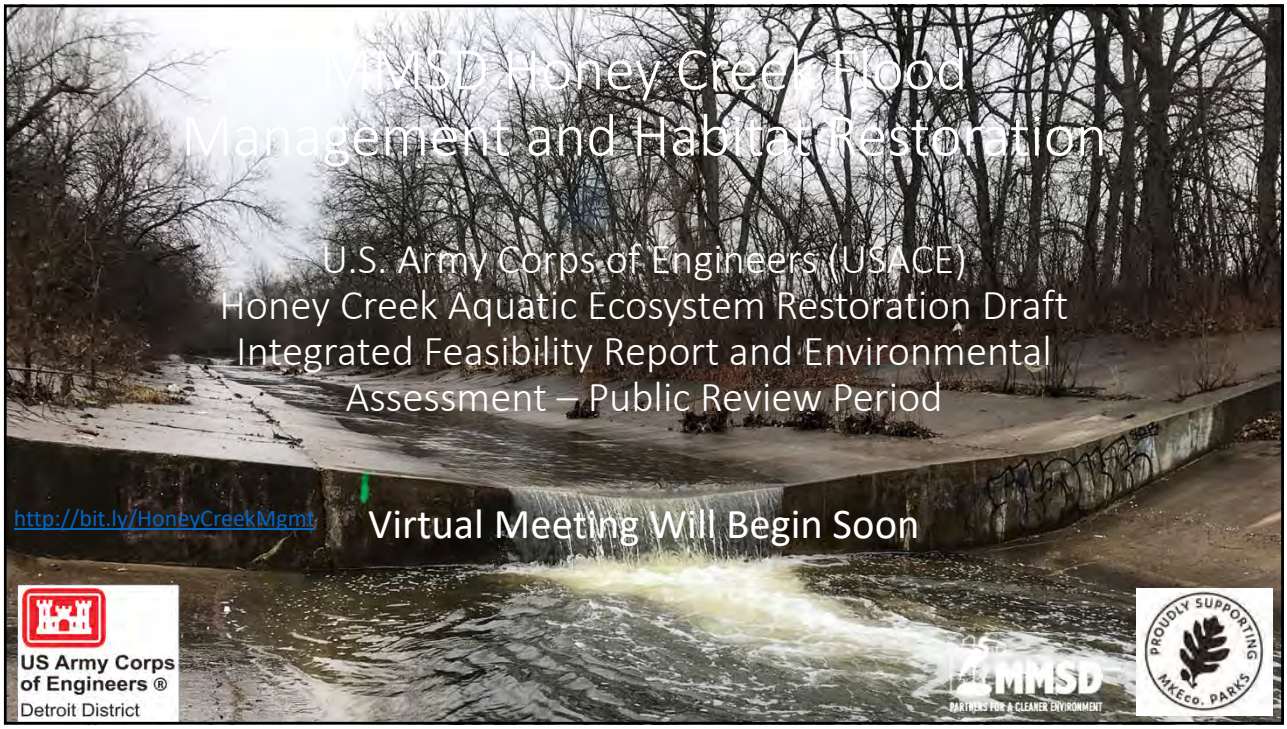
MMSD Honey Creek Flood Management and Habitat Restoration
U.S. Army Corps of Engineers (USACE)
Honey Creek Aquatic Ecosystem Restoration Draft Integrated Feasibility Report and Environmental Assessment – Public Review Period
http://bit.ly/HoneyCreekMgmt
Virtual Meeting Will Begin Soon
US Army Corps of Engineers ®
Detroit District
MMSD
PARTNERS FOR A CLEANER ENVIRONMENT
PROUDLY SUPPORTING MKEco. PARKS

1


USACE Honey Creek Aquatic Ecosystem Restoration Draft Report Public Review Period – Meeting Agenda
• Meeting Housekeeping – Mark Mittag/MMSD
• Project Team Introductions
• Honey Creek Aquatic Ecosystem Restoration Draft Report Presentation
• Mark Mittag/MMSD Project Manager
• Guy Smith/Milwaukee County Parks Director
• Mike Allis/USACE Project Manager
• Q&A – Project Team
US Army Corps of Engineers ®
Detroit District
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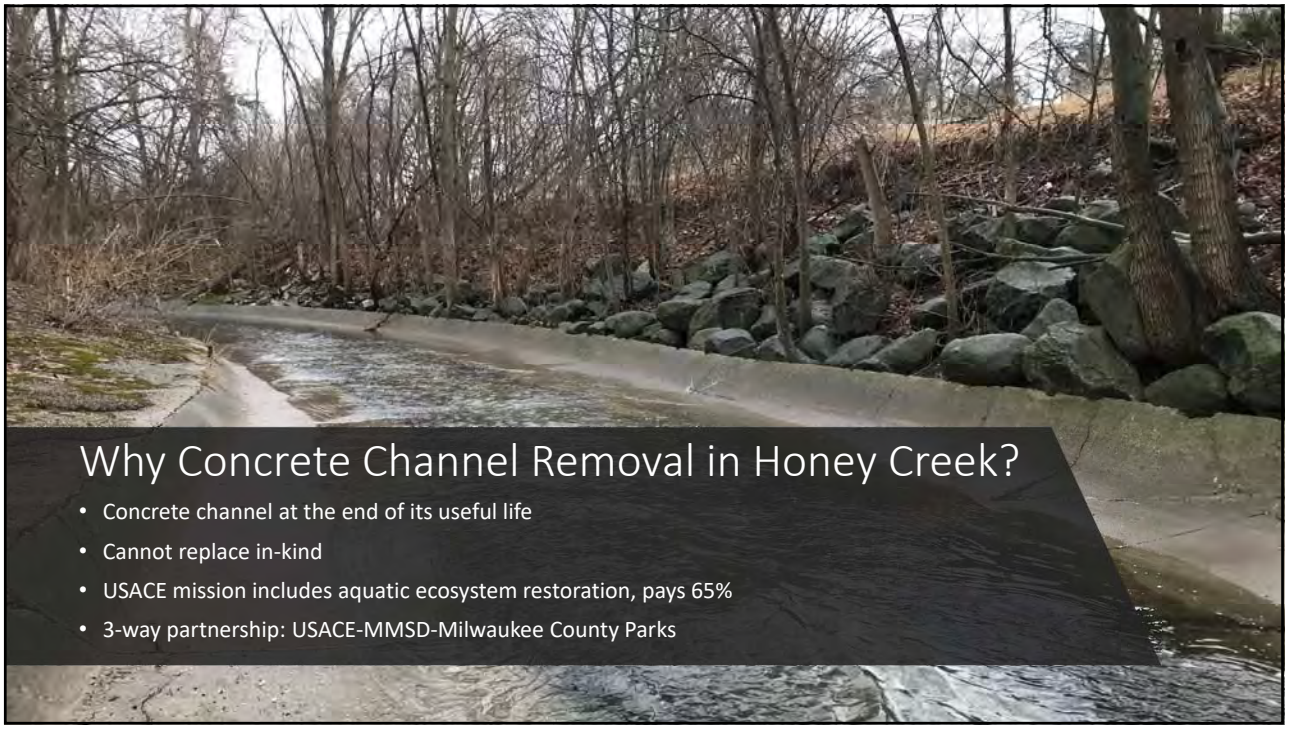
2

Housekeeping – IT Tips: Mute, Chat; Q&A at End

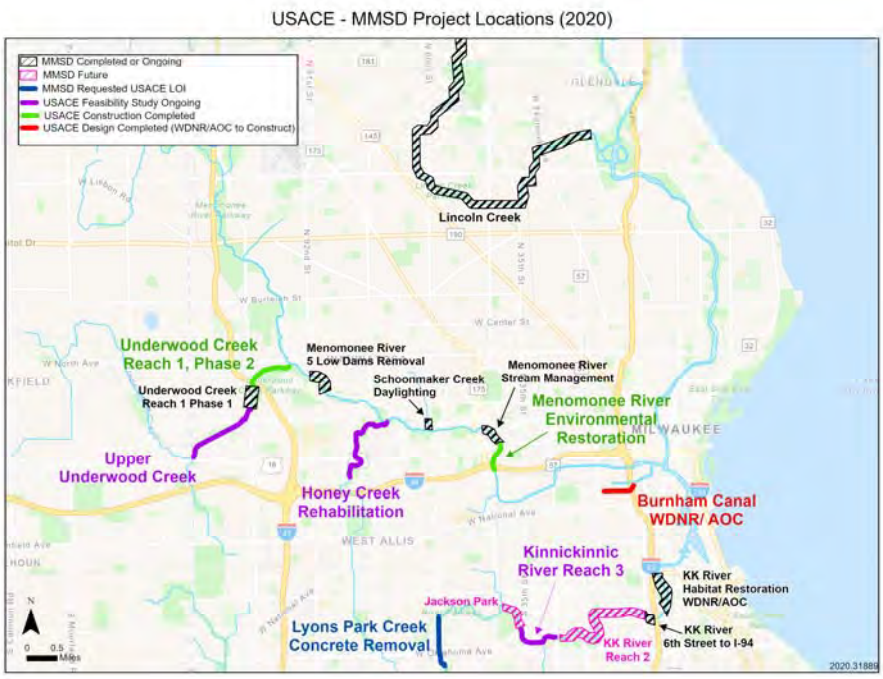
3

4



5

Flood Management Project on Honey Creek - Extension of USACE/ MMSD/County Parks Partnership on Concrete Channel Naturalization

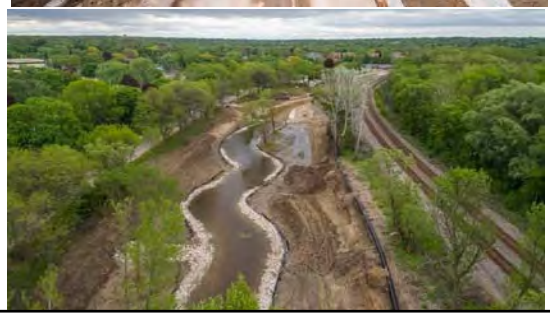


6

Guy Smith/Parks Director: County Parks/MMSD Project Partnerships

Pulaski Park

Underwood Creek



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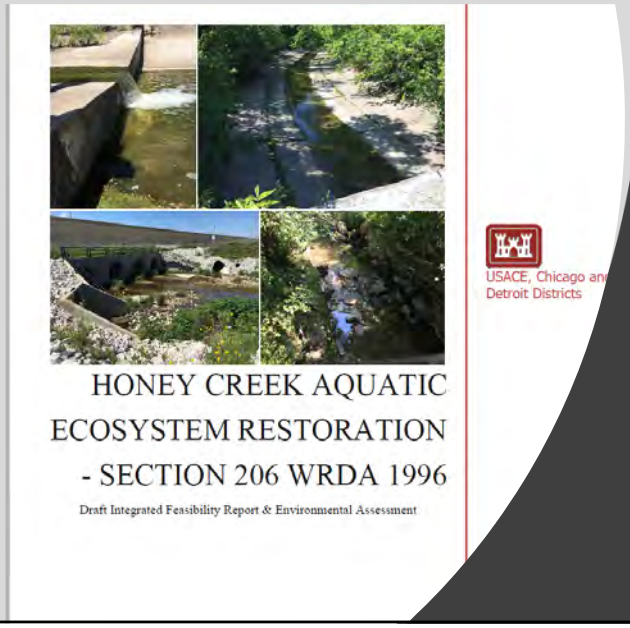

Where do I Find the Honey Creek Draft Integrated Feasibility Report and Environmental Assessment?

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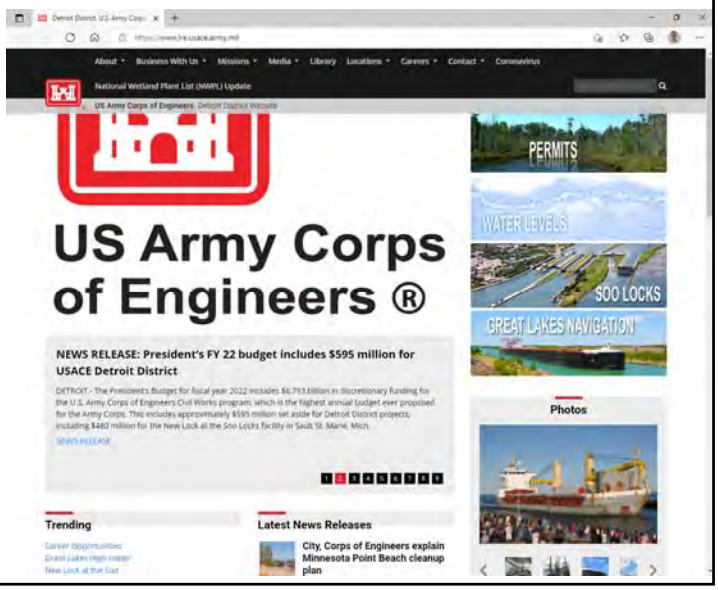
USACE Public Review Website

U.S. Army Corps of Engineers Website

- Scroll down lower left to find Honey Creek under “Other Public Notices”
- Review the Feasibility Study and Environmental Assessment
- Leave comments and feedback
- Or email comments to: HoneyCreek@usace.army.mil
- Direct link to public notice: Honey Creek Ecosystem Restoration Project Draft Integrated Feasiblity Study and Environmental Assessment > Detroit District > Other Public Notices (army.mil)



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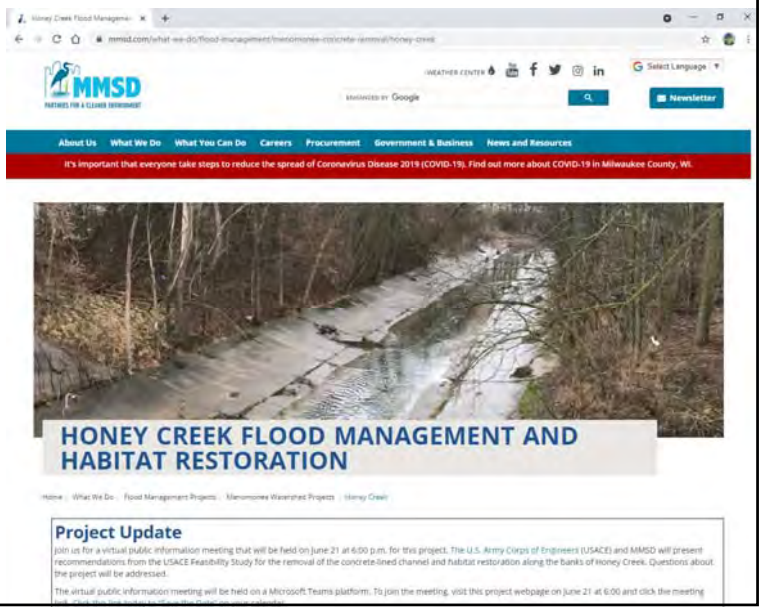
MMSD Project Website

MMSD Honey Creek Project Webpage

- Link to USACE website
- Project information and updates
- Signup for e-mail updates and other ways to stay involved
- Leave comments



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Honey Creek Project Location Overview

HONEY CREEK AQUATIC ECOSYSTEM RESTORATION - SECTION 206 WRDA 1996

Draft Integrated Feasibility Report & Environmental Assessment

USACE, Chicago and Detroit Districts

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Honey Creek Project Area

- North of I-94 to Menomonee River in Hart Park
- On Milwaukee County Parks Land
- In Wauwatosa, and
- In Milwaukee

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Pre-Project Conditions (2021)

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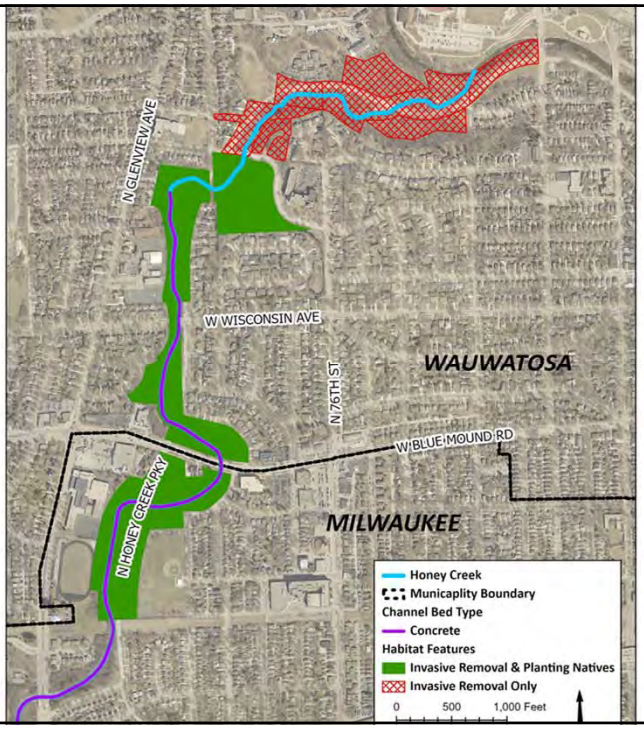
Recommended Alternative - Habitat Restoration Areas



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Honey Creek Aquatic Ecosystem Restoration

(CAP 206)

VIRTUAL PUBLIC MEETING

21 June 2021

Detroit & Chicago districts

US Army Corps of Engineers ®
Detroit District

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Restoration Opportunities

- Remove impediments to aquatic species movement
  - Concrete “steps” prevent upstream movement of aquatic species
- Restore instream habitat for aquatic species
  - Remove concrete lined channel
  - Restore diverse instream habitat such as riffles, pools, random boulders, root wads, etc.
  - Restore diverse native submergent and emergent aquatic macrophytes
- Restore diverse native riparian plant community
  - Eliminate/reduce non-native and invasive species
  - Re-establish native riparian plant species

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Measures

- **Six measures (including No Action)**

Stream Channel (SCa and SCb)

- SCa – concrete removal, cobble/crushed aggregate substrate layer, riffles, x-vein/j-hooks, and woody debris
- SCb – concrete removal, sand/gravel/cobble substrate layer, riffles, x-vein/j-hooks, and woody debris

- MM – restore 1.1 ac transitional meadow and 1.1 ac persistent marsh

Transitional Meadow/ Persistent Marsh (MM)

Riparian Woodland (RWa, RWb, and RWc)

- RWa – 19.5 ac invasive species removal, 15.5 ac native woodland plantings/seed mix
- RWb – 39.1 ac invasive species removal, 25.9 ac native woodland plantings/seed mix
- RWc – 46.0 ac invasive species removal, 18.2 ac native woodland plantings/seed mix

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Physical and Biological Measures Evaluated

- Remove concrete lined channel
- Place mixture of natural substrates
- Add in-stream structure
  - Riffles (8)
  - Woody revetments (3)
  - X vane J-Hook (7)
- Contouring of channel banks
  - Addition of wetland areas
- Invasive and non-native plant species removal
- Planting of native plant species

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Tentatively Selected Plan

Alternative 8

- Restore 8.2 acres (1.6 miles) stream channel (j-hooks, woody debris, substrate mixture)
- Restore 46.0 acres of riparian woodland
- Restore combined 2.2 acres transitional meadow / persistent marsh

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Stream Restoration Examples

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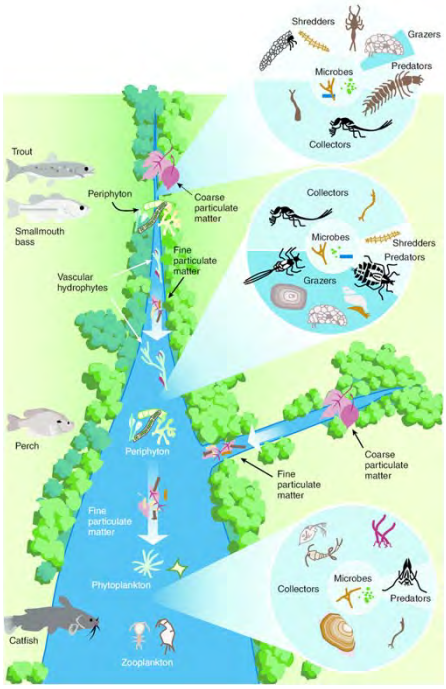
Watershed Benefits

Headwater streams influence downstream waters

- Habitat for aquatic species and other wildlife
- Provides nourishment to downstream reaches
  Benefits to Menomonee River, Milwaukee River, and Lake Michigan
- Reduces excessive sediment delivery to larger streams
- Reduces amount of excessive nutrients reaching larger streams
- Reduces amount of pollutants (e.g., herbicides, etc.)
- Control the flow of water to larger streams



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Wildlife Benefits

- Bird Species
- Mississippi Flyway
  - Lake Michigan Flyway
- Foraging, nesting, and resting habitat
- Migratory Bird Treaty Act (MBTA)
  - Bank Swallow
  - Belted Kingfisher
  - Common Merganser
  - Great Blue Heron
  - Mallard
  - Red-breasted Merganser
  - Wood Duck

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Fish Benefits

Western Blacknose Dace

Central Stoneroller
- Sand and gravel substrates
- Riffles
- Nests- excavate pits in gravel substrates

Central Mudminnow
- Burrow into sediments to survive low water
- Spawn in well-vegetated areas

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Riparian Benefits

- Forage for migratory birds and native wildlife
- Habitat for pollinators
- Aesthetically pleasing
- Nutrient uptake
- Erosion control

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Monitoring Plan

Monitoring 3 Components:

- Structural Sustainability
- Biological Response
- Planning Goal & Objectives

Structural Sustainability

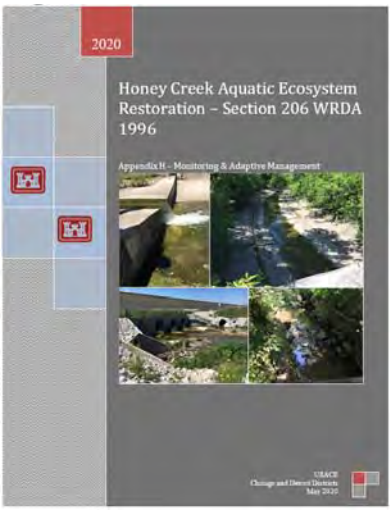
- Qualitative assessment of whether each feature is retaining its physical character and project purpose

Biological Response

- Determine responsiveness of the biological community to the restoration features

Planning Goal & Objectives

- Ensure project is meeting restoration goal and objectives
- Monitoring to occur over 5 years



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Fall 2019 Arch Survey

- Ensured complete coverage
- Assess WPA Wall

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Section 106 Determination of Effect (Oct 2020)

- Measures:
  - Digitally photograph
  - Place security fencing during construction
  - Develop a monitored removal plan when invasive trees/plants are adjacent to the walls
  - Create and submit bi-monthly monitoring reports to the WI SHPO

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Back to Mark Mittag/MMSD for Project FAQs

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FAQs

How is the project being funded?

- USACE authorized project cost of $15M
- USACE pays 65%
- MMSD local sponsor pays 35%
- Milwaukee County Parks
  - Landowner
  - Partner in providing access and long-term land stewardship

What is the basis for the beginning and end of the project?

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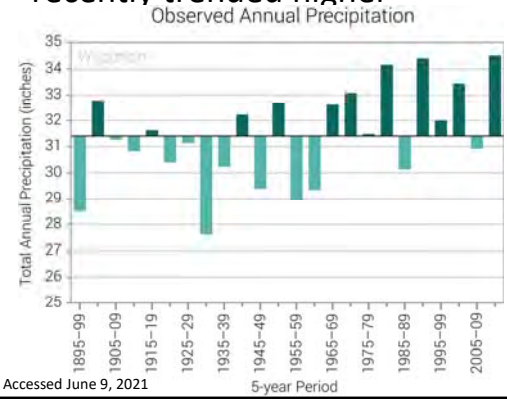
FAQs

Will creek flood levels increase? How will the floodplain change?

- For the concrete channel portion, the channel will be widened, and floodplain lowered
- Regulatory flood elevations will be reviewed during detailed design
- Feasibility study shows regulatory flood levels generally decreased with minor increases contained on County Parks property

Will the project change the groundwater level?

- Will be considered during the design phase; significant change not expected
- Annual precipitation totals have recently trended higher



Source: https://statesummaries.ncics.org/chapter/wi/, Accessed June 9, 2021

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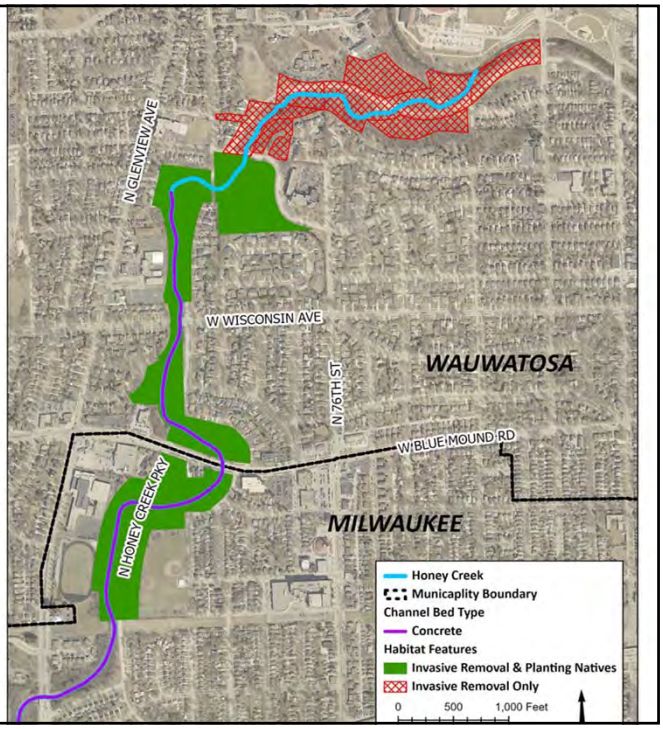
Where will trees be removed?

- County Parks Natural Areas and Forestry staff coordination to minimize and mitigate impacts
- Native tree species preserved where possible
- Tree removal to access and widen the channel and remove invasive species
- Restoration with native trees, shrubs, and plants
- County Parks Tree Fund contribution where required for unavoidable impacts

FAQs



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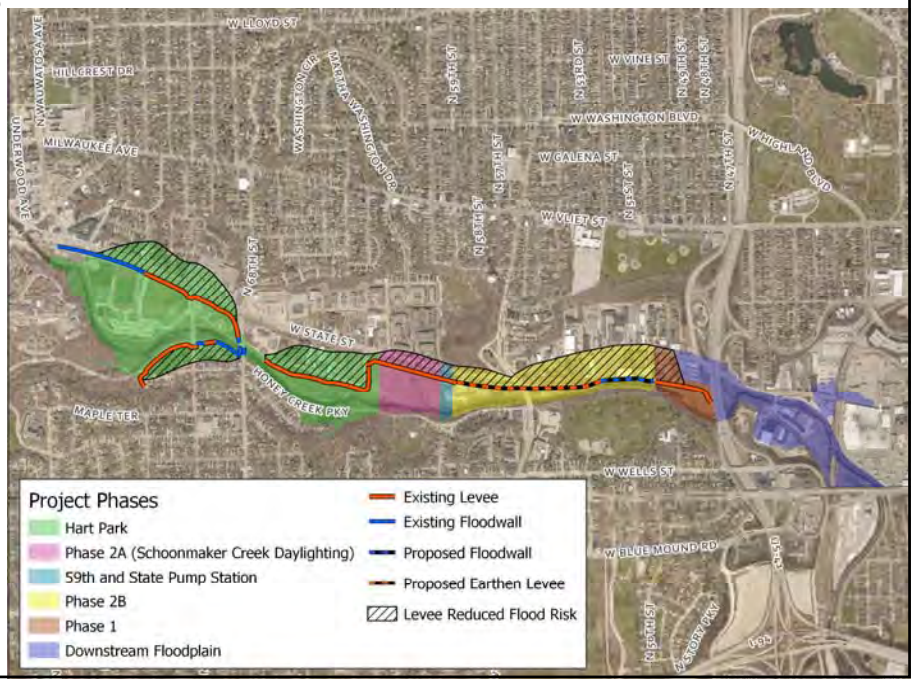
Does this project address Menomonee River floodplain map updates for the Hart Park and Western Milwaukee levee projects?

- No, but other efforts are underway working towards a Menomonee River floodplain map update from levee projects
- Contact City of Wauwatosa or City of Milwaukee for specific floodplain map change questions
- MMSD will be creating a webpage for levee project and floodplain map info updates
- Please register for e-updates on this issue

FAQs



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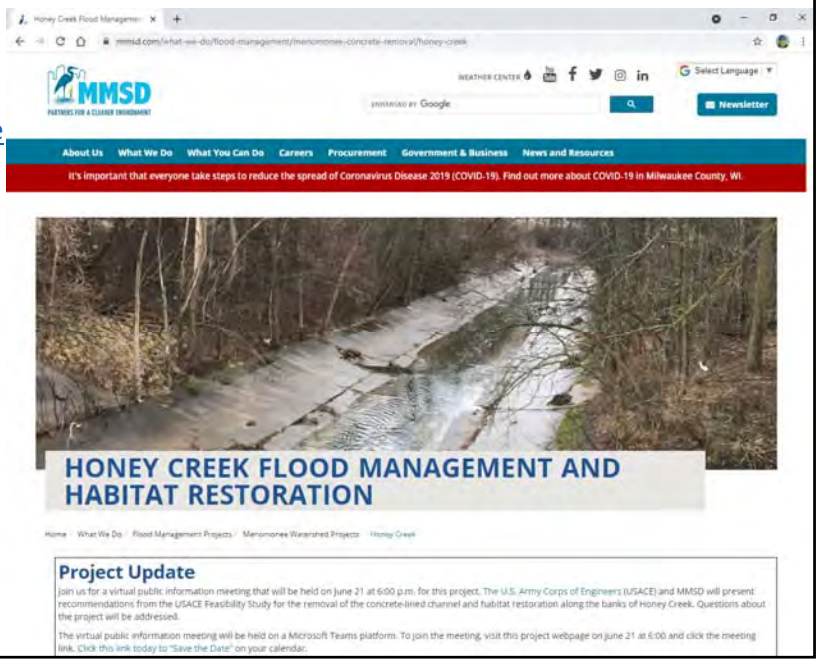
How can I stay informed on the Honey Creek project and what will the public review process be?

[MMSD Honey Creek Project Webpage]

- Project updates
- Project schedule
  - Design: late 2021-2023
  - Construction: 2023-2024
- Signup for e-mail updates and other ways to stay involved
- Leave comments



FAQs

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Q&A

- Discuss Questions
- Provide Comments to USACE email HoneyCreek@usace.army.mil by *June 28, 2021*
- Future Design/Construction Phase Communications
  - Future public review advertised via social media and on project website
  - Register for e-updates and stay up to date at MMSD's Honey Creek website: http://bit.ly/HoneyCreekMgmt

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Project Contact Information

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