I. State authority to implement floodplain management

Floodplain management in North Dakota is authorized by the North Dakota Floodplain Management Act of 1981, North Dakota Century Code Chapter 61-16.2 as amended in 1999 and in 2003. This legislation authorizes the Office of the State Engineer to undertake activities to identify flood hazards and assist communities which participate in the NFIP. This Act also adopts the NFIP by reference into the North Dakota Century Code.

II. State vision for floodplain management – 5 year time frame

A large portion of the state’s land resources is subject to recurrent flooding by overflow of streams and other watercourses causing loss of life and property, disruption of commerce and governmental services, unsanitary conditions, and interruption of transportation and communications, all of which are detrimental to the health, safety, welfare, and property of the occupants of flooded lands and the people of this state. Public interest necessitates that the floodplains of this state be developed in a manner which will alleviate loss of life and threat to health, and reduce private and public economic loss caused by flooding. Therefore the policy of this state is to guide development of the floodplains to reduce flood damages through sound floodplain management, stressing nonstructural measures such as floodplain zoning and floodproofing, acquisition and relocation, and flood warning practices; and to ensure as far as practicable that the channels and those portions of the floodplains of watercourses which are the floodways are not inhabited and are kept free and clear of interference or obstructions which may cause any undue restriction of the capacity of the floodways. It is also the policy of this state to provide state coordination and assistance to communities in floodplain management activities, to encourage communities to adopt, administer, and enforce sound floodplain management ordinances, and to provide the state engineer with authority necessary to carry out and enforce a floodplain management program for the state and to coordinate federal, state, and local floodplain management activities in this state.

North Dakota has 292 communities participating in the NFIP which consist of 42 counties, 169 cities, 77 townships and 4 Indian Tribes. Successful floodplain management is dependent on communication, education and technical assistance as NFIP communities administer and oversee development in their floodplains. Current efforts are limited to the annual CAP program. Communities must have an understanding of what they need to guide and monitor concerning development or redevelopment activity occurring in their identified floodplain areas. Each community administrator needs working knowledge and an understanding of what to do concerning the issuance of permits and subsequent recordkeeping related to the NFIP.
Current Efforts.

The program goal is to contact each mapped NFIP participating community at least once over a five-year cycle

Community Assistance Visits. CAVs are the most in depth form of contact with a community. We attempt to accomplish approximately 12 CAVs during each contract year and sometimes target CAVs geographically to more efficient use of staff time and travel.

Community Assistance Contacts. CACs are short visits or can be telephone interviews. Sometimes a CAC evolves to provide assistance with respect to a specific situation or development. We estimate a minimum of 20 CACs during the year. Technical assistance can transition into a CAC due to the amount of time invested.

Workshops and Other Training. Workshops are often done in partnerships with other training efforts, other agencies, groups or organizations. Most workshops are an across the board type floodplain workshop aimed primarily for community floodplain administrators. We often partner with other organizations with the workshop format to further educate officials on floodplain management.

Technical Assistance. Probably the the most important activity the NDSWC does is to provide technical assistance to local officials, property owners, land owners, engineers and surveyors, agents and lenders concerning the NFIP. Most frequent help is given with development permits, flood insurance, with flood maps and their amendments or revisions. Technical assistance contacts range from telephone calls to detailed technical assistance that can involve significantly more time. Staff also provides technical assistance to state and local agencies or organizations regarding development, environmental review and funding of projects in the identified floodplain.

Mapping Assistance. The NDSWC will become a Cooperating Technical Partner in FEMA’s Map Modernization Program. Between the NDSWC’s role in flood map restudy efforts and efforts already underway by FEMA study contractors, there will be a significant growth in the number of communities developing DFIRMs.

Disaster Assistance to Communities. In the event of a flood disaster, the staff of the NDSWC is available to assist communities affected by and recovering from flooding.
Strengths and Weaknesses

NDSWC has an experienced staff in its floodplain management section. Our primary weakness is sustaining a floodplain management understanding in all participating communities. Many smaller communities have part time staff who are largely unfamiliar with the concept of aware of floodplain management. Although many of these communities experience little new development or redevelopment, the potential for a significant mistake in development or building exists anywhere.

Strengths:

- Flood hazards are generally similar across the state
- Limited number of areas developing allowing concentrated targeting of assistance
- State law exceeds NFIP minimums for elevating or floodproofing above BFE
- NDSWC staff familiar with communities enrolled in NFIP
- NDSWC future Map Coordinator will help improve community flood map quality

Weaknesses:

- One third of all communities in the NFIP have no flood map.
- Overall state zoning law makes the efficient practice of floodplain management difficult in rural areas
- Community floodplain administrator turnover causes lack of continuity.
- ND has one community participating in the CRS program.

III. Strategy to improve floodplain management

At current funding levels, the NDSWC intends to continue to provide activities as listed above in the following manner:

- **CAVs.** Our current goal is to conduct approximately 12 CAVs per year. CAVs will be prioritized on an annual bases based on population, growth potential, length of time since the previous CAV, or known difficulties or suspected deficiencies concerning floodplain development.

- **CACs.** As a preferred practice, the NDSWC staff intends to visit 20 communities so floodplain management can be discussed with floodplain administrators in their own surroundings. Face to face community contacts are the most beneficial. On occasion, telephone CACs will be conducted with communities.
ND Five-Year Floodplain Management Work Plan
Outline

• **Technical Assistance.** We will continue to provide technical assistance via telephone, e-mail, and correspondence to communities, state agencies, property owners and businesses, consulting firms, surveyors, developers and others on matters related to the NFIP and floodplain management. In a given year, there are hundreds of technical assistance contacts. These contacts will increase with activities of Map Modernization as communities reacquaint themselves with the specifics of NFIP requirements. We attempt to respond to all requests for technical assistance, whether from community officials, state agencies, surveyors, engineers, or citizens. This service most often results in a satisfactory resolution and a positive reflection on floodplain management and the NFIP overall.

• **Ordinance Assistance.** We will work with communities to update their floodplain ordinances to meet state minimum floodplain management standards or incorporate new map panels or revisions. We work with communities by providing them with a model ordinance reminding them of enactment deadlines and the necessary reviews by the state and FEMA.

• **Workshops and other Training.** We will continue to partner to provide an average of two workshops per year on NFIP issues. Primary audiences include community floodplain administrators with a variety of backgrounds. Audiences also include other public officials, state agency staff, engineers, surveyors, planners and consultants. We will also cooperate with related environmental and emergency management programs or with professional groups to provide floodplain training as part of their programs.

• **Mapping Assistance.** We plan to partner with FEMA on flood mapping priorities, partnerships and production of DFIRMs in North Dakota. We will review and update our state-wise mapping priorities annually. Concerning new mapping or remapping efforts, we will help conduct scoping meetings to determine the area, tasks and budget for the study or restudy to be done. Communities affected by the restudy will be consolidated into countywide mapping format used by FEMA. Staff will provide information and participation to the Project Management Team as needed during the restudy effort. Meetings with affected communities will explain the maps, review the maps and provide ordinance assistance prior to the DFIRMs becoming final.
• **Coordination with Other State Programs and Agencies.** We will provide technical assistance to state agencies on floodplain identification, mapping, development and redevelopment issues to help them understand community floodplain management requirements. In North Dakota, the Division of Emergency Management carries out most mitigation programs. We will continue to work with DEM on overall mitigation efforts dealing with flooding and flood related problems.

• **Assistance to Communities in Responding to Disasters.** The NDSWC will provide assistance within the state recovery process when dealing with declared flood disasters. Specifically, help will be given concerning the floodplain management permitting process, substantial damage requirements and the issue of repetitive loss structures.

• **CRS Promotion.** We will encourage communities with significant flood insurance policy numbers to apply for participation in the CRS program.

• **NDSWC Floodplain web site.** We will maintain and enhance the NFIP related website on the NDSWC homepage.

**Program Milestones.**

The current staff of two should be sufficient to handle the specific tasks of the annual CAP program work tasks. Our goal is to reach 20% of mapped communities on a five-year cycle through the CAVs, CACs or Technical Assistance task.

• **CAVs/CACs.** Twelve communities per year will receive a CAV, twenty a CAC on a five-year cycle.

• **Technical Assistance.** We will carry out and document numerous technical assistance contacts per year with NFIP participating communities.

• **Ordinance Assistance.** Communities will receive assistance to update their ordinances to meet with the current state law [which exceeds NFIP minimums] as well as adopt the new or revised DFIRM’s as a product of Map Moderization.

• **Workshops.** An average of two workshops will be held each year for the benefit of community officials and the related professions interested in flood maps or floodplain management.

• **Mapping Assistance.** All study/restudy mapping efforts will be assisted in their initial scoping by NDSWC staff. Draft and preliminary maps will be reviewed with the affected communities to keep mapping schedules on track.

• **Coordination with Other State Programs.** State agencies with projects in floodplain areas will be assisted through the environmental clearance process to help them understand and meet floodplain management requirements. Ongoing technical assistance will be provided to state agencies.
ND Five-Year Floodplain Management Work Plan
Outline

- **Assistance to Communities in Responding to Disasters.** Coordination with FEMA and ND DEM will be done regarding the severity of the disaster and suitable disaster response. This work is dictated by necessity and would temporarily take priority over other program efforts.

- **CRS.** One new community to be enrolled in the CRS program.

- **NDSWC floodplain website update.** Maintenance of the floodplain related segment of the NDSWC website. NFIP pertinent information will be updated and added to the website.

**Time Breakdown by Activity**

We estimate that our activities break down according to the following table. Changes assume no additional staff funded under CAP. Activity 9 includes time spend developing the annual CAP-SSSE scope of work. Ordinance assistance is expected to grow due to the production of countywide DFIRMs with the subsequent need for ordinance revision. Mapping assistance will also increase significantly. The anticipated increased workload to existing staff from mapping assistance and ordinance assistance will be offset within the CAP program. However, should we receive assistance for an additional mapping assistance position, we will continue to carry out our programs as currently noted.

<table>
<thead>
<tr>
<th>CAP Activity</th>
<th>Current % of staff time</th>
<th>Projected % of staff time</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. CAVs</td>
<td>27%</td>
<td>27%</td>
</tr>
<tr>
<td>2. CACs</td>
<td>18%</td>
<td>18%</td>
</tr>
<tr>
<td>3. Technical Assistance, workshops</td>
<td>31%</td>
<td>30%</td>
</tr>
<tr>
<td>4. Training, conferences, meetings</td>
<td>7%</td>
<td>5%</td>
</tr>
<tr>
<td>5. Post Disaster Assistance</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>6. Five-year Floodplain Management Plan</td>
<td>7%</td>
<td>1%</td>
</tr>
<tr>
<td>7. Mapping assistance</td>
<td>2%</td>
<td>6%</td>
</tr>
<tr>
<td>8. Ordinance Assistance</td>
<td>2%</td>
<td>8%</td>
</tr>
<tr>
<td>9. Work program, program mgmt, CIS entry</td>
<td>6%</td>
<td>5%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>100.0%</strong></td>
<td><strong>100.0%</strong></td>
</tr>
</tbody>
</table>
Activity Mix

As map modernization progresses, there will be increased time updating community ordinances. This should gradually increase over three years before stabilizing for an additional three years. Mapping assistance, which includes study/restudy scoping, will increase over the next three years, but then would be expected to taper off. Generally, CAP tasks are flexible enough to accommodate the increased mapping and ordinance activity. Post disaster assistance is a task difficult to predict and project. When a flood disaster is experienced, time will be taken from other CAP activities and focused on the immediate needs created by the disaster.

III. Needs Analysis and Gap Assessment.

Our workload should not impact CAV and CAC tasks due to the increase in the mapping and ordinance related workload. About one third of staff time is currently devoted to the important task of technical assistance. With current staff and available resources, we feel we can accommodate the added activities. A Map Coordinator position funded by the Map Modernization Management Support [MMMS] allows help from a non-CAP source. North Dakota’s communities need to maintain compliance with the NFIP and protect existing development as well as future development and redevelopment. Every mapped community will receive a visit within a five year period. We are comfortable with the level of technical assistance provided and anticipate the added mapping assistance and ordinance review requirements will simply compress into the activities we are already committed to do.

IV. Map Modernization Activities.

The North Dakota State Flood Mapping Program Business Plan articulated a proposal to map priority areas of the state over a 5-year period, provided that sufficient funds are available and existing mapping schedules are kept. Each year, two to three new counties would be scoped. Upon study completion, each affected community would be required to adopt the new DFIRM map and update their existing floodplain management ordinance. Every community with a revised DFIRM map will receive the necessary ordinance assistance from the NDSWC. The NDSWC will become a Cooperating Technical Partner in FEMA’s Map Modernization Program. Between NDSWC’s role in flood map restudy efforts and projects undertaken directly by FEMA contractors, there will be significant progress in the number of communities that will be remapped with DFIRMs. In addition, there is the possibility of state and local funds adding to FEMA mapping funds and further expanding mapping projects. Due to the countywide DFIRM format, an increase in coordination with the NFIP communities is anticipated. To help prioritize new mapping projects, to scope studies, and to coordinate with communities, the NDSWC will undertake the following activities:
Outline

- Continue to prioritize mapping projects in North Dakota based on NFIP criteria which include: population growth, adequacy of current maps, development in floodplains, historic flood losses, local resources, links to other state or federal agencies.

- Contact local communities in affected new mapping or remapping areas to discuss their priorities and the nature of the effort. Local and state priorities can be developed into a project scoping meeting. All communities in a county will be invited and NDSWC staff will meet with each affected community in order to address community mapping needs and priorities. A follow-up letter to each community would verify those priorities. These priorities are then developed into a countywide restudy project.

- Provide community coordination meetings upon the completion of review, draft or preliminary maps. Communities will be queried about map accuracy and needed corrections. Information will be shared about the appeals process, map adoption and ordinance updates. Meetings for the county-wide DFIRMs will invite every affected community.

As part of CAVs, CACs and technical assistance, NDSWC staff will share with communities information of North Dakota’s map modernization involvement. Communities are generally interested in participating in the map modernization program to get improvement in mapping quality to make floodplain management administration a lot easier.

**Evaluating State Performance**

We will maintain update the CIS, to identify community information and contacts made. Details are as follows:

**Evaluating State Performance**

We will maintain update the CIS, to identify community information and contacts made. Details are as follows:
<table>
<thead>
<tr>
<th>Outcome/Output</th>
<th>Method of Measurement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maintain the percent of communities that adopt new maps by the FIRM effective date.</td>
<td>95% of communities with new map panels will formally adopt the maps and update their local laws as needed by the effective map date.</td>
</tr>
<tr>
<td>Increase the percentage of communities that adopt new maps prior to the 30-day letter being sent.</td>
<td>70% of communities with new map panels will formally adopt the maps and update their local laws as needed more than thirty days prior to the effective map date.</td>
</tr>
<tr>
<td>Maintain the number of flood prone communities enrolled in the NFIP in North Dakota</td>
<td>The number of participating communities in the NFIP will not fall below 290.</td>
</tr>
<tr>
<td>Increase the number of CRS communities or CRS class improvements.</td>
<td>Through outreach and education, one additional community will join the CRS program.</td>
</tr>
<tr>
<td>Increase the number of CAVs and CACs to communities in North Dakota that result in increased compliance.</td>
<td>CAVs are targeted to communities with the most development potential in their floodplains. CACs will be increased to improve the effectiveness of community floodplain management.</td>
</tr>
<tr>
<td>Improve floodplain management compliance in North Dakota.</td>
<td>Provide appropriate outreach to North Dakota’s NFIP communities to reduce local administration deficiencies or potential violations.</td>
</tr>
<tr>
<td>Increase the number of communities that have adopted floodplain management ordinances that meet the state minimum standards.</td>
<td>At least 5 additional communities will adopt ordinance’s with state standards for increased freeboard.</td>
</tr>
<tr>
<td>Increase floodplain management training in North Dakota.</td>
<td>Target floodplain management workshops to areas that are experiencing development pressure in their floodplains.</td>
</tr>
<tr>
<td>Increase the number of certified floodplain managers (CFM) in North Dakota by 100%.</td>
<td>Promote the CFM through state outreach.</td>
</tr>
<tr>
<td>Increase the number of CFMs on state staff</td>
<td>Add two CFM designations to NDSWC staff.</td>
</tr>
<tr>
<td>Increase the number of floodplain management violations that are brought into compliance.</td>
<td>Follow any violations found during CAVs and CACs and provide assistance to remedy violations. Reduce the number of violations by half from 2004 to 2008.</td>
</tr>
<tr>
<td>Quantify general technical assistance calls handled by NDSWC.</td>
<td>Maintain and build upon an existing information base and history of technical assistance contacts.</td>
</tr>
</tbody>
</table>