FEMA

Suwannee River Water Management District COOPERATING TECHNICAL PARTNERS COORDINATED NEEDS MANAGEMENT STRATEGY MAPPING ACTIVITY STATEMENT

CNMS Mapping Activity Statement No. 10-07c

In accordance with the Cooperating Technical Partners (CTP) Partnership Agreement dated December 25, 2002 between Suwannee River Water Management District (SRWMD) and the Federal Emergency Management Agency (FEMA), CNMS Mapping Activity Statement (MAS) No. 10-07c is as follows:

SECTION 1—OBJECTIVE AND SCOPE

Section 575 of the National Flood Insurance Reform Act of 1994 mandates that at least once every 5 years FEMA assess the need to revise and update all floodplain areas and flood risk zones identified, delineated, or established under Section 1360 of the National Flood Insurance Act, as amended.

In order to meet this requirement FEMA has developed a next generation strategy that utilizes modern geospatial technologies along with current FEMA policies, requirements and procedures to coordinate the management of mapping needs in a comprehensive approach referred to as the Coordinated Needs Management Strategy (CNMS).

It is necessary to determine the relative accuracy of flood hazard data presented on a community's Flood Insurance Rate Map (FIRM) before the map production process begins. The effective date of the FIRM does not provide an indication that the engineering analyses have been updated or are in need of an update to account for existing watershed characteristics that may influence the flood hazard information. Therefore, a needs assessment must be conducted to determine whether the flood hazard information reflected on the FIRM represents existing conditions and is deemed to be valid or current. The age of the analysis shall not be a determining factor in assessing the need for a restudy if the results of the needs assessment reflect the potential for minimal change to the flood hazard information.

The goal of CNMS is to define the validity of the engineering study data within the mapped inventory at the stream level. For the initial population of CNMS, SRWMD shall coordinate with the Regional office to have all flooding source centerlines included in CNMS and have defined every segment contained in the CNMS stream network as valid, invalid, or in progress. The intent of having this information is to define the mapping need of each engineering study, determine and time-stamp the validity of the engineering study, and establish a national baseline record of New, Validated or Updated Engineering (NVUE) reporting geospatially that will influence future program production planning activities. In FY11, CTPs shall utilize CNMS as the sole source for reporting flood map update needs to the FEMA Regional Offices through the Annual Business Plan process. The appropriate Regional Service Center (RSC) will be used to collect Regional data once it is completed. Future maintenance of this data will be documented in a future project specific MAS or Program Management MAS.

SRWMD will validate all flooding source centerlines in the CNMS inventory for each watershed, to be identified in the format of Table 1.1, Watershed(s) to be Validated, as determined by the CNMS Inventory.

Table 1.1 Watershed(s) to be Validated

Watershed(s)	Flooding Source Types to be Evaluated				
	Requires Assessment	Unknown	Valid	Invalid (Unmet need)	In Progress
Waccasassa 03110101	✔ ☐	☐	☐	✔ ☐	
Econfina-Steinhatchee 03110102	✔ ☐	☐	✔ ☐	✔ ☐	
Aucilla 03110103	✔ ☐	☐	☐	✔ ☐	
Upper Suwanee 03110201	✔ ☐	☐	✔ ☐	✔ ☐	
Alapaha 03110202	✔ ☐	☐	✔ ☐	☐	
Withlacoochee (Suwannee tributary) 03110203	✔ ☐	☐	✔ ☐	☐	
Lower Suwanee 03110205	✔ ☐	☐	☐	✔ ☐	✔ ☐
Santa Fe 03110206	✔ ☐	☐	✔ ☐	✔ ☐	

This CNMS Project will be completed by the following Mapping Partners:

- Suwannee River Water Management District (SRWMD)
- Contractor to be determined

The Mapping Partner shall notify FEMA and all applicable parties of all meetings, if necessary, with community officials at least two weeks prior to the meeting (with as much notice as possible). FEMA and/or its contractor may or may not attend the community meetings.

The Mapping Partner shall maintain an archive of all data submitted. (All supporting data must be retained for three years from the date a funding recipient submits its final expenditure report to FEMA.)

In cooperation with the FEMA Project Officer, a Project Management Team (PMT) will be established by the SRWMD and/or its contractors consisting of representatives from the SRWMD and/or contractors, FEMA's regional engineer, the RSC, and other appropriate parties. The PMT will be responsible for

coordinating the activities identified in this CNMS MAS. The FEMA Region will be provided with documentation identifying the established PMT.

Validation Process Documentation Checksheet

Responsible Mapping Partner: SRWMD

Scope: Documentation of research and methodologies influencing validation findings recorded in the S_Studies_Ar feature class are to be retained by SRWMD and/or its contractors and recorded in the validation process documentation checksheet (CNMS Database User's Guide, Appendix B). This checksheet must be provided to support validation decisions and inputs into CNMS. Information provided in these fields will document the location, source, and methodologies used in order to determine various validation decisions. GIS data layers and output results from the CNMS validation process will be maintained and stored by SRWMD and/or its contractors but must be referenced in the Validation Process Documentation Checksheet. The need of the mapping partner to maintain records is important as the deliverable is subject to scrutiny of the validation decisions made by SRWMD and/or its contractors.

Standards: All Program Management work shall be performed in accordance with the standards specified in Section 4 - Standards.

Deliverables:

- Validation Process Documentation Checksheet

Populating the CNMS Studies Database

Responsible Mapping Partner: SRWMD

Scope: SRWMD and/or its contractors will use the Validation Checklist (CNMS Database User's Guide, Appendix A) and populate appropriate table records in the S_Studies_Ar feature class in the CNMS Geodatabase.

Utilization of the Validation Checklist is primarily directed toward the evaluation of existing detailed floodplain studies, the results of which are captured as a 'CNMS Study Record'. Lack of an existing FEMA flood hazard study should result in development of a CNMS 'Request' Record. The central purpose of the Validation Checklist is to outline a format that must be utilized to document a flood study as being VALIDATED or an UNMET NEED.

The CNMS Validation checklist is divided into three main categories; Background Information, Critical Elements, and Secondary Elements. The Background Information category contains the date of the effective analyses for each studied stream, the Hydrologic and Hydraulic (H&H) models used for the effective study, and if the H&H models are available in a digital format. The Critical Elements section of the checklist includes 7 critical elements that consist of physical factors, climatological factors, and engineering methodology that have changed since the date of the effective analyses. The Secondary Elements section contains 10 secondary factors that have changed since the date of the effective analyses, and are used in the validation process.

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Lower Suwanee 03110205	✔ ☐	☐	☐	✔ ☐	✔ ☐
Santa Fe 03110206	✔ ☐	☐	✔ ☐	✔ ☐	

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Any deficiency identified as an UNMET NEED or a CNMS Request Record will warrant a review for inclusion in the map update investment process. For existing floodplain studies, this review will be triggered when one critical or four or more secondary deficiencies have been identified to mark the area as having an UNMET NEED. Based on the Validation Checklist, if the validation evaluation identifies no critical elements and less than four secondary deficiencies for a stream segment flood study, the engineering analysis is considered VALIDATED. Validating approximate studies is completed independent of the Validation Checklist. For validation rules applicable to approximate studies, refer to CNMS Database User's Guide.

Standards: All Program Management work shall be performed in accordance with the standards specified in Section 4 - Standards.

Deliverables:

- CNMS Geodatabase with the following elements populated as specified in the CNMS User's Guide:
  - 'S_Studies_Ar' Polygon feature class populated for detailed engineering studies.
  - 'S_Requests_Ar' Point/Polygon feature class populated as necessary.
  - 'Specific_Needs_Info' Table populated as necessary.
  - 'Point_of_Contact' Table populated as necessary.

Updating the CNMS Inventory

Responsible Mapping Partner: SRWMD

Scope: The CNMS Inventory serves as spatial linework representing flooding sources within FEMA's map inventory and the foundation for NVUE reporting. Validation status assigned to the CNMS Inventory linework is sourced from the CNMS Studies dataset (S_Studies_Ar). SRWMD and/or its contractors will use the existing CNMS Inventory linework acquired from the Region as a baseline for updating the flooding source centerlines previously attributed as "Requires Assessment" or "Unknown". As study validation categories are updated or changed in the CNMS Studies records (polygons created under the Populating the CNMS Studies Database task of this MAS) these changes will be imprinted on the respective flooding source centerlines in the CNMS Inventory. Modifying the Inventory linework geometry prior to attribute transfer from the S_Studies_Ar polygons may be necessary due to a) better quality line geometry available, or b) due to inaccurate representation of stream miles for the SFHAs in the existing Inventory. The validation status of all streams within the CNMS Inventory shall be labeled as Valid, Invalid, In Progress, or Unknown as described in Section 2.3 of the CNMS Database User's Guide.

Standards: All Program Management work shall be performed in accordance with the standards specified in Section 4 - Standards.

Deliverables:

- CNMS Geodatabase with 'S_Studies_Ln' Feature Class (Polyline) updated to inherit the current validation statuses from the 'S_Studies_Ar' feature class and updated to reflect any changes in validation status of approximate studies.

SECTION 2—PERIOD OF PERFORMANCE

The mapping activities outlined in this CNMS MAS will be completed as specified in the Agreement Articles of the Cooperative Agreement. The Activities may be terminated at the option of FEMA or SRWMD in accordance with the provisions of the Partnership Agreement dated December 25, 2002. If these activities are terminated, all products produced to date must be returned to the FEMA Regional Office and the remaining funds from uncompleted activities, provided by FEMA for this CNMS MAS, will be returned to FEMA.

SECTION 3—FUNDING/LEVERAGE

FEMA is providing funding, in the amount of SRWMD for the completion of this CNMS Project. SRWMD shall provide any additional resources required to complete the assigned activities for this CNMS Project. Activities associated with any additional needs would be performed based on availability of additional funds. The leverage listed below includes in-kind services and estimated values for acquired information (i.e., database population, CNMS Inventory update, validation process documentation, etc.). SRWMD shall complete Table 3.1 Contribution and Leverage.

Table 3.1Contribution and Leverage

CNMS Task	FEMA Contribution	Partner Contribution	% Partner Leverage	Total Project Cost
Cooperating Technical Partner CNMS Tasks				
TOTAL FUNDING AMOUNTS				

SECTION 4—STANDARDS

The standards relevant to this CNMS MAS are the CNMS File Geodatabase, the CNMS Database User's Guide, Version 3.0, April 2010, CNMS Sample Validation Process Documentation Checksheet, and appropriate FEMA Procedural Memorandums. These documents can be obtained from the FEMA library at http://www.fema.gov/library/index.jsp.

SECTION 5— SCHEDULE

The activities documented in this CNMS MAS shall be completed and submitted by the following dates: 33% of total number of watersheds/counties (must include planned FY11 studies) by September 30, 2010; 67% of the total watersheds by December 31, 2010; and 100% of the total watersheds by May 15, 2011 to the RSC for Regional consolidation. The following table lists the watersheds/counties in priority and the date they will be submitted.

Watershed Completion	Counties	FY of Next Study	Due Date	Comments
	Columbia	FY11	9/30/2010	Actual Date TBD
	Madison	FY11	9/30/2010	Actual Date TBD
	Union	FY11	9/30/2010	Actual Date TBD
Aucilla	Taylor	FY11	9/30/2010	Actual Date TBD
	Dixie	FY12	12/31/2010	
	Levy	FY12	12/31/2010	
Alapaha, Withlacoochee	Hamilton	FY12	12/31/2010	
	Bradford	FY13	12/31/2010	
	Jefferson	FY13	12/31/2010	
Upper Suwannee	Suwannee	Current	5/15/2011	
Waccasassa	Alachua	Current	5/15/2011	
Santa Fe	Gilchrist	Current	5/15/2011	
Econfina-Steinhatchee	Lafayette	Current	5/15/2011	
Lower Suwanee	Lafayette	Current	5/15/2011	

If gaps or missing information in the submittal is identified then the CTP shall provide missing information within 1 month of notification from the RSC. If changes to this schedule are required, the responsible Mapping Partner shall coordinate with FEMA and the other Mapping Partners in a timely manner.

SECTION 6—CERTIFICATIONS

For completion of the CNMS Validation Checklist, some of the validation elements should be completed under the supervision of an engineer or other responsible party. For example, investigation of updated and effective peak discharges based on confidence limits criteria in the FEMA Guidelines and Specifications (G&S) for Flood Hazard Mapping Partners. Entering and updating the validation elements in the Geodatabase should be performed by users experienced with Geographic Information Systems (GIS) software.

SECTION 7—TECHNICAL ASSISTANCE AND RESOURCES

Project Team members may obtain copies of FEMA-issued LOMCs, archived engineering backup data, and data collected from FEMA and/or your Regional Project Officer. Specific technical and programmatic support may be provided through FEMA and/or its contractor; such assistance should be requested through the FEMA Project Officer specified in Section 11 – Points of Contact.

Data requests to the FEMA library will follow guidance documentation within the CNMS Procedure Memorandums for data library requests. Project Team members also may consult with the FEMA Regional Project Officer to request support in the areas of selection of data sources, digital data accuracy standards, assessment of vertical data accuracy, data collection methods or subcontractors, and GIS-based engineering and modeling training.

SECTION 8—CONTRACTORS

SRWMD intends to use the services of a contractor for this CNMS Project. SRWMD shall ensure that the procurement for all contractors used for this Flood Map Project complies with the requirements of 44 CFR 13.36.

SECTION 9—REPORTING

Financial Reporting: Because funding has been provided to SRWMD by FEMA, financial reporting requirements for SRWMD will be in accordance with Cooperative Agreement Articles. SRWMD shall also refer to 44 CFR 13.41.

SRWMD shall provide financial reports to the FEMA Regional Project Officer and Assistance Officer in accordance with the terms of the signed Cooperative Agreement for this MAS.

Status Reporting: Status reports will be submitted on a quarterly basis in accordance with the financial reporting submittals. SRWMD shall refer to 44 CFR 13.4 to obtain minimum requirements for status reporting. The Project Officer, as needed, may request additional information on status.

SRWMD and/or its contractors may meet with FEMA and/or its contractor up to bi-weekly, or more frequently if needed, to review the progress of the project in addition to the quarterly financial and status submittals. These meetings will alternate between FEMA's Regional Office, the SRWMD office, and conference calls, as necessary.

The Project Officer, as needed, may request additional information on status on an ad hoc basis.

Section 10—Project Coordination

Throughout the project, all members of the PMT will coordinate, as necessary, to ensure the products meet the technical and format specifications required and contain accurate, up-to-date information. Coordination activities shall include:

- Meetings, teleconferences, and video conferences with FEMA and other Project Team members as needed;
- Telephone conversations with FEMA and other Project Team members on a scheduled basis to be determined and an ad hoc basis, as required; and
- E-mail, facsimile transmissions, and letters, as required.

SECTION 11—POINTS OF CONTACT

The points of contact for this CNMS Project are Kristen Martinenza, the FEMA Regional Project Officer; Rick Johnston, the Project Manager for SRWMD; or subsequent personnel of comparable experience who are appointed to fulfill these responsibilities. When necessary, any additional FEMA assistance should be requested through the FEMA Regional Project Officer.

Each party has caused this CNMS MAS to be executed by its duly authorized representative.

Rick Johnston

Rick Johnston, P.E.
Project Manager
Suwannee River Water Management District

9/14/10
Date

Kristen Martinenza

Kristen Martinenza, P.E., CFM
Regional Project Officer
Federal Emergency Management Agency, Region IV

9/20/10
Date