

The background of the slide features a close-up of the American flag on the left, with its stars and stripes. On the right, a golden castle with two towers and a central archway is visible, set against a backdrop of white clouds. The overall color palette is dominated by the red, white, and blue of the flag, and the gold of the castle.

*PRESENTATION  
TO THE*

*UPPER MISSISSIPPI RIVER BASIN  
ENVIRONMENTAL MANAGEMENT PROGRAM  
WORKSHOP*

*BY*

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*AUGUST 18, 2005*



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# Engineering Design Handbook

## Introduction

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# In the beginning...



- Funded in October 2004.
- Draft fact sheets presented to EMPCC November 2004.
- Outline coordinated in Corps multi-district meeting, January 2005.
- Outline presented to EMPCC, February 2005.
- Primary chapter authors assigned, April 2005.
- Draft report for review, July 2005.

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# Authors



*Austen*



*Hawthorne*



*Irving*



*Alcott*

- Collaborative effort among three Corps Districts.
  - St. Paul
  - Rock Island
  - St. Louis
- Primary author responsible for writing chapter, coordinating comments.
- Draft sent to other Districts for lessons learned, etc. in June 2005.
- Primary author combined comments for draft report.

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# Why do we need it?



- HREPs have used innovative and unique methods to address habitat concerns.
- We have learned many things about our designs as:
  - Construction has been completed on numerous projects.
  - Project monitoring has occurred for several years on many HREPs.





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# But why write it down?



- People are retiring (lost corporate knowledge).
- There is not one central location summarizing lessons learned or techniques.



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# What is in the report...



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# Format



- Resource Problem
- Design Methodology
- Case Studies
- References
- Lessons Learned



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# Chapters



- **Chapter 1: Introduction**
- **Chapter 2: Shoreline Protection**
- **Chapter 3: Water Level Management**
- **Chapter 4: Backwater Dredging**
- **Chapter 5: River Training Structures**



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# Chapters



- Chapter 6: Secondary Channel Modifications
- Chapter 7: Aeration
- Chapter 8: Floodplain Restoration
- Chapter 9: Tributary Restoration
- Chapter 10: Islands
- Chapter 11: MVR Islands



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# What we need from You



- Comments on each chapter.
- Description of lessons learned for features during design, construction, and operation and maintenance phases.
- Discussion time at end of each chapter presentation or during break out sessions.



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# In the future...



- Comments received through the workshop.
- All comments due by August 26, 2006.
- Final report September 30, 2005.
- With funding allocated:
  - Expansion of “Resource Problem” sections of report
  - Addition of “here is my problem, how do I fix it?”
  - Additional lessons learned through time.



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# Questions???



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