October 19, 2017 Agenda

1. Call To Order and Introductions
2. Approval of Agenda
3. Study Recap and Meeting Purpose (5 minutes)
4. Regional Study Update (20 minutes)
5. Downtown Study Update (50 minutes)
6. Other Announcements or Non-Action Items
7. Next Meeting Date – November, TBD
8. Adjournment
Greater Des Moines Water Trails and Engineering Study Recommendations

STUDY RECAP AND MEETING PURPOSE
• Greater Des Moines Water Trails and Greenways Master Plan
• Fund-raised $500,000 for Phase I implementation
• Conduct Water Trails Engineering Study (2017-2018)
Thank you to the funders

• Leadership Circle of the Greater Des Moines Community Foundation – $205,000
• Area jurisdictions – $196,000
  – Includes: Altoona, Ankeny, Bondurant, Carlisle, Clive, Des Moines, Grimes, Johnston, Mitchellville, Norwalk, Pleasant Hill, Urbandale, Waukee, West Des Moines, Windsor Heights, Polk County, Van Meter, and Warren County
• Greater Des Moines Convention and Visitors Bureau – $30,000
• Greater Des Moines Partnership – $30,000
• Polk County Conservation – $30,000
• Des Moines Area Association of REALTORS – $16,500
Water Trails Engineering Study

Regional Projects

Downtown Dams
Goals Common to Both

• Activate region’s waterways
• Reduce safety hazards
• Improve fishing and fish habitat
• Provide access for anglers, boaters, swimmers, etc.
• Identify opportunities to increase wildlife
• Identify opportunities to improve water quality
• Engage stakeholders along the way
Regional Study Scope

• Field visits to sites
• Refinement of amenity options
• Discussions with city reps
• Deliverables
  – Cost estimates
  – Project renderings
  – Implementation schedule
  – Permits required

The purpose of this study is to assess the ability to implement the various amenities identified in the plan to provide cities and residents a better understanding of what is feasible, how much it will cost, and what it could look like.
The purpose of this study is to assess the feasibility of dam mitigation at Center Street, Scott Avenue, and Fleur Drive and create a vision for the entire study area based on input from City residents and stakeholders.
Downtown Study Scope & Schedule

Today’s Objective:
- Review findings for the 3 conceptual alternatives at the dams
- Collect comments and feedback on recreational opportunities at each dam

November Steering Committee Meeting:
- Review costs ranges of the viable alternatives at each dam
- Present vision for the viable alternatives at each dam
- Vote on preferred alternative at each dam

January Steering Committee Meetings: Present Study
- Meeting #1 Present draft Study, collect comments and feedback
- Meeting #2 Present final Study
Downtown Considerations

• Water levels: low-flow pool need to match flash board water levels
• Consensus: dams should be mitigated
• Edge treatment: more habitat, less formal
• Channel treatment: full spectrum of experiences
• Historic nature of balustrades
• Below dams: fishing/birding important
Related > Water Quality

- Water trails support work of the Watershed Management Authorities in the metro
- Water trails build sense of environmental stewardship
- Water trails projects can include water-quality monitoring at sites across region
REGIONAL STUDY
DOWNTOWN STUDY
The purpose of this study is to assess the feasibility of dam mitigation at Center Street, Scott Avenue, and Fleur Drive and create a vision for the entire study area based on input from City residents and stakeholders.

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Center Street Dam: The High Energy Site

Fleur Dam: Learn and Play

Scott Avenue Dam: Recreation for All
The purpose of this study is to assess the feasibility of dam mitigation at Center Street, Scott Avenue, and Fleur Drive and create a vision for the entire study area based on input from City residents and stakeholders.

Today’s Objective:
- Review findings for the scenarios at each dam site
- Collect comments and feedback on moving-water opportunities at each dam

Next Steps:
- Steering Committee to review public feedback on alternatives for each dam
- Steering Committee to recommend an alternative for each dam
- Consultants to provide costs ranges of the preferred alternative at each dam
- Consultants finalize feasibility study in early 2018
Project Overview > Primary Objectives

- Activate the Des Moines River in Downtown
- Reduce existing safety hazards at dams
- Provide or improve fish passage around dams
- Create in-river recreation for all levels and abilities (upstream, through and/or around dams)
- Provide river access for anglers, boaters, swimmers, etc.
- Identify opportunities to enhance the existing biota for targeted species
- Identify opportunities to improve stream water quality
- Integrate stakeholder input
Project Overview > **General Criteria**

- Eliminate overly retentive hydraulic hazards at dams
- No adverse impact to regulatory floodplain
- Maintain required minimum existing pool levels upstream of Center Street and Fleur Dams
- No modifications to existing bridges and levees
Project Elements > Portage and Safety

- All alternatives provide dam safety elements
  - Stepped dams
  - Automated flashboards
  - Availability for flatwater recreation zones closer to the dam
- Portage will be available for any user to bypass the dam if/when needed
- Buoys and signage
Project Elements > Habitat Improvements

Fish Passage across the dams is included with all alternatives.

Other Improvements:
- Fishing Access
- Mussel Habitat
- Improved Aeration
- Deeper Pools*

*Items starred not available with all alternatives.
Project Elements > Impacts to Flatwater Recreation

- Center Street Dam improvements create an additional 8 – 10 acres of flatwater recreation area with opportunities for deeper pools.

- Scott Avenue Dam improvements create approximately 45 acres of additional flatwater recreation.

- Fleur Dam improvements opens up all of the Raccoon river within Des Moines’ city limits, approximately 8 miles, for flatwater recreation.
Related > **Water Quality**

- Water trails support work of the Watershed Management Authorities in the metro
- Water trails build sense of environmental stewardship
- Water trails projects can include water-quality monitoring at sites across region
- Current conditions
HDR has modeled 15 different configurations at Center, Scott, and Fleur dams, each with 4 flood scenarios for a total of **180 hydraulic profiles**.

- All alternatives can meet the “no-rise” regulatory flood levels requirement.
- Hydraulic results have determined the range of recreational opportunities available at each site (to be discussed later today).
Project Elements > Flashboards

- Needed to provide capacity for flood conveyance
- Maintains upstream pool elevation
- Required at **Center Street Dam** and **Fleur Dam**
Project Elements > **Recreational Reliability**

Average Days per Month (May – September) with a Recreational Feature:

- Center Street Dam: 30 days / month
- Scott Ave. Dam: 18 days / month
- Fleur Dam: 14 days / month

Great flows available in recreational months

Wide range of recreational opportunities at the 3 dams

- Scenario A – Local draw
- Scenario B – Local/Regional draw
- Scenario C – Regional/National draw
- Scenario D – National/International draw
DAM ALTERNATIVES RECREATION AND LOCATIONS POSSIBLE

DAM ALTERNATIVE A  DAM ALTERNATIVE B  DAM ALTERNATIVE C  DAM ALTERNATIVE D

SCOTT STREET

FLEUR DRIVE

CENTER STREET
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<tr>
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**SCOTT STREET**
Project Scenarios

SCOTT STREET ALTERNATIVE A - LOCAL INTEREST

- WARNING BUOYS
- JETTY/FISHING ACCESS
- PORTAGE SHOES
- PORTAGE PATH/FISHING ACCESS
- RECREATION PASSAGE
- FISH PASSAGE
- DROWN HAZARD REDUCTION

Downtown Des Moines Water Trails Engineering Study
Project Scenarios
Project Scenarios

Downtown Des Moines Water Trails Engineering Study

SCOTT STREET ALTERNATIVE C - REGIONAL INTEREST

- Portage Signs
- Portage Path/Fishing Access
- Islands (visible at low water/fishing access)
- Alternate Fish Passage Location
- Recreation Passage
- Fish Passage
DAM ALTERNATIVES RECREATION AND LOCATIONS POSSIBLE
Project Scenarios

Downtown Des Moines Water Trails Engineering Study
Project Scenarios

FLEUR DRIVE ALTERNATIVE B - LOCAL TO REGIONAL INTEREST

- WARNING BUOYS
- ISLANDS/FISHING ACCESS
- PORTAGE PATH/FISHING ACCESS
- RECREATION PASSAGE
- FISH PASSAGE
- DAM HAZARD REDUCTION

Downtown Des Moines Water Trails Engineering Study
Project Scenarios
DAM ALTERNATIVES RECREATION AND LOCATIONS POSSIBLE

DAM ALTERNATIVE A  DAM ALTERNATIVE B  DAM ALTERNATIVE C  DAM ALTERNATIVE D

CENTER STREET
Downtown Des Moines Water Trails Engineering Study

Project Scenarios

CENTER STREET ALTERNATIVE B - LOCAL TO REGIONAL INTEREST

- WARNING BLOYS
- ISLANDS/FISHING ACCESS
- PORTAGE SIGNS
- PORTAGE PATH/FISHING ACCESS
- RECREATION PASSAGE
- FISH PASSAGE
- CREST GATES (FLASHBOARDS)
- DAM HAZARD REDUCTION
Project Scenarios

CENTER STREET ALTERNATIVE C - REGIONAL INTEREST

- WARNING BUOYS
- ISLANDS/FISHING ACCESS
- PORTAGE BOMBS
- PORTAGE PATH/FISHING ACCESS
- CHEST GATES (FLASHBOARDS)
- RECREATION PASSAGE
- FISH PASSAGE
- DAM HAZARD REDUCTION
DAM ALTERNATIVES RECREATION AND LOCATIONS POSSIBLE

DAM ALTERNATIVE A

DAM ALTERNATIVE B

DAM ALTERNATIVE C

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SCOTT STREET

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** recreational and locations possible**
We know what's possible. Let's talk.
DAMDEBATE to 22333

pollev.com/damdebate
DAM ALTERNATIVES RECREATION AND LOCATIONS POSSIBLE

DAM ALTERNATIVE A

DAM ALTERNATIVE B

DAM ALTERNATIVE C

DAM ALTERNATIVE D

SCOTT STREET

FLEUR DRIVE

CENTER STREET
DAM ALTERNATIVES RECREATION AND LOCATIONS POSSIBLE

DAM ALTERNATIVE A  DAM ALTERNATIVE B  DAM ALTERNATIVE C  DAM ALTERNATIVE D
For the Scott Street Dam: Which is your preferred Alternative?

When poll is active, respond at PollEv.com/damdebate
Text DAMDEBATE to 22333 once to join

- **ALTERNATIVE A**: Local Interest Ripple Waves
- **ALTERNATIVE B**: Regional Interest Moderate Waves
- **ALTERNATIVE C**: Regional to National Interest More Intense Waves

69%
DAM ALTERNATIVES RECREATION AND LOCATIONS POSSIBLE
For the Fleur Drive Dam: Which is your preferred alternative?

When poll is active, respond at PollEv.com/damdebate
Text DAMDEBATE to 22333 once to join

- ALTERNATIVE A: Local Interest, Ripple Waves
- ALTERNATIVE B: Regional Interest, Moderate Waves
- ALTERNATIVE C: Regional to National Interest, More Intense Waves
DAM ALTERNATIVES RECREATION AND LOCATIONS POSSIBLE

DAM ALTERNATIVE A  DAM ALTERNATIVE B  DAM ALTERNATIVE C  DAM ALTERNATIVE D
For the Center Street Dam: Which is your preferred alternative?

When poll is active, respond at PollEv.com/damdebate

Text DAMDEBATE to 22333 once to join
Other Announcements
The Statewide Honor of Five Awards in 2017:

Planning Agency, Transportation Planning, Planning Advocate, Urban Design, & Best Practice

Presented to

Des Moines Area MPO

by the

American Planning Association

Iowa Chapter
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