

Upper Mississippi River Restoration Environmental Management Program

Adaptive Management Organization Structure and Planning Flowchart (November 13, 2012)

UMRR-EMP Organization Chart

The Upper Mississippi River Restoration Environmental Management Program (UMRR-EMP) integrates environmental monitoring and science from the Long Term Resource Monitoring Program (LTRMP) with habitat restoration and enhancement projects (HREP). The organizational structure (Figure 1) shows the U.S. Army Corps of Engineers (USACE) overall program management role with LTRMP and HREP components managed separately, but with oversight from several interagency review teams. The EMP-Coordinating Committee include representatives from many state and federal natural resource management agencies. They maintain oversight and coordination for all aspects of the EMP. An Analysis Team (A-Team) of state and federal agency scientists provides technical guidance for the LTRMP status and trends monitoring and science investigations. HREP planning and Sequencing Framework (HPSF) teams identify potential projects and prioritize them for construction. There is relatively equal effort devoted to ecosystem restoration projects within the three UMR USACE districts. An Adaptive Management Integrator position was established to increase the connections between the LTRMP and HREP components.

UMRR-EMP HREP AM Planning Flowchart

Systemic Adaptive Management Phase:

System and river reach goals and objectives are considered initially during UMRR adaptive management planning by HPSF Teams. Existing conditions, probable future condition, and uncertainty regarding those estimates or our ability to mitigate habitat degradation through restoration are considered in the identification and sequencing of projects. System and reach objectives are then developed as potential projects by River Teams working at local levels. River Teams recommend projects they deem necessary to the System Ecological Team (SET) who work with the AM Integrator, A-Team, and LTRMP to sequence projects in a manner to achieve habitat and learning objectives. SET recommendations are provided to the USACE program planning team and the EMP-CC who incorporate financial and construction implementation issues into the final construction sequence.

Project Adaptive Management Set-Up Phase:

HREPs are designed and evaluated during the project set-up phase. USACE forms Project Delivery Teams (PDTs) of technical and planning specialists from project sponsor and partner agencies. PDTs prepare Definite Project Reports that outline problems and opportunities, objectives, project features, costs, benefits, and adaptive management monitoring and project evaluation and adaptation if necessary. DPRs are subject to extensive EMP partner and Corps review.

Adaptive Management Implementation Phase:

HREP adaptive management implementation begins with pre-project planning and monitoring to fill data gaps concurrent with project design in many cases. Construction is often a major effort requiring multiple contracts and specifications. Construction is often routine now, but many new techniques were developed

or perfected on the UMRS. Environmental monitoring is conducted to estimate project success. If learning and management objectives are met, the project is turned over to the sponsor to operate and maintain. If objectives are not met the project performance and design are re-evaluated for potential design change. Minor changes may be done rapidly, but major changes would need to be sequenced with other projects in the construction sequence.

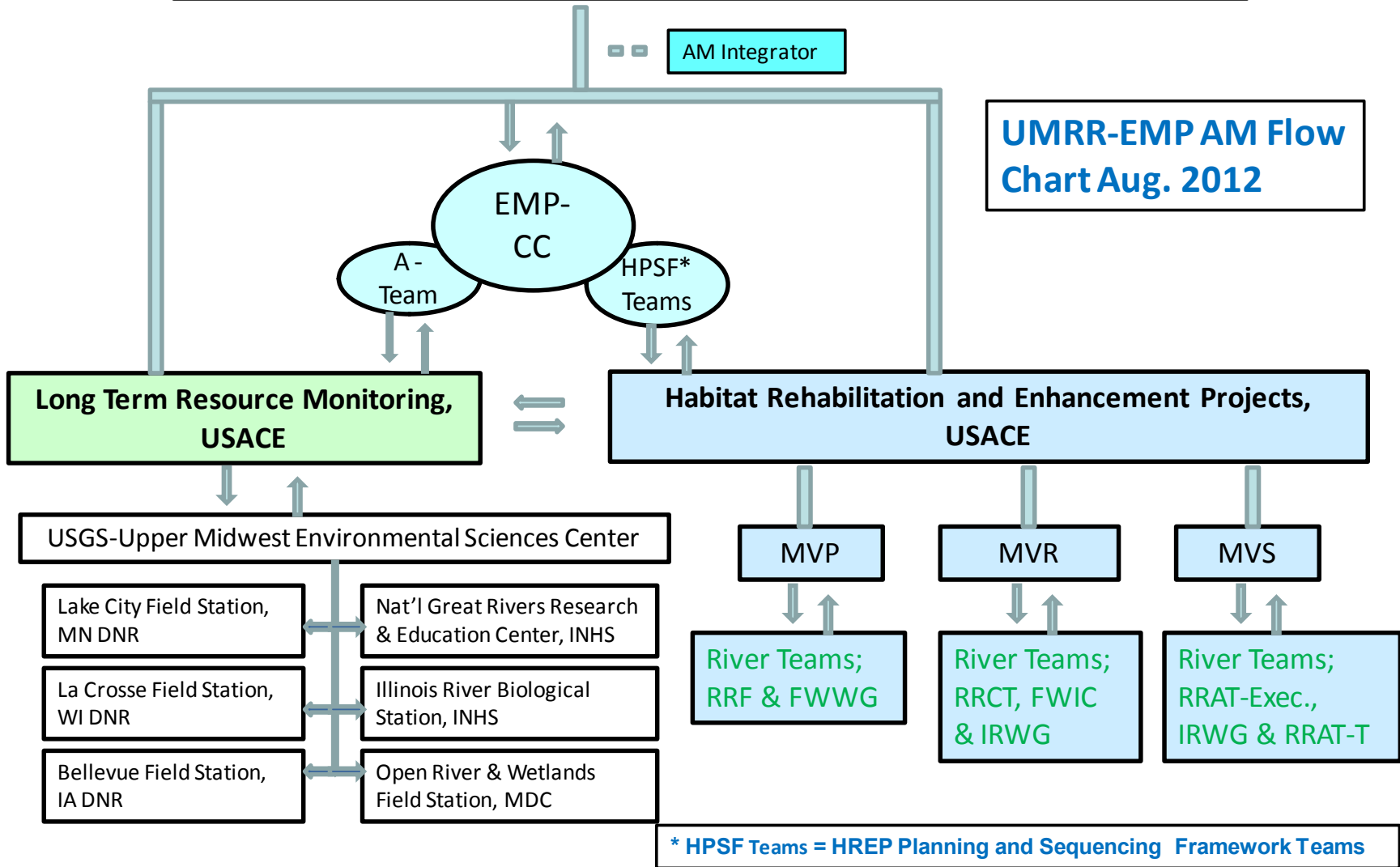
Technology Transfer:

It is important to incorporate project level learning into program planning and implementation. Technology transfer in the form of project reports, monitoring reports, and applied research needs to be initiated by all EMP partners including PDTs, LTRMP, and the SET. Science results can be published in appropriate literature, construction techniques are compiled in a HREP Design Handbook available to project engineers and PDTs. The role of the EMP-CC is very critical in UMRS adaptive management technology transfer because they must incorporate all the program learning back into the systemic adaptive management phase.

Upper Mississippi River Restoration
Environmental Management Program (UMRR-EMP), USACE

AM Integrator

UMRR-EMP AM Flow
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UMRR EMP HREP AM Planning Flowchart

