The American Waterways Operators

1113 Mississippi Avenue
Suite 108
St. Louis, MO 63104

PHONE: (314) 446-6474
EMAIL: lmuench@americanwaterways.com

Lynn M. Muench
Senior Vice President – Regional Advocacy

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Mr. Dennis W. Hamilton
Deputy for Programs and Project Management
U.S. Army Corps of Engineers – Clock Tower Building
P.O. Box 2004
Rock Island, Illinois 61204

Re: GLMRIS – Brandon Road Comments

Dear Mr. Hamilton:

The American Waterways Operators is the national trade association for the tugboat, towboat and barge industry. Over 340 AWO member companies own and operate barges and towing vessels on the U.S. inland and intracoastal waterways; the Atlantic, Pacific and Gulf coasts; and the Great Lakes. Our industry's 5,500 towing vessels and 31,000 barges comprise the largest segment of the U.S.-flag domestic fleet. The tugboat, towboat and barge industry provides family-wage jobs and ladders of career opportunity for more than 50,000 Americans, including 38,000 positions as mariners on board our vessels, and supports more than 300,000 jobs in related industries nationwide. Each year, our vessels safely, securely and efficiently move more than 760 million tons of cargo critical to the U.S. economy, including petroleum products, chemicals, coal, grain, steel, aggregates, and containers. Tugboats also provide essential services in our nation's ports and harbors, including shipdocking, tanker escort and bunkering. In Illinois, specialized maritime operators move river barges to and from the Great Lakes to ports, terminals, steel mills, refineries, manufacturing companies, and grain elevators in Indiana and Wisconsin. There are 40 AWO member companies that utilize and rely upon the Illinois Waterway for the livelihood of their business and its employees.

AWO and its members also have a long history of working with federal and state government partners to ensure that aquatic nuisance species (ANS), including Asian carp, are not transferred from one basin to the other. For over a decade, we have participated in several joint efforts to control ANS populations and minimize the risk of their interbasin transfer.

All AWO member companies depend on the federal government's commitment to maintaining Congressionally-authorized waterways to support the short- and long-term transportation needs of the nation. The Chicago Area Waterways System (CAWS), located above the Brandon Road Lock, is the sole marine transportation link for $16 billion in vital commodities and products that move between the Great Lakes and the Mississippi River basins annually. The Corps' Brandon Road Tentatively Selected Plan (TSP) would disrupt this

critical transportation link and negatively impact the livelihoods of thousands of people and the nation's economy, from Illinois to Louisiana and beyond.

The CAWS Advisory Committee (CAWS AC), a group of over 40 public and private stakeholders representing commercial, recreational and environmental interests, agreed that solutions to stop the spread of ANS should also *"maintain or enhance maritime commerce"* through and on the CAWS. The Corps recognized the work of the CAWS AC as an established stakeholder group in the TSP.[1] However, the TSP fails to maintain or enhance maritime commerce as recommended by the CAWS AC.

AWO has serious concerns with the TSP that including but not limited to the Corps' lack of Congressional authority to conduct this study; the insufficient outreach to stakeholders; safety; operational issues; economic impacts to the nation; and the lack of a nonfederal sponsor. Last, but certainly not least, the TSP is omitted critical information rendering it difficult to intelligently understand or comment on the plan. It is unthinkable that stakeholders must wait for the Chief's Report in August 2019 to further comment or provide input. The following comments elaborate on each of these concerns.

AWO Supports Nonstructural Control Measures

AWO members believe that nonstructural control measures are the most effective path forward to mitigate the spread of invasive species while maintaining commercial navigation. The TSP contains a myriad of structural measures that will create serious safety issues for mariners and operational issues for shippers and carriers, including an engineered channel where new technologies can be tested, likely making the system unreliable for years to come. If the system becomes unreliable, shippers would be forced to find other modes of transportation to move goods, increasing environmental and societal impacts to the region and the nation.

AWO strongly supports the suite of nonstructural control efforts implemented by the Illinois Department of Natural Resources and federal agencies that have significantly reduced the leading edge of the Asian carp population by 68%, substantially reducing the risk of Asian carp entering the Great Lakes. Nonstructural efforts, funded by the Great Lakes Restoration Initiative, have ensured that the leading population front of Asian carp has not moved in 26 years.[2] Efforts by the Asian Carp Regional Coordinating Committee (ACRCC), such as overfishing, have removed over six million pounds of Asian carp from the upper Illinois River in 2016 alone.[3] New research conducted by the U.S. Fish and Wildlife Service (USFWS) strongly suggests that overfishing further downstream in the Illinois and Mississippi rivers greatly reduces the likelihood of the advancement of Asian carp toward the Great Lakes.[4] AWO also supports the ACRCC's proposal to incentivize commercial fishing. Creating incentives to harvest Asian carp will help remove the invasive species from the waterways while promoting an economic benefit to fisherman, processors and the nation.

[1] Brandon Road TSP. Page 407.
[2] Economic Solutions to Asian Carp Control? Monitoring and Control Actions. Presentation by Kevin S. Irons, Illinois Department of Natural Resources and Gina Behnfeldt, Tetra Tech. August 2017.
[3] Illinois Maritime Transportation Report. Page 20.
[4] Illinois River Asian carp population model: data-driven decisions to enhance control efforts. Presentation by David Glover and Jahn Kallis, USFWS.

AWO believes that the continued application of these nonstructural control efforts and other nonstructural actions, such as the development of targeted piscicides, provide the best economic and environmental protection for the nation without disrupting the efficient movement of waterborne commerce.

The TSP highlights the effectiveness of the nonstructural actions, including the success of commercial fishing:

> *"Between 2010 and 2015, over 1,791 tons of Asian carp have been removed from the IWW below the CSSC-EB during contracted commercial fishing efforts. [...] Asian carp density in Dresden Island pool appeared to decrease consistently from 2012 to 2014. This is likely the result of commercial harvest."*[5]

The probability of Asian carp establishment in the Great Lakes under the TSP is just slightly lower than the probability of Asian carp establishment under the Nonstructural Alternative or No New Action Alternative.[6] Three of the six experts selected to conduct establishment probabilities of all Brandon Road alternatives confirmed that establishment under the Nonstructural Alternative is "highly unlikely."[7] The same three experts found less than a 5% chance of establishment in the Great Lakes by the year 2071 for the No New Action Alternative.[8] In short, the science establishing the need for structural control measures is absent.

AWO believes the estimated costs for the TSP are underestimated and the actual construction and maintenance costs will be far greater. The Corps estimates that the TSP will cost $275,300,000 plus $8,200,000 for Operation and Maintenance (O&M) costs annually. In a recent article, Kevin Irons, Aquaculture and Aquatic Invasive Species Program Manager for the Illinois Department of Natural Resources stated, "If you look at the scope over 50 years, doing the math quickly, it's not just $275 million – it's $1.3 billion as it's currently written."[9] And, the total O&M dollars estimated for this one project would be over 25% of the total O&M spent on the entire Illinois Waterway in Fiscal Year 2017. The Nonstructural Alternative also costs a fraction of the of the TSP, at $11,400,000.

The Corps has a history of underestimating the construction costs of civil works projects that are new in design or technology. For example, the Corps estimated that the construction cost of the Olmsted Lock and Dam would be $715 million. The actual cost for construction of the Olmsted Lock and Dam will be roughly $3 billion when it is finished in 2018— almost 30 years after construction began.[10]

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[5] Brandon Road TSP. Page 32.
[6] Ibid. Page 270.
[7] Ibid. Page 244.
[8] Ibid. C-18.
[9] Morris Herald-News. Reaction Mixed on Army Corps proposal for Brandon Road Asian carp defense system. Mike Mallory. September 2017. http://www.morrisherald-news.com/2017/08/28/reaction-mixed-on-army-corps-proposal-for-brandon-road-asian-carp-defense-system/al9iqo4/
[10] WorkBoat. Almost 30 years later, Olmsted Lock and Dam projected to open in 2018. Pamela Glass. June 2017. https://www.workboat.com/news/coastal-inland-waterways/olmsted-lock-dam-projected-open-2018/

O&M estimates are also in question, as recently exhibited by the Corps' announcement that the current electric barriers on the Chicago Sanitary and Ship Canal (CSSC) have been significantly compromised due to corrosion. The Corps plans to replace electrodes on Barrier IIB in a few months and on Barrier IIA as soon as the funds are available. The cost of the electrodes, estimated at $3,000,000 per barrier, had a projected life span of twenty to twenty-five years. Barriers IIA and IIB have been in place for only eight-and-a-half-years. This would nearly triple the O&M on an essential part of one of the technologies in the TSP. Given what we know about the Olmsted costs and the O&M costs on the current electric barriers, we believe the construction costs and O&M estimates in this study are severely underestimated.

Congressional Authority

The TSP does not meet the Congressionally-authorized direction of the *Great Lakes and Mississippi River Interbasin Study (GLMRIS).* GLMRIS was authorized in Section 3061(d) of the Water Resources Development Act (WRDA) of 2007. The legislation clearly states that the primary objective of the GLMRIS is to conduct "a feasibility study of the range of options and technologies available to prevent the spread of aquatic nuisance species **between** the Great Lakes and Mississippi River Basins." The previous Assistant Secretary of the Army for Civil Works directed the Corps to move the project forward without completing the National Environmental Policy Act (NEPA) process, identifying a Preferred Alternative or producing a Chief's Report, resulting in an incomplete GLMRIS document. Nor did the Corps identify a nonfederal sponsor as required by WRDA 1986 and Corps' policy.

The Brandon Road TSP further misses the Congressionally-directed work by only addressing one-way ANS control and, as such, does not accomplish the directive that was laid out by Congress. Also, GLMRIS identified thirteen species in the Great Lakes that pose a medium to high risk to the Mississippi River Basin and only three species that pose a medium to high risk to the Great Lakes. If the Corps' goal is to address the most urgent ANS issue, logically it should be focused on the thirteen and not the three. However, the TSP proposes only ANS mitigation controls that target two species of Asian carp and *Apocorophium lacustre*. GLMRIS must be completed with an evaluation of all possible control options that could control, mitigate, or eliminate all ANS without disrupting the efficient movement of waterborne commerce.

Stakeholder Outreach

The Corps' outreach to the navigation industry before and following the release of the TSP was insufficient. Before the release of the TSP, AWO sent a February 26, 2016 letter to the Chicago District commander COL Christopher Drew expressing concern with the lack of outreach to impacted stakeholders to inform the economic study.[11] Later that same year, AWO expressed concerns in an October 18, 2016 letter to Kenneth Barr, Rock Island District, about the lack of appropriate outreach to shippers, carriers and impacted communities along with a lack of outreach to the navigation community on safety and logistical issues. [12]

[11] AWO letter to COL Christopher Drew. RE: Brandon Road Lock Study. Lynn Muench. February 2016.
[12] AWO letter to Kenneth A. Barr. RE: Proposed Mooring Area. Lynn Muench. October 2016.

After the release of the TSP, the shippers and carriers were disenfranchised from the public hearing process. Four public meetings were held in Muskegon, Michigan, Joliet and Chicago, Illinois, and, only after Congressional encouragement, in New Orleans, Louisiana. No public meetings were held in Houston, Texas where many impacted stakeholders also reside and rely upon the Illinois Waterway to move commodities from the Gulf of Mexico to the Great Lakes. In fact, Texas has over 30,000 towing industry jobs.[13]

The Corps' Missing Information

Industry cannot fully respond to this study until the Corps answers the following questions to further inform substantive comments:

- Why is the engineered channel 1,900 feet with a 400-foot gap between the engineered channel and the lock?
- What is the cost of the engineered channel?
- Could the complex sound and water jets be closer to the lock, shortening the engineered channel by several hundred feet or eliminating the engineered channel?
- Has the Corps modeled the safety risks associated with the power plant intake located close to the proposed engineered channel?
- How will the FERC-licensed hydropower plant impact the utilization of a flushing lock and navigation?
- What percentage of the time would the flushing lock not be utilized due to low water?
- Why are the boat launches located so close to the lock, increasing congestion and safety risks?
- Mooring cells:
    - Why are they still in the plan if the electric barrier will only be intermittent, making reconfiguration unnecessary?
    - How will the Corps secure the mooring cells under the Maritime Transportation Security Act of 2002?
    - How will increased congestion in this area be addressed to ensure safety is not impacted?
    - Where will the Corps dispose of contaminated dredge material in this location?
    - Is the cost estimate of disposal in the TSP?
- When will the electric barrier be turned off and turned on?
- How was the 2.44-hour average delay per tow estimated?
- What would be the decrease possible in lockages per day after the TSP is implemented?

The above list is just the beginning of what stakeholders don't know.

Other than the electric barrier, none of these technologies have been utilized in a Congressionally-authorized navigation channel. The Corps has stated that the engineered channel is being built not just for the technologies in the TSP but for new technologies as they

[13] Economic Contribution of the US Tugboat, Towboat, and Barge Industry. PricewaterhouseCoopers. ES-4. April 2017.

become available. This will create a giant, ongoing science experiment, gravely impairing the reliability of the entire system.

Concerns raised by industry during the scoping process and leading up to the release of the TSP were not addressed in the TSP. As stated before, industry's concerns were highlighted at a Safety Charrette in August 2016 and in AWO's October 18, 2016 NEPA comment letter to Kenneth Barr.[14] According to the TSP, the Corps plans to mitigate industry concerns during the pre-engineering and design phase of the Brandon Road project. The Corps stated at least seven times in the TSP that industry has expressed concern on a host of safety and logistical issues with the proposed location of the engineered channel and the technologies. However, the Corps did not offer solutions to the concerns in the TSP.

Safety Concerns

For more than 25 years, the tugboat, towboat and barge industry has been on a journey of continuous improvement to achieve the goal of zero harm to human life and the environment. AWO members consider safety job one, an ethical responsibility to their employees and the nation. The TSP moves the safety and environmental needle in the wrong direction. The TSP poses serious safety risks to mariners operating through Brandon Road. The TSP states that the electric barrier poses a moderate to high potential for injury or mortality.[15] Mariners would face an increased risk of electrocution if the electric barrier remains turned on while inside the constricted engineered channel. The Coast Guard would likely restrict vessel traffic further with the promulgation of a regulated navigation area (RNA) similar to the RNA over the current electric barriers on the CSSC, causing more delays and more congestion than the TSP anticipates.

The TSP calls for the construction of an intermittently-activated electric barrier utilized when tows are not in or near the engineered channel. As previously noted above, the TSP does not state the approximate time the barrier will be turned off, or the protocols to ensure crewmembers are not subject to the dangers associated with electrified water. AWO would like to remind the Corps that the current electric barrier dispersal system near Romeoville, Illinois is the only location on navigable waterways where the Coast Guard will not rescue individuals who fall overboard due to the unsafe conditions for its highly trained personnel. In addition to this, the Corps' own safety pamphlet *Welcome to the Fish Barrier And Your Indoctrination To Safety* states, *"First emphasis is on electrified water. Anyone who falls into the canal (CSSC) risks serious injury or death. In this scenario, do not go into the water for rescue."*[16] Studies conducted by the U.S. Navy confirmed a 50% fatality rate if an individual falls into the electrified water. Other than redundancy, what is the Corps' purpose of adding an additional electric barrier? There are already three electric barriers and one under construction on the CSSC. No Asian or common carp have been observed to survive transiting these electric barriers. Adding an additional electric barrier will not decrease the risk of Asian carp movement while adding serious additional safety risks to mariners.

[14] AWO letter to Kenneth A. Barr. RE: Proposed Mooring Area. Lynn Muench. October 2016.
[15] Brandon Road TSP. Page 348.
[16] USACE Fish Barrier Indoctrination. Pamphlet. Page 4.

Several AWO members have experienced the dangers associated with the current electric barrier system. Recently, one AWO member company reported arcing of steel barge cables within 700 to 800 feet of the system. Another AWO company reported an incident when deck crew felt an electric "tingling" upstream of the current RNA prior to transiting the electric barrier. Although neither of these incidents required medical attention, they both pose dangerous situations that would also be faced in the area of the Brandon Road Lock.

AWO's safety and congestion concerns are validated by the U.S. Coast Guard's preliminary risk assessment of the structural control measures in the TSP. The Coast Guard confirmed that that mariners would be subject to electric shock, congestion-related accidents and induced-vessel motions if the control measures contained in the TSP were implemented.

Although not included in the TSP, the Coast Guard also determined that the application of carbon dioxide (CO_2) as a control measure could pose additional safety risks. The Coast Guard noted that "as the water in the chamber releases CO_2 into the atmosphere, ambient concentrations may increase to a level that affect [vessel] operations."[17] The Corps should rule out this technology if it increases safety risks to mariners and/or vessel operations.

While the Coast Guard's preliminary risk assessment raised serious safety concerns regarding these structural control measures, a more comprehensive analysis of the safety impacts of these measures needs to be undertaken. The Coast Guard's own risk assessment confirms this with the following observation:

> *"With the inherent uncertainties related to the effects of the proposed invasive species control measures, implementation of actual marine-safety risk-mitigation strategies must wait until structures and apparatus are in place and tested. No model exists today (December 2016) that combines the different invasive species control measures into a detailed operational scenario. Many of the control measures are in the early, concept-development phase."*[18] The risk assessment expounds on this point by saying *"Operational commanders should undertake further risk assessment work for the individual control-measures as implemented, and follow up with a formal risk assessment of the combined systems once the USACE completes all construction and testing."*[19]

AWO and its members are very concerned that the Corps is considering the approval and construction of the TSP without having a fundamental understanding of the safety risks and impacts of the structural control measures contained in the plan. The preliminary risk assessment states the following:

> *"As stated in the introduction, this is a preliminary risk assessment. The author is solely responsible for assignment of the subjective, non-quantitative valuations. In a full, quantitative risk assessment, all assumptions and valuations would be presented to subject matter expert panels to determine actual validity and assignment of likelihood (or probability) and severity (level of hazard and consequence values i.e. loss or damage).*

[17] Preliminary Marine Safety Risk Assessment, Brandon Road Lock & Dam Invasive Species Control Measures. Table 1. United States Coast Guard. December 2016
[18] Ibid. Page 1.
[19] Ibid.

> *For this preliminary risk assessment, even if assumptions here are incorrect or inaccurate, later quantitative assessment provides the opportunity for clarification and revision."*[20]

AWO urges the Corps to forego a decision on the TSP until a full, quantitative risk assessment of all the structural control measures contained in the Brandon Road TSP is completed for public review. Specifically, the risk assessment must address the following safety concerns mentioned in the Coast Guard's preliminary risk assessment and others identified by AWO members:[21]

- Electric Barrier:
    - Activity-Related Electric Shock – electric shock to a person on a vessel conducting normal navigational activity over or near the electric barrier
    - Contact-Related Electric Shock – electric shock to a person on a vessel or the shore that occurs as a vessel comes alongside an approach wall or another vessel
    - Safety impacts of moored barges (Mooring facility at MM 285.2 LDB) in terms of contact sparking if they extend within 1,000 feet of the electric barrier[22]
    - Person in the Water-Related Electric Shock – an electric shock to a person who is in or near the water
    - Person-in-the-Water Rescuer Related Electric Shock—an electric shock to a would-be rescuer resulting from an attempt to remove/rescue a person from the water near or over the barrier array
    - Spark-Related Vapor Ignition – ignition of flammable explosive vapors (released from a vessel) due to the occurrence of a spark while a vessel is over or near the barrier
    - Congestion-Related Collision, Allision, or Sinking – one-way restrictions will cause vessels to "stack up" and provide opportunities for congestion-related collisions, allisions, or sinkings
- Complex Noise:
    - Will aural interference disrupt communication between towing crewmembers or between towing crewmembers and lock operators, resulting in damage to either the barge or the lock or putting mariners' safety at risk?
- Water Jet:
    - Induced vessel motions – yaw, heave, pitch, roll resulting from lock flushing
    - Lock Flushing: induced vessel motions
- Carbon Dioxide:
    - Increased ambient CO_2 levels – as the water chamber releases CO_2 to the atmosphere

[20] Ibid. Page 14.
[21] Ibid. Table 1. Page 12.
[22] Ibid. Page 22.

- Person-in-the-Water (PIW) Scenarios:
    - There is a need for further investigation to assess whether these invasive species control measures could increase the number of PIW incidents.[23]
    - Will the turbulence generated from a flushing lock combined with the other control measures increase the number of PIW incidents in the vicinity of the electric barrier?
    - Evaluation of safety impacts if tows are required to reconfigure prior to locking - specifically what mariners would face from fall overboard, slips, trips, falls, snap-back, and catching in the bight of the towing line
    - What is the probability that the new barge fleeting area from MM 283.4—284.1 LDB will increase the number of PIW incidents due to the breaking and making of tows in a flowing stretch of the Des Plaines River?[24]

The Coast Guard's preliminary risk assessments states that in the Brandon Road Lock tows require substantial on-deck activity for safe navigation. The risk assessment also states "*In many cases, to make a safe line-up on the upbound approach, including 'calling distances' to the navigation channel shore or the approach walls, captains will station one to three deckhands at the corner of the flotilla."*[25] This preliminary risk assessment clearly highlights the fact the proposed structural measures would increase the risk of PIW scenarios.

Environmental Impacts

AWO is committed to protecting the ecosystems of the Great Lakes and Mississippi River basins from ANS while preserving and enhancing commercial navigation between the two basins. The economic wellbeing of the nation must be considered in unison with ANS control measures.

The barge industry is the safest mode of freight transportation with the lowest carbon footprint. A single dry cargo barge can haul 1,750 tons of dry cargo, the equivalent of 16 bulk rail cars or 70 tractor trailers. Between 2001-2014, the barge industry emitted 16.4 grams of CO_2 per ton-mile, compared to 21.1 grams for rail and 171.8 grams for trucks.[26] The industry also poses the lowest risk to the safety of the public. In 2014, there were over 4,000 fatalities in the trucking industry, over 800 in rail and only 6 total in the towing industry.[27]

Despite the economic and safety benefits of the barge industry, the TSP would force shippers to find other modes of transportation to move goods throughout the country. A modal shift from barge to trucks or rail would significantly increase air pollution, increase fatalities, decrease the quality of life in the region and increase the degradation to the roads, resulting in increased taxpayer funding for highways. The TSP would decrease the full potential tonnage through Brandon Road by 10 to 12 million tons which require more than 545,000 trucks on

[23] Ibid. Page 18.
[24] Ibid. Page 24.
[25] Ibid. Page 16.
[26] Texas Transportation Institute. A Modal Comparison of Domestic Freight Transportation Effects on the General Public: 2001:2014. January 2017.
[27] Economic Contributions of the US Tugboat, Towboat, and Barge Industry. PricewaterhouseCoopers. December 2016.

the roads per year to transport the same amount of cargo. A modal shift of this magnitude would jeopardize the health and safety of the public and environment.

If tows would require reconfiguration prior to locking, the Brandon Road Bridge would lift more frequently to accommodate vessel traffic. Increasing bridge lifts would result in additional highway congestion in the area, triggering increased fuel consumption and air emissions and decreasing the quality of life for commuters in the area.

Operational Issues and Economic Impacts to the Nation

Commercial vessel traffic has been increasing steadily on the CAWS over the last few years. The Illinois Department of Transportation estimates that the amount of freight passing through Illinois will increase from 1.26 billion tons to 1.7 billion tons by 2040. The waterways are the only transportation option capable of handling this increased tonnage. Unfortunately, the TSP will potentially reduce lock capacity at Brandon Road by 10 to 12 million tons per year. The Corps' admits that the changes made to the lock if the TSP is implemented *"cannot accommodate historically observed traffic levels."*[28]

The Corps also admits that average lockage time for tows transiting Brandon Road will increase by 2.44 hours once the TSP is fully operational.[29] Currently, the total cost of operating a towboat without barges is roughly $10,000 per day. An additional lockage delay of 2.44 hours would increase the cost to transit Brandon Road to roughly $1,200 per lockage. This is a very conservative estimate of cost and does not include the value of the commodities being transported, opportunity costs or the cost of the barges. These added operational costs would negatively impact the nation's economy.

The TSP is expected to result in navigation National Economic Development (NED) costs rather than NED benefits. The TSP notes that the annual impacts to navigation as a result of the TSP would be $31,451,000 if the project includes a continuous operating electric barrier and $26,173,000 if the electric barrier operates intermittently.[30] We believe the costs to the nation will be much greater. These added costs will not accomplish the goal of preventing the upstream transfer of ANS while *"maintaining navigation and minimizing impacts"* as noted in the TSP.[31] Why would a federal agency purposefully add cost to the nation's transportation system and limit the growth in the movement of goods?

AWO and its members are further concerned that the Brandon Road Lock will be closed for 40 days to facilitate construction of the flushing lock control measure. A lock closure of 40 days would severely impact the movement of waterborne commerce. Over 45 businesses, including shipyards, would face negative impacts from laying off workers to complete closure. The other navigation delays noted in the TSP, such as a 12-hour daily delay during daylight hours for the construction of the engineered channel's guide wall, will further increase costs to the nation and harm the reliability of the system.[32]

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[28] Brandon Road TSP. D-79.
[29] Ibid. Page 277.
[30] Ibid. D-81.
[31] GLMRIS Brandon Road. Summary of the Great Lakes Mississippi River Interbasin Study-Brandon Road. Page 4.
[32] Brandon Road TSP. Page 232.

As previously noted in our comments, the TSP does not explain why mooring cells are needed if the electric barrier is to be turned off as vessels approach. The inclusion of a mooring cell location causes industry to believe that the Corps intends to operate the electric barrier continuously, contrary to the TSP, increasing safety risks and negative economic impacts to the nation. Also, the proposed location of the mooring cells would not facilitate tank barges larger than 300 feet, rendering the mooring cells useless for many AWO member companies operating through Brandon Road.

AWO believes that the multitude of structural technologies included in the engineered channel would increase random, unscheduled closures at Brandon Road due to unscheduled maintenance and testing. The industry has experienced this issue at the CSSC electric barriers for several years. Unscheduled closures would further complicate vessel operations and further add to the unreliability of the system. A recent study conducted by the National Waterways Foundation confirmed that unscheduled lock closures have a broad range of negative economic and societal impacts to our nation.[33] For example, an unplanned closure of the LaGrange Lock, located roughly 200 miles southwest of Brandon Road on the Illinois River, would lead to a $2.1 billion loss in farm-dependent incomes, and immediately impact the movement of commerce in 135 counties in 18 states.

The TSP estimates additional unscheduled lock closures of 25 to 45 days for emergency maintenance if the lower miter gate at Brandon Road would suffer corrosion due to routine operations.[34] Although the Corps' risk assessment classified the risks associated with a corrosion-induced closure as "*low/moderate,"* the consequences to the navigation industry are extremely high.[35] Recently on the Ohio River at Lock and Dam 53, a miter gate failure forced the Corps to close the lock to facilitate emergency repairs and resulted in a backlog of vessel traffic extending over 40 miles.[36] According to the Corps, a 45-day unscheduled closure of the Brandon Road Lock to facilitate miter gate repairs would result in navigation delay costs of $31.8 million and create massive commercial vessel congestion on the waterway.[37] And, this is just one of the many high-consequence failures acknowledged in the TSP.

Nonfederal Sponsor

The Corps released the TSP without identifying a nonfederal sponsor, contradicting the mandate of a statute enacted by WRDA 1986. The state of Illinois, the only legally available nonfederal sponsor, has stated that it will not be a sponsor for any structural action unless Illinois' concerns are fully addressed, but would consider being a sponsor for the nonstructural options that are currently working. As previously stated, the Corps should not and legally cannot move forward until a nonfederal sponsor is identified.

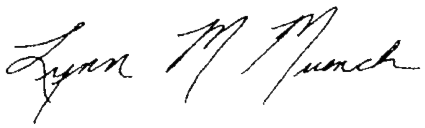
[33] The Impacts of Unscheduled Lock Outages. The National Waterways Foundation. October 2017.
[34] Brandon Road TSP. Engineering. Page 12.
[35] Ibid. Pages 12-17.
[36] Ohio River re-open at Lock & Dam 53. Krystal Callais. http://www.wpsdlocal6.com/2017/10/02/ohio-river-closed-lock-dam-53-near-brookport-il/ October, 2017.
[37] Brandon Road TSP. Engineering. Page 17.

Conclusion

In conclusion, AWO believes that best solution to mitigate the spread of Asian carp is with the Nonstructural Alternative. Current nonstructural actions are cost-effective and have successfully decreased the Asian carp population without negative economic impacts on the nation. As proposed, the TSP would disrupt the flow of commerce on the Illinois waterways and poses serious economic repercussions, as many businesses in Illinois, Indiana, Louisiana, Texas, and throughout the country rely upon on-time delivery of commodities via the waterways.

Thank you for the opportunity to provide comments on the Brandon Road TSP. AWO stands ready to work with the Corps to find a solution that maintains or enhances safe, reliable navigation and facilitates economic growth while protecting the two basins from ANS. We would be happy to answer any questions or provide further information as needed.

Sincerely,



Lynn M. Muench
Senior Vice President – Regional Advocacy