

Draft (June 25, 2007)

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**USACE/NRCS PARTNERSHIP ACTION PLAN
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1. **National Subject Matter Contacts** – A listing of National/Regional Subject Matter Experts/points of contact is being developed for circulation and use between our two agencies. NRCS and USACE program/technical contacts are listed at: <http://www.nrcs.usda.gov/about/directory/specialists.html>.
2. **Wetlands Compliance and Regulatory** – Issues, existing policies and agreements relating to wetland conservation compliance and regulation should be reviewed and updated as appropriate to ensure that additional opportunities for collaboration are identified. Points of contact have been established for coordination regarding both USACE and NRCS wetland delineation training. Additional coordination regarding USACE projects and potential impacts to WRP lands and Swampbuster Compliance will be pursued.
3. **Wetland Creation, Restoration, and Enhancement** – Points of contact have been established for technical coordination regarding: USACE review of NRCS Engineering Field Handbook Chapter 13 (Wetland, Restoration, Enhancement, or Creation), cross-agency participation in wetland restoration training courses, and review of conservation practice standards relating to wetland creation, restoration, or enhancement. Additional collaboration will be explored in the areas of: identification and importance of wetland and aquatic resource functions, additional coordination of wetland projects/programs, and additional technology exchange and/or training.
4. **Natural Disaster Recovery** – Senior leaders from USACE and NRCS met previously to discuss emergency authorities in an effort to improve coordination in future disasters. The following action items were identified: NRCS clarification of policy to reflect if and when levees qualify for USACE assistance; their eligibility for NRCS assistance; NRCS input for ESF3 Infrastructure Support regarding channel clearing; USACE/NRCS follow up with FEMA on Department Level contacts; NRCS/USACE dialogue on PL84-99 and EWP authorities; USACE identification of lead Districts for coordination with each state; and NRCS/USACE finalization of mission assignment to address dead animal disposal. Other potential gaps in authorities/assistance will be evaluated.
5. **Holistic Watershed Approach¹ and Water Resources Activities** – Additional coordination is needed to identify opportunities for additional collaboration and support for water resources activities and implementation of projects at the watershed scale. USACE and NRCS are promoting a holistic watershed approach as a platform for the delivery of their programs. Recent funding initiatives such as the USACE National Watershed Planning and Assessment Studies and the NRCS Rapid Watershed Assessment (through CCPI) should be evaluated and considered for improved

¹ NOTE: The term “holistic watershed approach” is found throughout the Action Plan. It is used in the broadest context to include all facets of working in a watershed. Any or all of the following elements could be included, such as evaluation, planning, monitoring, data management, design, operation, maintenance and if needed, adaptive management.

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coordination to better utilize the strengths and resources of each agency and improve service. Results could include pilot projects demonstrating innovation and improved use of limited resources for delivery of programs, projects, assessments, studies, etc. systemically, at the watershed scale.

6. **Watershed Technology Exchange** – There is a need for ongoing collaboration and dialogue regarding discipline-specific technologies and tools for watershed planning; to include: economics, water quality, hydraulics/hydrology, water management/drainage, groundwater, fish and wildlife habitat, air quality, energy, geotechnology, and construction management. An annual workshop would be helpful to: 1) discuss progress for ongoing technology efforts on a broad range of topics from an R&D, technology development, and transfer perspective, 2) discuss recently approved projects (funded and not yet started), 3) identify additional needed technology efforts, and 4) focus on a particular discipline to develop/enhance collaborative approaches, tools, and models within that discipline. Exchange would result in the identification of intersecting technical functions, areas of mutual interest and need, and provide a continued collaborative framework for partnering in science, engineering and technology.
7. **Watershed Training** – The recently released NRCS Strategic Plan identifies a need to strengthen NRCS employees' capability to provide watershed planning assistance. Currently NRCS, USACE and others provide training in holistic watershed and water resources activities. Previous efforts from within NRCS have identified gaps in NEDC watershed-based curricula. Existing training available from NRCS, USACE, and other sources such as the EPA Watershed Academy should be evaluated with the objective of establishing a complete, multi-tiered watershed planning, management and implementation curriculum. Where gaps may appear in existing training, NRCS and USACE should work with progressive practitioners within and outside their respective agencies to identify the current state-of-the-practice and structure the new training to transfer that knowledge. NRCS and USACE should co-sponsor the effort through national training units and make courses available to others. USACE and NRCS should evaluate existing cross-training arrangements and develop consistent approaches (e.g. tuition charges).
8. **Integrated 404 Permitting Process** – The USACE administers the Clean Water Act Section 404 permit program, which regulates discharges of dredged or fill material into waters of the United States, including jurisdictional wetlands. NRCS administers a number of programs including Farm Bill programs which provide technical and financial assistance at the field level and to watershed-scale projects. Section 404 permits may be required for these NRCS-assisted watershed projects, as well as other agricultural activities. There is a need for more consistency in the interpretation and use of both individual and Nationwide Permits, as appropriate, and in integrating the watershed sponsor's responsibilities of obtaining 404 permits for NRCS assisted watershed projects. Further discussion is needed to identify and communicate needs/opportunities, authorities, flexibility, and limitations within existing authorities.

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9. **Economic Analysis** – NRCS and USACE have worked together regarding Flood damage assessment. About 15 NRCS economists are now trained in the Corps FDA process. NRCS provided comments to HEC during the developmental stage of the present program. Including agricultural damages in the FDA software would be very beneficial to NRCS, and likely to USACE. An additional MOU has been discussed with the NRCS economic discipline for USACE assistance in project development. A potential early use of the FDA tool in California that could benefit both NRCS and USACE has also been identified.

10. **Addressing Non-Monetary Benefits for Watershed Projects** – NRCS and USACE, as well as many Federal management agencies, share a mutual need to assign a monetary value to non-monetary environmental benefits which accrue to their programmatic watershed improvements such as implementation of agricultural BMPs, stream restoration and wetland creation projects. An interagency workgroup/team should be formed to address this need. A series of workshops on this topic would be beneficial. EPA is a logical partner in this effort and should be invited to participate. Developing consistent federal reporting guidelines for non-monetary environmental benefits will facilitate improved internal accountability within agencies and external accountability to the Executive Branch, Congress and the general public.

11. **Stream Restoration/Mitigation Design** – NRCS has recently developed a draft Stream Restoration Design Guide. USACE has recently been charged to develop a Stream Mitigation Protocol in its North Atlantic Division (NAD). NRCS is working with the NAD and the US Fish and Wildlife Service to assist in the development of a stream restoration/mitigation protocol for the Northeastern US. Technical and Steering Committee Teams have been formed and an interagency Technical Team met to: 1) discuss what is known and identify knowledge gaps; 2) discuss the state-of-the-practice; 3) prioritize actions and select application areas; and 4) discuss the scope of the effort. The NRCS is supporting both the steering committee and the technical team via HQ and their Greensboro National Technical Service Center, respectively. Additionally, Corps' HQ and the ERDC Systemwide R&D Program are working closely with NAD and the NRCS in this effort. Further discussion is needed between NRCS and USACE to promote, develop associated training modules and teach nation-wide, coordinated efforts in stream restoration and mitigation design, implementation, monitoring and adaptive management.

12. **Sediment Management Coordination** – An existing coordination mechanism has been utilized between the Corps and NRCS through the Corps' National Dredging Team. To be more comprehensive in scope and to optimize collaborative opportunities, the ERDC Systemwide R&D program should also be centrally engaged in ongoing discussions and efforts. There is great potential and need for innovative, collaborative watershed-scale

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sediment management demonstrations across the country, and the Corps and NRCS are uniquely suited as Federal partners in this mission area.

- 13. Agricultural Water Quality Modeling Collaboration** – NRCS and the Corps are pursuing potential collaboration in developing enhanced predictive capability on surface/subsurface aspects of agricultural land use. An initial meeting of the Agricultural Water Quality Modeling Workgroup, an interagency agricultural water quality modeling team, met at the office of the State Conservationist in Columbus, Ohio to discuss the current capability and unmet needs in this mission area. A conference call was also conducted by a technical subgroup of the workgroup to discuss the need/feasibility of developing a hybrid model out of existing modeling components. The technical subgroup recommended a technical workshop be conducted for the purpose of: 1) verifying the feasibility of developing a hybrid modeling approach, 2) proposing an approach/approaches targeted to the development of hybrid models for a range of edge-of-field to subwatershed scales of predictive capability; and 3) develop a preliminary draft scope of work with an associated schedule and budget. That workshop was conducted and co sponsored by EPA and USACE. A broadly-based interagency group has agreed to work as a team to pursue the development of improved Ag water quality predictive capability. The Agricultural Research Service's (AGNPS) and the Corps' (GSSHA) models have been chosen by the group to incorporate edge of field capability from the DRAINMOD model. The group has selected a test area in the Maumee watershed of Western Lake Erie and is currently pursuing funding for both monitoring and modeling for this effort. It is hoped that the development and testing of the prototype hybrid models could be funded and proceed in FY 08.
- 14. Rehabilitation of Aging Dam/Levee Infrastructure** – The Corps and NRCS have designed and implemented dams and levee systems spanning back multiple decades. A substantial subset of our collective project portfolio is rapidly approaching, or has already exceeded, its original design life. For those aging projects, operational and safety issues are potentially further at risk with each passing year. A potential programmatic counterbalance to the risk and rehabilitation costs associated with this aging project cohort is the opportunity for integrating a new sustainable approach into their “rehabilitated” design, function and operation. Specifically, that new sustainability is comprised of a mutually-supporting balance of: 1) improved structural function to achieve, perhaps surpass, the original design intent; 2) substantially improved safety and reduced risk; and 3) previously unavailable ecological enhancement management capabilities. A coordinated, interdisciplinary team and approach is required to assess, plan, finance, design and implement the needed national rehabilitation effort. Both the NRCS and the Corps possess the experienced, interdisciplinary staff capability required to examine, design, execute, test and integrate this new approach to infrastructure rehabilitation.

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15. **Data Sharing Activities** – HQ USACE, HQ EPA and HQ FWS are currently collaborating on the development and populating of a shared national geospatial database for wetlands. NRCS and USGS have been identified as potential participants in this effort. The USACE automated information system to populate this system is currently being deployed to all Army Corps Districts, and the EPA is in the initial stages of their system development. FWS currently has an existing data system capable of linking to the USACE data base. Discussions are being planned to explore integrating NRCS as a participating partner in this interagency effort. Efforts are also underway on the utilization of the USACE web enabled geospatial system to provide standards-based data transfers (Data on Demand) and web services that would allow wetlands, restoration, watershed and other types of data to be made electronically available to both the USACE, NRCS, other federal, state and local agencies, and the public.
16. **NRCS Wetlands Delineation Training Course** – NRCS is developing a wetlands delineation training course and has invited the Corps to assist them in its development/review.
17. **Real Estate and Related Issues, Impediments, Opportunities** – In order to optimize our potential collaboration, there is a need to discuss challenges and identify solutions toward working together in the context of agency real estate and related issues. A general need exists to meet and compare such authorities nationwide.
18. **Design Construction Management** – NRCS is utilizing Roller Compacted Concrete (RCC) on Watershed Rehabilitation Projects. USACE is nationally recognized in RCC testing in ERDC Lab in Vicksburg, MS. NRCS through NDSCMC (spell out) and Portland Cement Association have identified a need for improved testing procedures for materials currently used in NRCS Dam Rehabilitation process. Additional dialogue is requested by NRCS with USACE on collaborative effort to test RCC materials at the USACE testing facility. There has been a request/statement of need for NRCS to use USACE testing facilities to test roller compacted concrete.
19. **Collaboration Regarding Use of Authorities and Funding** – USACE and NRCS each have authorities regarding the conservation and management of water and related natural resources. Within the scope of each agency's authorities, there are occasions where collaborative use of authorities can provide improved efficiency and/or effectiveness to accomplish the objectives of local project sponsors and/or the two agencies. For example, NRCS' authority to provide technical and financial assistance on private lands could be very beneficial in helping USACE to achieve watershed management goals. At some Districts, USACE has been able to provide funding through NRCS for developing and implementing conservation plans in authorized project areas to address identified problems. Additionally, NRCS funding for land retirement and/or fish and wildlife habitat offers opportunities for additional ecosystem and environmental restoration within and along USACE authorized projects. A two-way MOA between USACE and USDA was signed in October, 2005 for the purpose of establishing a framework governing the

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respective responsibilities for the provision of goods and services USACE and USDA may provide to one another. The MOA establishes a process to make it easier for the two agencies to share resources when mutually beneficial to accomplish objectives.

Collaborative use of authorities has had mixed results to date as identified and implemented at the NRCS State Office and USACE District office level. The core team will: 1) identify local successes in the collaborative use of authorities and funding, 2) identify limitations, restrictions, inconsistencies, and/or barriers, and 3) develop recommendations to help remove barriers and improve collaborative use of authorities for mutual benefit.

20. **Western States Watershed Study** – The Western States Watershed Study is one of five national Corps studies being conducted under the authority of PL 109-103. The FY 2006 Energy and Water Development Appropriations Act directed the Secretary of the Army to conduct at full federal expense, comprehensive analyses that examine multi-jurisdictional use and management of water resources on a watershed or regional scale. To the extent possible, the Western States Watershed Study activities will be conducted in a collaborative manner and include the development of strategic plans for future activities consistent with the over-arching goal to help implement several high priority recommendations identified in the Western Governors' Association (WGA) and Western States Water Council (WSWC) June 2006 "Water Needs and Strategies for a Sustainable Future" report. For example, the Corps and NRCS are jointly pursuing drought management issues within this study effort through the NRCS Snow Recovery and Water Supply Forecasting Program. Opportunities for additional collaboration exist in areas ranging from: 1) holistic watershed approach, 2) development of watershed tools, 3) managing natural hazards, 4) addressing infrastructure needs and 5) related policy and program areas. We encourage additional discussion to identify areas of mutual interest and programmatic focus in these and other areas. Additionally, the WGA and WSWC are seeking Federal assistance/involvement in a wide range of priority management areas they have identified.
21. **Corps Wetland Delineation Manual** – USACE, along with NRCS, EPA, and ERDC are developing 10 eco-regional supplements to the manual. This includes the adoption of the NRCS "Indicators of Hydric Soils". NRCS leads the National Technical Committee on Hydric Soils (NTCHS) with USACE as a participant and the National Advisory Team for the Delineation Manual, which includes representatives of all 4 agencies, coordinates closely with the NTCHS. The supplement for Alaska is close to being finalized, the draft for the Arid West is in its one-year test period, the Great Plains and Western Mtns are about to enter the one-year test phase and the Mid-West and Atlantic & Gulf Coast, supplements are about to go on public notice.
22. **National Ecosystem Restoration Conference Series** – NRCS and USACE worked collaboratively to provide Federal interagency leadership/support for the planning, design, and execution of the 2nd National Conference on Ecosystem Restoration. A session on the NRCS/USACE Partnership was held, as well as an Ad Hoc meeting to

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promote interaction between NRCS and USACE staff and publicize the agreement and draft action plan. NRCS and USACE plan to continue these efforts for the Third and subsequent National Ecosystem Restoration Conferences.

23. **NRCS/USACE Example of Collaboration at the Local Level: The Missouri River Habitat Restoration Initiative (Ongoing)** – The Corps has a requirement under the U.S. Fish and Wildlife Service’s Biological Opinion to create shallow water habitat and emergent sandbar habitat on the mainstream of the Missouri River. Four (4) priority reaches for restoration have been identified: below Gavins Point; below Garrison Dam; below Fort Randall Dam; and Clarke Lake. The total area of available habitat needed by 2015 on all 4 reaches is over 12,000 acres. An interagency team has been assembled. Potential opportunities exist for Corps/NRCS collaboration in habitat creation via the NRCS Wetlands Reserve Program. Discussions with the NRCS in Nebraska are being initiated to evaluate/pursue collaborative opportunities. If successful, this model could potentially be applied with other NRCS state offices throughout the targeted Missouri mainstream habitat restoration areas.

24. **NRCS/USACE Example of Collaboration at the Local Level: The Cape Cod Water Resources Restoration Project (Ongoing)** – The NRCS is leading an effort to improve the ecological function and environmental and economic value of degraded natural resources throughout Cape Cod. A key element of the project is to improve tidal flushing within Cape Cod’s restricted salt marshes, helping to restore native plant and animal communities in the salt marsh, improve biotic integrity, and increase support for coastal fisheries which utilize salt marshes for nursery grounds and feeding habitats. NRCS is utilizing an HGM-based functional assessment model to quantify the ecological benefits of salt marsh restoration opportunities. Ultimately, the HGM assessment will be used to justify the expenditure of federal funds by quantifying anticipated environmental benefits potentially realized through restoration efforts. The Corps’ New England District is collaborating with NRCS in this effort via participation on the Science Advisory Committee. Opportunities for systemwide R & D involvement will be explored as well.