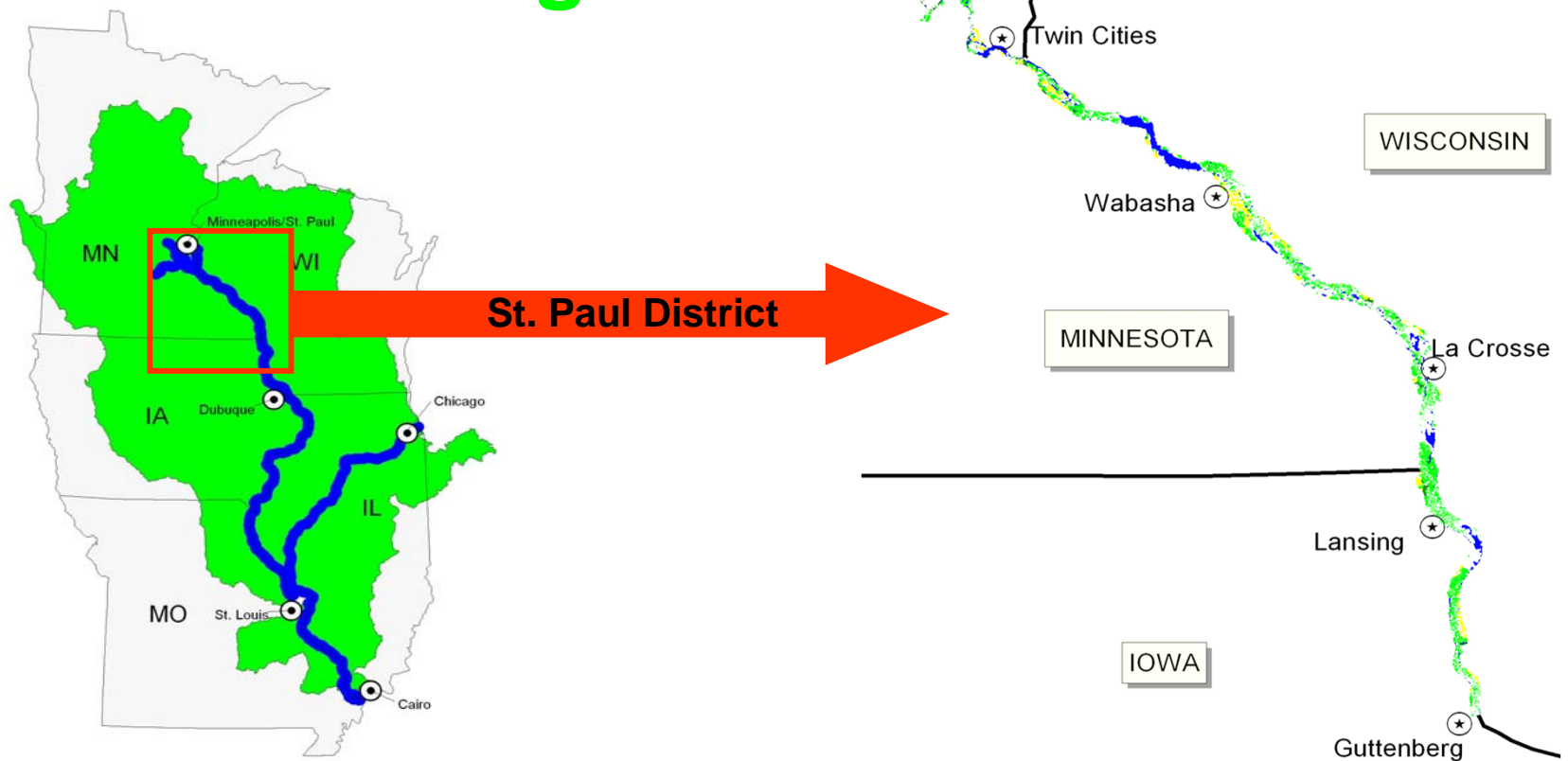




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Environmental Management Program



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MVP Reach

- ✓ **Upper Impounded Reach**
 - ✓ 1- to 3-mile-wide valley
 - ✓ Steep bluffs
 - ✓ Extensive non-channel aquatic habitats
 - ✓ Little floodplain development and few levees
 - ✓ Upper Mississippi River Wildlife & Fish Refuge
- ✓ **Minnesota and St. Croix Rivers**



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Habitat Rehabilitation and Enhancement Projects

Typical MVP Budget = \$3.5M

Project cost range

\$100K (Small Scale Drawdown)

\$15M (Pool 8 Islands Phase II)

\$2M typical

Construction - 2 months to 4 years

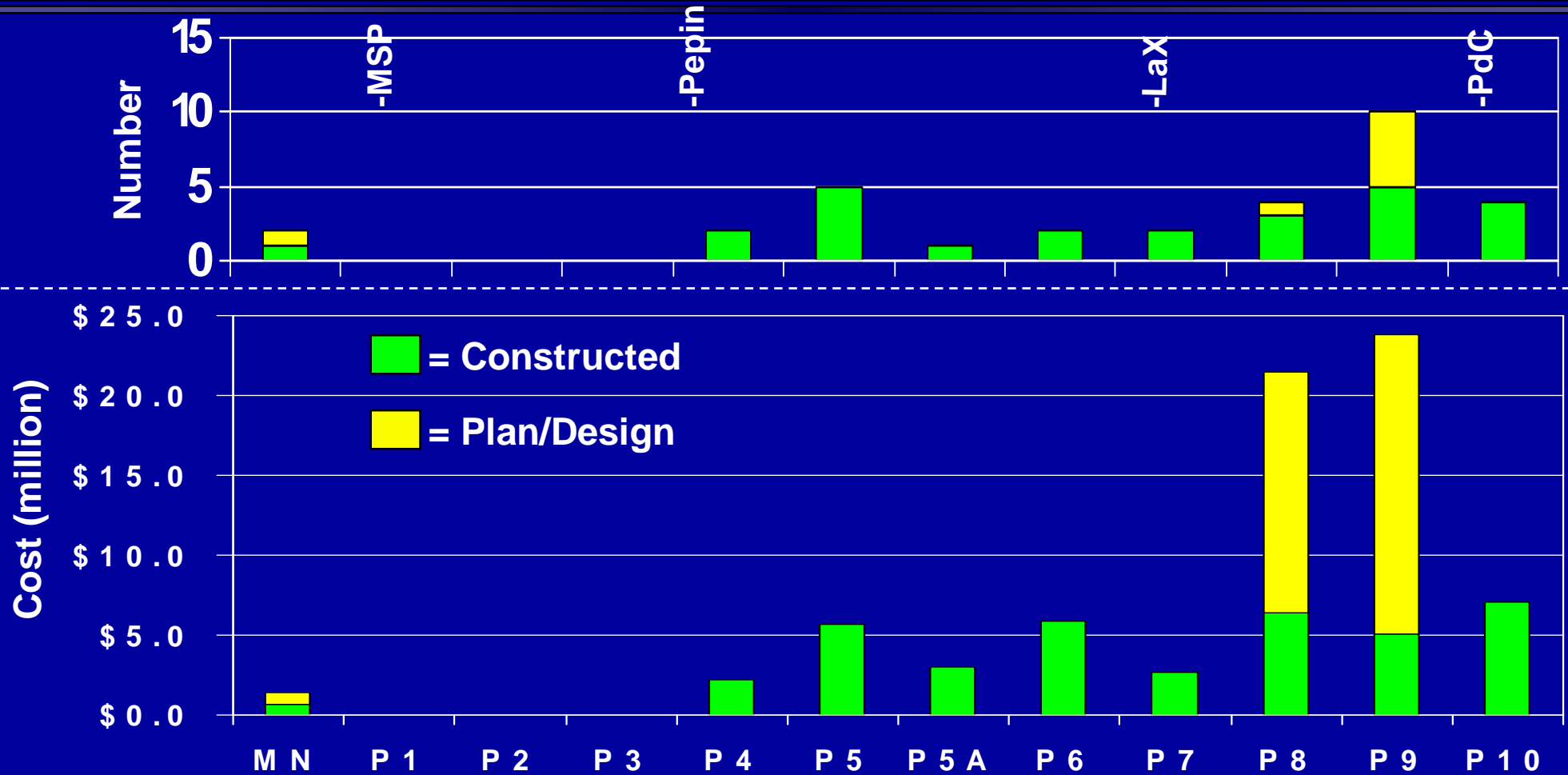
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Projects in St. Paul District



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Habitat Rehabilitation and Enhancement Projects

Lake Onalaska
Pool 8 Islands
Pool 9 Island
Polander Lake
Spring Lake

Islands

Island 42
Lake Onalaska
Bussey Lake
Indian Slough
Rice Lake
Ambrough Slough

Dredging

Island 42
Blackhawk Park
Finger Lakes
Indian Slough
Cold Springs
Long Lake

Control Structures

Guttenberg Ponds
Trempealeau NWR
Small Scale Drawdown

Water Level Management

Lansing Big Lake
Spring Lake
Peterson Lake
East Channel
Miss River Bank Stab

Bank Stabilization

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St. Paul District FY05 Program

Allocation = \$3,096,000

PLANNING – 8%

- Capoli Slough
- Conway Lake

- Harpers Slough
- Long Meadow Lake
- Lake Winneshiek

DESIGN – 5%

- Long Meadow Lake
- Pool Slough

- Harpers Slough
- Pool 8 Isl. Phase III Stg 2

CONSTRUCTION – 75%

- Long Meadow Lake
- Spring Lake Islands

- Ambrough Slough
- Pool Slough
- Pool 8 Isl. Phase III Stg 1

EVALUATION – 6%

- FWS

- Baseline Monitoring
- Performance Evaluations

MANAGEMENT – 6%

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St. Paul District FY06 Program

Potential Fully-funded Allocation = \$6,713,000

PLANNING

- Conway Lake
- Lake Winneshiek
- Capoli Slough
- McGregor Lake
- Zumbro River

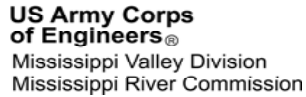
DESIGN

- Harpers Slough
- Capoli Slough
- Pool 8 Isl. Phase III Stg 2

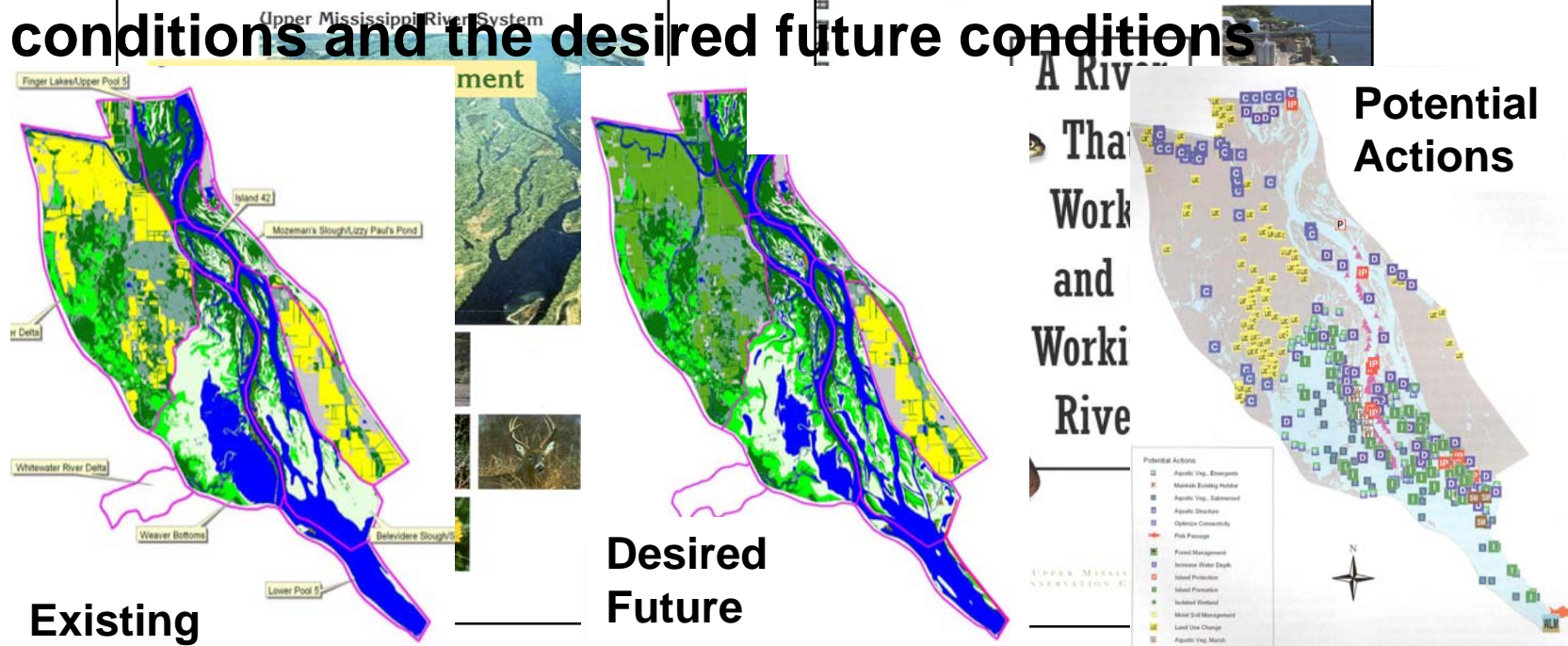
CONSTRUCTION

- Spring Lake Islands - \$1.1M
- Pool Slough - \$250K
- Long Meadow Lake - \$500K
- Pool 8 Isl. Phase III Stg 1 - \$500K
- Pool 8 Isl. Phase III Stg 2 - \$6M
- Harpers Slough - \$9M

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- ✓ River managers identified proposed actions to address habitat needs and ecosystem objectives
- ✓ Habitat was depicted on pool maps for existing conditions and the desired future conditions



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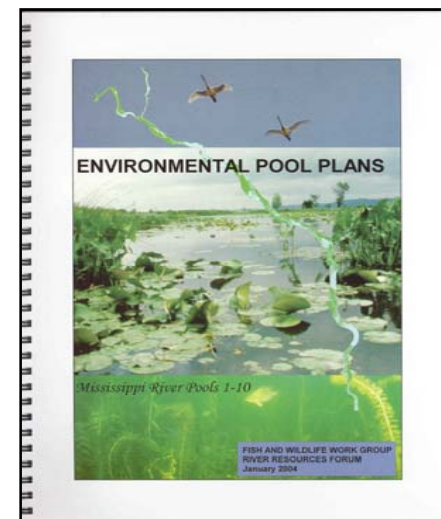


Environmental Pool Plans

- ✓ River managers identified proposed actions to address habitat needs and ecosystem objectives
- ✓ Potential results of actions were depicted on pool maps (existing vs. desired future)
- ✓ Coordinated with river managers and the public to develop a common vision
- ✓ Presented in a report dated Jan 05



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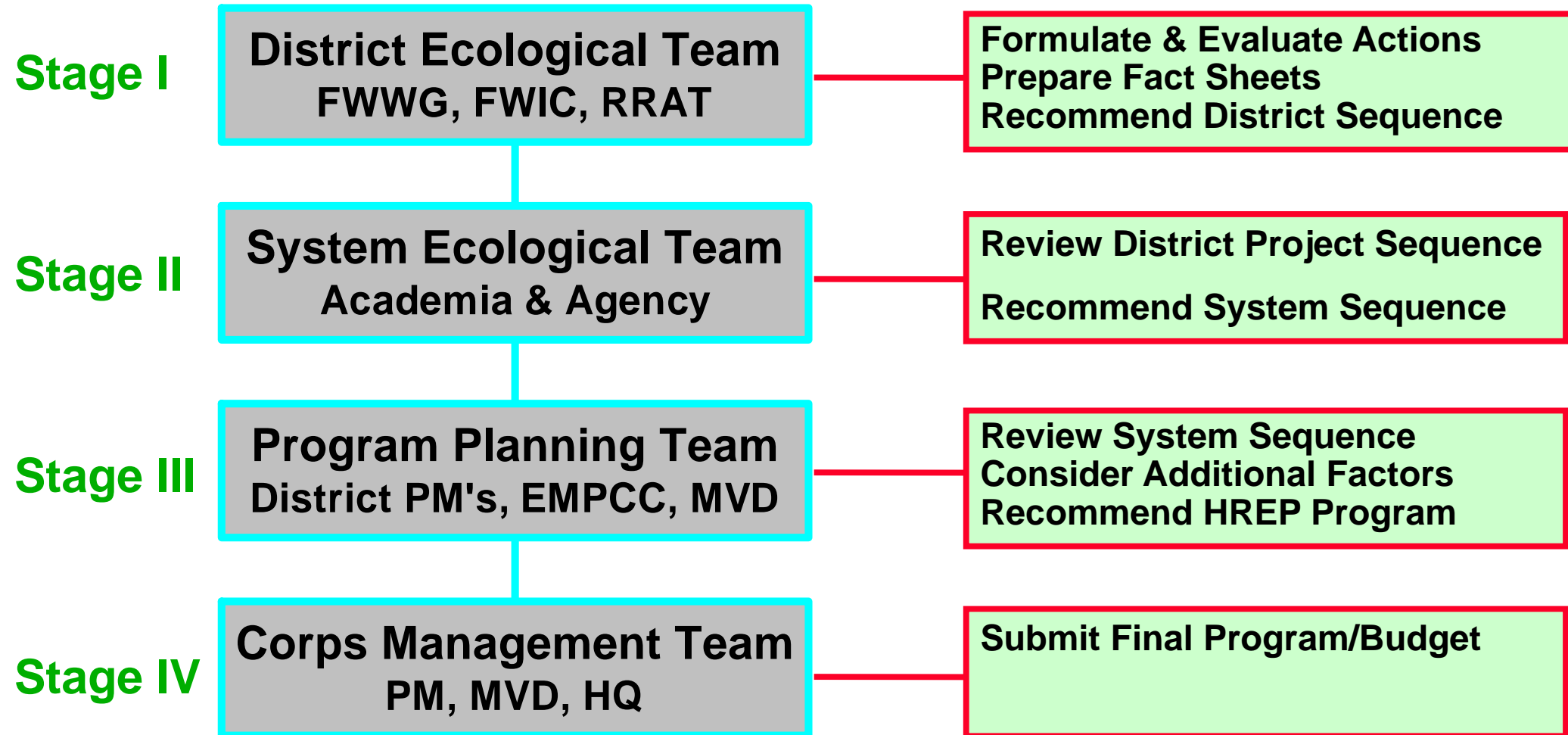


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Project Selection

Planning and Sequencing Framework



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Project Selection

- District Ecological Team
 - 1) Define habitat needs and assess habitat threats
 - 2) Define habitat goals & objectives
 - 3) Formulate actions to address needs, threats, and objectives
 - 4) Estimate cost of each action
 - 5) Integrate actions
 - 6) Prepare Fact Sheets for actions
 - 7) Decide desired sequence



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Project Selection

Potential Tools

- ✓ **Habitat Needs Assessment**
- ✓ **UMRCC/Pool Plan Objectives**
- ✓ **Ecological Criteria**
 - ✓ **Geomorphology, Water Quality, Habitat, Biota, Hydrology/Hydraulics**
- ✓ **Non-ecological Factors**
 - ✓ **Ease of implementation, innovation, longevity, O&M requirements, socioeconomic, integration with other projects/authorities**

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Project Selection Matrix

| Project | | HNA | UMRCC/ EPP Obj | Ecological Criteria | Non-ecol Factors | Total |
|---------|--------------|--------|-------------------|------------------------|---------------------|-------|
| | # of factors | 7 | 9 | 5 (50) | ~6 | |
| | Weighting | 0 - 1 | 0 - 1 | 0 - 1 | 0 - 1 | |
| | Range | -1 - 1 | -1 - 1 | -1 - 1 | 0 - 3 | |
| 1 | | | | | | |
| 2 | | | | | | |
| 3 | | | | | | |
| 4 | | | | | | |
| 5 | | | | | | |
| | | | | | | |

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Project Selection

- Final selection based on:
 - Evaluation tools
 - Pre-project monitoring data
 - Location
 - Agency and public support/priorities
 - Type of project
 - Size of project
 - Funding levels and workload
 - Links to other activities/programs
 - Professional judgement





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Recognition

7 Wonders of Engineering Minnesota Society of Professional Engineers



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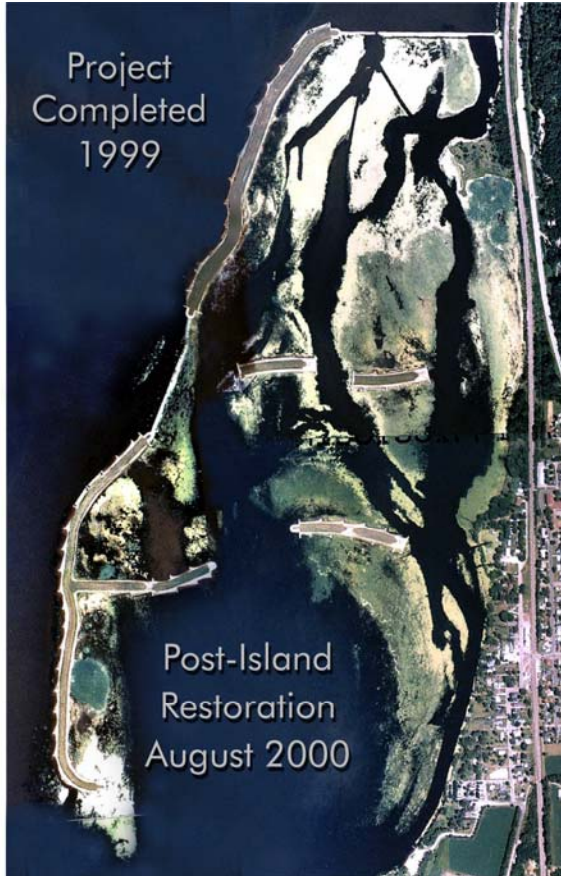


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Recognition

Chief of Engineers Environmental Award of Excellence



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