and retailers to educate the community and distribute outreach materials.

Media & Marketing

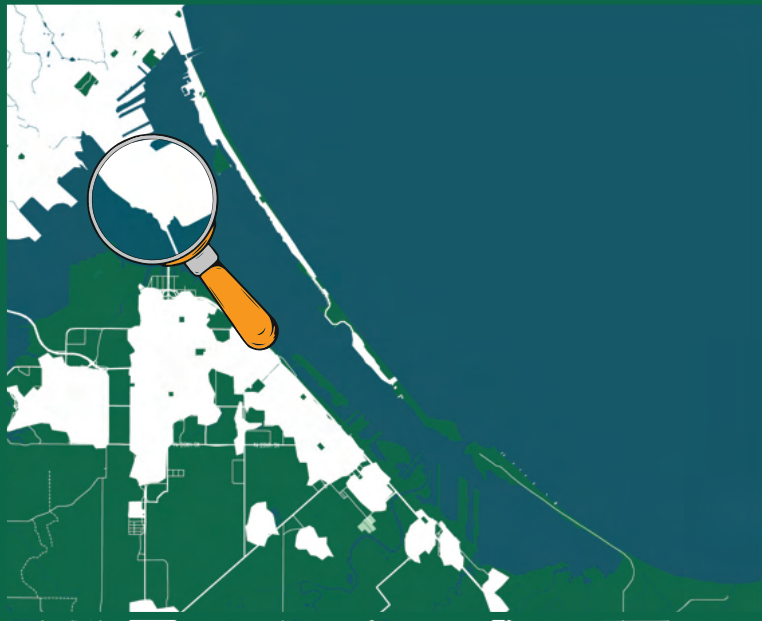
- Deploy Clean Drain Dry outreach campaign
 - Streaming ads, outdoor billboards, gas stations, social, radio, print ads
 - Targeted social media: Facebook and Instagram ads
 - Geofenced digital web and mobile device ads
 - Target users who have visited certain areas. Setting up digital fences around this access and others around it allow us to target users continually.



Rice's Point Public Water Access Site

St. Louis River Estuary | 46°45'5.5"N, 92°06'6.8"W

Duluth, MN



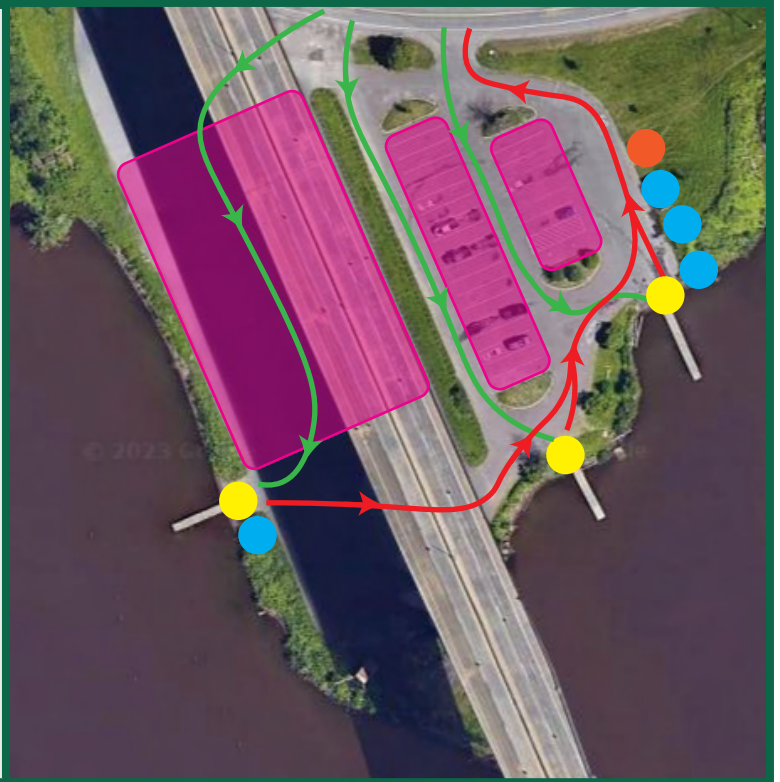
Access Ownership: DNR Division of Parks & Trails

KEY

- = boat ramp
- = signage
- = trash receptacles
- = parking
- ← = inbound route
- = outbound route

Access Checklist

| | |
|-------------------------------|---|
| # of parking spaces (trailed) | 10 (10) |
| Cleaning tools present | CD3 Solar Wayside |
| # of signs (AIS related) | 23 (7) |
| Current infestations | <input type="checkbox"/> D <input checked="" type="checkbox"/> RS <input type="checkbox"/> BMS <input checked="" type="checkbox"/> QM <input checked="" type="checkbox"/> CLPW <input checked="" type="checkbox"/> NLC <input type="checkbox"/> H <input checked="" type="checkbox"/> R <input type="checkbox"/> CMS <input checked="" type="checkbox"/> RC <input checked="" type="checkbox"/> CR <input checked="" type="checkbox"/> PL <input checked="" type="checkbox"/> VHS <input checked="" type="checkbox"/> TG <input checked="" type="checkbox"/> FS <input checked="" type="checkbox"/> SWF <input checked="" type="checkbox"/> EWM <input checked="" type="checkbox"/> RCG <input checked="" type="checkbox"/> RG <input checked="" type="checkbox"/> AC <input checked="" type="checkbox"/> NZMS <input checked="" type="checkbox"/> ZM <input checked="" type="checkbox"/> HC |
| Occurrences within 20 miles | <input checked="" type="checkbox"/> D <input checked="" type="checkbox"/> RS <input type="checkbox"/> BMS <input checked="" type="checkbox"/> QM <input checked="" type="checkbox"/> CLPW <input type="checkbox"/> NLC <input checked="" type="checkbox"/> H <input checked="" type="checkbox"/> R <input checked="" type="checkbox"/> CMS <input checked="" type="checkbox"/> RC <input type="checkbox"/> CR <input checked="" type="checkbox"/> PL <input checked="" type="checkbox"/> VHS <input checked="" type="checkbox"/> TG <input checked="" type="checkbox"/> FS <input checked="" type="checkbox"/> SWF <input checked="" type="checkbox"/> EWM <input checked="" type="checkbox"/> RCG <input checked="" type="checkbox"/> RG <input type="checkbox"/> AC <input checked="" type="checkbox"/> NZMS <input checked="" type="checkbox"/> ZM <input type="checkbox"/> HC |
| Bidirectional threats | 7 |
| Specific conductivity (µS/cm) | N/A |
| Dissolved Calcium (mg/L) | N/A |
| AIS Explorer ZM risk rating | N/A |
| AIS Explorer SS risk rating | N/A |
| Nearest Decontamination | 26 miles |



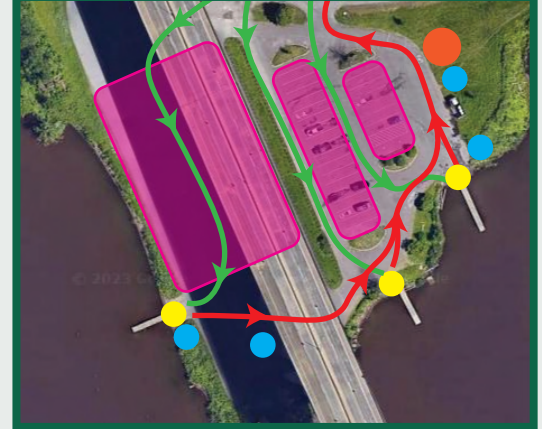
St. Louis River Estuary is classified as: MEDIUM RISK

- Due to**
- High use access
 - Several local infestations, proximity to Lake Superior
 - Sign fatigue/overload



KEY

- = boat ramp
- = signage
- ← = inbound route
- = tools/equipment
- = parking
- = outbound route



Access Recommendations:

Watercraft cleaning equipment: Inbound/Outbound

- Solar powered Wayside cleaning station: CD3 Systems
 - Clean Drain Dry wrap
 - Aqua Weed Stick
 - Extendable Brush
 - Plug wrench
 - Pressurized air hose
 - Vacuum

Signage: Inbound/Outbound

- Install Clean Drain Dry & Educational signage at access entry
 - Risk Species: **Asian clam, Common Reed, Narrowleaf cattail**
- Signage near watercraft cleaning equipment
 - Describes how and why to use cleaning equipment
- Remove duplicative signage

Community Outreach, Prevention, & Awareness Recommendations:

Distribute Clean Drain Dry outreach materials

- Brushes, boat towels, brochures, decals, other Clean Drain Dry branded products are available at CleanDrainDry.org
- Use watercraft inspectors or volunteer outreach at local events, fairs, bait shops, visitor centers, and retailers to educate the community and distribute outreach materials.

Media & Marketing

- Deploy Clean Drain Dry outreach campaign
 - Streaming ads, outdoor billboards, gas stations, social, radio, print ads
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 - Target users who have visited certain areas. Setting up digital fences around this access and others around it allow us to target users continually.



St. Louis County Project Report

