SUMR Waterway Action Plan (WAP)- 2020 Update Executive Summary

Overview

- 2019 flood lessons learned/best practices incorporated
- Continued improvement to format/readability
- Revisions discussed at length with USACE Districts, other WR CG units, and industry groups (RIAC, IRCA, MRAC, as appropriate) *See timeline for details
- Incorporated use of AIS-ATON
- Added cautionary language for areas where Rail/Barge collision risk exists due to track in proximity of river bank
- Identified industry groups as primary entity for queue management

UMR Key Changes

- Merged SUMR and SOHV UMR WAPs into a single document (covers UMR 0.0 to 857.6)
- 20% HP allowance for Z-drive vessels; coordinated along entire length of main stem Mississippi
- Better defined of St. Louis Harbor and delineated flexibility to the closure threshold based on successful practices in 2018/2019
- Incorporated closure thresholds for specific reaches to protect levees as were determined during the 2019 Spring flood
- Included best practices for notifying rec boaters, local EOCs, etc. about closures

ILR Key Changes

- Incorporated closure thresholds for specific reaches to protect levees as were determined during the 2019 Spring flood
- Included best practices for notifying rec boaters, local EOCs, etc. about closures

MOR Key Changes

- Changes pending USACE, USCG, and MRAC discussions during the MOR Navigators Meeting on Feb 26, 2020

UMR Waterway Action Plan (WAP)- 2020 Update

2020 Revision Overview

- 2019 flood lessons learned/best practices incorporated
- Merged SUMR and SOHV UMR WAPs into single document
- Continued improvement to format/readability
- Revisions discussed during Nov IRCA Meeting and RIAC Conf Call

2019 Major Change Recap

- Consolidated repetitive high water phase information into a single table upfront (applies to all zones high water table)
- 10% HP allowance for Z-drive vessels downbound
- Defined "loaded barge" as up to 2,000 tons cargo (applies to STL Harbor only)
- Defined Zone 3 reference gauge in attempt to reduce time spent in elevated phases (significantly more than surrounding zones; false alerts); proved unsuccessful

Industry Recommended Changes

- ✓ Consolidate all UMR into single document
- ✓ 20% HP allowance for Z-drive vessels downbound (coincides with other main stem HP WAP requirements
- ✓ Better define "St. Louis Harbor" to ensure those specific requirements are only applied in that 5-mile reach
- ≈ Raise 38' recommended closure point for STL Harbor to coincide with current closure point of Lock 27 *see next slide for details on change
- ✓ Identify pooled zones as "Pool #" vice "Zone #" for easier understanding of waterway users
- ✓ Base Zone 3 on St. Paul gauge (same as zone 2); this is the reference more commonly used by mariners and will reduce "false alerts"

CG Recommended Changes

- ✓ Table of contents for easier reference
- ✓ Add drawbridges with determined high water closure points (those that closed during 2019 floods)
- ✓ Include use of AIS-Buoys/Geographic Notices for closures and emergent shoaling during recovery phase
- ✓ Specify against pushing in during high water at areas where RR track is in close proximity to rivers edge; identify specific areas within the high water tables
- ✓ Identify entities for MSIB distribution to reach rec boaters
- ✓ Specify RIAC to be entity managing queues
- ✓ Incorporate river closure point (45'+ on STL gauge) from MacArthur Bridge to Chester for levee protection; defined during 2019 high water in MSIB 07-19
- ✓ Divide Zone 28 into 2 zones: Zone 28 (Port of St. Louis) from Lock 27 to Meramec River; Zone 29 from Meramec River to Chester; these areas have distinctly different features
- ✓ Move L&D Info Table, Quick Reference Action Sheet, ATON Prioritization List, Fleet Area Guidelines from center of document to Appendices
- ✓ Add BNM samples to Appendices

USACE Recommended Changes

- ✓ Better define reference gauge (for L&Ds whether headwater or tailwater) with gauge code included
- ✓ Corrections to STP District reference data for improved accuracy

UMR Waterway Action Plan (WAP)- 2020 Update

St. Louis Harbor Closure Language Change

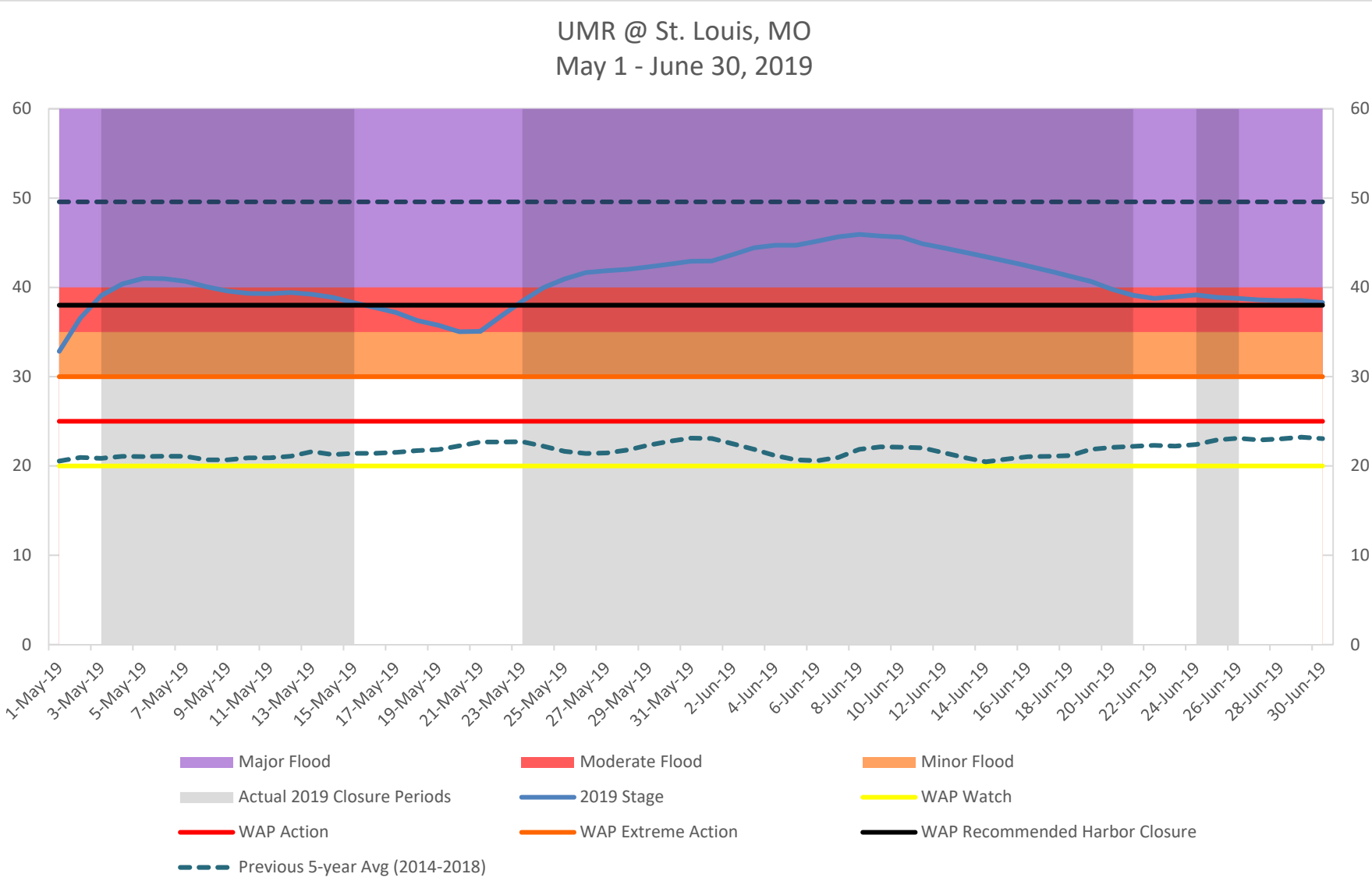
From: “Consider closure until St. Louis gauge drops below 38’ or conditions warrant reopening river.”

To: “Consider closure of St. Louis Harbor (between MacArthur Bridge and Chain of Rocks Canal, MM 179.0 – 184.0) at 38.0’. Continue to allow monitoring of fleets and shifting of barges as needed to maintain port safety. A closure point other than 38.0’ may be considered if prevailing navigation conditions, rise/fall rates of the river, forecast crest height, and status of Lock 27 allow for continued safe navigation through the St. Louis Harbor.“

Supporting Information

- Industry Argument: 38.0’ was initially chosen as the closure point as it coincided with Lock 27 high water closure point. Now that Lock 27 has new flood bulkheads that allow quicker installation, it can stay open longer
    - There have been minimal incidents when traffic is allowed to continue through the harbor above 38.0’
- This is true in part, but is also pertinent to mitigating challenges of navigation approach to 7 bridges in succession and lower air clearance of Eads Bridge
- From USACE STL, it is difficult to correlate Lock 27 closure with the STL gauge due to the hydrology of the Canal. Closure is determined on a case by case basis. Bulkheads much be in place to keep the chain rooms dry by pool elevation 427.3; this is a 8-12 hour evolution with the newer bulkheads.
- During 2018 Fall and 2019 Spring flooding, several occasions where STL gauge exceeded 38.0’ up as high as 38.5’, Lock 27 was able to remain open, and traffic was allowed to continue without incident
- During 2019 Spring closures, both reopened to northbound traffic at 39.0’ without incident
    - See next slide for graphical representation of 2019 Spring closure periods compared against river level
- USACE and SUMR must, at a minimum, coordinate Harbor and Lock 27 closures to avoid buildup of traffic in the narrow canal.
- USCG, USACE, and RIAC must exercise provisions of the WAP through open discussion on the prevailing conditions to determine the need for a closure vs. need to keep commerce moving.

Mississippi River Gauge Data



*Gauge data courtesy of USACE; flood thresholds retrieved from www.water.weather.gov

ILR Waterway Action Plan (WAP)- 2020 Update

2020 Revision Overview

- 2019 flood lessons learned/best practices incorporated
- Continued improvement to format/readability
- Revisions discussed during Nov IRCA Meeting

2019 Major Change Recap

- Consolidated repetitive high water phase information into a single table upfront (applies to all zones high water table)

Industry Recommended Changes

- ✓ Include test tow provision during identified closure/no wake periods or to determine reopening point on case-by-case basis
- ✓ Include provision for vessels caught within closure to exit the zone
  - ✓ Included issuance of advisory (BNM or MSIB) on impending closure points in "applies to all" table
  - ✓ Included advanced planning for closure potential advisory in Watch phase of impacted zones
  - ✓ Included language to consider allowing vessels to exit or operate within the zone on a case-by-case basis

CG Recommended Changes

- ✓ Table of contents for easier reference
- ✓ Include use of AIS-Buoys/Geographic Notices for closures and emergent shoaling during recovery phase
- ✓ Specify against pushing in during high water at areas where RR track is in close proximity to rivers edge; identify specific areas within the high water tables
- ✓ Identify entities for MSIB distribution to reach rec boaters
- ✓ Specify IRCA to be entity managing queues
- ✓ Add "Applies to all Tables" section from UMR WAP to make general guidance consistent throughout the Annexes
- ✓ Incorporate river closure points for Peoria, Havana, Beardstown, Meredosia, and Hardin zones for levee protection; defined during 2019 high water in MSIB 05-19
- ✓ Move ATON Prioritization List, Quick Reference Action Sheet, and Fleet Area Guidelines from center of document to Appendices
- ✓ Add BNM samples to Appendices

USACE Recommended Changes

- None

MOR Waterway Action Plan (WAP)- 2020 Update

2020 Revision Overview

- 2019 flood lessons learned/best practices incorporated
- Continued improvement to format/readability
- To be discussed during MOR Navigators Meeting last week of February (as specified in the WAP)

2019 Major Change Recap

- Consolidated repetitive high water phase information into a single table upfront (applies to all zones high water table)

Industry Recommended Changes

- TBD

CG Recommended Changes

- Table of contents for easier reference
- Include use of AIS-Buoys/Geographic Notices for closures and emergent shoaling during recovery phase
- Identify entities for MSIB distribution to reach rec boaters
- Specify MRAC to be entity managing queues
- Add “Applies to all Tables” section from UMR WAP to make general guidance consistent throughout the Annexes
- Move ATON Prioritization List, Quick Reference Action Sheet, and Fleet Area Guidelines from center of document to Appendices
- Add BNM samples to Appendices

USACE Recommended Changes

- TBD