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MNRR Good Neighbor Guide


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Table of Contents

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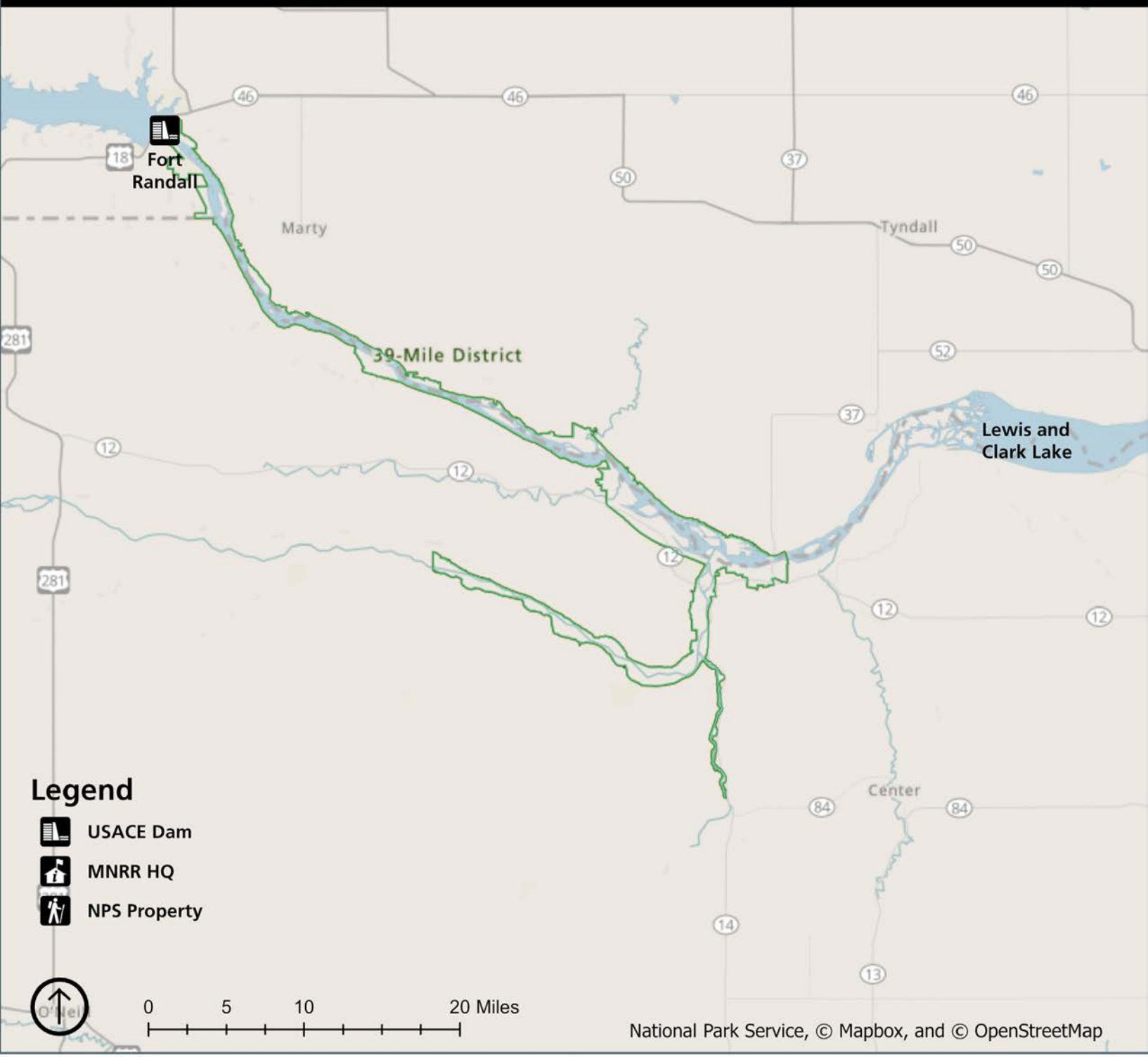
Missouri River

Missouri National Recreational River

39-Mile District



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1 Fort Randall Dam

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Niobrara Confluence

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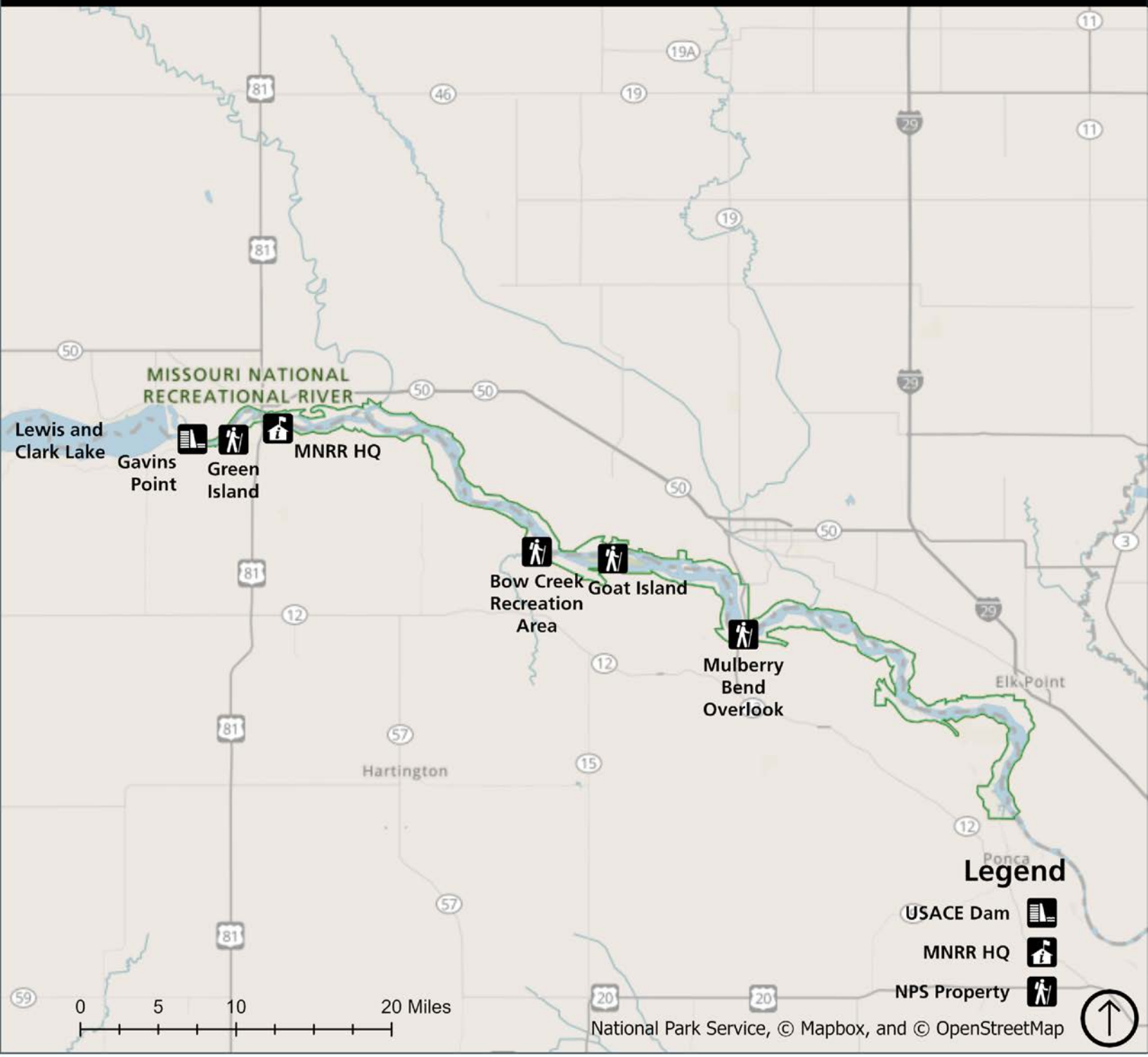
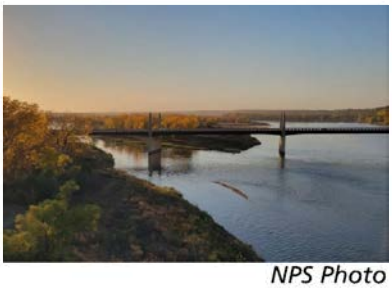
Running Water

59-Mile District





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Green Island

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Bow Creek

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Goat Island

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Mulberry Bend

Purpose for this Guide

The Missouri National Recreational River (MNRR) consists of two districts: a 59-mile district designated in 1978 and a 39-mile district (along with 20 miles of the Niobrara River and 8 miles of Verdigre Creek) designated in 1991. The MNRR is a rare example of an unimpounded and unchannelized stretch of the Missouri River and possesses many outstandingly remarkable values. Among these are the river's free-flowing condition and its wildlife, unique ecology, geological features, scenic vistas, cultural significance, and recreational offerings.

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The MNRR administrative boundary encompasses an area of over 64,000 acres (including water), but its current properties total little more than 1,200 acres. Most of the land and shoreline in the MNRR is owned and managed by other entities, mostly individual property owners. Our obligation to steward the MNRR by preserving the natural, cultural, and recreational values of the Missouri River along the Nebraska-South Dakota border relies on partnership. Some of our partners include the US Army Corps of Engineers, the US Fish and Wildlife Service, the Yankton Sioux, Santee Sioux, and the Ponca of Nebraska Tribes, the States of Nebraska and South Dakota, and numerous local governments. However, one last critical partner is ... you.

We rely on the public to help us steward and protect the MNRR for future generations. Allowing land to function more naturally, volunteering, and helping educate others are just some of the ways we rely on you to be a good neighbor to protect something we all cherish: our river. This guide is intended to provide you with information about what you can do to protect the MNRR and what makes it special.

If you have any questions, visit us at park headquarters or give us a call at 605-665-0209.

STEWARDSHIP

A covenant of personal and collective responsibility to take care of resources considering the environment, the people of today, and the people of tomorrow.

About MNRR

MNRR History and Purpose

The Missouri National Recreational River (MNRR) is a unit of the National Park System and component of the Wild and Scenic Rivers System. It was first designated by Congress in 1978 in what is now known as the 59-Mile District. A 39-Mile District was designated in 1991. MNRR exists to work collaboratively with stakeholders to preserve and protect the natural, cultural, and recreational resources of the last unimpounded and unchannelized segments of the Missouri River along the Nebraska-South Dakota border. The MNRR has seven outstandingly remarkable values: cultural, ecological, free-flowing, geological, recreation, scenic, and wildlife. Under the National Park Service Organic Act, MNRR must preserve unimpaired the resource values of the river for future generations, whereas under the Wild and Scenic Rivers Act, it must work with other to uphold an anti-degradation policy to maintain and enhance the river's values.

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The Wild and Scenic Rivers Act – A Primer

The Wild and Scenic Rivers Act was signed into law in 1968 by President Lyndon B. Johnson as the Environmental Movement was beginning to gain momentum. The Act was signed into law to protect America's regionally and nationally significant rivers. During this timeframe, the American public was concerned about contamination in the nation's waterways. MNRR's 59-Mile District was designated in response to concerns about erosion on the banks of the river caused by the implementation of the Missouri River dams.

Photo: LBJ Presidential Library

Water and Watersheds

Water, Watersheds, and Why it Matters

Mni wiconi is the Lakota phrase for "water is life." Water is indeed our most precious natural resource because all life depends on it. Aside from drinking, we rely on water for cooking, bathing, cleaning, farming, and creating the goods and services that we need every day. It may be tempting to assume that our actions do not make a difference, but each of us makes decisions that affect the wellbeing of our environment. Cumulatively, humans have a big impact. We can most easily see our impacts on the local level, but our decisions can have consequences far away.

A watershed is an area of land where all the water, whether it flows down a stream, travels via groundwater flow, or falls by precipitation end up in the same place. The MNRR area has numerous watersheds, but all our watersheds are part of a larger system called a basin: The Missouri Basin. The Missouri Basin encompasses the land area where all water ultimately drains into the Missouri River. The Missouri River is North America's longest river, starting near Three Forks, MT before it joins the Mississippi River in St. Louis some 2500 miles downstream. The Missouri-Mississippi System drains about 60% of the lower 48's water into the Gulf of Mexico through New Orleans. Via this system, the MNRR area is connected to the Ohio, Tennessee, Illinois, Arkansas, Red, and Atchafalaya Rivers. How we manage the river has impacts far away. For example, pollution from the Midwest eventually ends up in the Gulf of Mexico where it can ultimately kill shrimp. More locally, trash and litter make what are supposed to be scenic spots unattractive.

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NPS Map

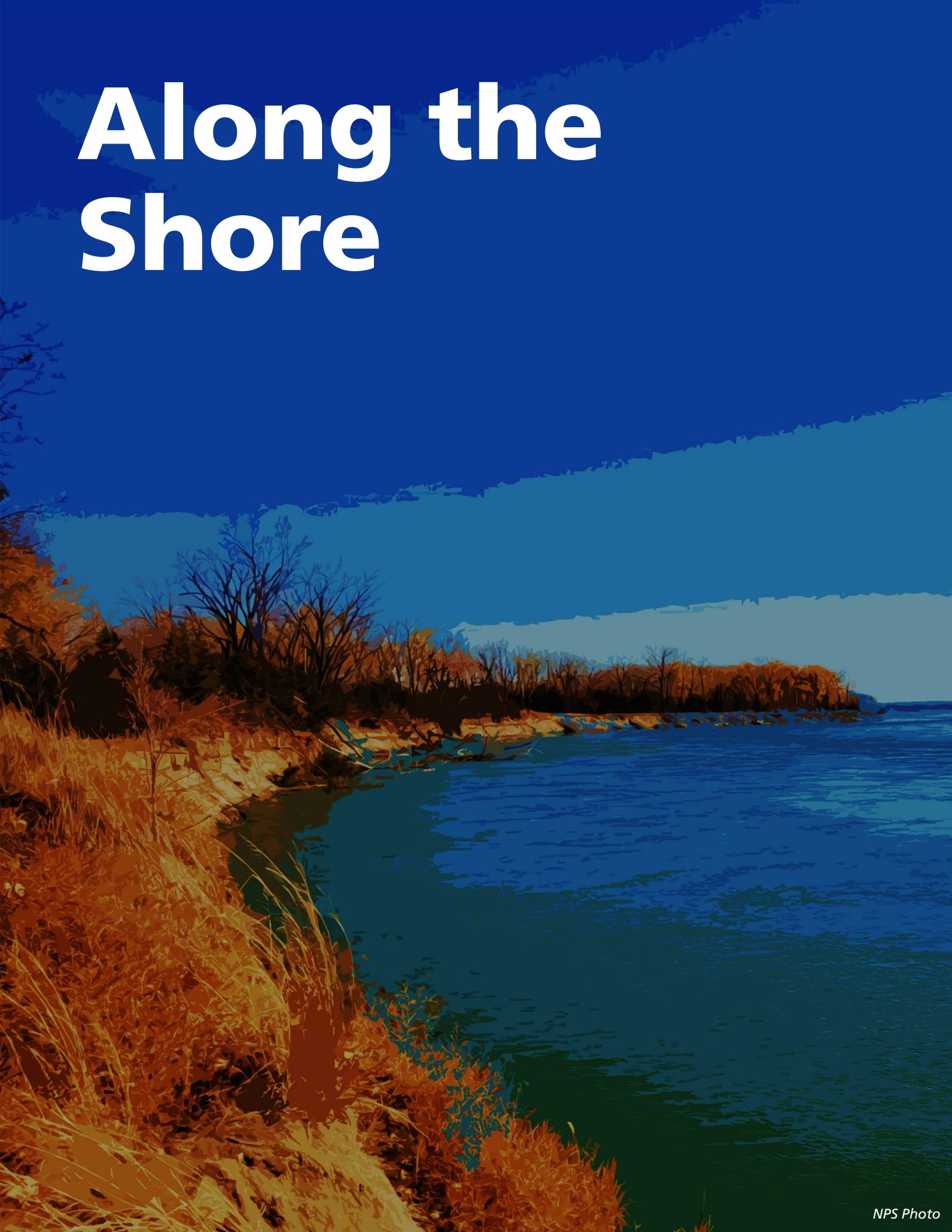
Best Management Practices

What are Best Management Practices?

Best management practices are actions that you can take on your property to reduce environmental impact, often while increasing your property value. Property value may increase because of enhanced beauty and reduced flooding/erosion risk. Best management practices are formed by comprehensively considering the impacts of certain decisions and balancing the pros and cons. They are formed through rigorous science. Each decision is applied to the specific case, so what may be the best practice in one spot may not work well in another. Also, science constantly improves itself. As we gain a deeper understanding of how environmental systems work, recommended best management practices are refined to reflect our new knowledge.

Ultimately, our decisions come down to many factors. Some of these factors include cost, environmental impact, convenience, and what our goals are. The way we weigh these factors and the decisions we make are reflective of our priorities and values. In line with the fundamental principles of stewardship, management that reduces pollution and allows river processes to function naturally will allow plant and animals to thrive for generations to come. Some of the key questions we urge people to consider:

Along the Shore



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Bank Stabilization – Intro

Overview

There are two main methods to bank stabilization: gray and green. Gray infrastructure consists of using riprap or concrete to hard-armor the shoreline. Green infrastructure uses a vegetative approach that relies on the roots of plants to hold soil in place. These guidelines and restrictions do not cover regulations or ordinances in place from tribal, state, or city/county governments. We recommend checking with tribal, state, or city/county governments to ensure that they do not have additional restrictions.

Do You Really Need Bank Stabilization?

Before attempting to do bank stabilization, it is very important to ask oneself a simple question. Why? Part of the unique character of the Missouri National Recreational River is that it is one of the last free-flowing segments of the Missouri River. The river's free-flowing character means that it will naturally shift course over time. If you are experiencing erosion, carefully evaluate if this is truly a problem that requires human intervention. Here are some considerations:

- Is there space to setback, relocate, create distance, or otherwise reduce conflict with the river?
- Is this erosion occurring naturally or because of human activity?
- Are there any structures that could be jeopardized if erosion is allowed to continue unabated?
- Is the channel severely incised?
- Will stabilization in one location simply cause similar or even worse problems somewhere else?

Erosion, while it can be a problem in some cases, is a natural part of the river's dynamism. The river's ability to meander provides numerous ecological benefits. These include moving nutrients and materials as the river system naturally does, supporting habitat for species adapted to areas experiencing erosion, and removal of toxins and pollutants. If you still think bank stabilization is necessary, continue reading for more information.

Permitting Overview

The Wild and Scenic Rivers Act contains several key provisions that property owners should be aware of. The first is Section 7a or the anti-degradation and enhancement policy. In plain English, it means that the condition of the river must remain static or improve. Before doing bank stabilization on your property, you must obtain a Clean Water Act 404 permit from the US Army Corps of Engineers (USACE). Part of the permitting process will include a Section 7a review, where the National Park Service, as the managers of the MNRR, will ensure your proposed project does not degrade values for which the river was designated under the Wild and Scenic Rivers Act. The park will provide USACE a list of modifications to your proposal to avoid degradation of the river's values if needed. No construction activity on the bed and/or banks of the river may be carried out on the MNRR without a 404 Permit, and no 404 Permit may be issued without a Section 7a determination. Unpermitted activity may need to be reversed at the property owner's expense to comply with applicable law/regulation.

If you have erosion problems on your property, the best place to start is giving the park and USACE a call. The park is happy to discuss the challenges you are facing and offer potential solutions. Pre-project planning with the agencies involved in permitting is highly recommended because it will expedite permit approval because your engineer will have the design criteria your application will be evaluated against. This will also save you money. Once you have designs for your project, contact the USACE Regulatory Office for your area for formal review. USACE will either approve, approve with modifications, or deny your permit. If your permit is approved with modifications, you must follow the modifications specified. If your permit denied, you may not start work at all.

Bank Stabilization

Vegetative Methods

Bioengineered Banks Explained

Bioengineering Techniques use plants to prevent erosion to the streambank. Instead of relying on concrete, which will crack and break down over time, bioengineering techniques use plants to hold soil in place. The roots of plants that are common near the river and prairies are often long, protruding deep into the ground. This allows the plants to grip the earth, like long fingers.

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Plant Selection

Native plants are required because they are adapted to the soils in the area and can tolerate our climate. Native wildflowers work great, but best results also incorporate trees and shrubs. Annual rye grass or other cover crop is recommended to reduce soil erosion and enhance the success of the native plantings prior to installation. Non-native species such as smooth brome and Kentucky bluegrass are not effective and therefore cannot be used to prepare the area for native vegetation.

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Over time, different species may need to be selected due to impacts from climate change – in which case contacting the Park Service for technical advice is recommended. For now, using native vegetation is recommended because river habitat for important species of bugs, birds, and other critters is supported. These techniques take a few years to fully germinate, but once in place, the plants will self-propagate and require less major maintenance efforts.

Using Biodegradable Materials

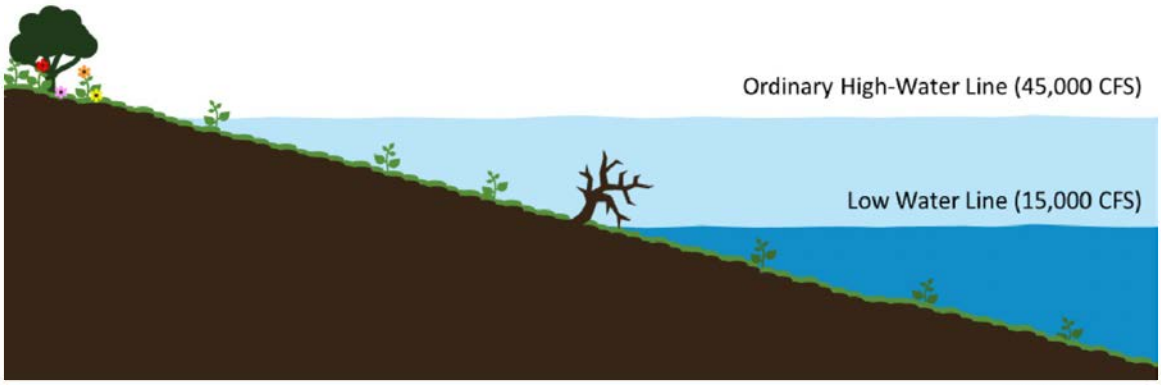
Even though vegetative methods are the most natural approaches, some non-natives may be required for construction. Selecting biodegradable materials such as straw blankets over conventional plastic sheets will allow materials to break down over time.

Photo: American Excelsior Company

Bank Stabilization

Vegetative Methods - Diagrams

Fully Bioengineered Bank Stabilization
(Preferred/Permit Required)



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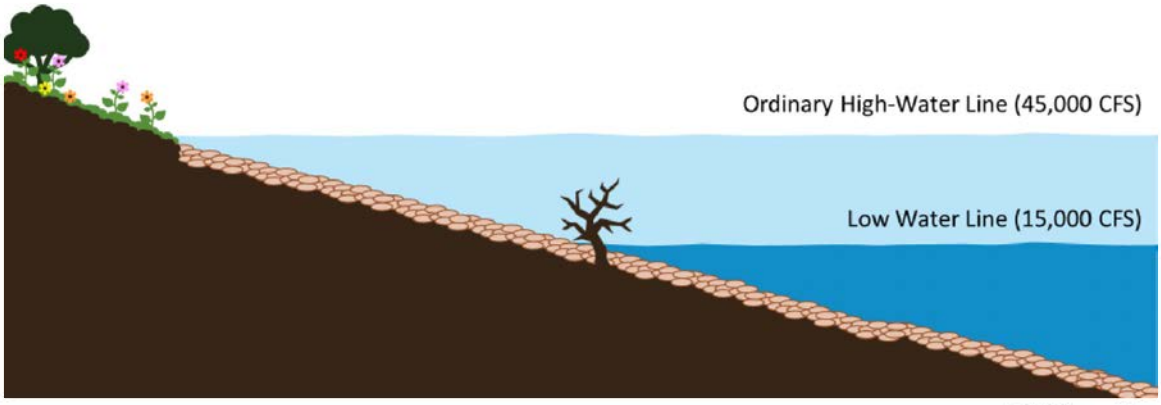
Partially Bioengineered Bank Stabilization
(Permit Required)



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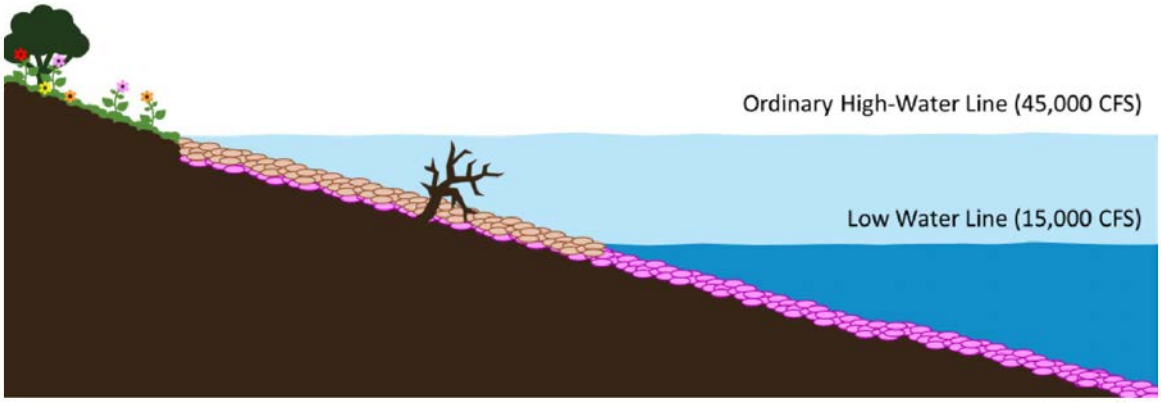
Mixed Rip-rap Bank Stabilization with Bio-Engineering
(Permit Required)



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Methods that leave a vegetated area along the visible portion of the stabilization project are preferred because it will not detract from the river's scenic value. The vegetated area will also provide suitable habitat for plants and animals common to the MNRR area.

Using an entirely vegetative approach is preferred because it also supports aquatic and amphibious animals. Pollutants may also be filtered and cleansed before reaching the river.

Vegetative methods are highly effective and work by using the roots of plants to lock soil into place.

Legend

Bank Stabilization
Rip-rap Methods

Riprap is human placed rocks that is placed along the shoreline of a river to prevent erosion. Riprap alters the natural character of a riverbed's habitat, meaning it is less amenable to bugs, birds, and other critters than the natural or bioengineered banks. Riprap, especially if installed incorrectly, may not prevent erosion and simply deflect it downstream toward a neighbor.

If using riprap is to be pursued, it will need to comply with the following parameters:

Allowed Materials
It is preferred to use fieldstone or native rock alone, but using other materials for riprap is permissible if they are covered by fieldstone or native rock. Fieldstone is found in soils that were tilled by glacial movements during the last Ice Age and are often found in outwash deposits of local gravel pits. Native rock is rock the river would have encountered as it flows downstream. This type of rock is often found along or within the bluffs of the river. Native rock for the purposes of bank stabilization in the MNRR must come from within or immediately adjacent to MNRR. Concrete, metal, and plaster are not acceptable because they degrade the natural character of the river too much. Use of other materials, such as rubber, trash, and plastic are unacceptable because they are ineffective and will pollute the river.

Coverage Requirements
Quarried pink quartzite may be used, but it must be covered with fieldstone or native rock, underneath 12-14 inches of soil. This coverage is required from the top of the stabilization to the ordinary high-water line (the elevation of the river at about 45,000 CFS). From the high-water line to the low water line (the elevation of the river at about 15,000 CFS) continuing with soil coverage is preferred, however it is permissible to use just the fieldstone or native rock to cover the pink quartzite.

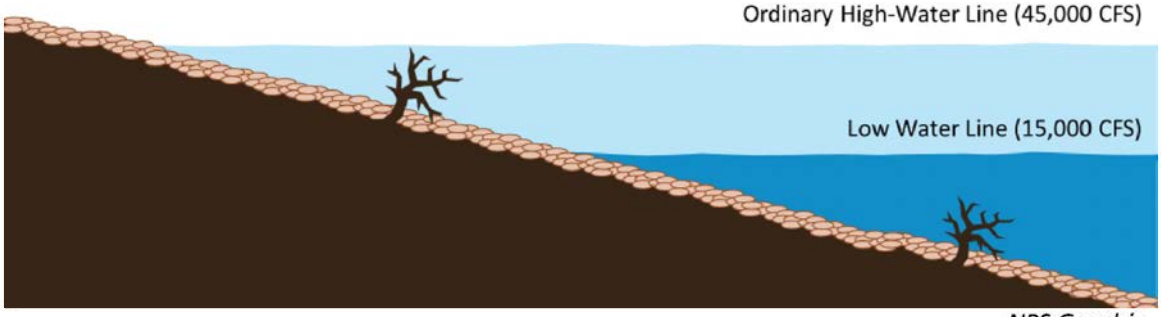
Required Slopes
The slope of your engineered bank must be 45° or less. This corresponds with a slope that is no more than 1 foot of vertical rise to 1 foot of horizontal run. Flatter slopes will be more stable because the energy of the river's flow that causes erosion will be dispersed over a larger area.

Vegetation
The same requirements for species selection as with bioengineered bank stabilization apply. When installing the riprap, it is required that cleared vegetation is limited to what is strictly necessary to complete the project. Trees and shrubs removed to install riprap must be replaced with equal or greater quantity of native trees or shrubs. Once the riprap has been installed, the soil is to be installed immediately afterward. Immediately after the soil has been put in place, planting the wildflowers, trees, shrubs, and other species deemed appropriate must be completed.

Bank Stabilization

Rip-rap Methods - Diagrams

All Native Rock Rip-rap Bank Stabilization
(Permit Required)



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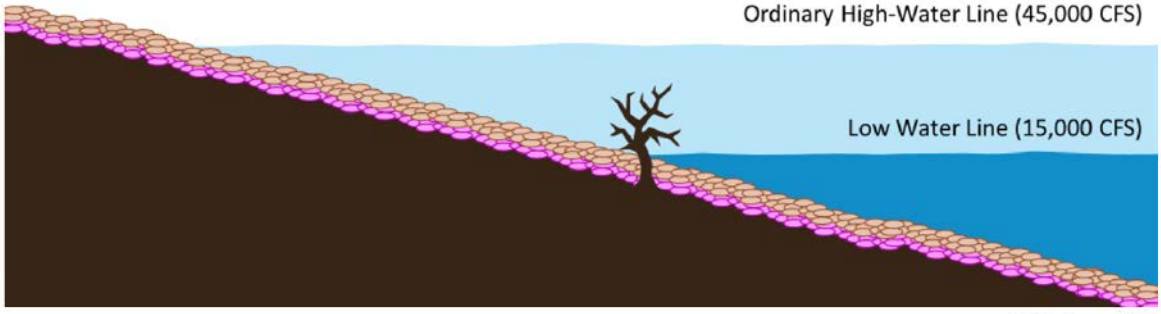
Mixed Rip-rap Bank Stabilization
(Permit Required)



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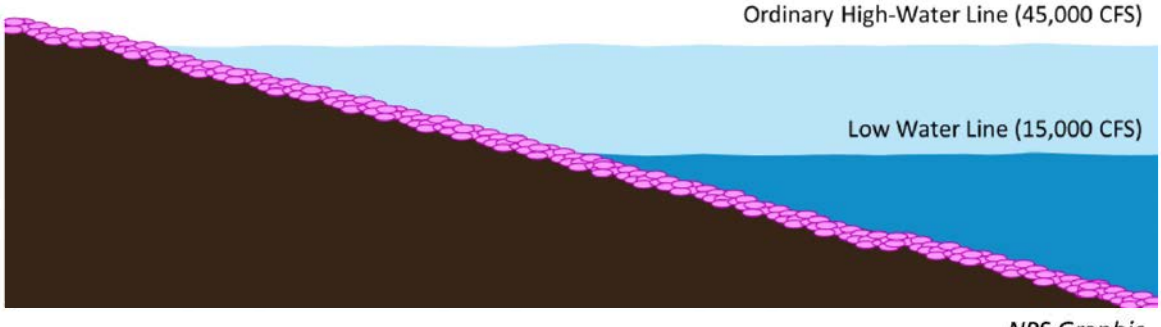
Donor Rip-rap Bank Stabilization
(Not Acceptable)



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Rip-rap methods are not as preferred because their appearance is not natural, detracting from the scenic value of the river's shore. They also are not ideal for habitat for plants and animals typical to the MNRR area.

Rip-rap methods redirect river flows elsewhere at high speeds, meaning they may create or worsen erosion problems downstream. This is an important factor to account for when designing these types of projects.

Using debris, trash, or attempting to ricochet material for bank stabilization is not appropriate.

Legend


Native trees/shrubs


Donor material


Native rock


Native seedings

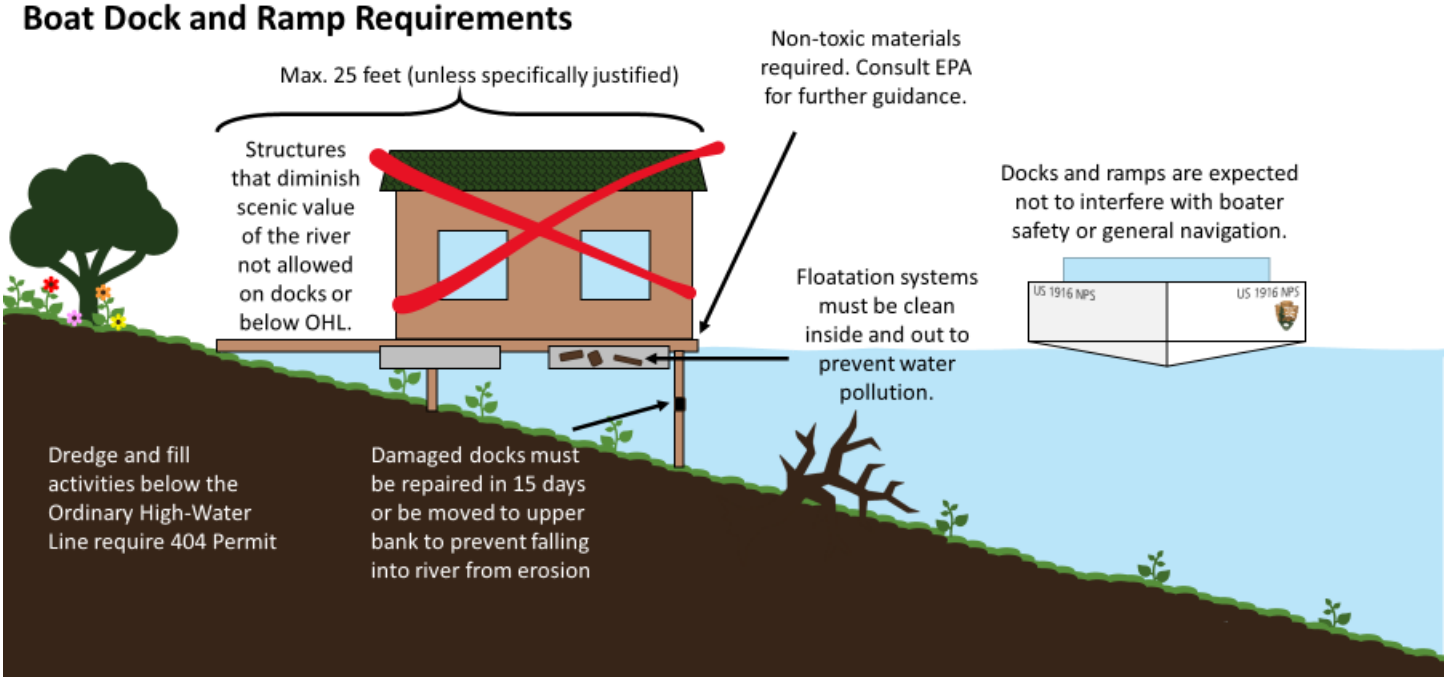

Downed native trees

Boat Docks and Ramps

Property owners with riverfront property may be eager to hit the water and have some fun. While the river is awesome, property owners need to make sure they have received a Section 404 Permit for their boat dock and ramp. Obtaining a permit for a boat dock and ramp requires sending over relevant project details to the Army Corps of Engineer, who will work with MNRR to obtain a Section 7a determination. The Section 7a determination will ensure that your new dock and ramp do not degrade the values of the MNRR. The Section 7a determination will evaluate your proposal against the following criteria:

- No permanent, habitable, or other structures are permitted on boat docks or below the Ordinary High-Water Line.
- Floatation systems for docks must be clean on the inside and out. Sealed containers must be kept in sound condition. Unclean floatation systems can pollute the river.
- Damaged docks must be repaired in 15 days or removed from the river to a location far enough away from the upper bank that they are not likely to fall into the river due to erosion. Docks that wash away can potentially pollute the river and pose a safety hazard to boaters and paddlers.
- Dock construction must be free of pollutants in toxic amounts. This is to comply with Section 307 of the Clean Water Act. The Environmental Protection Agency has resources and information to help you select the appropriate materials and methods.
- Unless justified by the specific circumstances, docks are not to project more than 25 feet into the river. Docks that are too long would interfere with the scenic values of the river as well as create an impediment for other boaters and paddlers.
- Permittees are responsible for taking all reasonable and necessary precautions to ensure boater safety and prevent interference with general navigation.
- All dredge or fill activities below the Ordinary High-Water Line require a Section 404 Permit.

Boat Dock and Ramp Requirements



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Around the Property

Photo: Harrison Freund

The American Lawn 2.0

Whether a property owner has a large homestead, an agricultural lot, or a small residential property in a town or suburb, land management decisions are being made daily. Working with one's hands, being outside for a little while, getting a sense of accomplishment, and getting a chance to see one's neighbors are some of the motivations that animate yard work.

The American lawn as we know evolved out of post-World War II homeownership for many of these motivations. The lawn provides a space for people, especially those who don't work outdoors, to be outside, move around, and socialize with their neighbors. Maintaining this space gives people a sense of ownership and pride. All these positive attributes are to be celebrated, but they can be adjusted with our greater appreciation of their environmental impact.

While lawns may provide several personal benefits to property owners and social benefits to communities, they are not without their environmental impact. Even though it is preferable to concrete and asphalt surfaces, the typical lawn of sod and Kentucky bluegrass are not very effective at absorbing or filtering water. They also frequently require using large amounts of water to be maintained and may require the input of pesticides and other treatments that pollute waterways.

These pitfalls can be mitigated by considering the following actions:

- Incorporating plants native to the area throughout one's landscaping to provide beauty and habitat for birds, insects, and small animals.
- Water plants at more strategic times of day, such as the early morning and evening when less water is needed because less of it will evaporate.
- Reducing the use of artificial treatments like pesticides.

In the case of the MNRR area, these methods may bring songbirds and butterflies to your yard. You still get to enjoy some time away from a screen and have an opportunity to be in a more social setting. Embracing the American Lawn Version 2.0 offers all the traditional benefits, while also providing new opportunities to engage more deeply with natural elements, hard-work, and one's social environment.

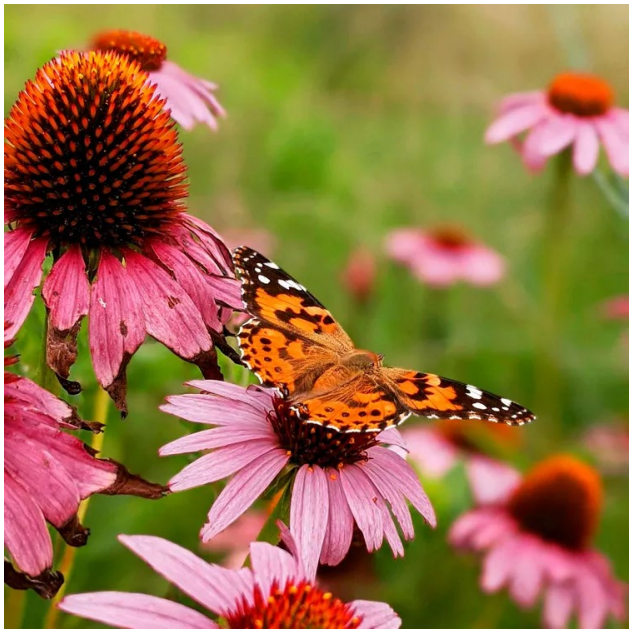

Photo: Benjamin Vogt

Photo: Benjamin Vogt

Plants the Land Loves

Prior to the landscape transformation that followed with the United States' western expansion, modern-day Nebraska and South Dakota were vast oceans of prairie. These prairies were managed by indigenous peoples such as the Lakota and the Ponca. Prairies play a role in the landscapes of the Great Plains. Prairies outcompete other plants because most of the plant is underground, meaning they can tolerate a fire that spreads on flat and windy terrain as well as reach water and nutrients deeper underground.

Native vegetation comes in all shapes, sizes and colors. Even a few plants on a small residential property offer a place of refuge (and dining) for pollinators like butterflies and moths. Pollinators like flowers that offer them a comfortable landing pad or have dense pockets of nectar.

Below are just some of dozens of varieties of plants native to the MNRR area. MNRR cannot endorse specific businesses, but local plant nurseries are an excellent way to support local businesses and learn more about the local landscaping and gardening scene.

Native Plant Sampler

Water Sedge

Blackeye Susan

Heart-leaved Aster

Purple Coneflower

Am. Slough Grass

Chokecherry

Viewshed Protection

One amazing aspect of MNRR is its breathtaking views and vistas. Some of these views and vistas can be experienced in locations such as the Bow Creek area, Mulberry Bend, and the Niobrara Confluence to name a few. These viewsheds may be along the shore of the river or from within the river itself. Protecting these viewsheds is important because they are a heritage that can be passed onto future generations. Viewshed protection generally comes from local zoning regulations. The park's current recommendations to local governments is to establish a 200 ft. set back from the ordinary high-water mark of the river – although counties are not required to follow this recommendation. Check with your county to ensure you know its specific zoning regulations.
Even if your county does not have zoning regulations, there are ways that you can protect the river's vistas.

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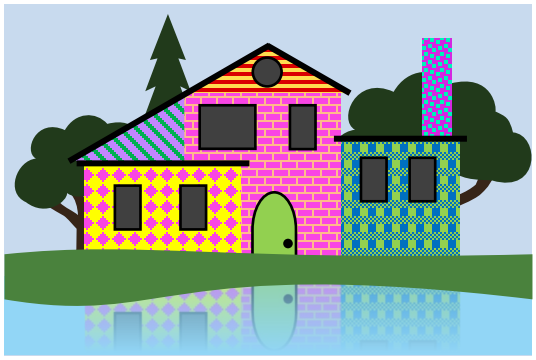
Select Appropriate Materials
Materials that are not present in the natural landscape are more likely to stand out and detract from a scenic view. Reflective materials, such as polished metals, glass, glazed tiles, and paints with reflective finishes may create glare. Solar panels are effective in the Northern Hemisphere when oriented in a southerly direction – an aspect that should considered when designing a project.

Photo: T. W. B. Group

Choose Colors Conservatively
Painting the exterior of a structure a bright color not typical to the landscape will draw visual attention and greatly detract from a scenic view. There's still room for self-expression, especially on the inside.



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Landscaping, Landscaping, Landscaping
One can still develop property and complete a wide array of projects without detracting from scenic views with proper landscaping. Vegetation can be used not only to mask elements that detract from the viewshed, but also to provide privacy. Vegetation used to this end should use native species in groupings and clusters that are random. Systematic rows do not occur in nature. Mixing species – trees, tall grasses, and open space incorporate several aspects of the landscape into the affected area.

Photo: Harrison Freund

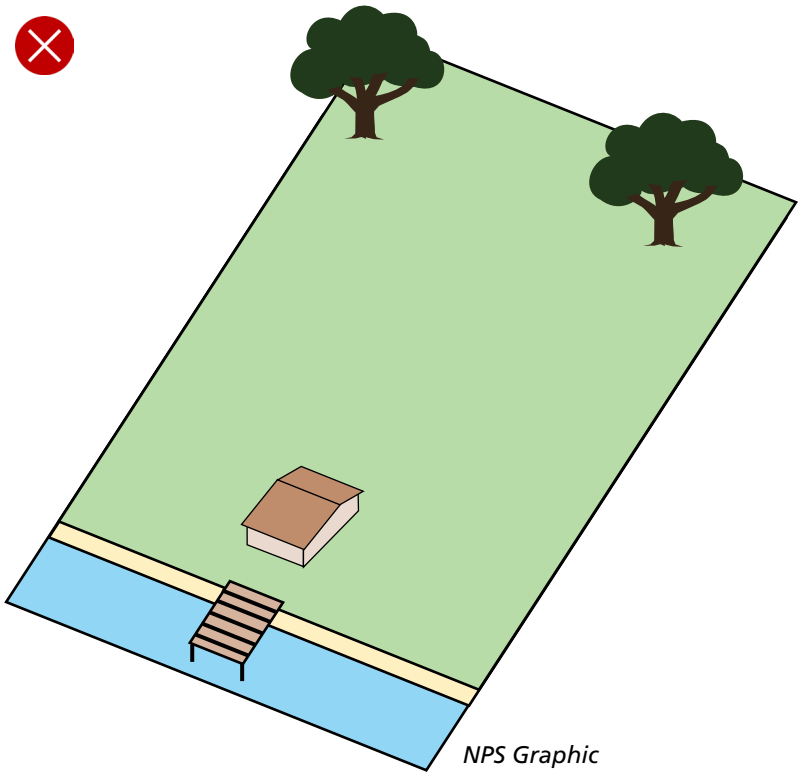
Setbacks

MNRR's current recommendations to local county and city governments is to implement zoning ordinances that require a 200 ft. set back from the ordinary high-water mark of the river. This distance was recommended because it prevents the loss of structures to erosion and flooding while protecting the viewing experience from the river. MNRR does not impose this requirement itself, nor does it require counties to implement this zoning. Check with your local county for applicable zoning regulations. The 200 ft between the river and the structures on your property can be used to create a shoreland buffer.

Shoreland buffers offer several benefits:

- Protect structures
- Reduce problematic erosion
- Reduce flood risk
- Protect water quality
- Provide habitat for wildlife
- Regulate temperature
- Increased property values

A shoreland buffer along the Missouri River would consist of an array of water-loving plants along the shoreline and a mix of native trees, bushes, and flowers further inland. There are a variety of species that you can choose from. This is shown in the diagrams to the right. On top is a structure close to the river with little vegetation. On bottom is a structure set further back with good vegetation that also offers a viewing corridor from the property. With the right landscaping, you can still have a stunning view of the Missouri River from your property while also protecting the scenic vista from the river. If you're unsure where to start, feel free to contact MNRR for some technical advice.



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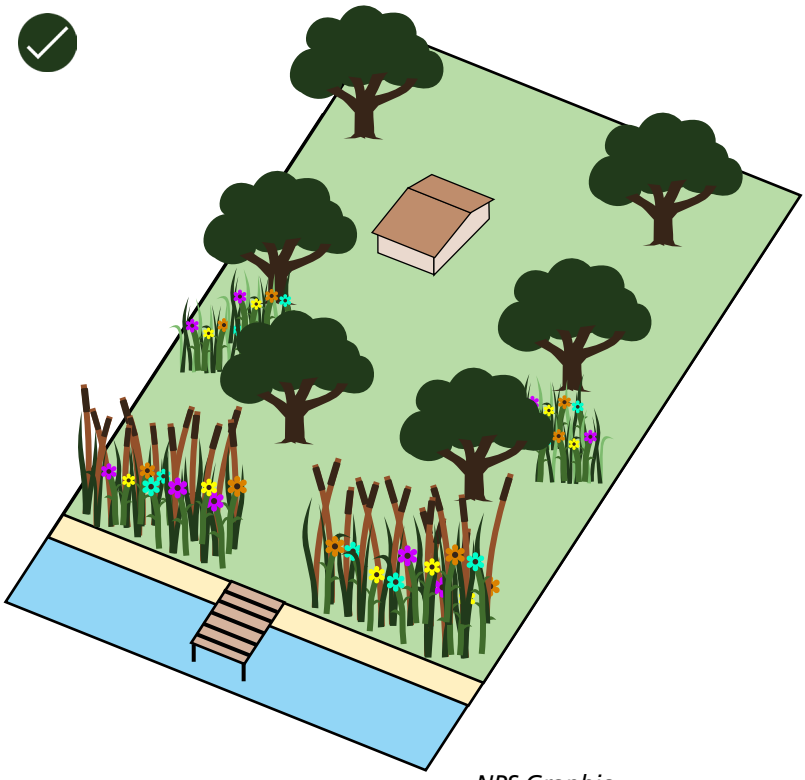
Structure set close to water with little vegetation.



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Structure set further back with abundant vegetation.

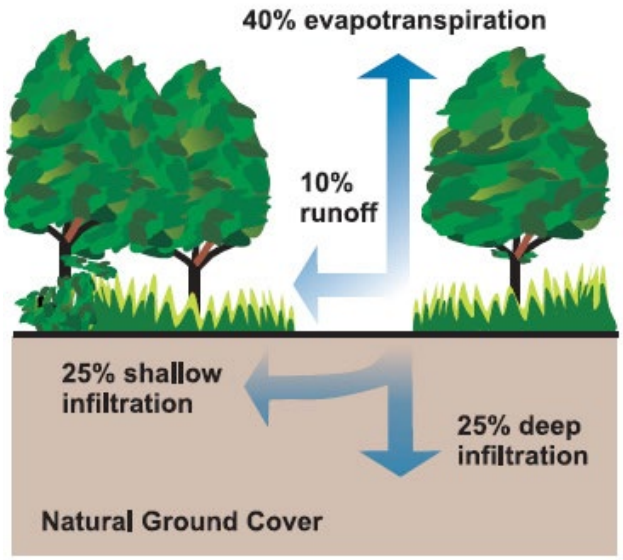
Surfaces and Water Filtration

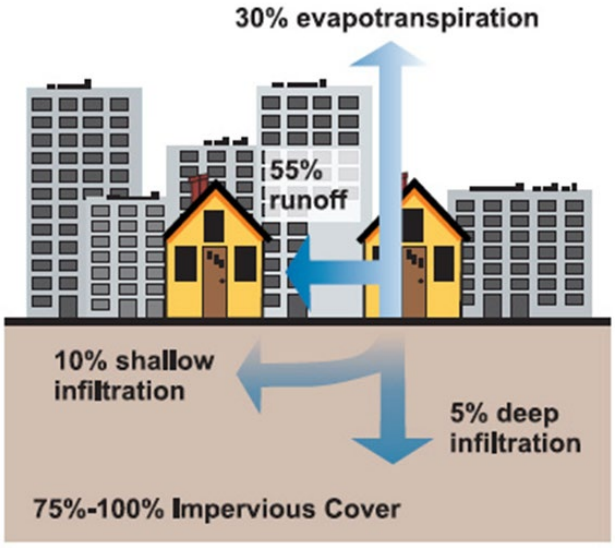
Even if you do not own a homestead or a piece of agricultural property along the river, some of these property management practices are potentially applicable if you own a residential property in a more developed area. Even if you own a small lot on a residential street in a community, your landscaping and water management practices can still impact the natural function of the MNRR.

Areas in a natural or natural-like environment have a quality of being water-pervious. This means water from rain, snow, and other forms of precipitation can be absorbed into the ground, where they can be filtered. When surfaces, such as asphalt, concrete, and treated wood do not have this property, they are impervious. Impervious surfaces are common around human activity – primarily buildings and roads. Instead of soaking in, water on these surfaces will run off. Water that is running off is likely flowing at high speed and can deposit pollutants into rivers and streams.

There are several strategies one can implement to reduce the area of impervious surfaces:

- If after determining that adding floorspace to a building is necessary, consider building up or expanding upper levels instead of expanding the building's footprint.
- Locate throughways for cars and people (such as driveways and sidewalks) on slopes that are not as steep.
- Consider using permeable paver surfaces, which often offer similar aesthetics to conventional paver surfaces.
- Use mulch to absorb water in areas that are highly compacted.





EPA Graphic

Photo: Washington State University

Septic Systems

If you are not connected to your local government's sewer services, it is your responsibility to manage your septic system according to local and state codes. A septic system usually has two parts: A septic tank and an absorption field. The septic tank stores wastewater sent from the building. Solid wastes are separated from liquid waste in the tank. While bacteria break down much of the solid waste, it is necessary to pump out the remaining solids from time to time. How often the tank needs to be pumped depends on the size of the tank and the number of people using the building. In general, checking the tank once a year is advised. Typically, a septic tank will need to be pumped once every 3-5 years.

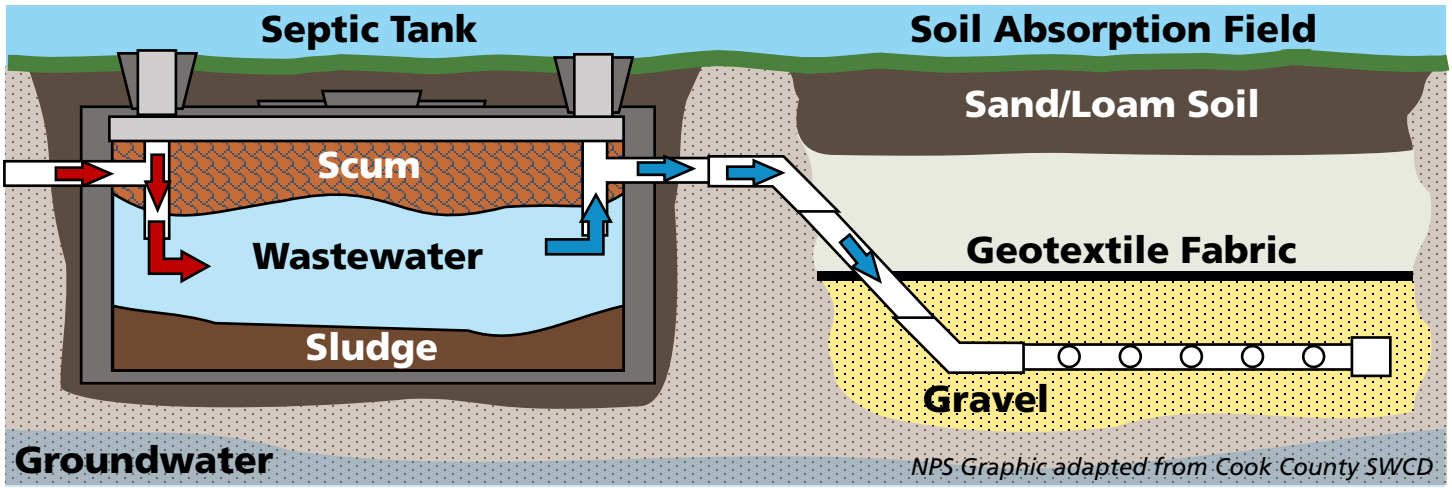
The other part of the system is the drainfield, or the soil treatment system. This is a separate area where wastewater moves from the septic tank after it is cleansed by bacteria. This may occur by gravity flow. If not, a pump or lift system will be required. The exact configuration may vary based on conditions at your property, but it is always critical to work with a licensed professional.

Installing and properly maintaining your septic system is an investment, but well worth the time, effort, and money. An improperly designed, installed, or maintained system can pose a health risk to you, your family, others in the community, and the environment.

Keep an eye out for the following signs of that your system is not working properly:

- Sewage back up in the building or slow toilet flushing
- Frozen pipes
- System alarms
- Wet/black areas around a septic mound
- Algal blooms or excessive plant growth in drainage areas
- Smell of sewage indoors or outdoors
- High levels of nitrate or coliform bacteria in water tests

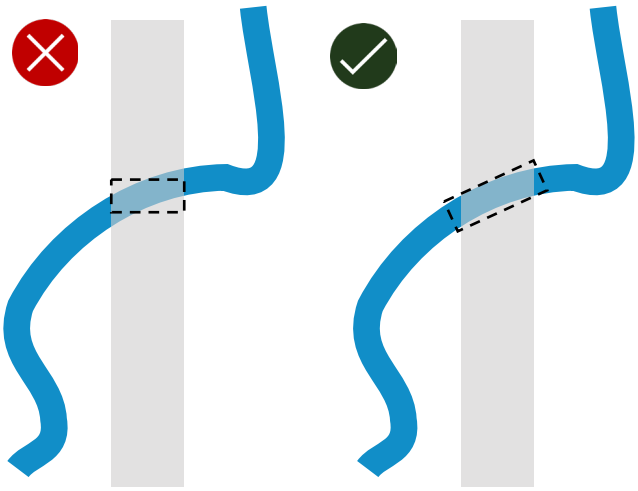
If you detect any of these problems, contact a licensed inspector right away. If you are on a well water system, the Centers for Disease Control (CDC) recommend testing water once a year. If you are on a municipal water system, you can access water quality testing information online or by contacting your local government.



NPS Graphic adapted from Cook County SWCD

Culverts/Composting

A culvert is a conveyance system to allow a road or pathway to go over a stream. Culverts come in a variety of shapes, sizes, and materials. When properly installed, a culvert will have minimal impact on the function of the stream. However, when improperly designed or installed, a culvert can cause issues. The most common problem is that the opening of the culvert is too narrow for the stream it is conveying. Make sure that any culverts are properly sized, in good working condition, and properly aligned to the stream and its grade. An engineer can help you design your culvert to make sure that it works properly.



NPS Graphic

When food breaks down into inorganic components, it is called decomposition. This process can be used to make soil. Before starting a composting project, check with your county or city government about any ordinances in your area. Compost can also be created with yard waste. Grass clippings, leaves, twigs, and small branches work well. Having a mix of different types of materials in your compost will make it more effective. In both the States of Nebraska and South Dakota, yard waste is banned from entering landfills. You can contact either your city or county government for more information.

You can manage your compost's smell by purchasing a compost box and outfitting it with charcoal filters. Some items are not suitable for compost. There are a number of options that you can buy from retailers and online.

Meats, oils, and high-fat items (such as butter) do not have the correct ratio of nutrients for good compost. These items can cause the compost to clump up when airy soil is desirable. Foods like citruses are also not suitable for composting because composting requires that the components are not too acidic. Items that are not suitable for composting should simply be thrown out.

Compost Quick Guide

Compost Me!


Fruits/Vegetables


Grains


Wood Chips/Shavings


Egg Shells


Coffee


Dry Leaves

Trash Me!


Oils


Meat


Fish


Butter

NPS Graphic

Dispose of Waste Properly

It may seem like a small act, but properly disposing of your waste can have a major impact. Every year the MNRR hosts the Missouri River Clean Up which picks up at least several hundreds of pounds of trash – and that's just in the area near Yankton! Imagine how much trash is getting into the MNRR throughout the entire park. While we are very proud of our clean up events and support others who do the same, the best way to keep the river clean is by not letting it collect trash in the first place.

NPS Photo

It can get windy in South Dakota and Nebraska, which is why it is important to secure light-weight outdoor items. Putting trash/recyclables in garbage/recycling bins prevents it from blowing away and getting caught in trees, brush, and the river.

NPS Photo

Everyone in the MNRR area can also help by making sure that household hazardous wastes are handled properly. These include items like paints, cleaners, garden chemicals, motor oil, aerosol cans, and tires. Products that are flammable, toxic, corrosive, or reactive will indicate so on their label. These products should be stored as instructed. When its time to dispose these items, bring them to your local transfer station when they are collecting hazardous waste. Unwanted or expired medications, prescription or over the counter, can also harm aquatic wildlife and water systems. These products can be disposed of properly by participating in a drug take-back program. Call your local police or sheriff's department on the non-emergency number to find out specific information for where you live. Remember, the Missouri River is a lot of special things, but it's also a drinking water source for people and critters.

Stock Image

DO *NOT* DUMP IN RIVER!

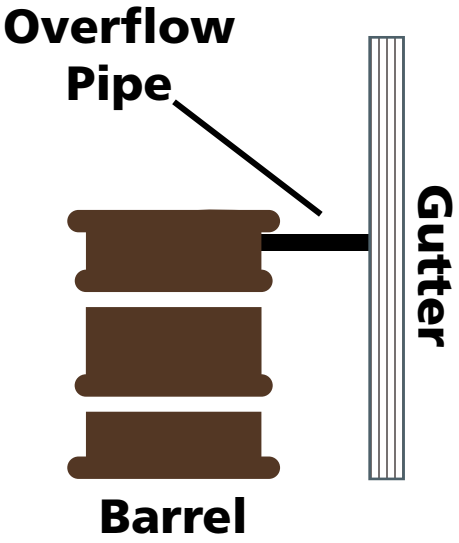
Rain Barrels and Gardens

Rain Barrels

A rain barrel can capture water from rainfall for use later. The rain barrel catches water that would normally run off to water landscaping when it is dry. This a great way to save water. However, it is important to make sure that the rain barrel has an overflow pipe that diverts water away from the building to prevent moisture problems. A common way to do this is to connect the rain barrel to the already existing gutter system via a diverter, as illustrated below.

Rainwater harvesting is legal and does not require a permit for most outdoor residential purposes in Nebraska and South Dakota. However, we still recommend checking state statues and local ordinances before installing your rain barrel.

Rain barrels come in a variety of colors and materials, so you can select the function and appearance that meets your specific needs.



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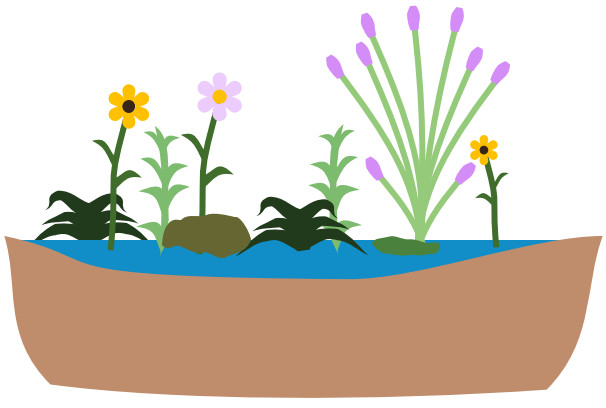
Rain Gardens

One method to reduce runoff from your property is to install a rain garden. A rain garden is a depression that collects water from roofs, driveways, or other impervious features. A variety of grasses and perennials absorb water.
Rain gardens can filter out pollutants in runoff, provide habitat for birds and butterflies, and improve the aesthetic value of your property.

There are some myths about rain gardens. Rain gardens do not attract mosquitos, hold water for prolonged periods of time, and are not exceedingly expensive compared to other options. Selecting well-adapted plants will keep comparable to other gardens.

There are many great choices for species selection. Some of the plants we recommend considering for a rain garden in our area include Blackeye Susan, varieties of Aster, and Purple Coneflower along with a mixture of sedges and native grasses.



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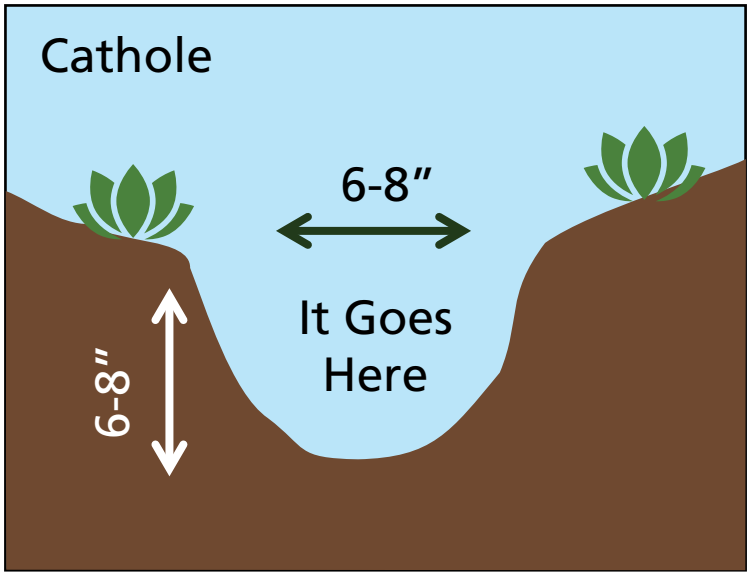
Out and About

NPS Photo

(Some) Park Regulations



NPS Graphic

NPS Photo

USFWS Photo

If you are out on the water, return to land to relieve yourself. Not only is the channel of the Missouri River not exactly private, it can be damaged by human urine and feces. Once on land, head at least 200 feet from any source of water. Pharmaceuticals from human waste can enter waterways and adversely affect wildlife. If you are going #1, find an area out of view. If you are going #2, be prepared to appropriately handle your poop. For a cathole, make a hole at least 6 to 8 inches deep and wide enough to get everything in it. When done, cover your cathole up to prevent wildlife from seeking it out. Alternatively, you can use a plastic bag to pick it up to take with you and dispose of properly later.

National Park Service regulations ban the use of personal watercraft (jet skies) within most parks (36 C.F.R. 3). This ban includes the MNRR. PWCs have been determined to be too disruptive to the habitats within MNRR. Float planes, airboats, ATVs/UTVs are also not allowed on the river or on public sandbars for safety and resource protection.

Piping plovers are an endangered species protected under the Endangered Species Act. USACE implements sandbar closures as a mitigative action for operations at Gavins Point Dam. MNRR is one of the few areas where these birds breed. If you have a closure on your property or encounter one on the river, give them the space they need to lay their eggs. Eggs are present from around Mid-April to Late-July.

You can find general park regulations in Title 36 of the Code of Federal Regulations (36 CFR) and review the Superintendent's Compendium for all park-specific regulations. The Superintendent's Compendium is available at MNRR HQ and links to 36 CFR and a copy of the Superintendent's Compendium are on the park website at: **https://www.nps.gov/mnrr/learn/management/index.htm**

Give a Hoot, Don't Loot

The story of MNRR contains the collective stories and experiences of Native Americans, homesteaders, freed slaves, and communities in the area from the distant past to today. This story is contained in the ground through artifacts and fossils. These artifacts provide hints into how these stories unfolded. Artifacts may be arrowheads, buttons, or anything else people in the past made for practical and/or cultural purposes. Fossils are remains of plants and animals that have been preserved over thousands or even millions of years.

It may be tempting to keep artifacts you find as souvenirs. Even if not malicious, treasure hunters are stealing by depriving us the ability to learn from the past and have a shared story. Handling artifacts and fossils requires specialized training to ensure that items are properly contextualized, left undamaged, and handled respectfully.

Looting can also land you in legal trouble. Under the Archeological Resource Protection Act (ARPA) of 1979 and the Paleontological Resources Preservation Act (PRPA) of 2009, taking artifacts and fossils from federal lands can mean hefty fines and jail time. Recklessly desecrating gravesites, disturbing burial grounds, or taking funerary objects (items that accompany or are part of burials/cremation) is likewise immoral, illegal, and potentially actionable under federal (Native American Graves Protection and Repatriation Act - NAGPRA), South Dakota, and Nebraska law.

If you find something special within MNRR, notify the Chief Ranger at 605-665-0209, 29 or at MNRR_Law_Enforcement@nps.gov as soon as possible. **Do not disturb the item!** Report suspicious activity.

People who loot, whether maliciously or not, damage our ability to learn from the past. If you discover artifacts or fossils, make sure to contact law enforcement to ensure that they are protected and can benefit the public. Many of these special items are unique, and once they are gone, they are gone forever.

NPS Photo

NPS Photo

NPS Photo

GIVE A HOOT! DON'T LOOT!

Stop Aquatic Hitchhikers

Aquatic invasive species (AIS) are non-native plants and animals that get introduced into our area and cause environmental damage, economic harm, and public health and safety concerns. These species lack a natural predator or control in our area, so their populations boom uncontrollably. Once an AIS becomes established, it is almost impossible to eliminate it. This means it causes permanent damage to the ecosystem. Most of the time, these species are introduced to an area inadvertently, often as a result of neglect or carelessness.

AIS are an ongoing problem at MNRR. Zebra mussels can clog up your boat, while big head carp can pack a punch to an unsuspecting kayaker. Not to mention all the smaller (and less painful) species that cause damage to the MNRR's ecosystems. It's important that you do your part by:

USFWS Photo

Cleaning your gear

Remove visible aquatic plants, animals, and mud from your boat, watercraft, and other gear before leaving the water access. Rinse your gear with hot water (120 ˚F/50 ˚C) with the appropriate pressure and following your owner's manual. Use a boot brush to remove eggs/spores.

NPS Photo

Draining your gear

Remove the drain plug and clear the bilge, live well, and anything else with water in your boat or other watercraft before leaving the water access.

Drying your gear

Allow gear to dry for at least five days or wipe with a towel before reuse

Disposing your trash

Put any unwanted bait, worms, and fish parts in the trash.

Spreading the word

Share this information with your friends, family, and neighbors. We all have a part.

Image: Stop Aquatic Hitchhikers

UNWANTED

★ FOR THE PROTECTION OF NATIVE HABITATS ★

AQUATIC INVASIVE SPECIES

FISH: EUROPEAN RUDD, SNAKEHEAD, COMMON CARP, GRASS CARP, BLACK CARP, SILVER BIGHEAD ASIAN CARP. WESTERN MOSQUITOFISH, ROUND GOBY, WHITE PERCH.

INVERTEBRATES: ZEBRA MUSSEL, QUAGGA MUSSEL, RUSTY CRAYFISH, ASIAN CLAM, NEW ZEALAND MUDSNAIL, RED-RIMMED MELANIA, RED SWAMP CRAYFISH, SPINY WATER FLEA

PLANTS: BRITTLE NAIAD, DIDYMO, COMMON REED, CURLYLEAF PONDWEED, FLOWERING RUSH, EURASIAN WATER MILFOIL, PURPLE LOOSESTRIFE, STARRY STONEWORT

★ REPORT NEW INFESTATIONS TO STATE AND FEDERAL OFFICIALS ★

NPS Graphic

Who to Contact

FEDERAL GOVERNMENT

National Park Service
General Information: 605-665-0209
Superintendent: 605-665-0209 ext. 22
Chief Park Ranger: 605-665-0209 ext. 29
https://www.nps.gov/mnrr

United States Army Corps of Engineers
Omaha District Office: 402-995-2470
https://www.nwo.usace.army.mil/

Nebraska Regulatory Office: 402-896-0896
https://www.nwo.usace.army.mil/Missions/Regulatory-Program/Nebraska/

South Dakota Regulatory Office:
605-224-8531
https://www.nwo.usace.army.mil/Missions/Regulatory-Program/South-Dakota/

STATE GOVERNMENTS

South Dakota Game, Fish and Parks
Customer Service: 605-223-7660
https://gfp.sd.gov/contactus/

Nebraska Game and Parks Commission
402-471-0641
https://outdoornebraska.gov/

COUNTY GOVERNMENTS

Boyd County, NE
County Courthouse: 402-775-2391
https://boydcounty.ne.gov/

Cedar County, NE
County Courthouse : 402-254-7411
https://cedarcountyne.gov/

Dixon County, NE
County Courthouse : 402-755-5602
https://dixoncountyne.gov/

Knox County, NE
County Courthouse : 402-288-5604
https://knoxcountyne.gov/

Bon Homme County, SD
County Courthouse : 605-589-3942
300 W. 18th Ave., Tyndall, SD 57066

Charles Mix County, SD
County Courthouse: 605-487-6000
https://charlesmix.sdcounties.org/

Clay County, SD
County Courthouse: 605-677-7145
https://www.claycountysd.org/

Union County, SD
County Courthouse: 605-356-2132
https://unioncountysd.org/

Yankton County, SD
County Courthouse: 605-260-4400
http://www.co.yankton.sd.us/

OTHER RESOURCES

Interagency Wild & Scenic Rivers Council
rivers@fws.gov

Section 7 Guidelines
https://www.rivers.gov/sites/rivers/files/2023-07/section-7.pdf

NPSpecies (MNRR)
https://irma.nps.gov/NPSpecies/Search/SpeciesList/MNRR

USDA Invasive Species Information Center
https://www.invasivespeciesinfo.gov/subject/lists

Nebraska Wastewater Regulations
http://dee.ne.gov/NDEQProg.nsf/OnWeb/Homeowner#:~:text=A%20dwelling%20or%20non-dwelling%20that%20generates%20wastewater%20must,repair%2C%20pump%20or%20install%20an%20onsite%20septic%20system.

South Dakota Wastewater Regulations
https://sdlegislature.gov/Rules/Administrative/74:53:01

Nebraska Natural Resource Districts
https://www.nrdnet.org/nrds/find-your-nrd

South Dakota Conservation Districts
Home - SDACD | South Dakota Conservation Districts (sdconservation.org)

NPS Photo

NPS Photo

Missouri National Recreational River

508 E 2nd St
Yankton, SD 57078
605-665-0209
M-F, 8:00 AM - 4:30 PM
except Federal Holidays

www.nps.gov/mnrr
Twitter: @missourirecnps
Instagram: @missouririvernps
https://www.facebook.com/MissouriNationalRecreationalRiver