STATE OF MARYLAND

FLOODPLAIN MANAGEMENT PLAN
FIVE-YEAR WORK PLAN

DRAFT

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Maryland Department of the Environment
Wetlands and Waterways Program
Flood Mitigation Division

I. History and State Authority

Maryland saw that it had a legitimate interest in assuring that floodplains are not unduly restricted, and that it had a right and responsibility to regulate encroachment. A program was initiated in 1933 by the enactment of the Waterway Construction Law (Article 8-803 of the Natural Resources Article, Annotated Code of Maryland) requiring that a person must obtain a permit if they propose any change to the course, current, or cross section of any stream or body of water in the State, except tidal waters. The primary objective of the permit program is to assure the public safety and damage avoidance when projects are proposed in the floodplain. In addition, the permit program addresses environmental and living resource concerns. The permit program was administered under the Water Resources Administration in the Department of Natural Resources for many years, and, in 1992, the nontidal wetlands review was combined with the floodplain review under the Nontidal Wetlands and Waterways Division. In 1995, these functions were transferred to the Water Management Administration of Maryland Department of the Environment. Originally, the requirement applied to the 50-year floodplain, but the 100-year floodplain standard was adopted in 1976 to be consistent with the federal requirements.

In 1973, Maryland passed the Flood Disaster Protection Act in response to the devastation caused by Hurricane Agnes in June of 1972. It established the Flood Disaster Coordinating Office within the Department of State Planning to coordinate State recovery planning from Agnes. Its role was to coordinate the recovery effort and agencies conducting studies and investigations of flooding problems in Maryland, including the Federal Insurance Administration, U. S. Army Corps of Engineers, U. S. Geological Survey, U. S. Soil Conservation Service, and the Maryland Department of Natural Resources

The Water Resources Administration (WRA) in the Maryland Department of Natural Resources (DNR) was responsible for water resource management activities. In addition to permitting responsibilities, DNR was charged with a program to control the waters of the State and cooperate with federal agencies in matters pertaining to flood control under COMAR 8-901. Included was providing assistance to local governments in drafting land use regulations pertaining to areas subject to flooding and conducting floodplain studies to support this effort. DNR was to act as the State Coordinator for the NFIP.

Maryland passed the Flood Control and Watershed Management Act of 1976 to provide the foundation for watershed planning for flood management. Five goals were established: (1) reduction of existing flood hazards, (2) prevention of future flood hazards, (3) adequate emergency preparedness, (4) preservation of the environmental quality of watersheds, and (5) reduction of economic and social losses. The Act also stated the need for better coordination among agencies having flood hazard mitigation responsibilities. It mandated the development of a list of priority watersheds to be studied for the 100-year flood and the preparation of local flood management plans. The Act created a comprehensive flood management grant program (CFMGP) within DNR which may use proceeds from State debt, upon approval of the Board of Public Works, to fund watershed studies and flood control

and watershed management capital projects. However, no funding was provided until 1980.

The Act was amended in 1980 to authorize $7.5 million in bond revenue for implementation of capital projects. Amendments in 1981 allowed this money to be used for technical studies. As the technical studies and flood management plans were completed, the need for capital projects became apparent, as well as the need for additional funding. The law and implementing regulations encourage acquisition and removal of flood prone structures, while recognizing that structural control measures may be required in certain circumstances. In 1982, the General Assembly authorized an additional $1.5 million in bond funding for the CFMGP. The State funded almost $30 million to the CFMGP for cost shared grants in the period 1980 - 1991, after which the flood grant program was suspended due to budgetary constraints. However, after two major flooding events in 1996, the program became active again, with funding in 1998 until 2003.

In 1981, the General Assembly created the Emergency Management Advisory Council, including representatives from State agencies, county and municipal representatives, and emergency managers, to advise the Governor on emergency management matters. The Department of State Planning had previously been given a coordinating role after Hurricane Agnes in 1972 for flood recovery planning and prevention programs within various State and local agencies. The State Hazard Mitigation Office was delegated to WRA in DNR by FEMA, and tasked with a variety of pre- and post-disaster responsibilities. Included was leading the State Hazard Mitigation Team, preparing federally required hazard mitigation plans, and identifying mitigation projects. The Maryland Emergency Management (MEMA) now leads the State's involvement in post-flood response and mitigation activities. It is responsible for preparing the preliminary damage estimates for the Governor to request a Disaster Declaration and serves as the Governor's Authorized Representative during disasters. In 1995, the State Hazard Mitigation Office was moved to MEMA.

When the Community Assistance Program - State Support Services Element (CAP-SSSE) was created in 1980 as part of the National Flood Insurance Act, FEMA delegated responsibility to implement the NFIP in the State of Maryland. Regular funding was provided by 1985 to provide technical assistance to communities wishing to enter the program in adopting and implementing floodplain management ordinances. Planning funds were provided in the early 1980's for developing a master plan of mitigation and public education activities. The Governor delegated the functions of the State Coordinator for the NFIP to WRA at that time. In 1985, the regular services provided to communities in the NFIP were taken over by the State with funding provided by FEMA. Currently, the State Coordinating Office, now in Water Management Administration of the Maryland Department of the Environment, serves 117 communities participating in the NFIP in the State.

The Coordinating Office visits participating communities every 2-3 years to assure adequate implementation and enforcement of local floodplain management ordinances. In 1989, FEMA determined that a resolution to accept the State's permit in lieu of local ordinances was not sufficient. This resolution had been used in a number of small towns for years. In 1990, a State Model Floodplain Management

Ordinance was developed incorporating both the NFIP and State requirements, and a major effort began to have all communities adopt a new ordinance over the next two years. The Coordinating Office provides general technical assistance to citizens about flood insurance, building standards, flood mapping, and flood safety.

II. Other State Agencies Implementing Floodplain Management Responsibilities

While MDE houses the State Coordinating Office of the National Flood Insurance Program, the local jurisdictions primarily implement the NFIP. The State Waterway Construction Permit is administered by MDE in the nontidal floodplains; State jurisdiction does not extend into tidal floodplains (except for tidal wetlands). Therefore, in riverine floodplains both local and State permits are required, but in tidal floodplains, only the local permit may be required. However, several State agencies play a role in floodplain management and flood recovery and mitigation.

1. Maryland Department of Planning (MDP)

   MDP coordinates the State's recovery from a disaster. The Secretary was appointed by the Governor to oversee the Isabel recovery. MDP operates satellite offices working with local jurisdictions, mainly on Critical Area issues, but sometimes on flood issues.

2. Department of Natural Resources (DNR)

   The Coastal Zone Management Program is responsible for administering the State's coastal policies, including issues of sea level rise, coastal flooding, and protection of property from flooding. DNR also houses the GIS mapping unit responsible for contracting Statewide LiDAR.

3. Maryland Emergency Management Agency (MEMA)

   MEMA is the first responder to any disaster in the State. They prepare the State Plan, administer the Hazard Mitigation Grant Program (HMGP), the Flood Mitigation Assistance Program (FMAP), the Pre-Disaster Mitigation Program (PDM), and is the primary contact agency for FEMA funding.

4. Department of Housing and Community Development (DHCD)

   DHCD administers the State Building Code requirements throughout the State. State Law requires that all communities in the State adopt the International Building Code, which includes floodplain management provisions. They administer HUD Block Grant funds, which are being used for flood recovery.

5. Maryland Department of Transportation (MDOT)

MDOT, especially the State Highway Administration (SHA) is a primary developer of projects affecting floodplains in the State. They conduct numerous flood studies to meet federal and State requirements.

III. State Vision for Floodplain Management

Maryland's vision for floodplain management is closely coupled with its vision for Map Modernization as articulated in that Business Plan. If new studies can be done with FEMA funding and without the costs associated with traditional detailed studies, MDE can develop a new set of "live" studies, which it can modify as watershed conditions change. The Wetlands and Waterways Program, which now reviews proposed changes to the floodplain submitted by outside engineers to issue Waterway Construction Permits, will be able to model any proposed changes and keep the maps current as permits are issued.

Maryland is uniquely positioned to make more effective use of good flood data to support its floodplain management responsibilities. Virtually all identified flood prone communities in Maryland have joined the National Flood Insurance Program (NFIP). Almost all have adopted floodplain management ordinances exceeding the FEMA minimum requirements in the 1990's, and are current with the latest NFIP regulatory requirements of 1989. State requirements to build in floodplains exceed FEMA minimum requirements in most regards. By keeping the maps current, cumulative effects of floodplain development can be addressed. We believe that if reliable floodplain studies were available, many communities would be willing to administer restrictive requirements throughout the floodplain in riverine areas and treat the entire floodplain as a FEMA floodway. A large number of our developed counties currently do not allow new development in riverine areas. Most communities require new subdivisions to show the building pads for new homes to be located outside the 100-year floodplain. Almost all communities have adopted additional freeboard requirements into their ordinances.

Better mapping and annexation will identify additional flood prone communities needing to come into the program. We are advocating greater responsibility on the part of counties for administering the programs of towns within their jurisdiction. Many of our counties are now administering all of part of the floodplain management responsibilities for towns in their jurisdiction. This leads to more knowledgeable and consistent administration of floodplain requirements. Better flood maps will make the administration of floodplain management easier, clearer, and more consistent. Most important, with good maps, floodplain determinations will be understandable to the public, which will in itself support better floodplain management.

Maryland is taking steps toward forming a local chapter of the Association of State Floodplain Managers. Within the next several years we hope to have a functional chapter. The formation and initiation of a new chapter will require a considerable investment in time. However, a local chapter, once operational, could have a very positive effect on promoting better floodplain management in the State.

The time spent in coordination with other State and federal agencies will increase dramatically over the next five years. Coordination has been neglected in the past,

but we are already realizing that this function will require much more time for CAP, and especially with regard to Map Modernization. Therefore, it is being added as a CAP function in this plan.

Training of local officials in the use of GIS software needed to make effective use of the new D-FIRMs will be needed. CAP will be requesting additional funding for a shared GIS position with Map Modernization, who will spend half time on training local personnel in GIS techniques to use the new D-FIRMs more effectively. This new position will serve the new Mapping Assistance, Map Modernization, and Coordination functions and assist in Workshops and CIS, Web, and Database Development functions. These functions are to have a tight link with the State's Map Modernization program by sharing this position.

IV. Community Assistance Program Elements

Listed below are the current and proposed CAP-SSSE functions. Our 2004 FFY budget from FEMA was $100,000. The Vulnerability Report and Fuel Tank Anchoring functions are special projects expected to be phased out. The Business Plan, Coordination, Map Assistance, Local Chapter ASFPM, CIS, and Map Modernization Support are new functions that will require additional effort and support.

- **Five-Year Business Plan for CAP**
    - Prepare and update a 5-year strategic/business plan for the CAP.
- **Community Assistance Visits**
    - Continue to conduct 35-40 CAVs per year. (MD dos not take credit for CACs.) A narrative report, the official CAV report form, follow up letters to the community, and any supporting documentation will be sent.
- **General Technical Assistance**
    - Respond to requests for information from the public. Provide NFIP technical assistance to local officials Provide site-specific reviews; provide assistance with issuance of permits; and other assistance that may be required.
- **Ordinance Assistance**

  Update Model ordinance periodically. Review ordinances as required and assist communities entering program with ordinance development.

- **Newsletters**

- Prepare at least two newsletters annually in memorandum format to be sent to local NFIP contacts.

- **Workshops**

  - Conduct at least three workshops to review NFIP requirements, mapping issues, and to present new material to local officials, surveyors, and other interest groups.

- **Coordination**

  - Coordinate with other State, federal, regional, local and private agencies to promote more effective floodplain management, develop better flood maps, develop effective policies, and educate about flood mitigation.

- **Post Disaster Assistance**

  - Administer the State's Comprehensive Flood Management Grant Program to provide financial mitigation assistance to local jurisdictions, generally in conjunction with federal funding. Provide augmentation to National Flood Insurance Program oriented activities in the immediate post-flood disaster period, as needed. The duration of the task's performance and the allowable budget for the task will be established through coordination with the NFIP State Coordinator and FEMA Region III.

- **Mapping Assistance**

  - Provide training and assistance to local users in GIS techniques and effective use of the D-FIRM maps. Establish a call-in help center to answer questions.

- **CRS Assistance**

  - Promote CRS to get more communities to join and provide assistance on application.

- **Local Chapter ASFPM**

  - Strongly promote, organize, and develop a local chapter of ASFPM with other interested parties.

- **CIS, Web Site, Database**

  - Enter data into CIS. Enhance the floodplain management and mitigation website at MDE. Continue to develop the floodplain management GIS database.

- **Attendance at National Conferences & Regional Meetings**

    - Staff will attend the Annual Conference of the Association of State Floodplain Managers, as well as the biennial Regional meetings, and other meetings and training, as required.

- **Map Modernization Support**

    - MDE will cooperate with FEMA by attending scoping, coordination, map review, and public meetings associated with adoption of the new D-FIRMS. We will seek additional partnerships and funding to accomplish value added improvements to support the study process, such as providing LiDAR data, bridge and culvert data, and other data to improve the analysis of approximate zone flood elevations.

- **Maryland's Vulnerability to Flood Damage.**

    - Develop a report, based on a HAZUS-MH Flood analysis on a county by county basis, with description of past and future flooding problems, costs associated with these flooding problems, and actions that should be considered to prevent the impact of flood events.

- **Residential Fuel Tank Anchoring Program (Oil and Propane)**

    - Preparation and implementation of a program to anchor as many existing, as well as replaced, residential fuel tanks as possible in the floodplain. Emphasis will be placed on tidal surge areas.

- **Entry Assistance**

    - As communities are identified as flood prone by new mapping, assistance will be provided to join the NFIP.

Shown below is a chart that maps out these activities from the years 2004 to 2009 and estimates the percent of the Coordinating Office's effort devoted to each activity. Please note that the Vulnerability Report and Fuel Tank Anchoring functions are special projects expected to be phased out, and that the Business Plan, Coordination, Map Assistance, Local Chapter ASFPM, CIS, and Map Modernization Support are new functions that will require additional effort and support.

CAP ACTIVITIES WITH PERCENT EFFORT FOR EACH BY YEAR

FISCAL YEAR	2004	2005	2006	2007	2008	2009	COMMENTS
CAP Work Plan	8%	1%	1%	1%	1%	1%	New
CAVs	20%	20%	20%	20%	20%	20%	Maintain level
GTA	15%	20%	20%	20%	20%	20%	Maintain level
Ordinance Assistance	2%	2%	2%	2%	4%	5%	Increasing
Newsletters	2%	2%	2%	2%	2%	2%	Maintain level

Workshops	5%	5%	8%	8%	8%	8%	Increasing
Coordination	5%	8%	10%	12%	10%	10%	New; Increasing
Post Disaster Assistance	20%	0%	0%	0%	0%	0%	Isabel, 2004
Mapping Assistance	0%	0%	5%	5%	5%	5%	New; Increasing
CRS Assistance	0%	2%	2%	2%	2%	2%	Increasing
Local Chapter ASFPM	0%	8%	6%	5%	4%	3%	New; Develop. Eff.
CIS, Web, Database	6%	3%	3%	3%	4%	4%	New CIS
Attend Nat&Reg Meeting	3%	3%	3%	3%	3%	3%	Maintain level
Map Mod. Support	5%	10%	15%	15%	15%	15%	New; Increasing
Vulnerability Report	3%	10%	0%	0%	0%	0%	Completed 2005
Fuel Tank Anchoring	5%	5%	1%	0%	0%	0%	Phase out?
Entry Assistance	1%	1%	2%	2%	2%	2%	Increasing

V. Needs Analysis and Gap Assessment

The Program is currently operating with only one full time staff member, which is not enough to run a program of this magnitude and importance. It will not be possible to maintain the existing program, let alone take on any additional activities without more staff, and a more diverse staff will be required to effectively administer the additional functions. The current funding level of $100,000 provides support for the NFIP Coordinator position and an entry-level planning assistant for the CAP-SSSE. The funding provided does not supply the program with the necessary technical expertise that will be required to explain the full capability of the new D-FIRMs to our communities and provide the vital technical link between CAP and Map Modernization. Therefore, CAP is requesting funding for half of a GIS technical position ($25,000) to be shared jointly with the Map Modernization program. (The Map Modernization plan has also requested the shared position.)

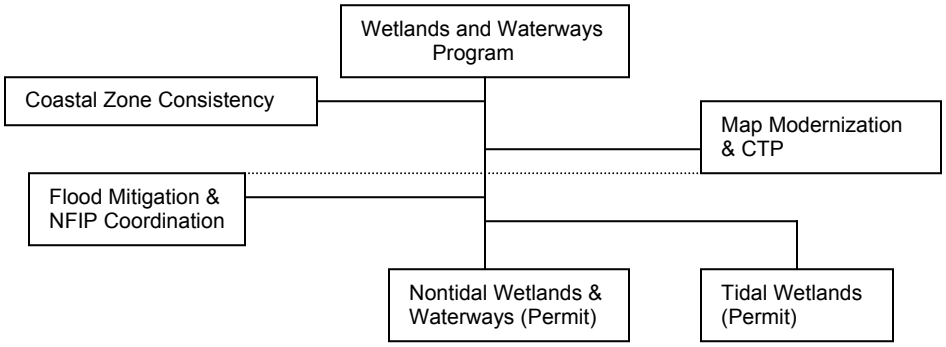
This new position will serve the new Mapping Assistance, Map Modernization, and Coordination functions and assist in Workshops and CIS, Web, and Database Development functions, as well as training local officials in the use of GIS software needed to make effective use of the new D-FIRMs. These functions are to have a tight link with the State's Map Modernization program by sharing this position, and cannot be fulfilled without the technical expertise requested.

The addition of the new functions to the CAP-SSSE, and some existing functions, are based on the level of expertise that has been lost to our program due to lack of funding. We had a full-time GIS/GPS technician in the program. This position will need to be replaced to develop the program as envisioned.

VI. Coordination & Integration with Map Modernization

The diagram below shows the close coordination between CAP-SSSE and Map Modernization where the CTP will be performed. Both are Divisions in the Wetlands and Waterways Program in the Water Management Administration of MDE. The Nontidal Wetlands and Waterways Division issues the State Waterway Construction permit (the State's Floodplain Management permit). Also, Tidal Wetlands issues a permit for tidal wetlands impacts, and this Program reviews Coastal Zone Consistency.

Structure of the Wetlands and Waterways Program in the Water Management Administration of MDE.



The Flood Mitigation Division and NFIP Coordinating Office were moved to the Wetlands and Waterways Program last year to develop better coordination among these functions. The move to Water Management Administration also puts NFIP coordination closer to other programs in MDE where closer coordination is desirable. Among these are: (1) the Non Point Source Program, which includes the Dam Safety Division and the Sediment and Stormwater Division; (2) the Compliance Program, which includes the Enforcement Division which has inspectors in the field to monitor State permit compliance, including the State floodplain permit; (3) the Water Quality Infrastructure Program, which has the fiscal and contractual expertise to manage the Comprehensive Flood Management Grant Program.

The Wetlands and Waterways Program currently reviews engineering data submitted by applicants for proposed activities in the nontidal floodplain. MDE engineers could take a proposed change and model it into our inventory of new flood studies under our Map Modernization Plan. These positions are currently funded under State General Funds. However, a proposal to charge permit fees to fund the positions is under consideration. It is in the State's interest to maintain the flood studies and update them as permits are issued. In the process, the State could issue LOMCs for FEMA, provided that the State would be reimbursed for its cost. MDE could issue the permit faster, update the flood study, and issue a LOMC in a one step process. It should allow the State to make better permit decisions because all changes would be in the system as they are made, and extensive modeling could be done with the existing staff by changing from a review function to a modeling function. Although MDE does not regulate activities in the tidal floodplain, the Department will consider, as part of this business plan, taking over FEMA's responsibilities relating to the issuance of LOMC's in these areas.

CAP-SSSE will coordinate closely and assist with all elements of the Map Modernization Plan. The Map Mod Plan calls for a scoping meeting with each county to help determine where more accurate data is needed and where approximate A-zones will be upgraded. The MDE Contractor will develop the hydrologic and hydraulic analyses based on the best available automated technology, including approximate A-zones and detailed study areas, using new topography, and determine the amount of fieldwork necessary to support the accuracy of the study and provide

verification for each county. Enough field data will be provided to establish BFEs accurately enough to be mapped on the D-FIRM. MDE will work with each county and the Contractor to get the best base mapping information to develop the preliminary D-FIRM panels. Provided that coastal studies are not to be changed, coastal flood elevations will be overlain on new topography. The Contractor will be responsible for developing the D-FIRM map product, including the paper panels to the appropriate scale, and the accuracy of the study data.

MDE will assist the Contractor in assembling as much data to support the flood study as possible, including base maps, LiDAR, or other suitable topographical data, data on bridges and culverts and other data layers available to support flood mapping. MDE and the Contractor will coordinate with the counties to be studied to access and make effective use of local data layers and studies. Measurements of obstructions (bridges, culverts, etc.) and a limited number of cross sections will be obtained to enhance the studies. The sequence of completing studies will be based on FEMA's criteria and the availability of suitable topography to support the study. If topography is not adequate, LiDAR must be completed first.

The collection of the LiDAR data is seasonally dependent (collected during leaf-off and low stage winter season, but without snow), and the analyzed data currently is taking about 9 months to be delivered. The current data is being delivered with neither break-lines nor contours. The research conducted by UMBC and the input of our Contractor will refine what is essential from the LiDAR data to get the most from the flood studies, and may help further define the deliverables from the LiDAR contractor.

MDE will handle the contracting and negotiations to select a Contactor to do the study. Once selected, the Contractor will assist in making future modifications to this plan. The Contractor will be responsible for delivering the initial studies negotiated within 12 months of the initiation of the contract. The Contractor will be responsible for supplying the State with the necessary software and hardware to allow the review and use of the data. FEMA, the State, and the Contractor will determine a suitable method for validating the study data delivered. Success will be measured by timely completion of a D-FIRM product meeting both FEMA's and the State's needs. MDE will seek to continue its relationship with the Contractor on an ongoing basis to complete the State's countywide D-FIRMs. However, this program will be unique, will require adjustment as problems are encountered, and will require close coordination between FEMA, the State, and the Contractor.

Once the D-FIRM is available for each county, the State NFIP Coordinating Office is committed to helping the county through the adoption process. We will review the ordinance to assure that it is current and in compliance with the new map, and will attend adoption meetings and public meetings to assist the county through the adoption process. If any problems should develop, MDE will seek to solve them with the county. A public relations campaign to inform the public of the impact of map changes, and flood insurance workshops could be coordinated through the State Coordinating Office. Once preliminary D-FIRMs have been developed, MDE will provide the digital product to FEMA for final processing including community review and adoption.

MDE will work cooperatively with the University of Maryland, the Contractor, and other State partners to develop an Information Technology (IT) solution to house and disseminate the information collected during this effort. The concept is that the data will

be housed on a central server, but be available to all users through the Internet as needed. Partners with the responsibility to keep the data current will have access to the system to make changes; all others will have read only access. The system should be state-of-the-art and scalable, so that additions can be made without scrapping the system and starting over. FEMA's National Service Provider (NSP) can provide a portion of this solution by housing the final maps and distributing the data.

MDE has contracted with University of Maryland Baltimore County (UMBC) to assess the use of LiDAR for developing stream cross-sections suitable for floodplain analysis. Evolving technology and the fact that the project is likely to take longer than 5 years may further lower costs. The $500,000 preliminary D-FIRM mapping estimate per county may turn out to be an over-estimate for the desired results.

To increase State capability, MDE requests that FEMA fund 2 and1/2 positions under CAP-MAP: (1) a five-year position as Coordinator of Flood Data (at $80,000 per year) - an engineering/data management position responsible for scoping and planning, seeking additional leverage of funding and partnerships, finding ways to manage and use the data, promoting use of the data among State and local partners, ensuring that standards for compatibility of data exchange are in place, providing training in its use, and seeking the IT solution; (2) a five year position as GIS-GPS-Flood Data Technician (at $55,000 per year) - to assemble, develop, and truth data in cooperation with the Contractor and counties, assist in scoping and planning, and assist in training; and (3) a CAP - CAP-MAP position ($25,000 from CAP-MAP and $25,000 from CAP) to assist both programs, as needed. After five years (or the completion of the mapping process), the State and FEMA will decide if and how to continue to fund the positions, depending on the need at the time. Other staff positions to create and maintain the data will be borne by the State. The State's further involvement will depend on the completion of "live" D-FIRMS for at least 16 counties funded by FEMA. If the State becomes involved in issuing LOMCs, MDE expects to collect the review fees, or be reimbursed under a CTP agreement to cover our costs. One of the major savings to the NFIP that must considered under the State's plan is that the study data will be kept current, eliminating the cost of future revisions.

Timeline - Schedule of Completion of D-FIRMS:

The State is proposing the following schedule for the initiation of flood studies and awards from the **CTP agreement**:

YEAR	*D-FIRMS*	*COST ($)*	*COUNTIES*
04	**2**	**1,000,000**	**Anne Arundel; Howard**
05	**4**	**1,750,000 ***	**Baltimore County, Carroll *, Montgomery**
06	**4**	**2,500,000 ***	**Charles , Cecil *, Washington *, Worcester Co.**
07	**4**	**2,250,000 ***	**Calvert *, Queen Anne's, Talbot, Wicomico Co.**
08	**4**	**2,500,000**	**Allegany *, Dorchester, Kent *, Somerset**
09	**2+**	**1,500,000 ***	**Caroline *, Garrett *, (Harford), (Frederick)**

* This figure includes a cost of $1.75 million for LiDAR acquisition for the counties in need.

VII. Evaluation of Performance

Currently, several criteria have been established to measure CAP-SSSE performance in the State's Managing For Results evaluation. These are:

- Number of Community Assistance Visits
- Number of Workshops Conducted
- Number of Issues of the Floodplain Management Newsletter
- Percentage of Communities in NFIP Essentially in Compliance
- Percentage of Communities with Flood Hazards that are in the NFIP
- Number of Identified Nonparticipating Communities
- Number of Flood Insurance Policies Written in Maryland
- Number of Flood Insurance Claims Paid.

These data are reported either quarterly or annually. Under the established criteria, we have 98% of the identified flood prone communities participating in the NFIP, and are achieving a 96% compliance rate with those communities. Currently only 3 identified flood prone communities are not participating. However, additional communities will be identified as flood prone due to better mapping and annexation of additional flood prone land.

The Workgroup that established the Floodplain Management Work Plan Outline has suggested additional performance measures that may be added:

- Increase the number of CRS communities and CRS class improvements. (in our proposed work plan).

- Track the number or percent of repetitive loss structures mitigated. We have identified the repetitive loss structures in Maryland and have provided recommendations for mitigation. However, new repetitive loss structures will show up as a result of disasters and should be tracked separately.

- Increase the number of communities that adopt more stringent floodplain management requirements into their ordinances than in the State Model.

- Increase floodplain management training in the State (in our proposed work plan).

- Establish or increase participation in a State Floodplain Management Association (in our proposed work plan).

- Increase the number of certified floodplain managers (CFM) in the State. With development of an ASFPM chapter, CFMs should follow.

- Increase State inter-agency coordination resulting in better floodplain management (in our proposed work plan).

- Increase the number of floodplain management violations that are brought into compliance. We normally try to follow-up on violations, but due to staffing constraints have been unable to do so in last few years.