**State of Alabama**
**ADECA Office of Water Resources**
**Community Assistance Program/State Support Services Element (CAP/SSSE)**
**National Flood Insurance Program**
**Five Year Work Plan FY05-09**
**FY 2005 Program Objectives**

## I. Authority and Background

### State Authority

The implementation and administration of the National Flood Insurance Program within the State of Alabama is authorized by the Governor of the State of Alabama in an Executive Order. The Executive Order is under review by the Governor's office.

### Background

In 1968, the United States Congress established the National Flood Insurance Program through the Stafford Act (Public Law 90-448). The program created a means through which businesses and homeowners residing in the nation's flood prone areas could acquire flood insurance for their property at affordable rates, (CFR 44, Part 59.2 (a)). The program is defined by 44 Code of Federal Regulation (CFR), Parts 59 through 78. Administration of the program is imparted to local governmental authority through 44 CFR, Part 60 as a participating member of the NFIP.

## II. Outlook

At current funding levels, the State NFIP office will be able to conduct and execute all fundable activities including performance based activities designed through this plan. The State NFIP office expects future operations to reach planned goals and objectives and involvement with state map modernization efforts will create new opportunities for education and outreach and map maintenance as digital maps are completed and communities adopt and update ordinances.

The proposed performance-based activities and metrics are expected to yield real-time results on program effectiveness. We expect significant improvements in floodplain management efficiency and results due to these process controls. Reaction time to potential problems will be dramatically reduced based on the real-time application of specific process controls.

All floodplain management stakeholders will have access to the State NFIP office through a website. Links to state and Federal related sites will be available as well as access to the current state model flood damage prevention ordinance. A database providing access to all state NFIP participating communities will also be established. The establishment of a state association for floodplain managers is anticipated during FY05. While mitigation through ordinance compliance will be a major focus of state NFIP efforts, we expect an increased awareness and participation in the Community Rating System (CRS) as interest levels build regarding the map modernization efforts.

We are also establishing partnerships with other agencies and organizations to provide a more seamless service to our stakeholders including a forum for state agency stakeholders such as ADEM, ALDOT, and Alabama GSA to facilitate sharing of GIS data. Our current working

relationship with the Alabama Emergency Management Agency and the State Hazard Mitigation Officer will provide additional stakeholder support and access to funding for mitigation activities.

## Current

The State NFIP office continues to execute the Statement of Work (SOW) defined in the CAP/SSSE FY 2004 Plan. In addition to continuing planned work load, the NFIP staff is working with the state map modernization program to provide assistance with the initial project scoping process, assistance with map data acquisition, and assistance with the post-preliminary planning process for community review and adoption of revised flood maps. We are assisting the map modernization program in data gathering through existing relationships with local ordinance administrators and community CEOs and in the post-preliminary planning process.

The NFIP staff is working with NFIP communities in the state to expand education and awareness of the floodplain management program including interagency activities such as those with the State Manufactured Housing Association and the Alabama Emergency Management Agency focused on mitigation efforts through compliance with local flood damage prevention ordinances. Efforts to educate through seminars and state-led floodplain management courses are continuing around the state. Community assistance contacts (CAC) and community assistance visits (CAV) are increasing each year and will reach a new high for the FY03-04 period. Guidance and technical assistance to Regional Planning Commissions, Boards of Adjustment, Code Enforcement and Building Officials, and Builders and Real Estate Associations and other stakeholders remain top priorities and the development of performance based activities and performance measures are currently under way.

## B. S-W-O-T Analysis

Strengths

- NFIP membership of 327 communities and counties
- Strong state NFIP staff
- Strong Office of Water Resources policy management and engineering support
- Strong state-wide support of floodplain management principles through local leadership
- Strong participation of floodplain management personnel in continuing education efforts
- Strong support from FEMA, Region IV staff

Weaknesses

- Inability to accurately measure community performance output on a real-time basis
- Difficulty in determining, in real-time, the activity of local administrators regarding development permit and elevation certificate application
- Difficulty in determining completeness and accuracy of physical locations of floodplain properties through permit reporting
- Lack of internet access via webpage to state NFIP data and materials
- No clear inter-agency organization or association (Round-table) for collaborative floodplain management capability
- No designated clearing house for state floodplain management issues

Opportunities

- Develop statistical algorithms for performance-based activities and metrics
- Develop a state NFIP internet home page
- Develop a state chapter of ASFPM
- Continued interaction with the map modernization project to ascertain subsequent map maintenance needs
- Develop additional education and outreach channels
- Introduce floodplain management legislation
- Continue CAP/SSSE projects

Threats

- Reduction in FEMA funding
- Reduction in state funding
- Reduction in state staffing levels

## III. Strategic Overview

### A. Fundable Activities to engage:

- Development and refinement of Five Year Management Plan
- Ordinance assistance
- CAV/CAC execution
- CIS data entry
- State model ordinance research
- Workshops and other training (education & training)
- General technical assistance
- Mapping assistance
- Coordination with other state programs
- Post-disaster assistance
- Development of performance-based activities and metrics

## B. Milestones

**FY 2004**

- Initial development of the draft Five Year Management Plan September 2004
- Establishment of ordinance assistance methodology for all member communities executing the post-preliminary planning (PPP) and map review process, targeting "minimum-time-to-adoption" metric
- Conduct all planned CAV assignments
- Complete CAP/SSSE Statement of Work
- Provide Alabama Attorney General's opinion on legality of current map adoption language in the state's model floodplain ordinance

**FY 2005**

- Conduct all planned CAV assignments
- Execute ordinance updates and map adoption for all NFIP communities affected by FY04-05 map production
- Identify all NFIP participating communities with ordinances dated pre-1996; establish a five-year schedule for updating ordinances; develop database (may be linked to PPP)
- Increase CAC/Technical Assistance activities over previous year's numbers (visits and phone calls) (Contingent on staffing levels)
- Establish State NFIP website
- Establish base line data for performance-based activities and design process control metrics
- Establish initial performance base and methodology for an NFIP Help Desk
- Complete and provide FEMA required CAP/SSSE report up-dates as required

**FY 2006**

- Assist with ordinance compliance in 20% of all communities identified with ordinances dated pre-1996
- Execute ordinance updates and map adoption for all NFIP members affected by FY05-06 map production
- Conduct all planned CAV assignments
- Increase CAC /Technical Assistance activities over previous year (visits and phone calls) (Contingent on staffing levels)
- Publish first reports on performance-based activities as required
- Publish first reports on analysis of NFIP Help Desk
- Assist with the establishment of state chapter of ASFPM
- Update Five Year Plan

**FY 2007**

- Assist with ordinance compliance in 20% of all communities identified with ordinances dated pre-1996
- Execute ordinance updates and map adoption for all NFIP members affected by FY06-07 map production
- Conduct all planned CAV assignments
- Increase CAC/ Technical Assistance activities over previous year (visits and phone calls) (Contingent on staffing levels)
- Publish annual reports on performance-based activities as required
- Publish Help Desk analysis report
- Update Five Year Plan

**FY 2008**

- Assist with ordinance compliance in 20% of all communities identified with ordinances dated pre-1996
- Execute ordinance updates and map adoption for all NFIP members affected by FY07-08 map production
- Conduct all planned CAV assignments
- Increase CAC/ Technical Assistance activities over previous year (visits and phone calls) (Contingent on staffing levels)
- Publish annual reports on performance-based activities as required
- Publish Help Desk analysis report
- Update Five Year Plan

**FY 2009**

- Assist with ordinance compliance in 20% of all communities identified with ordinances dated pre-1996
- Execute ordinance updates and map adoption for all NFIP members affected by FY08-09 map production
- Conduct all planned CAV assignments
- Increase CAC/ Technical Assistance activities over previous year (visits and phone calls) (Contingent on staffing levels)
- Publish annual reports on performance-based activities as required
- Publish Help Desk Report
- Evaluate Five Year Plan/Performance

## Partnerships

The activities development process will build on the existing NFIP information base that provides access to local community leadership, technical groups, floodplain ordinance administrators and local citizens. Program development will gain synergy by working with several state agencies in joint project development, combined funding and reduced project development redundancies. Partnerships will also promote a more efficient and effective execution of state project planning.

Examples:

- AEMA for mitigation;
- ADEM for Storm Water runoff;
- ADOT for highway development.

Some of the potential related users include, but are not limited to, Department of Insurance, LP Gas Board, lending institutions, regional planning commissions, surveyors, engineers, real estate agents, building commission/associations, local building officials, manufactured housing commission, railroads, and city/county planners. Partnering with entities, including local communities, will also benefit Map Modernization in the acquisition of the most up-to-date, accurate base data and studies.

## Work load assignment for FY 2005

| Table 1.1<br>Fundable Activities Analysis<br>(470 work days/year/current staffing) | Units Allocated (470 days Available) | Percent Work-Year | Cumulative Percent |
|---|---|---|---|
| 1. CAV – Average 10 per year | 50 days | 11% | 11% |
| 2. CACs – Visits (linear increases annually) | 44 days | 9% | 20% |
| 3. CACs – Phone calls and related service | 7 days | 1% | 21% |
| 4. CACs – Random Sample Compliance Measure—**Goal 1.0** | 120 days | 26% | 47% |
| 5. Compliance Measure Database Maintenance/Reports—**Goal 1.0** | 20 days | 4% | 51% |
| 6. Mapping assistance & Post-Preliminary Planning plus **Goal 2.0** | 40 days | 9% | 60% |
| 7. Ordinance update from Map Mod impact plus **Goal 5.0** | 104 days | 22% | 82% |
| 8. Seminars and Workshops (4 per year) | 12 days | 3% | 85% |
| 9. Outreach (Speaking engagements-10 events at 2 days) plus **Goal 4.0** | 20 days | 4% | 89% |
| 10. CAP/SSSE – SOW/Annual Plan plus reporting as required | 10 days | 2% | 91% |
| 11. CIS database maintenance/update | 10 days | 2% | 93% |
| 12. Website maintenance | 5 days | .5% | 93.5% |
| 13. State model ordinance research | 7 days | 1% | 94.5% |
| 14. Develop 5-Year Floodplain Work Plan | 10 days | 2% | 96.5% |
| 15. Disaster response/mitigation/miscellaneous activities plus **Goal 3.0**<br>**Base year 2004** | 11 days | 2% | 98.5% |

Variation in this schedule is authorized and could result from a frequency change in the number of map modernization projects completed, the number and extent of community development in floodplains, and/or the occurrence of a major natural disaster.

## Work Load Estimate

### Methodology

The workload estimate is a "snap-shot" forecast of time demands on future task applications. The methodology requires a "net" or "standard" work-year calculation in days and standard time values for each fundable activity. In addition, new tasks required for new functions that are designed as performance measures will require estimated time values. The methodology assumes such forecasts to be inherently inaccurate and, therefore, requiring continued monitoring and updating through a "smoothing" technique. When developing standard time values for activities, the value should include an allowance for unavoidable delays due to unforeseen problems. Furthermore, it would be prudent to array tasks in a hierarchy reflecting major-to-minor importance. As you apply the task work standards to annual work-days, this will assist in visually recognizing potential gaps in the overall funding level. Negative values will indicate the need for additional personnel and/or funding. Table 1.1, Fundable Activities Analysis reflects the current forecast for Alabama's State NFIP staff's annual workload.

## Needs Assessment and Gap Assessments

Planning requires the answer to four basic questions:

1. What do we want to do?
2. What does it take to do it?
3. What do we have?
4. What do we need?

As illustrated in Table 1.1, current estimates for task assignments indicate that the work load can be accomplished with current funding levels. If the priority listing is accurate and our baseline data for time standards is reasonable, we can simply move up the table for a picture of which tasks would be in jeopardy as funding is reduced. See Appendix A for additional information on the task analysis for Table 1.1.

Post-preliminary planning review work and the subsequent ordinance update requirements will require 20 to 25 percent of the planned work year. We are basing this on the 326 NFIP member communities affected by the state remapping program. Annually, the state plans to complete remapping for 10 to 13 counties. The post-preliminary process can be achieved without an increase in funding at current activity levels, given that the estimated task-time standards are reasonably accurate. Table 2.0 offers an assessment of the number of NFIP communities affected by each county map event. The out years reflect smaller needs.

The new performance measure defined by the random sample of floodplain development in high growth communities could be implemented if funding remains level (adjusted for inflation). The travel component of the process may require additional funding, however, this may be captured by the state's share of the program cost. We can define this activity as a "CAC" given that community visits are required to accumulate the data.

The listing of items 14 and 15 in Table 1.1 represents a 4 to 6 percent variance that could be applied to other tasks. Item 14 requires an annual update. Item 15, if it occurs, is the only "unavoidable delay" that can seriously impact any strategic or tactical plan.

The program requires continued funding at current levels; current staffing levels; current asset accessibility.

**Table 2.0 Map Modernization County/Community Schedule**

| Fiscal Year | Number of Counties Mapped | Current Number of NFIP Communities |
|---|---|---|
| 2003 | 9 | 79 |
| 2004 | 13 | 62 |
| 2005 | 11 | 60 |
| 2006 | 13 | 59 |
| 2007 | 12 | 35 |
| 2008 | 9 | 30 |

## Map Modernization Activities

The state NFIP office has established an initial channel of communication between Alabama's Flood Map Modernization Program (AFMMP) projects and the AFMMP staff and will continue to provide program support, keeping up-to-date on AFMMP projects and acting as a liaison to communities to foster a positive relationship between AFMMP and the local community.

The state NFIP office will be involved with the map modernization process through (1) initial liaison activities, (2) data acquisition activities, (3) post-preliminary planning activities, and (4) map maintenance. Post-preliminary processes will include community flood damage prevention ordinance updates and the adoption of new flood maps. The ordinance updates and map adoption, within specified time lines, is an important function of the NFIP involvement with efficiency and cost-effectiveness as the prime objectives in this effort.

## CAP/SSSE Funding

The effect of full funding for CAP/SSSE will be significant. NFIP Team resources will be utilized in the gathering of data and initial contacts with Alabama Flood Map Modernization Program (AFMMP) communities through its normal operation along with the post-preliminary process and map maintenance. The high level of contact will also multiply the effects of heightened NFIP awareness throughout the state and, therefore, increase CAC/CAV/technical assistance needs by communities. Full CAP funding and AFMMP involvement will generally increase NFIP demands and resource needs by creating a higher demand for education, outreach and compliance assistance to local communities.

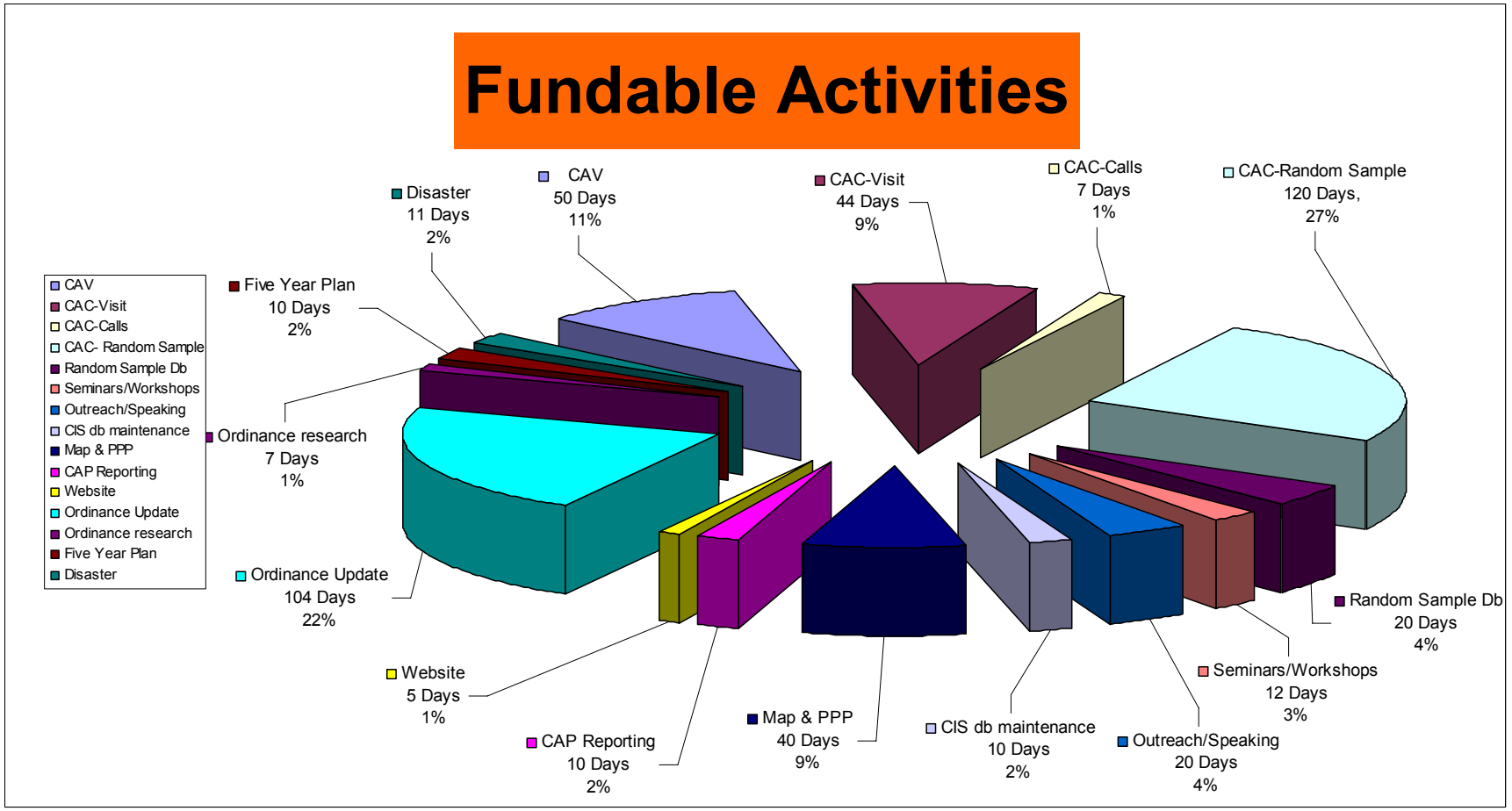



**Figure 1: CAP/SSSE Fundable Activities—Time Allocations**

## Evaluating the State's performance

## Goal 1.0

### Current Status of Metrics

The current NFIP procedure uses two basic approaches to floodplain management review: (1) Community Assistance Contacts (CACs) and (2) Community Assistance Visits (CAVs). Both techniques lack a continuous testing and statistical analysis element with no concerted effort to review the total process within the community or "continuous improvement" strategy. The ultimate test of these efforts occurs with the disaster event. This is the wrong time to determine success or failure of the floodplain management program.

### A New Approach

The goal of any metric is to statistically measure the relevance of the process or procedure in producing the desired product or service. How do we achieve this? We set a required level of performance by establishing a desired quality level, design a procedure and/or process for achieving the required result, and randomly sample the output for outcome compliance. The statistical analysis metric must be a continuous sampling process with real-time results for immediate process review. The objective is to achieve a level of process control that produces a desired level of quality outcome. The use of TQM™ or Six Sigma™ for process control and review is highly recommended and is compatible with the floodplain management process.

If the objective of floodplain management is to achieve "zero defects" in all floodplain construction/development outcomes, then results should be analyzed in "real time". If trend analysis is to be effective, it must be the result of continuous sampling with a specific target population. Each sample must have specific criteria to be analyzed and each criterion must be clearly defined with specific measurable or countable attributes and have an established standard with specific lower limits of acceptance if applicable or an established "no tolerance" requirement. The results can be tracked using various statistical chart applications.

It is possible to establish the parameters within which the process is to work, to collect the data necessary to create the population from which the sample will be drawn, and to visually audit the sample and report the findings/outcomes. Given this activity, it would be possible to draw accurate conclusions regarding the effectiveness of the floodplain management process. The conclusions will provide the direction and focus for process review and process improvement.

**Goal 2.0** Target the remaining 75 non-member, sanctioned communities for membership in the NFIP over a five year period

- Use population criteria to solicit membership
- Use ABC analysis to establish Action List for enrollment
- Target Group A for enrollment during 2005 through 2007
- Target Group B & C for enrollment during FY 2008 - 2009

**Goal 3.0** Reduce the number of claims vs. the property population (number of structure units) for a given disaster; reduce the value of claims vs. the total property value of the property population for a given disaster

**Goal 4.0** Measure the accuracy of the NFIP membership database through scheduled telephone and mail out surveys

- Use the survey technique to promote outreach and awareness
- Up date CIS

**Goal 5.0** Maintain or improve a 90% community adoption rate of new maps by the FIRM effective date.

- Increase the percentage of communities that adopt new maps prior to the 30 day letter being sent

# Appendix A

## Fundable Activities Analysis

Current staffing levels consist of one full-time state coordinator and two additional staff at 50% each. Actual annual work days were set at 470.

- Available work days for NFIP with current staff == **470 work days**;
- CAVs at 10 minimum == 5 days per event; 50 work days; **11%** of work year.
- CACs at annual average of 134 contacts: 33% visits, 66% telephone: Visits=44 days: = **9%** of work year; phone calls=7 work days = **1%** of work year.
- Seminars and workshops: 4 at 3 days per event= 12 work days = **3%** of work year;
- Speaking engagements: 10 at 2 days per event = 20 work days = **4%** of work year;
- CIS data update: 10 work days = **1%** of work year;
- Mapping assistance & PPP reviews = 13 events per year = 40 work days = **9%** of work year;
- Website maintenance: 7 work days = **1%**
- Floodplain/Community random sample of new construction for ordinance compliance measurement: 326 NFIP communities: 48 communities/sample size/quarter: 7 communities visits per week: 7 weeks per quarter: = 28 work weeks = 140 work days = **30% of work year**;
- Random sample data base maintenance and report of results & findings: 4 weeks = 20 work days = **4% of work year**;
- Ordinance update and review: on average--54 per year: 2 days per event: 104 work days: **22 % of work year;**
- State model ordinance research: 7 work days = **1% of work year**;
- Development of 5 Year Work Plan: 21 work days = **4% of work year;**
- Coordination with state programs to ensure ordinance compliance: (Outreach)

# Appendix B

## Program Goals

**Goal 1.0** Create a state-wide database populated with NFIP participating community's floodplain permits issued quarterly with addresses and structure types; use the database to randomly select communities and permitted structures based on specific selection criteria; visually inspect the selected structures and report ordinance compliance status; use statistical analysis of data to determine floodplain management process effectiveness for targeted communities

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- Use ABC analysis to establish Action List for enrollment
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- Use the survey technique to promote outreach and awareness
- Update CIS

**Goal 5.0** Maintain or improve a 90% community adoption rate of new maps by the FIRM effective date.

- Increase the percentage of communities that adopt new maps prior to the 30 day letter being sent.

# Appendix C

## Work Plan Outline: Performance-based activities

| Goal | Output/Outcome | Method of Measurement |
|---|---|---|
| #1-Imporve & evaluate floodplain management through compliance | Achieve compliance levels of 95% for all new construction within the state's floodplains by 2009 | Random sample of development permits/elevation certificates with on-site evaluation of structures; quarterly analysis; (quarterly) reporting or as required; CIS update |
| | | |
| #2-Decrease the number of sanctioned communities | Achieve enrollment of 90% of sanctioned communities in the NFIP by 2009 | ABC analysis of communities based on population; target higher population density communities |
| | | |
| #3-Reduce # of claims vs. # of units and claims value vs. property values | Show improved results of diminished number of and value of claims during post-disaster evaluation; Base line year 2004 | Compare claims filed during future disaster events with those of past events; Goal #1 will play a major role in reducing these numbers |
| | | |
| #4- Measure the accuracy of data in the NFIP membership database | Increase the accuracy of CIS data and state NFIP database; decrease outdated information | Random mail surveys and telephone surveys; |
| | | |
| #5- Increase the percentage of communities that adopt new maps prior to the 30 day letter being sent and prior to the FIRM date | Improve map adoption during the post-preliminary planning process; establish 2004 baseline; Maintain or establish a 90% adoption rate | Compare current year with previous years; |