GREAT LAKES PANEL AIS/GLMRIS UPDATE

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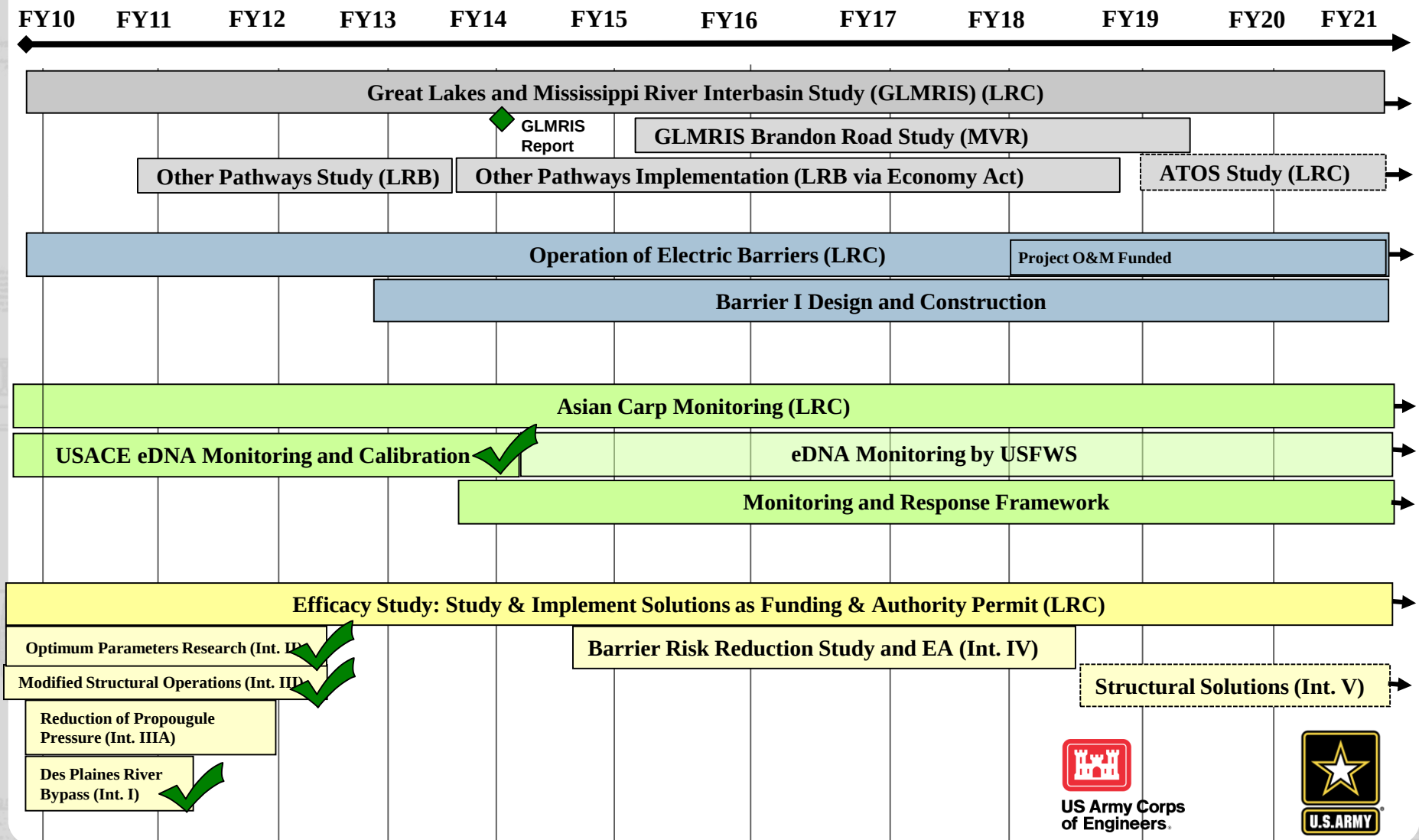
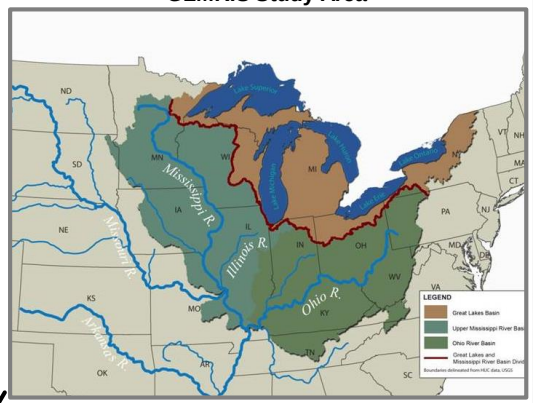
USACE AQUATIC INVASIVE SPECIES (AIS) STRATEGY

- Executed in coordination with the Federal response led by the U.S. Fish and Wildlife and through the Asian Carp Regional Coordinating Committee
- Activities funded by USACE and USEPA GLRI



THE GREAT LAKES AND MISSISSIPPI INTERBASIN STUDY (GLMRIS) OVERVIEW

GLMRIS Study Area



GLMRIS Program

- LRC Lead
- Coordination of program elements
- Budget development and defense
- Stakeholder engagement, including ACRCC related activities
- Collaboration with ERDC and other agencies on ANS research, including control measures

*** $50K in FY19 PRESBUD**

Focus Area I - CAWS

- LRC Lead
- GLMRIS Report released Jan 2014

Focus Area II – Other Pathways

- LRB Lead
- GLRI funded
- Pathway assessments by state
- Summary Report released May 2013

Brandon Road

- MVR Lead
- One-way control point identified in three alternatives in GLMRIS Report
- Chief's Report Aug 2019

*** $150K in FY19 PRESBUD**

ATOS

- LRC Lead
- Aquatic Transfer of Other Species
- Upstream and Downstream transfer
- Not yet funded

$0 in FY19 PRESBUD

Eagle Marsh, IN

- LRL Lead
- Highest risk pathway outside CAWS
- Control implemented by NRCS with USACE support
- Phase I completed Nov 2015

Ohio – Erie Canal, OH

- LRB Lead
- Control implemented by State of Ohio with USACE support
- Complete by Sep 2018

Little Killbuck Creek, OH

- LRB Lead
- Control implemented by State of Ohio
- Complete by Sep 2018

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BRANDON ROAD
BOTTOMLINE UP FRONT

- The Corps is working aggressively on the Brandon Road Study and is seeking opportunities to complete the Chief's Report sooner than August of 2019.

- Utilizing risk informed decision making the Corps will defer engineering analysis to the Preconstruction Engineering and Design phase in order to expedite completion of the Chief's Report.

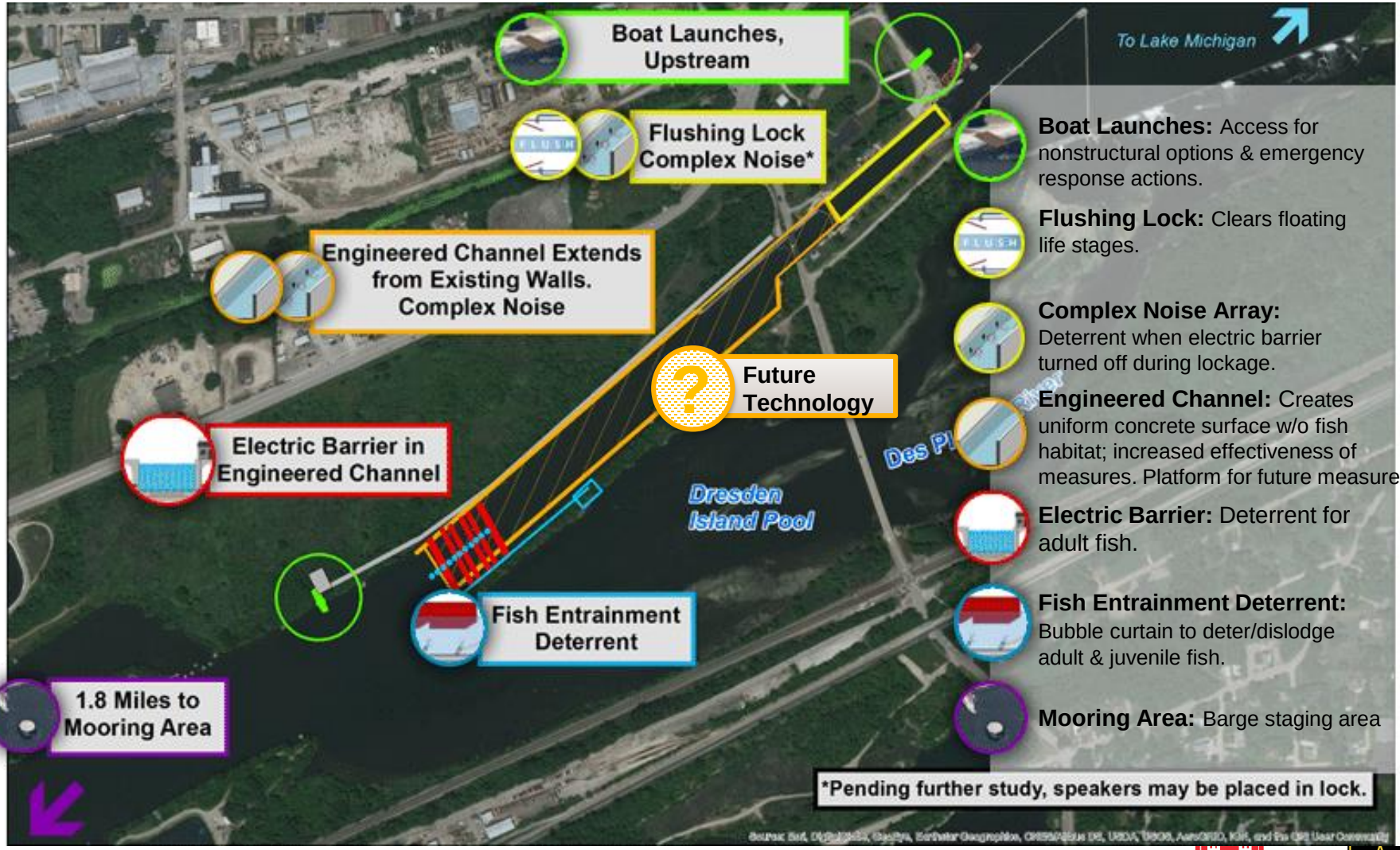
- Implementation of a project requires, under section 221 of the Flood Control Act of 1970, as amended, a non-federal sponsor with authority and capability to provide the items of local cooperation for the project.

- The state of Illinois has provided a letter of intent to serve as the non-federal sponsor working in partnership with the GL states, and other stakeholders.

- A regional partnership is crucial to achieving an implementable and sustainable project.

- Rock Island District has held discussions with HQ regarding the path forward to complete the study. A final recommendation and schedule for completing a Chief's Report is pending further discussion with the non-federal sponsor.

BRANDON ROAD STUDY TENTATIVELY SELECTED PLAN (TSP)



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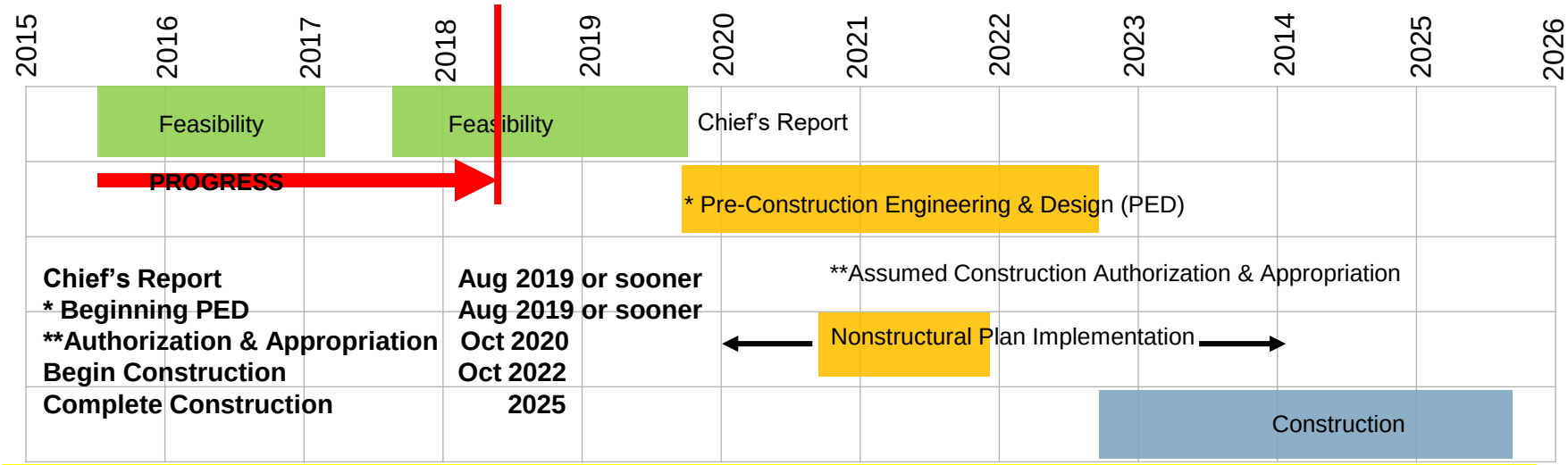
PUBLIC COMMENTS OVERVIEW

Source of All Comments	
Campaign	9,200+
Web Submitted	1890
Public Meetings	75

Three major campaign letters – 9,200+ supported TSP and/or Ultimate Separation

Web Submitted Only Breakdown	Comment Count	Percentage
Supports TSP	958	50.7%
Concerned with impacts to the environment	563	29.8%
Concerns with Great Lake States' economies	406	21.5%
Supports NS only	239	13.1%
Concerned with economic Impacts to Navigation and Transportation industry	241	12.8%
Supports Ultimate Basin Separation and or Closing Lock	197	10.4%
Safety concerns with Electric Barrier	168	8.9%
General engineering concern/comment	108	5.7%
Other comments	106	5.6%
Tax payers consider this too costly and/or Federal gov't should pay	75	4.0%
Research and Development	71	3.8%
Legal or Real Estate issue	46	2.4%
Non-Federal Sponsor issue/comment	39	2.1%
Alternative structural measure proposed (e.g. expanding/additional locks)	31	1.6%
Schedule concerns	30	1.6%
Safety concerns with Flushing lock	17	0.9%
Safety concerns with Noise	17	0.9%
Other Safety concerns	5	0.0%

PROJECT SCHEDULE



***** PED is able to begin after submittal of Chief's Report to ASA(CW) and Design Agreement is signed pending funding

Key Schedule Drivers

- Completion of Chief's Report
  - Non-federal sponsor
  - Internal & external reviews
- Non-federal sponsor/cost share agreements (DA/PPA)
- Availability of PED funds in FY19/20
- Complex innovative designs increase PED duration
- Construction authorization & appropriation
- Maintaining navigation during construction extends duration

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GLMRIS-BRANDON ROAD

CHANGES IN BRANDON ROAD LOCK OPERATIONS DUE TO TENTATIVELY SELECTED PLAN (TSP)

Estimated TSP Navigation Impacts Due to

- TSP construction activities
- TSP's operation, maintenance and repair, rehabilitation and replacement

TSP Construction Activities

- **Align** Illinois Waterway (IWW) Maintenance Closures With TSP Construction
- **Reduces** annual navigation impacts from $26.2M/yr to $4.8 M/yr
- **Why?** Business closures & associated traffic reductions no longer attributed to TSP construction closures but instead planned IWW maintenance closures.

TSP's operation, maintenance and repair, rehabilitation and replacement

- Changes to standard BR Lock operations due to TSP are attributed to the flushing lock.*
- Navigation would experience reduced efficiencies due to lock flushing (15 minutes) and the associated operational changes (increased transit time).

	Transit Time	=	**Processing Time** *Time for lockage process (approach, entry, chambering, exit & turnback times)*	+	**Delay Time** *Time between vessel arrival at lock & when lock is ready to begin processing vessel*
No New Federal Action	**2.10 hours**	=	1.09 hours	+	1.01 hours
TSP	**4.54 hours**	=	1.27 hours	+	3.27 hours
Time Increases due to TSP (TSP – No New Federal Action)	**2.44 hours**	=	0.18 hours	+	2.26 hours

**The following ANS controls are not expected to impact navigation during operation of TSP: nonstructural measures, engineered channel, fish entrainment mitigation, acoustic fish deterrents (complex noise) and electric barrier. The TSP electric barrier is assumed to not impact navigation. The electric barrier is assumed to be off when vessels approach the downstream approach channel and are within the approach channel and the lock.*

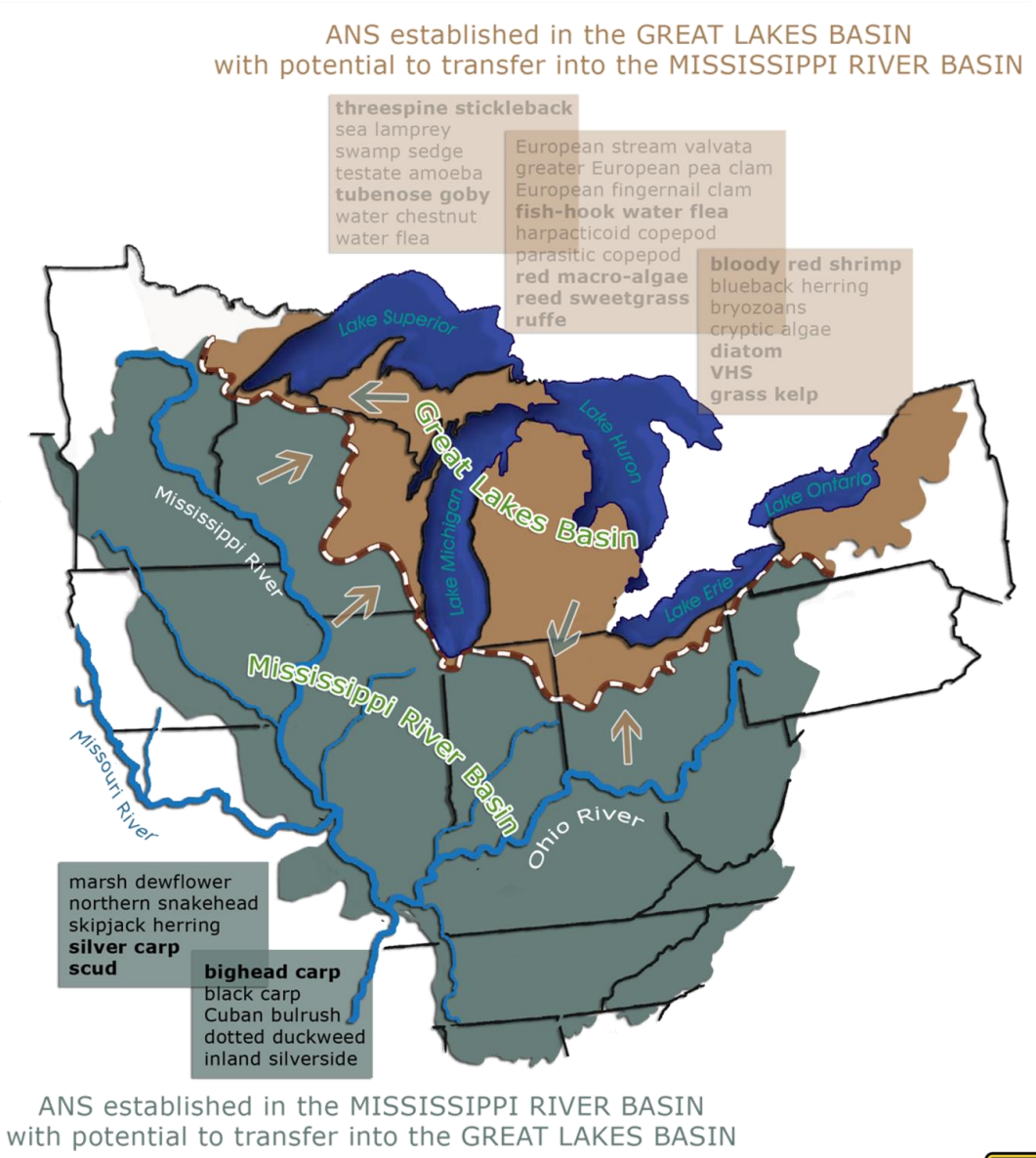
GLMRIS SPECIES

GREAT LAKES

Blueback herring
Threespine stickleback
Ruffe
Sea Lamprey
Tubenose goby
Grass kelp
Red algae
Diatom
Fishhook waterflea
Bloody red shrimp
Reed sweetgrass
Viral Hemorrhagic Septicemia Virus

MISSISSIPPI RIVER

Scud
Bighead Carp
Silver Carp



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AQUATIC INVASIVE SPECIES STRATEGY FUNDING

- The strategy is funded through USACE and EPA GLRI funding; USEPA supports critical needs at the barrier, GLMRIS & efficacy requirements with GLRI allocations

	FY16	FY17	FY18	FY19
GLMRIS Program	$300K	$300K	$300K	$50K
GLMRIS Research GLRI (EPA)	$99K	$1.62M	$1.54M	TBD
GLMRIS GLRI FA2	$273K	$1.525M	$240K	TBD
GLMRIS Brandon Rd	$700K	$2.3M	$1.55M	$150K
GLMRIS Brandon Rd GLRI	$500K	$0	$0	TBD
GLMRIS ATOS	$0	$0	$0	$0
Barrier CG	$30.162M*	$12M**	$0	$0
Barrier O&M	$0	$0**	$16.7M	$18.9M
Regular O&M	$11.3M	$10.8M	$16M	$17.2M
Efficacy	$0K	$500K	$0***	$500K
Monitor/Response	$700K	$700K	$700K	$700K
Barrier GLRI (EPA)	$0K	$4.8M	$981K	TBD

*Funded to completion amount is $266M (CG) thru FY17, includes funds to conduct O&M activities
**CG Funds ILO O&M Funding due to FY17 Appropriations: FY17 PRESBUD = $12M O&M, FY17 Approps = $12M CG
***Efficacy budget ($500K) not supported in the FY18 submission

Funding Notes

- GLMRIS and GLMRIS BR underfunded in FY19 PRESBUD; will require FY19 Work Plan to meet objectives
- GLMRIS ATOS capacity was $400K in FY19 but was not supported
- GLRI funds are sole source of GLMRIS research efforts; GLRMIS BR not funded for R&D

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QUESTIONS?

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