

SOCIAL MEDIA GUIDELINES

TO PROMOTE CLEAN, DRAIN, DRY
BEHAVIORS AMONG THE
RECREATIONAL BOATING PUBLIC



Acknowledgements

This document and the accompanying toolkit was created by Elizabeth Brown, President of Elizabeth Brown Environmental Consulting, in partnership with the Western Regional Panel's Education and Outreach Committee, to fulfill priorities within the Updated Recommendations for the Quagga Zebra Action Plan for Western Waters (QZAP 2.0). These guidelines specifically advance QZAP 2.0 action item F.5 (effectively use and evaluate social and multimedia platforms to share consistent messaging campaigns) and also contribute to advancing education and outreach action items F.1, F.2, F.4, F.6, and F.7.



Document review and feedback was provided by the Western Regional Panel's Education and Outreach Committee and Invasive Species Action Network.

Thank you to Gina Borgman for lending her marketing expertise to this project.

Thank you to Monica McGarrity, former WRP Education and Outreach Committee Chair, for her leadership and support.

This project was funded with U.S. Fish and Wildlife Service QZAP grant #F24AP00001



Suggested Citation:
Brown, E. (2025). *Social Media Guidelines to promote Clean, Drain, Dry Behaviors Among the Recreational Boating Public* (34 pp.). Elizabeth Brown Environmental Consulting, LLC.

Table of Contents

Introduction	1
Social Media Platforms	3
Social Media Marketing Strategies	4
Target Audience	5
Desired Behaviors	7
Barriers to Action.....	9
Beliefs	10
Motivators	11
Content Creation	12
Crafting Posts with Purpose	12
Post Formats.....	13
Ideal Post Length	14
Messaging	15
Message Frames.....	15
Message Variations	17
Selecting the Right Visuals	17
Photo, Branded Image, and Video Specifications	18
Sample Images.....	19
Calls to Action	21
Hashtags	22
Implementation	24
Frequency and Timing	25
12-Month Social Media Calendar.....	26
National Awareness Events	27
Leveraging Partnerships and Influencers	28
Evaluation	29
Toolkit	31
Conclusion	32
References	33



Introduction

Education and outreach are foundational elements of Aquatic Invasive Species (AIS) Programs. *The Social Media Guidelines to Promote Clean, Drain, Dry Behaviors among the Recreational Boating Public* were developed to be incorporated into a comprehensive education program that includes information-based outreach. However, the guidelines are focused on changing the behavior of recreational boaters rather than simply informing or educating people about AIS. This intentional focus is because recreational boats are a primary pathway for the overland spread of AIS, including zebra and quagga mussels, and invasive plants. The overarching goal of these guidelines is to normalize clean, drain, dry behaviors after every boating experience, making those actions routine things that a boater does regardless of their knowledge or interest in AIS.

Information-based education efforts for boaters and other recreational users have been in place since the 1990's, following the discovery of zebra and quagga mussels in the Great Lakes. Laws and regulations requiring watercraft inspection and decontamination (WID) at lakes, reservoirs, and roadsides across the Western U.S. and several Eastern states have been in operation since 2007, following the detection of quagga mussels in Lake Mead National Recreation Area. Despite decades of education, information, and outreach, recreational watercraft infested with attached zebra or quagga mussels, or another AIS, continue to be intercepted.

In the last few years, there have been new populations of adult zebra and quagga mussels detected in Western U.S. waters in South Dakota, Idaho, Colorado, and Texas. These detections are in locations that either did not have WID stations or did not have full time WID stations. In October 2024, golden mussels, a new invasive species to North America, was discovered in the Sacramento-San Joaquin Delta in California. The golden mussels were presumably introduced through transoceanic shipping - the same way zebra and quagga mussels got into the Great Lakes. The golden mussels will likely have devastating impacts if transported overland to new watersheds across the country. There will never be sufficient resources to staff full time WID stations at every boat launch and water access location. In order to stop the overland spread of AIS on recreational boats, all boaters must clean, drain, dry their watercraft in between each and every use.

*The Updated Recommendations for the Quagga Zebra Action Plan for Western Waters*¹ (QZAP 2.0) is the multi-jurisdictional roadmap guiding the western collaborative approach that AIS programs are taking to prevent further spread of zebra and quagga mussels, and other AIS, from being transported overland on recreational watercraft. Within QZAP 2.0, there are seven education and outreach action items which have been systematically completed by the Western Regional Panel's (WRP) Education and Outreach Committee (EOC). This work has informed the development of these social media guidelines.

In addition, the following publications set the foundation for these social media guidelines in terms of both providing knowledge and understanding about boaters and the effectiveness of current campaigns. The information learned from the following reports was compiled, evaluated, and utilized to create these guidelines.

- *Evaluation of the Effectiveness of Western States' AIS Public Awareness Campaigns for Eliciting Desired Prevention Behaviors* (Kyle, 2022)²
- *National Invasive Species Outreach Campaign Assessment* (Duda et al, 2022)³
- *Testing Emphasis Message Frames and Metaphors on Social Media to Engage Boaters to Learn about Preventing the Spread of Zebra Mussels* (Shaw et al, 2021)⁴
- *Summary of Western States' Aquatic Invasive Species Outreach Campaigns: Target Audiences, Messaging, Delivery, and Lessons Learned* (WRP, 2021)⁵
- *The efficacy of message frames on recreational boaters' aquatic invasive species mitigation behavioral intentions* (Wallen and Kyle, 2018)⁶

Community-based social marketing (CBSM) is a pragmatic approach to creating behavior change. It provides a framework to identify barriers to a desired behavior, develop a program to overcome those barriers, implement the program among a community of users, and evaluate to refine the program to maximize effectiveness. These social media guidelines follow the CBSM approach and have been largely informed by the following:

- Donnelly, K. (2025 January 14-16). Mississippi River Basin Panel on Aquatic Invasive Species' Behavior Change Virtual Workshop.⁷
- McKenzie-Mohr, D. (2023 December 6-8). Virtual North America Introductory Workshop to Community-Based Social Marketing.⁸
- *Fostering Sustainable Behavior: An Introduction to Community-Based Social Marketing 4th Edition* (McKenzie-Mohr, D. 2025)⁹

These social media guidelines provide a framework for AIS Coordinators, WID Managers, and partners to operationalize research and consistently implement CBSM components through social media marketing to influence recreational boaters to take clean, drain, dry actions. Social media is a valuable tool that complements existing education and information activities including the use of boat ramp signs, print, radio, TV, web, and multi-media approaches. The implementation of the social media guidelines is expected to further QZAP 2.0 by increasing the number of organizations using social media to engage boaters in clean, drain, dry activities and the overall volume of related social media posts and engagements.

Social Media Platforms

In 2025, there are 246 million active social media users in the United States of America, which accounts to 72.5% of the total population of US.¹⁰ Resources, capacity, and policies related to social media use vary greatly across government agencies and their partners. These guidelines focus on Facebook, Instagram and Threads (Meta apps), as well as X (formerly Twitter) due to their widespread use by government agencies, partners, and the target audience. The information contained within these guidelines, and any content created for Meta apps, can be repurposed for other popular social media platforms including Clubhouse, Next Door, Snapchat, TikTok, YouTube, and others. Social media's widespread influence on key boating demographics makes it a powerful channel for inspiring behavioral shifts through precise marketing strategies.



FACEBOOK

Launched in 2004, Facebook remains the #1 most widely used social media platform globally, with 3.07 billion monthly active users (MAUs).¹¹ Facebook has 194.1 million users in the USA, accounting for 59% of the U.S. population aged 13 and above.¹² In the U.S., 24.2% of users are aged 25–34, and 18.6% are 18–24.¹² On average, Americans spend 30.9 minutes per day on Facebook, with older users (55–64) spending up to 45 minutes daily, while younger users (18–24) spend just 22 minutes.¹¹



INSTAGRAM

Instagram ranks #3 globally with 2.04 billion MAUs, and is especially popular among younger demographics with over half of users aged 18–34.¹³ In the U.S., Instagram has 172 million users or 49.6% of the total population.¹³ U.S. adults aged 18+, 60.5% are active on Instagram.¹³ Instagram users self-reported as 55% female and 45% male.¹³ U.S. users spend an average of 33 minutes per day on Instagram.¹⁴



THREADS

Threads, launched by Meta in July 2023 as a text companion to Instagram in direct competition with X, has quickly grown to 275 million global MAUs, with 30 million users in the U.S.¹⁵ Threads is most popular among users aged 25–34, who make up 28.75% of its base, followed by 18–24 at 20.36%.¹⁰ Despite its growth, engagement remains modest: users spend an average of 34 minutes per month, or roughly 1.1 minutes per day, on the app.¹⁶



X

Launched in 2006 as Twitter and rebranded in 2023, X has 586 million global MAUs, with 104 million in the U.S., making it the platform's largest market.¹⁷ X skews male, with 63.7% of users globally identifying as male.¹⁷ The dominant age group is 25–34, comprising 29.6% of users, followed by 18–24 at 27.4%.¹⁸ U.S. users spend an average of 34.1 minutes per day on X, totaling 5 hours and 19 minutes per month.¹⁸

Social Media Marketing Strategies

When users scroll through their social media feeds, they are presented with two different types of content—organic and paid. While these look similar in many ways, they each have unique attributes and benefits. A balanced social marketing strategy combining both organic and paid efforts can help to maximize reach and engagement within the target audience and improve overall campaign effectiveness while being fiscally responsible.

ORGANIC STRATEGY

An organic social media campaign is a marketing strategy where an entity or brand shares content on social media platforms without paying for promotion. This content is posted on the brand's pages and relies on natural engagement—such as likes, comments, shares, and interactions—to extend its reach. Organic campaigns are cost-effective, foster authentic engagement, and offer ongoing visibility, but they can have limited reach, slow growth, and unpredictable results due to algorithm constraints. Incorporating clean, drain, dry messaging within an agency or organization's organic content calendars will help build a steady cadence that normalizes the desired behaviors through social media channels that boaters rely on for information, without requiring financial investment.

PAID STRATEGY

A paid social media campaign is a marketing strategy where an entity or brand pays to promote its content on social media platforms in order to reach a wider audience beyond its existing followers. This can include various ad formats such as sponsored (boosted) posts, display ads, video ads, or carousel ads, all of which are targeted based on demographics, interests, behaviors, or location. Paid campaigns can be time-bound (e.g., the two weeks leading up to each popular boating holiday) or more evergreen (e.g., less specific messaging running throughout the boating season). Agencies and non-governmental organizations with the budget to run paid campaigns will benefit from more targeted reach, immediate results, scalability, and measurable outcomes for their education and outreach efforts.

Target Audience

RECREATIONAL BOATERS

A recreational boater is a person that operates a boat for pleasure or leisure. Boaters are a diverse group of people, spanning generations and backgrounds, that enjoy a variety of boat types and preferred uses.

A recreational boat is a vessel manufactured or used primarily for pleasure and non-commercial use. Boat types range from hand-launched non-motorized watercraft, paddlecraft, powerboats, wakeboard boats, sailboats, to very complex boats that a person could live on, and everything in between.

According to the Bureau of Economic Analysis, leisure boating and fishing are the largest outdoor recreation activities in the U.S., with \$30.8 billion in current-dollar value-added.¹⁹

It is common for messaging to be focused on increasing awareness and knowledge of priority AIS to make boaters care enough about the issue in a way that compels them to act. These guidelines aim to create a shift in which boaters are influenced to clean, drain, dry their watercraft, trailer, gear, and equipment after every use because they believe it is common practice for boaters to do so, regardless of their opinions or knowledge about AIS. Social media is a tool that can help to normalize clean, drain, dry behaviors within the boating community and compel more individuals to take action every time they go boating.

OWNERSHIP²⁰

Boat ownership has shifted since the COVID pandemic fueled a 40% increase in new boat sales in the United States. Almost one million people purchased a boat for the first time during the pandemic.

- Generation X (45-60 years old) is still the largest group of boat owners at 37%.
- Millennials (29-44 years old) now make up 31% of the country's boat owners and
- Baby Boomers (61-79 years old) comprise 28% of boat owners.

REGISTRATION

In 2024, there were 11.6 million recreational boating vessels registered.²¹

- 11.9% of U.S. households (14.5 million) own a boat.²²
- There are 13.4 million unregistered boats because state laws requiring boat registration vary.²³
- Open power boats are the most popular, followed by kayaks, rowed boats, canoes, personal watercraft (PWC), pontoon boats, paddleboards, cabin power boats, and sailboats²³.

It is important to understand the demographics within the target audience that social media content is intended to connect with, engage and influence. It is wise to narrow the audience for social media as much as possible by utilizing state, local, or water body specific user information. The U.S. Coast Guard's *2024 Recreational Boating Statistics*²⁰ and *2020 National Boating Safety Survey*²³ provides the following insights.



BOAT OWNING HOUSEHOLDS

- 50.4% Multi-adult households without children
- 30.4% Multi-adult households with children
- 16.4% Single-adult households without children

BOAT LENGTH

- 95% of recreational boats are less than 26 feet in length, so they are easily trailered across the country.
- Boats that are 26-40 feet in length make up approximately 4%.
- Boats over 40 feet are 0.75% of the market.

DAYS USED

- The average boat is operated 54 days per year.
- The U.S. Coast Guard estimates that 1 boat is transported an average of 28 times per year and all boats are trailered for launching about 167 million times each year.

NON-MOTORIZED BOAT USERS

While an estimated 100 million Americans go boating every year, non-motorized boat users continue to increase and were the most popular way to explore the water in the US. Kayaking takes the top spot with 21 million users and canoeing comes in second place with 10 million users. These numbers are underestimated because many states do not require registration of non-motorized boats including kayaks, canoes, paddleboards, and rowed boats.

DESIRED BEHAVIORS

Desired behaviors are the actions that the target audience, recreational boaters, can take to minimize the potential for AIS to transfer to a new water body on their boat. Social media and other educational components can influence boaters to act and adopt desired behaviors as part of their normal routine when boating. The desired behavior is for boaters to take numerous actions immediately after boating to clean, drain, and dry their conveyance to the best of their ability. To do this effectively, they must be equipped with the right tools and have the necessary knowledge and skills to carry out these actions.

These social media guidelines aim to normalize clean, drain, dry actions among the recreational boating public as a routine part of the boating experience. The more boaters are seen to be engaging in these actions, the more normative the behavior becomes. The belief that others don't clean, drain, dry and not seeing other boaters take these actions is a barrier across boating groups. Social media offers a powerful tool for shifting behavior by consistently showcasing real-life examples of boaters engaging in clean, drain, and dry practices after boating. These frequent visual cues help embed the behavior into public consciousness, making it a widely accepted norm. Over time, this can foster a cultural transformation in which these actions become second nature for boaters of every background, location, activity, and type of boat.

The following actions are advised to clean, drain, and dry recreational boats.²⁴

Clean

- Inspect and remove aquatic plants, animals, mud, and debris from the watercraft, hull, trailer, motor/engine, transom, compartments, paddles, gear, and equipment before leaving the water body access.
- Scrub the hull using a stiff brush.
- Rinse watercraft, trailer, and equipment with hot water, when possible.
- Flush motor/engine according to owner's manual.

Drain

- Pull all water drain plugs. This is law in many states.
- Completely drain all water from the boat and its compartments, including but not limited to the bilge, wells, lockers, ballast tanks, ballast bags, bait containers, interior compartments, and motors/engines.
- Run ballast, bilge, wells, and other water pumps until no more water comes out.

Dry

- Use a sponge or towel to dry out compartments that normally hold water.
- Open up compartments and allow the boat, trailer, gear, and equipment to completely dry before visiting any other bodies of water.
- It is recommended to dry the boat for a minimum of five days, unless more is required by local or state laws.

There are several components on recreational watercraft are not designed to drain completely and may be impossible for boaters to dry. Specifically, ballast tanks, bladders, and bags, inboard engines, and inboard/outboard engines are not able to fully drain.²⁵ This is problematic because young zebra and quagga mussel veligers can live in these water-holding compartments and be transported to new waters within a 27-day period.²⁶ Adult mussels can live on boats for up to 30 days.²⁷

Across the landscape, recreational watercraft are required by law to be inspected and decontaminated when necessary. States and provinces, federal agencies, local governments, tribal entities, and non-governmental organizations operate WID stations, often with their partners. Stations are located at roadsides, ports of entry stations, visitor centers, offices, businesses, parks, lakes, reservoirs, boat launches and water access points. In these areas, it is mandatory that boaters stop and comply with the inspection and decontamination requirements. In some cases, a boater may have to go out of their way to visit a WID station before launching.

Many agencies require watercraft decontamination by trained professionals for boat compartments (e.g. ballast tanks or bags) and complex engines that can't be drained. In the absence of decontamination technology, some jurisdictions require a 30-day quarantine or dry time for boats before they are allowed to launch. It is imperative that recreational boaters know the rules for the areas where they are traveling to go boating. In these areas with established WID programs, compliance with the required inspection, decontamination, or quarantine rules is a desired behavior.

A secondary goal of these guidelines is to utilize social media to improve legal compliance with WID rules by influencing boaters to transport watercraft that are already clean, drained, and dry (to the best of their ability) and to plan ahead by learning the WID rules where they are traveling to. Boaters should expect to be inspected, which includes going to or stopping at a WID station and complying with inspection, decontamination, or quarantine requirements.

Effective behavior change messaging should be simplified to focus on the desired action (clean, drain, dry) as normal and common behavior for all boaters. Depending on the user demographics for the location, state, province, or region, the message may be customized to specific boat types or user activities that are allowed or are more common there. A key factor to overcome barriers to action is connecting the desired behavior to the high-priority issues that boaters are concerned with and using motivators for action to help influence the desired behavior change.

BARRIERS TO ACTION

A majority of boaters surveyed are familiar with AIS, have general awareness of the problems AIS pose, and some understanding of what actions to take to stop the spread. However, WID stations perform decontaminations daily and intercept infested boats with attached mussels often, which indicates that boaters are not taking the actions necessary to properly clean, drain, dry their watercraft.

REASONS WHY BOATERS MAY NOT TAKE ACTION TO CLEAN, DRAIN, DRY INCLUDE THE BARRIERS LISTED BELOW:

- Less concerned about AIS than other environmental issues
- Do not believe AIS will cause problems
- Belief that others don't clean, drain, dry
- Not seeing other people clean, drain, dry
- Not understanding what to do
- Not having the tools needed
- Lack of available cleaning stations
- Crowding at boat ramps and launch sites
- No punishment or fine

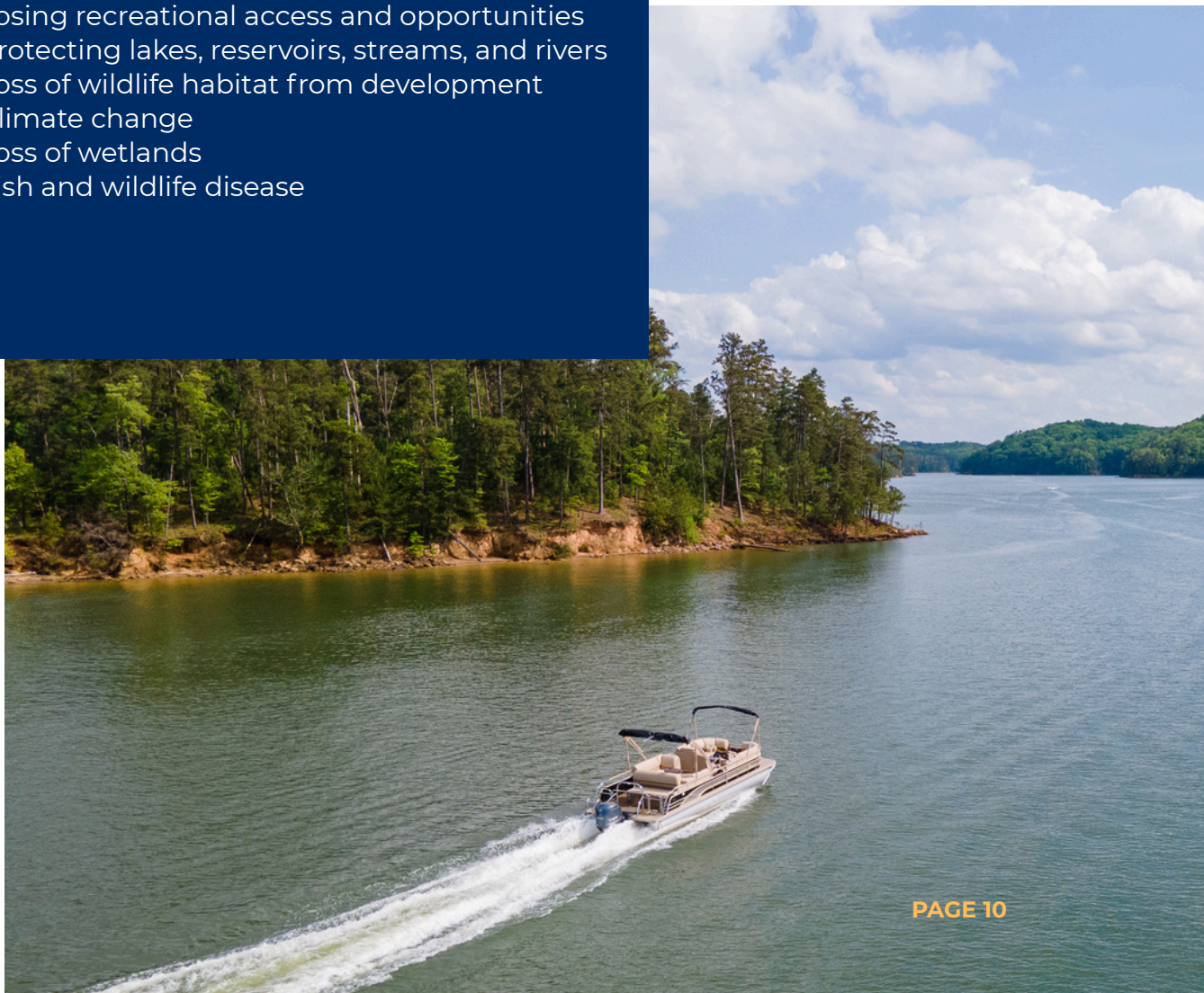


BELIEFS

Messaging focused on AIS as the reason boaters should clean, drain, dry creates a barrier to action if the boater does not believe that AIS is an priority issue or that it doesn't pose harm to them. Boaters in these situations are unlikely to take action to clean, drain, and dry regardless of the their knowledge or awareness level. To reach the most people, behavior change messaging should connect taking the desired actions (clean, drain, dry) to benefit the things that the majority of boaters do care about.

BOATER SURVEYS INDICATE THAT BOATERS ARE CONCERNED WITH THE FOLLOWING ENVIRONMENTAL ISSUES:

- Clean water
- Water pollution
- Losing recreational access and opportunities
- Protecting lakes, reservoirs, streams, and rivers
- Loss of wildlife habitat from development
- Climate change
- Loss of wetlands
- Fish and wildlife disease



MOTIVATORS

There are numerous factors that may motivate boaters to take action, in addition to connecting behavior change messaging to boater beliefs. While preventing the spread of AIS may not be the primary reason all boaters are eager to clean, drain, dry their conveyance, there are several factors that do motivate boaters to act and implement both the desired behaviors to clean, drain, dry and to plan ahead to comply with legal requirements for WID.

THE FOLLOWING FACTORS MAY MOTIVATE BOATERS TO TAKE ACTION:

- Protecting their investment
- Legal compliance
- Seeing other people clean, drain, dry
- Maintaining access to water bodies
- Safeguarding recreational opportunities
- Preserving clean water
- Conserving wildlife habitat
- Mitigating climate change concerns
- Protecting natural spaces with lakes, reservoirs, rivers, and streams



Content Creation

CRAFTING POSTS WITH PURPOSE

To effectively engage audiences and influence behavior through social media, each post must have a clear purpose, a tailored message for the specific audience, and a strong call to action. Creating balanced content that resonates with diverse user preferences and drives desired behavior change, posts should be aligned with one of three main themes—educational/informational, entertaining/engaging, and inspirational. Some of the most effective content for achieving social media engagement is short and to the point, new or unexpected, and humorous or light-hearted. By strategically varying post types according to these themes, the impact of social media efforts will be maximized, ensuring content remains engaging, relevant, and effective in promoting the desired behavior change actions to clean, drain, dry.

EDUCATIONAL OR INFORMATIONAL

Educational posts are designed to spark curiosity and facilitate learning. These can include science-based facts, practical tips, links to articles, or responses to frequently asked questions. This content provides a basis to inform and position your platform as a reliable source of valuable knowledge.

ENTERTAINING OR ENGAGING

Entertainment is crucial for maintaining engagement. Posts within this category feature relatable content like memes or GIFs, captivating stories, or behind-the-scenes glimpses. Interactive features such as polls, countdowns, and question/answer tools are also an effective way to engage audiences. These posts are intended to reinforce messages while connecting with audiences and keeping them returning to your channel.

INSPIRATIONAL

Inspiration-focused posts aim to encourage and motivate your audience. This could involve sharing success stories, showcasing user-generated content, or providing inspirational quotes. These posts help foster a sense of community and support encouraging users to take action to clean, drain, dry.

POST FORMATS

Each social media channel supports a variety of content formats, from simple text posts to professionally produced videos. Leveraging the diverse content formats is essential to engaging the widest range of recreational boaters and driving desired behavior change.

Posts with strong visuals—images or videos—typically perform best among all demographics across social media platforms. Short form video (less than one minute) is expected to remain the top performing content on social media in 2025. This format is highly engaging, easy to consume, and caters to users' decreasing attention spans, as many prefer learning through brief video clips.

Each social media platform supports different types of post formats. The most commonly used formats by platform are as follows.

- **Text-only Posts:** Available on Facebook, Threads, and X, these posts enable you to share information and a call to action without additional visuals.
- **Photo or Video Posts:** Available on Facebook, Instagram, Threads, and X, these posts use one or more visuals to educate, inform, entertain, or inspire. Typically accompanied by a caption, hashtags, and a call to action, this type of post features one or more pieces of visual content, such as photos, videos, or branded graphics.
- **Photo Carousels:** Available on Instagram only, these posts allow users to upload multiple photos or videos (up to 20) in a single post, which viewers can swipe through horizontally. This format is useful for sharing a collection of images alongside a caption, hashtags, and call to action, providing an engaging way to present multiple pieces of content in one post.
- **Reels:** Available on Facebook and Instagram. Reels are full-screen vertical videos up to 90 seconds long. These short, entertaining video features can be shared on your feed, in Stories, and in the Reels section. Reels are popular for trends, challenges, and quick, visually appealing content, and can easily be repurposed for TikTok or Snapchat.
- **Stories:** Available on Facebook and Instagram. Stories are a feature that allows users to share photos or videos that disappear after 24 hours. Stories appear in a vertical, full-screen format at the top of the Facebook or Instagram app, and can be enhanced with text, stickers, polls, music, GIFs, and other interactive features. Stories are a way for users to share more casual, in-the-moment content with their followers without the permanence of regular posts. Users can also add links, tags, and location information, and viewers can engage with Stories through direct replies or reactions. Stories can easily be repurposed for use on Snapchat.

IDEAL POST LENGTH

Every social media platform has limits for maximum post length, but short, well-crafted content with clear calls to action is more likely to capture attention and drive user engagement. Adhering to the following recommendations for ideal post length can help ensure message clarity, prevent post truncation, optimize platform algorithms, and boost visibility.

- **Facebook:** Ideal length is 40-60 characters; Maximum length is 63,206 characters.
- **Instagram:** Ideal length is less than 125 characters; Maximum length is 2,200 characters.
- **Threads:** Ideal length is 100-200 characters; Maximum length is 500 characters.
- **X (formerly Twitter):** Ideal length is 71-100 characters; Maximum length is 280 characters.



MESSAGING

The main challenge that these social media guidelines aim to tackle is the skepticism among boaters regarding the cleaning, draining, and drying practices. Many boaters do not witness their peers engaging in these actions, which fosters doubt. These guidelines seek to shift this perception by showcasing social proof through repeated visual evidence of recreational boaters performing clean, drain, dry actions on various social media platforms.

To effectively communicate the clean, drain, dry messages, focus on a boater-centric approach in your social media marketing. The text and visuals should resonate with boaters, sounding and looking familiar, and inviting other boaters to join them by adopting clean, drain, dry practices. The ultimate goal is to normalize these behaviors within the recreational boating community.

Engaging content illustrating the perception that it is being driven from one boater to another with visual elements featuring boaters enjoying their pastime and taking the desired actions can captivate more boaters to act. This will expand and create a community of boating enthusiasts that routinely clean, drain, dry. Outreach seeking to increase the belief that these actions are normative and expected behavior have value for encouraging boaters who do not feel personal responsibility.

Positive messaging where people share stories about AIS prevention and demonstrate the clean, drain, dry practices are best practice. Additionally, it is now broadly recognized that avoiding militaristic (e.g., battle, invasion, war, warrior) and nativist (e.g., alien, nonnative) terminology is important in promoting inclusive and respectful communication.

The term “hitchhikers” have been used for decades to describe the passive transport of AIS into new water on recreational watercraft or other vectors. Describing AIS as the driving force of environmental change, rather than passengers that spread passively in response to disturbance, increases the willingness to take action.²⁸

MESSAGE FRAMES

A message frame is the context and approach used to construct information and communications. Framing a message focuses attention and changes how the viewer perceives the message.^{4,6} Message framing does impact the viewer’s likelihood to engage.²⁸ Depending on how the message is framed, the target audience may be more likely to act, or it may create a barrier by evoking negative connections.⁴ Boater surveys and scientific publications can provide insights to inform clean, drain, dry behavior change messaging for media.

Science messaging (factual) appears to be the most effective across boating groups for encouraging clean, drain, dry behavior, followed by protective and ecological gain.⁴ Framing the impact of AIS on aquatic ecosystems and the state’s economic health is also compelling.⁴

Regulatory messaging can be effective if laws and regulations are in place with an enforcement presence.⁴ Boaters receiving a message that emphasized existing regulations and an associated fine reported significantly higher intention to act compared to the other framing.⁶

Below is a summary of various message frames with example text to use. Boaters from all groups tend to respond well to factual science, nurture, protective, and regulatory frames.⁴ Although user groups for whom these message frames are most and least effective are summarized, these messages can be disseminated to all.

EXAMPLES OF MESSAGE FRAMES WITH TEXT

Message Frame	Example Text	Most Effective User Groups	Least Effective Boater Groups
Factual Science	AIS are present in our lakes and can severely impact the ecosystem. Zebra mussel impact fisheries and outdoor recreation.	Nonmotorized Boaters, Water Sports, Anglers, Pleasure Cruisers	Jet Ski Owners, Tournament Anglers
Nurture / Protective	AIS can harm our lakes and rivers. AIS can ruin waterfowl habitat. AIS can damage the fishery. Zebra and quagga mussels harm waters. Protect your waters/lakes/rivers. Protect your boat. Protect your investment.	All Boaters	N/A
Ecological Gain	The lake will benefit if you clean, drain, dry your watercraft. The fishery will thrive if you clean, drain, dry your watercraft and gear.	Non-Motorized Watercraft and Jet Ski Owners	N/A
Personal Obligation	It is your duty to clean, drain, dry. You are expected to clean, drain, dry your boat and trailer. Other boaters expect you to clean, drain, dry your boat and trailer. Your state/province or country expect you to clean, drain, dry your boat and trailer.	Pontoon Boats	Jon Boats, Bass Boats, Hunters
Economic Health	AIS will cost you/your state money. Protect your investment. Clean, Drain, Dry: It's better for your boat.	Jet Skis Water Sports	Sailboats
Regulatory	Clean Drain Dry: It's the law. Clean Drain Dry or pay the fine.	All Boaters	N/A

MESSAGE VARIATIONS

For simple boater-centric messaging that clearly communicates desired behaviors and actions in a manner that is engaging while normalizing clean, drain, dry practices among the boating community, consider the following message variations.

Normalize boater behavior among niche user groups.

- Clean Drain Dry: It's what Anglers Do
- Clean Drain Dry: It's what Bass Anglers Do
- Clean Drain Dry: It's what Boaters Do
- Clean Drain Dry: It's what Kayakers Do
- Clean Drain Dry: It's what Paddlers Do
- Clean Drain Dry: It's what Surfers Do
- Clean Drain Dry: It's what Wakeboarders Do
- Clean Drain Dry: It's what Water-skiers Do
- Clean Drain Dry: It's what Waterfowl Hunters Do

Connect Clean, Drain, Dry messaging to the things that boaters care most about.

- Clean Drain Dry: It's better for your boat
- Clean Drain Dry: It's better for the lake
- Clean Drain Dry: Keep your water clean
- Clean Drain Dry: Protect the fisheries
- Clean Drain Dry: Protect your fun time
- Clean Drain Dry: Protect waterfowl habitat

Connect the message to the state/province campaign.

- Clean Drain Dry for Healthy Lakes
- Clean Drain Dry: Protect the Lakes You Love
- Clean Drain Dry: It's What Coloradans Do
- Clean Drain Dry: Protect Kansas Waters

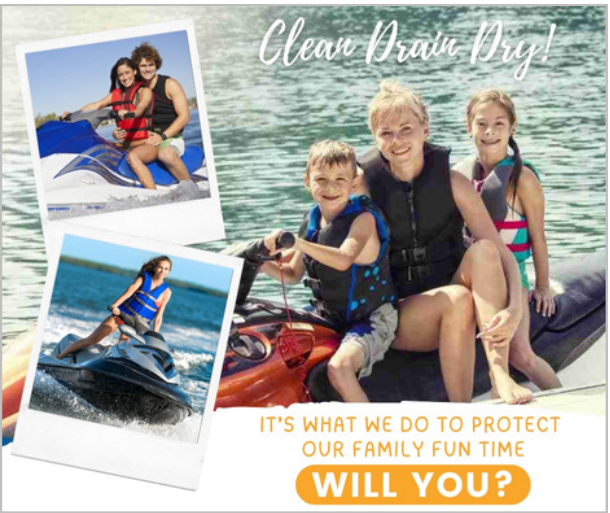
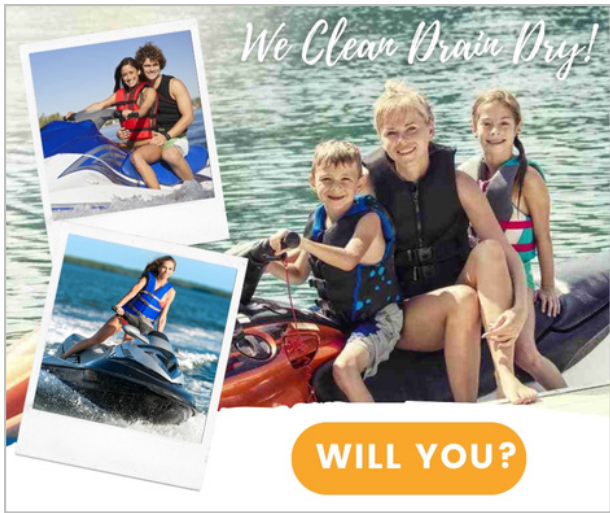
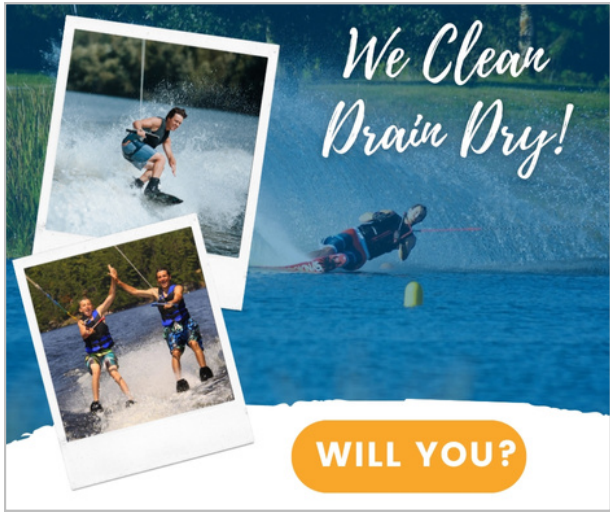
SELECTING THE RIGHT VISUALS

Whether you use photos, branded graphics, or videos, the visuals accompanying your social media posts are as crucial for capturing attention and boosting engagement as the text itself. To optimize your posts' performance, choose high-quality, properly sized visuals that are relevant and aligned with your brand identity. Simple, clean visuals are more effective and easier for viewers to process quickly, so avoid busy or cluttered imagery and excessive text. Consider incorporating human elements to enhance relatability and create a stronger emotional connection with your audience. Best practices for photo, branded image, and video specifications are detailed in the table on the next page followed by sample images.

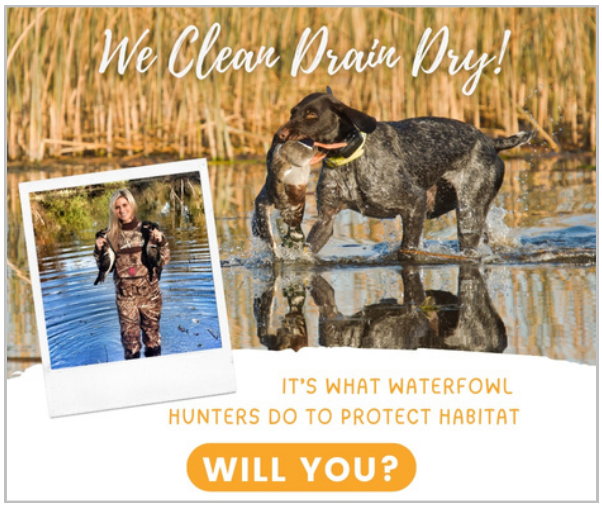
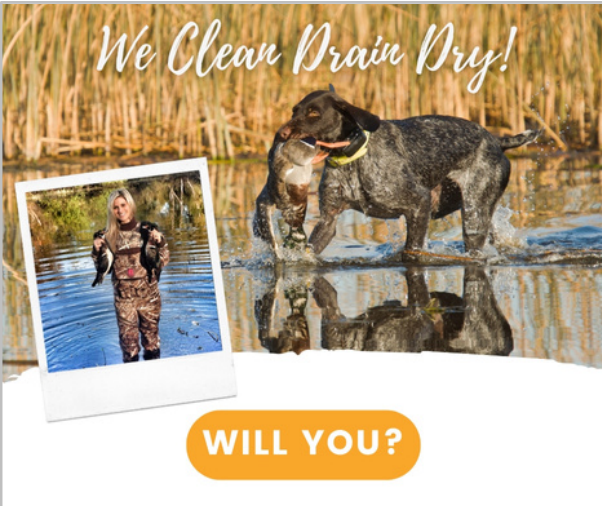
PHOTO, BRANDED IMAGE, AND VIDEO SPECIFICATIONS

	Facebook	Instagram	Threads	X (Twitter)
Photo/ Branded Image	<p>Horizontal: 1200 x 630 pixels with an aspect ratio of 1.91:1</p> <p>Vertical: 1080 x 1350 pixels with an aspect ratio of 4:5</p> <p>Multiple images: 1200 x 1200 pixels with an aspect ratio of 1:1</p> <p>Links with an image: 1200 x 630 pixels</p> <p>Facebook Stories: 1080 x 1920 pixels</p> <p>Maximum file size: 8MB</p> <p>Recommended file types: JPG, PNG, GIF</p>	<p>Horizontal: 1080 x 566 pixels with an aspect ratio of 1.91:1</p> <p>Vertical: 1080 x 1350 pixels with an aspect ratio of 4:5</p> <p>Square: 1080 x 1080 pixels with an aspect ratio of 1:1</p> <p>Instagram Stories: 1080 x 1920 pixels with an aspect ratio of 9:16</p> <p>Supported image aspect ratio: Anywhere between 1.91:1 and 4:5</p> <p>Maximum file size: 8 MB</p> <p>Recommended file types: JPG, PNG</p>	Any size photo/image accepted	<p>Horizontal: 1600 by 900 pixels (recommended) / 1024 by 512 pixels (minimum) with an aspect ratio of 16:9</p> <p>Vertical: 1080 x 1350 pixels with an aspect ratio of 4:5</p> <p>Square: 1080 by 1080 pixels with an aspect ratio of 1:1</p> <p>Maximum file size: 5 MB</p> <p>Recommended file types: JPG, PNG, GIF</p>
Video	<p>Recommended video dimensions: 1280x720 pixels (horizontal) or 720x1280 (vertical)</p> <p>Minimum width: 1200 pixels</p> <p>Aspect ratio: 16:9 (horizontal) to 9:16 (vertical)</p> <p>Minimum frame rate: 30 frames per second</p> <p>Maximum file size: Up to 10 GB</p> <p>recommended.</p> <p>Recommended video format: MP4 or MOV</p>	<p>Recommended video dimensions: 1080x1920 pixels (Reel)</p> <p>Minimum width: 720 pixels</p> <p>Aspect ratio: Between 1.91:1 and 9:16</p> <p>Minimum frame rate: 30 frames per second</p> <p>Maximum file size: 4 GB</p> <p>Recommended video format: MP4 or MOV</p>	<p>Recommended video dimensions: 1080x1920 pixels</p> <p>Maximum width: 1920 pixels</p> <p>Aspect ratio: 0.01:1 and 10:1; 9:16</p> <p>recommended</p> <p>Minimum frame rate: 23-60 frames per second</p> <p>Maximum file size: 1 GB</p> <p>Recommended video format: MP4 or MOV</p> <p>Duration: 300 seconds (5 minutes) maximum</p>	<p>Recommended video dimensions: 1280x720 (horizontal), 720x1280 (vertical), or 720x720 (square).</p> <p>Recommended Aspect Ratio: 16:9 (landscape or portrait), 1:1 (square)</p> <p>Recommended Frame Rates: 30 FPS, 60 FPS</p> <p>Maximum file size: 512 MB</p> <p>Recommended video format: MP4 or MOV</p>

SAMPLE IMAGES - WATERSPORTS AND RAFTERS



SAMPLE IMAGES - ANGLERS, PADDLERS, AND HUNTERS



CALLS TO ACTION

A strong **call to action (CTA)** is an essential element of every social media post, regardless of platform, message, or purpose. CTAs drive engagement, guide user behavior, and increase conversion rates by prompting specific actions, like visiting a website or reinforcing clean, drain, dry. They clarify the intent of the post, improve user experience, and enhance content performance, while also helping measure campaign success by linking actions to specific goals and providing valuable insights for future strategies.

To avoid posts being perceived as false or misleading, CTAs should logically align with the post content and accurately reflect what users will encounter when they click the link. It's also crucial to direct people to trusted websites for further information, such as government websites, CleanAngler.org, CleanBoater.org, CleanDrainDry.org, and StopAquaticHitchhikers.org.

Every post should have a strong CTA which lets the audience know what to do next. These are four common categories of social media CTAs aligned with these guidelines. Using a mix of these CTAs can enhance engagement and drive various desired outcomes through social media platforms.

ENGAGEMENT

Encourage likes, shares, comments, or tagging friends.
Examples: "Like if you agree!" or "Share this with your fishing buddy."

EDUCATIONAL

Direct users to learn more or explore additional resources.
Examples: "Learn more here" or "Watch our video."

TRAFFIC DRIVING

Push users to visit a website or a specific landing page.
Examples: "Read the full article" or "Visit our website."

ACTION ORIENTATED

Prompt immediate action that aligns with campaign goals.
Examples: "Commit to clean, drain, dry," "Know before you go" or "Expect to inspect."

HASHTAGS

A hashtag is a word or phrase preceded by a hash symbol (#). It helps categorize and organize content on social media platforms and makes posts discoverable to a broader audience interested in a specific topic or theme. When users click or search for a hashtag, they can find all the posts that include that same hashtag. Hashtags are often used to join conversations, increase visibility, and engage with trending topics or communities. When using a phrase as a hashtag, spell it out without spaces, such as #cleandraindry or #aquaticinvasivespecies. It can include numbers but not symbols or punctuation.

The effectiveness of hashtags varies on each social media platform. The following best practices are advised.

- **Facebook:** Hashtags can help boost organic reach, but they are not as widely used on Facebook as on other platforms. It is recommended to limit hashtags to no more than two per post.
- **Instagram:** Using a combination of general and specific hashtags can increase reach and drive engagement on Instagram. While Instagram allows up to 30 hashtags on posts and Reels, using too many hashtags can negatively impact engagement. It is recommended to use 3-5 hashtags for optimal effectiveness.
- **Threads:** Threads uses tags instead of hashtags to connect users with topics they're interested in. To add a tag to your thread, tap the '#' button like you would a traditional hashtag. Start typing your tag topic and a list of already existing tags will appear below. If your tag doesn't already exist, you'll be able to create it. Only one tag is allowed per post.
- **X (formerly Twitter):** Hashtags were created for Twitter and are inserted within the post text. No more than two hashtags within the character limit are recommended.

In alignment with these guidelines, partners should include **#CleanDrainDry** to connect cross-jurisdictional efforts related to implementing behavior change messaging aimed to stop the spread of AIS on recreational boats. In addition, the following hashtags are generally used for AIS and WID use in social media posts.

#aquaticinvasivespecies
 #aquaticnuisancespecies
 #boatinspection
 #boatdecontamination
 #cleanboater
 #cleanboats
 #cleanboat
 #cleanwater
 #goldenmussel
 #invasivespecies

#protectourwaters
 #protectlakes
 #recreationalboating
 #stopaquaticitchhikers
 #watercraftinspectiondecontamination
 #watercraftinspection
 #watercraftdecontamination
 #zebramussel
 #quaggamussel
 #QZAP

Use hashtags to connect the target audience, recreational boaters, to your content. The list of hashtags below are ranked high on social media for use by boaters. Choose the hashtags that will resonate with your target audience. Best practices include researching hashtags and exploring trending hashtags to maximize reach.

#boating	#beach	#watersports
#boatlife	#lakelife	#wakesurf
#boat	#lake	#wakeboard
#boats	#lakelife	#wakeboarding
#loveboating	#love	#waterski
#iloveboating	#nature	#fishing
#boatingislife	#outdoors	#fishinglife
#boatinglife	#travel	#sailing
#boatinglifestyle	#summer	#sailboat
#boatmom	#sea	#sailinglife
#powerboat	#water	#yacht

To narrow your audience to non-motorized watercraft, utilize some of the following hashtags that can niche down further within the user group.

#paddleboarding	#kayaking	#paddling
#paddlelife	#kayak	#paddle
#standuppaddle	#kayaklife	#paddler
#paddleboard	#kayakingadventures	#adventure
#paddlesports	#kayaker	#getoutside
#standuppaddleboarding	#kayakadventures	#river
#sup	#canoeing	#lovecanoeing
#suplife	#canoe	#summerpaddling

The following hashtags are recommended for national awareness events:

- Clean Drain Dry Week: #CleanDrainDry
- Firewood Awareness Month: #dontmovefirewood
- Lakes Appreciation Month: #LAM #LAM2026
- National Invasive Species Awareness Week: #NISAW #invasivespeciesweek
- PlayCleanGo Awareness Week: #PlayCleanGo

Implementation

Campaign implementation can begin once you've decided on your social media strategy (organic, paid, or a mix thereof), created your calendar and timelines, and developed the content. This includes scheduling and posting content according to your calendar and continuously monitoring performance. These best practices are recommended to ensure optimal impact of campaign messaging.

- **Leverage Social Media Management Tools:** Tools enable efficient management of multiple social media accounts across different platforms. These tools allow campaign managers to streamline and automate posting, monitor engagement and performance, and ensure message consistency from a single dashboard.
- **Schedule Posts Strategically:** Social media analytics will give you an indication as to when your audience is most active and engaged. These insights in tandem with critical seasonal events and observances such as boating holidays and national awareness events or months can be used to determine posting schedules that will maximize visibility and engagement among boaters.
- **Monitor Campaign Performance:** Real-time monitoring of your social media campaign allows you to quickly identify emerging issues, respond promptly to comments, questions, or messages, understand public sentiment toward AIS, and effectively engage with supporters in the moment. Aim to respond within 24 hours.
- **Amplify Partner Voices:** Real-time monitoring of your partner's social media and tracking the hashtag #cleandraindry will empower you to share and re-post high quality content as an easy way to amplify messaging to target audiences.
- **Conduct Periodic Pulse Checks:** Before the season starts, and at various points throughout, leverage polling features on Facebook, Instagram, and X to survey followers about their clean, drain, dry actions and attitudes. By working this into your content calendar and monitoring the results in real-time, you can gain immediate insight into adoption of clean, drain, dry behaviors among boaters in your area.
- **Optimize Campaign Messaging:** Real-time data from posts and pulse checks will also provide insights into what messages resonate with audiences, enabling you to refine your strategies and messaging to maximize engagement. Monitor which messages, visuals, and platforms have the most engagement and adjust future posts or ads accordingly for maximum impact.
- **Identify Ambassadors and Advocates:** Identifying ambassadors and advocates creates an authentic way to amplify messaging and build trust that helps to normalize the desired behaviors. Encouraging ambassadors to engage and advocate for clean, drain, dry actions can significantly broaden the reach and credibility of clean, drain, dry messages.
- **Conduct Social Listening:** Social listening involves monitoring the conversations and engagements around your own posts and paying attention to broader discussions happening on social media platforms. These external conversations can provide valuable insights into AIS awareness, attitudes towards clean, drain, dry behaviors, boater needs, and potential areas for agency or partner engagement, making them just as important as the content you are directly posting about.

Frequency and Timing

Some AIS programs have their own social media presence and are able to control all aspects including the timing, frequency, content, interactions, and evaluation. A few programs have dedicated AIS staff for outreach that are experts in education and information, and have dedicated time to manage social media as a regular part of their job duties. These programs are able to post more frequently and interact consistently with their audience. Similarly, non-governmental partners often have more flexibility and capacity to create content, manage channels, and interact with their target audience.

The majority of state agencies must work through a centralized marketing program that manages the AIS content being shared on main agency social media channels in tandem with a wide range of competing fish, wildlife, parks, and other issue-related content. In contrast, there are states that have a de-centralized approach to social media in which there are many channels for various parts of the agency such as fisheries, biologists, state parks, hatcheries, programs, game wardens, or water districts. In these cases, disparate messaging could confuse or alienate the target audience, or messaging may be limited to only certain channels. A few agencies use a hybrid approach with both centralized and de-centralized channels, and synchronization of messaging is key.

The boating season varies depending on location but there are nationally consistent peak times in which boaters are traveling to recreate that provide an opportunity to align cross-jurisdictional messaging to influence clean, drain, dry behaviors. At a minimum, it is recommended that agencies **post once a month according to the monthly calendar** on the next page.

The objective is for boaters to frequently see similar messaging from multiple agencies and trusted organizations to shift their perception to a desired future in which cleaning, draining, and drying watercraft, trailer, and equipment after going boating is simply normal routine behavior. If an agency or organization can't do a monthly post, then the **four bold holidays** are preferred (Memorial Day, Father's Day, 4th of July and Labor Day).

For organizations that can post more frequently, **daily posts** are recommended. A sample 30-day calendar is included in the accompanying toolkit for use. The focus should be the normalization of clean, drain, dry behavior as a routine part of the boating experience and planning ahead to comply with WID rules. More frequent posts will build trust faster and allow for more engagement. In this case, organizations can curate content that differentiates and resonates between various types of boaters. Content can be customized to connect AIS to the issues that boaters care most about furthering the belief that taking action is not only common but essential for boaters to do. More frequent posts can also differentiate between inspiration, education, information, promotion, and entertaining posts and can vary message frames. Finally, with more frequent delivery of content the calls to action can be expanded beyond clean, drain, dry actions and compliance to engage boaters to also educate their friends, become citizen scientists, volunteer, report AIS, or provide other contributions.

12-MONTH SOCIAL MEDIA CALENDAR

Month	Ideal Date	Theme	Key Behavior	Objective
January	Mid-January	Plan Ahead for Summer Boating	Plan Ahead: Expect to be Inspected	WIDS Compliance
February	May align with hunting season	Waterfowl Season Ending	Clean, Drain, Dry	Normalize Clean, Drain, Dry
March	Mid-March	Spring Break Boating Adventures	Plan Ahead: Expect to be Inspected	WIDS Compliance
April	May align with ramp or WIDS openings	Open to Boating	Clean, Drain, Dry	Normalize Clean, Drain, Dry
May	Memorial Day Weekend	Memorial Day	Clean, Drain, Dry	Normalize Clean, Drain, Dry
June	Father's Day Weekend	Father's Day	Plan Ahead: Expect to be Inspected	WIDS Compliance
July	Week of 4th of July	4th of July	Clean, Drain, Dry	Normalize Clean, Drain, Dry
August	First week of August	Summer Boating	Clean, Drain, Dry	Normalize Clean, Drain, Dry
September	Labor Day Weekend	Labor Day	Plan Ahead: Expect to be Inspected	WIDS Compliance
October	May align with hunting season	Waterfowl Season Open	Clean, Drain, Dry	Normalize Clean, Drain, Dry
November	May align with boat ramp or WIDS closings	Fall Boating Adventures	Clean, Drain, Dry	Normalize Clean, Drain, Dry
December	Mid-December	Winter Boating Adventures	Plan Ahead: Expect to be Inspected	WIDS Compliance

It is common practice for agencies to routinely post media including blog posts, press releases, news, and events. In addition, agencies may want to promote regionally or locally important boating-related events such as boat shows, sportsman expos, fishing tournaments, sailing regattas, early season angling opportunities, whitewater events, paddling events, snowbird movement, or winterization timing. Encouraging lake managers, water owners, partners, local businesses, and event hosts to share standard messaging at the same time will help to amplify the impact.

There are national awareness events annually that provide an heightened platform to share invasive species information and promote desired behaviors among boaters, recreationists, and decision makers. It is recommended that federal, state, local, and tribal entities and their partners engage in the following awareness opportunities to convey clean, drain, dry messaging. Each awareness event has its own toolkit for use.

NATIONAL AWARENESS EVENTS

Timing	Theme	Audience	Behaviors	Messages	Toolkit
Last week of February	National Invasive Species Awareness Week	Legislators, Decision Makers, Boaters, Anglers	Support AIS Programs, Clean, Drain Dry	Factual Science, Economic	LINK
First week of June	CleanDrainDry Awareness Week	Boaters and Anglers	Clean, Drain Dry	Protective, Ecological Gain	LINK
First week of June	PlayCleanGo Awareness Week	Boaters and Anglers	Clean, Drain Dry	Nurture Protective	LINK
Entire month of July	Lakes Appreciation Month	Boaters and Anglers	Clean, Drain Dry	Factual Science, Nurture	LINK
Entire month of October	Firewood Awareness Month	Boaters that Camp	Clean, Drain Dry	Factual Science	LINK

Agencies should incorporate clean, drain, dry messaging in social media posts whenever relevant, such as in posts about angling, fishing, boater safety, or other water-related activities or events. The more frequently the public encounters clean, drain, dry messages, the more likely they are to adopt these practices. To normalize these behaviors and encourage action, it's important to include this messaging in various communications, not just those focused on AIS education and awareness.

Leveraging Partnerships and Influencers

The value of partnerships can't be understated when aiming to influence social behavior. Engaging established partners to follow similar messaging and utilize these guidelines will reinforce the desired behaviors among the target audience. The more that boaters see other boaters, particularly those in groups they relate to, doing the clean, drain, dry actions, the more likely they will be to clean, drain, dry their own conveyances. The more that boaters hear other boaters talking about this, the more likely they will be to talk to others about acting too. These combined communications across agencies and non-agency partners will help to create the social movement in the boating community in which taking action to clean, drain, dry after boating becomes a routine common practice that everyone does without thinking about it.

It can be important, whenever possible, to engage with social influencers or content creators within the boating and angling communities to demonstrate the desired behaviors to clean, drain, dry the watercraft, trailer, and gear/equipment every time they are used. Influencers and content creators have established credibility and large followings on social media. This enables them to share information that persuades others to act because of their authenticity, knowledge, position, and relationship with their audience. Partnering with influencers or content creators can be helpful with the younger generations that are more likely to trust non-governmental sources and tournament anglers who report getting more AIS information from their social world. Hiring or partnering with influencers and content creators can be expensive and may cost more than paid advertising. Research which influencers, content creators, organizations, and social channels your boaters are following and establish partnerships to boost the clean, drain, dry message with the individuals and brands that boaters are already spending their time online with as trusted sources.



Evaluation

Evaluation is a crucial phase in all social media marketing management. It allows you to assess the effectiveness of campaign strategies, understand how well message frames are reaching target audiences, and identify areas for improvement and refinement. The analysis of quantitative and qualitative data will provide a strong indication as to the correlation between social media messaging and desired behaviors.

Quantitative campaign evaluation consists of the following:

- **Tracking Key Metrics:** Every social media platform and management tool offer an array of key metrics, enabling you to track the performance of your strategy, understand how your audience interacts with your content, and make data-driven decisions to optimize your social media campaigns. These metrics fall into several categories.
 - *Awareness metrics:* impressions, reach, and video views
 - *Engagement metrics:* likes, comments, shares, saves, reposts, reactions, clicks
 - *Follower growth metrics:* audience size and follower growth rate
 - *Paid metrics:* click-through rate, cost per click, cost per mention, and conversions
- **Examining website traffic:** Website visits, referral sources, time spent on page, and bounce rates are among the website data that can demonstrate the effectiveness of your social media campaign. Google Analytics and other website analytics software can be used to understand how well your campaign drives visitors, their engagement, and conversion rates from social media platforms.
- **Analyzing Audience Sentiment:** A combination of social listening, clean, drain, dry mentions, and comment analysis can illuminate how boaters feel, if they understand the need to clean, drain, dry, and if they are incorporating those desired behaviors or actions into their boating experiences.





Organic and paid metrics can be useful to evaluate the effectiveness of clean, drain, dry social media marketing content, but these metrics don't directly correlate to actions boaters take while using their boats. To determine if boaters are changing their behavior and adopting desired practices, it's recommended to implement additional evaluation tools alongside assessing digital content and its influence. Social media can play a crucial role in promoting these efforts, engaging participants, reminding boaters to take action, fostering normalization, and information sharing.

- **Surveying Key Audiences:** In addition to periodic pulse checks, conduct a pre- and post-season survey among boaters in your area to gain insight into the impact of the campaign. The pre-season survey will provide a benchmark for user understanding awareness and the post-survey will enable evaluation of awareness and behavior change over time among target audiences.
- **Focus Groups:** A focus group is a small number (10 or less) of people that represent the target audience. Sharing a campaign with a focus group during development, before launch, to gauge their reaction to message combinations and visual media will help refine the content, making it more relevant to the target audience when it goes live.
- **Quality Control at Boat Launches:** Utilize staff or volunteers to watch boaters at launch sites or water access points to document if they take clean, drain, dry actions (e.g., pull plug, lower motor, remove plants, etc.). Separately, talk to boaters and ask if they are aware of AIS and if they practice clean, drain, dry actions.
- **Social Science Research:** Partner with a research institution to conduct formal research to further examine boater awareness and behavior. Potentially repeat the studies conducted by WRP and the ANS Task Force that informed these guidelines to document changes over time. Utilize social science research to further refine campaign messaging, visuals, and audience metrics to maximize engagement.

Toolkit

To aid with the implementation of these guidelines, a corresponding toolkit is available with this document. The sample images and videos can be used as is, or they can be modified to include organizational logos and branding. The following items are available within the toolkit:

- Content Calendars
 - 30-day social media calendar with daily content
 - 12-month social media calendar (page 26)
 - National awareness events spreadsheet with resource links (page 27)
- Visuals
 - 5 sample videos formatted for stories
 - 18 sample images (examples shown on pages 19-20)
- List of State Agency Social Media Links



Conclusion

Recreational boats are a primary pathway for the overland spread of zebra and quagga mussels, golden mussels, and other AIS. Education and outreach, along with watercraft inspection and decontamination, have been in place for decades. When surveyed, boaters indicate a general awareness about AIS, the threat that AIS pose, and the steps to take to prevent the spread. Despite this, recreational watercraft intercepted with attached zebra or quagga mussels, or other AIS, on board continues to rise. In the last few years, several new adult mussel populations have been detected in the West and the golden mussels were detected in North America for the first time. In order to stop the overland spread of AIS on recreational boats, all boaters must clean, drain, dry their watercraft, trailer, gear, and equipment after every use.

AIS messaging tends to focus on providing information to increase awareness of priority species with the intention of educating the user about the issue in a way that compels them to act. These social media guidelines aim to move past education and awareness to create a cultural shift in which boaters always clean, drain, dry their watercraft, trailer, gear, and equipment after every use because that is common practice for boaters, regardless of their opinions, knowledge, or belief about AIS. Social media is a tool that can help to normalize clean, drain, dry behaviors within the boating community and influence more individuals to take action every time they go boating.

The guidelines are centered around the social media platforms included in Meta – Facebook Instagram, and Threads – and X (formerly Twitter). These are the platforms that are currently in use by most agencies and their partners. These apps also have the largest amount of the target audience, recreational boaters, using them. The primary desired behavior is for boaters to take numerous actions immediately after boating to clean, drain, dry their conveyance to the best of their ability. The secondary goal is to improve legal compliance with WID rules by influencing boaters to transport watercraft that is clean, drained, and dry (to the best of their ability) and to plan ahead by learning the WID rules at their destination.

These social media guidelines provide a framework for AIS Coordinators and WID Managers to operationalize recent research and boater surveys to consistently use behavior change strategies that influence recreational boaters to adopt clean, drain, dry practices. Social media should be used in tandem with existing education practices including boat ramp signs, print, radio, TV, web, and others. The implementation of these guidelines is expected to further QZAP by increasing both the number of organizations using social media and the overall volume of social media posts and engagements.

References

1. Western Regional Panel on Aquatic Nuisance Species. (2020). Updated Recommendations for the Quagga and Zebra Mussel Action Plan for Western Waters (QZAP 2.0). Aquatic Nuisance Species Task Force.
2. Kyle, G. T., Linford, Q., Pilgreen, D., Le, T., & Woodward, R. (2022). Evaluation of the effectiveness of Western States' aquatic invasive species public awareness campaigns for eliciting desired prevention behaviors (Final Report). Western Regional Panel on Aquatic Nuisance Species.
3. Duda, M. D., Bissell, S. J., & Young, K. C. (2022). National invasive species outreach campaign assessment (Final Report). Responsive Management. U.S. Fish and Wildlife Service, Division of Fish and Aquatic Conservation, and the Aquatic Nuisance Species Task Force.
4. Shaw, B., Campbell, T., & Radler, B. T. (2021). Testing emphasis message frames and metaphors on social media to engage boaters to learn about preventing the spread of Zebra Mussels. *Environmental Management*, 68(6), 824-834. Retrieved from <https://doi.org/10.1007/s00267-021-01506-6>
5. Western Regional Panel on Aquatic Nuisance Species Education and Outreach Committee. (2021). Summary of Western States' aquatic invasive species outreach campaigns: Target audiences, messaging, delivery, and lessons learned
6. Wallen, K. E., & Kyle, G. T. (2018). The efficacy of message frames on recreational boaters' aquatic invasive species mitigation behavioral intentions. *Human Dimensions of Wildlife*, 23(4), 297–312. Retrieved from <https://doi.org/10.1080/10871209.2018.1434705>
7. Donnelly, K. (2025 January 14-16). Mississippi River Basin Panel on Aquatic Invasive Species' Behavior Change Virtual Workshop.
8. McKenzie-Mohr, D. (2023 December 6-8). Virtual North America Introductory Workshop to Community-Based Social Marketing.
9. McKenzie-Mohr, D. (2025). *Fostering sustainable behavior: An introduction to community-based social marketing* (4th ed.). New Society Publishers.
10. Resourcera. (2025). Threads Users By Country In 2025: Key Stats, Usage & More. Retrieved from <https://resourcera.com/data/social/threads-users/>
11. DataReportal. (2025). Digital 2025: Top social platforms. Retrieved from <https://datareportal.com/reports/digital-2025-sub-section-top-social-platforms>
12. DemandSage. (2025). Facebook Statistics 2025: User Growth & Engagement Trends. Retrieved from <https://www.demandsage.com/facebook-statistics/>
13. The Global Statistics. (2025). Instagram Global Users Statistics 2025. Retrieved from <https://www.theglobalstatistics.com/instagram-global-users-statistics/>
14. DemandSage. (2025). How Many People Use Instagram in 2025 (Users Statistics). Retrieved from <https://www.demandsage.com/facebook-statistics/>
15. Business of Apps. (2025). Threads Revenue and Usage Statistics 2025. Retrieved from <https://www.businessofapps.com/data/threads-statistics/>

References

16. Adam Connell. (2025). 25+ Threads Statistics For 2025 (Users And Growth). Retrieved from <https://adamconnell.me/threads-statistics/>
17. The Global Statistics. (2025). X (Twitter) Global Users Statistics 2025. Retrieved from <https://www.theglobalstatistics.com/x-twitter-global-users-statistics/>
18. Resourcera. (2025). X Users 2025: Inside 586M MAUs, Demographics, Usage & More. Retrieved from <https://resourcera.com/data/social/x-users/>
19. The Bureau of Economic Analysis. (2020). Outdoor recreation satellite account, U.S. and states, 2020 (BEA 21-55). U.S. Department of Commerce.
20. U.S. Coast Guard. (2025). 2024 recreational boating statistics (COMDTPUB P16754.38). U.S. Department of Homeland Security. Retrieved from <https://uscgboating.org/library/accident-statistics/Recreational-Boating-Statistics-2024.pdf>
21. National Marine Manufacturers Association. (2021, February 26). Report: Nearly 320,000 new boats sold in 2020. Retrieved from <https://www.nmma.org/press/article/23570>
22. Quicknav. (2025). Boating Statistics in 2025. Retrieved from <https://quicknav.com/boating-statistics/>
23. U.S. Coast Guard. (2020). National recreational boating safety survey: Participation and exposure reports. U.S. Department of Homeland Security. Retrieved from <https://uscgboating.org/statistics/national-recreational-boating-safety-survey.php>
24. Aquatic Nuisance Species Task Force. (2013). Voluntary guidelines to prevent the introduction and spread of aquatic invasive species: Recreational activities. U.S. Fish and Wildlife Service. Retrieved from <https://www.fws.gov/media/voluntary-guidelines-prevent-introduction-and-spread-ais-recreational-activities>
25. Brown, E. M. (2021). Watercraft inspection and decontamination (WID) manual (138 pp.). Pacific States Marine Fisheries Commission.
26. Choi WJ, S Gerstenberger, RF McMahon and WH Wong. 2013. Estimating survival rates of quagga mussel (*Dreissena rostriformis bugensis*) veliger larvae under summer and autumn temperature regimes in residual water of trailered watercraft at Lake Mead, USA. *Management of Biological Invasions* 4: 61-69.
27. Elwell, L. C., & Phillips, S. (Eds.). (2021). Uniform minimum protocols and standards for watercraft inspection and decontamination programs for Dreissenid mussels in the western United States (UMPS IV) (55 pp.). Pacific States Marine Fisheries Commission.
28. Hart, P. S., & Larson, B. M. H. (2014). Communicating about invasive species: How “driver” and “passenger” models influence public willingness to take action. *Conservation Letters*, 7(6), 545–552. <https://doi.org/10.1111/conl.12109>



APRIL 30, 2025