

Chapter 10. Action Plan

The culmination of the St. Tammany Parish *Natural Hazards Mitigation Plan* is this Action Plan. The general direction of the overall program is outlined here. Specific activities pursuant to the general direction are detailed in Sections 10.1 – 10.3. These sections assign recommended projects and deadlines to the appropriate offices.

Goals The overall directions can be summarized under the six goals established by the Planning Committee and listed in Chapter 4 as updated in 2009:

1. Protect the lives and health of the Parish's residents from the dangers of natural hazards.
2. Ensure that public services and critical facilities operate during and after a disaster.
3. Ensure that adequate evacuation routes, streets, utilities and public and emergency communications are maintained and available during and after a disaster.
4. Protect homes and businesses from damage.
5. Use new infrastructure and development planning to reduce the impact of natural hazards.
6. Give special attention to repetitively flooded areas.

General recommendations appear at the end of Chapters 5 – 9 for each of the five general mitigation strategies. This chapter converts those updated general recommendations to specific action items, generally following the same order as Chapters 5 – 9. It also reviews the progress made toward the 2004 action items and recommends changes.

Priorities The Planning Committee reviewed and discussed many things that can be done to protect people and property from the 13 natural hazards introduced in Chapter 2. It was recognized that priorities must be set so the Parish's resources can focus on those activities that will do the most good. Accordingly, four factors were used to prioritize what should be pursued:

1. **The greatest threats:** Efforts should focus on those hazards that present the greatest threats to the Parish. Chapter 3 reviewed the Parish's vulnerability to the 13 hazards and concluded in section 3.16.4:
 - a. Tropical storms (including hurricanes) and flooding are by far the most severe hazards facing St. Tammany Parish in terms of property damage. Termites, levee failure, and hailstorms are the next most severe.
 - b. Fog is the most severe hazard facing St. Tammany Parish in terms of the threat to lives, safety and mental health. Other, more frequent, hazards, such as tornadoes, wildfires, termites and tropical storms are also important.

- c. Tropical storms (including hurricanes) and flooding have the greatest overall impact on the area's economy. Termites are an added cost of living in the area.
 - d. Some types of property and areas are more vulnerable than others. Special emphasis should be placed on protecting manufactured homes and repeatedly flooded properties.
- 2. Appropriate measures:** The recommended action items need to be appropriate for the type of threat presented. For example, Chapter 3's analysis notes that the major threat presented by storms and floods is property damage, so property protection and preventive measures, such as acquisition and code enforcement should be directed toward those hazards.

On the other hand, the threat presented by fog is a life safety one. No property protection measures or building codes will protect people from automobile and airplane accidents. Appropriate measures for life safety threats are emergency warning and public information activities.

- 3. Costs and benefits:** The Committee considered the costs and relative benefits of alternative measures. These factors are listed in the description of each action item. Costs can usually be listed in terms of dollars, although most of the recommendations involve staff time rather than the purchase of equipment or services that can be readily measured in dollars.

In many cases, benefits, such as lives saved or future damage prevented, are hard to measure in dollars, so narrative discussions are provided. In all cases, the Committee concluded that the benefits (in terms of reduced property damage, lives saved, health problems averted and/or economic harm prevented) outweighed the costs for the recommended action items.

- 4. Affordability:** Not only must the benefits exceed the costs, the projects must be affordable given the Parish's and municipalities' available resources and staffing. Projects such as acquiring and clearing large floodprone areas were discarded because they did not meet these criteria. Other activities, such as elevating or acquiring selected properties, are dependent on outside or additional funding and further analysis to ensure the benefits outweigh the costs.

Based on these factors, the Committee prioritized the possible activities that could be pursued. Some possible projects, such as constructing more evacuation routes, were not pursued because they did not meet the above criteria. The result was 17 action items that address the major hazards, are appropriate for those hazards, are cost-effective, and are affordable.

Action items The 2004 Plan recommended seventeen action items in the following pages. Each action item starts with a short description. The next four subheadings identify

- the agency responsible for implementing the action item,
- the deadline for accomplishing the action item,
- the cost of implementation, and
- the benefits of implementing the action item.

All of the action items can be tied to the above listed goals and the recommendations in Chapters 5 – 9. These relationships are shown in Table 10-1. The recommendations and the discussions in the earlier chapters provide more background and direction on each action item.

The last column in Table 10-1 shows the activity in the Community Rating System that provides credit points for the action. The column also shows how many points the Parish and the municipalities would receive (note that the Parish already receives some of these credits, but the municipalities do not).

Section 10.1 addresses general program items and projects. Section 10.2 lists the public information action items and Section 10.3 reviews additional tasks needed to administer and support *Plan* implementation.

2009 Update The status of each of 2004's 17 action items is added at the end of the discussion on each action item. Recommended action items for 2009 follow. Two new summary tables have been added. Table 10-2 shows the relation between the action items and the 14 natural hazards addressed by this mitigation plan. Table 10-3 summarizes which departments and municipalities are responsible for each action item. Note that two of the 2004 action items are being replaced by new ones.

Mitigation Committee Several action items refer to the Mitigation Committee. A plan is worthless if there is no instrument for ensuring that it is carried out. Accordingly, the creation of a permanent Mitigation Coordinating Committee is proposed to monitor the implementation of the *Plan*, report to the Parish Council and municipalities on its progress, and recommend revisions to this *Plan* as needed. This is explained in action item 15.

Table 10-1 Action Items, Goals, and Recommendations

Action Item	Goal 1. Protect lives and health	Goal 2. Public services/critical facilities	Goal 3. Evacuation routes, streets, & utilities	Goal 4. Protect homes and businesses	Goal 5. Use infrastructure and planning	Goal 6. Repetitively flooded areas	Chapter – Recommendation	CRS Activity - Credit Points
10.1. Program Action Items								
1. Property protection projects	X			X		X	5-3, 5-5, 8-1	530 – 84
2. Public property	X	X	X			X	5-4	
3. Plans and regulations					X		6-1, 6-6, 6-13	430 –25
4. Building code					X		6-3 , 6-5	430 – 95
5. Permit administration					X	X	6-4, 6-9, 6-10, 7-4	430 – 15
6. Floodplain management					X	X	6-2, 6-8, 6-10, 6-12	420 – 38
7. Tree City	X	X	X	X			6-11	
8. Emergency operations	X	X	X				7-1, 7-2 , 7-3	610 –150
9. Flood control projects	X	X	X	X		X	8-1	
10. Drainage system maintenance		X		X		X	8-3	540—50
10. Project scoping	X	X	X	X		X	5-5, 7-4, 8-1	
10.2. Public Information Strategy								
11. Hazard mitigation materials	X			X			8-4, 9-2, 9-3, 9-4	330 – 100
12. Outreach projects	X			X			9-1, 9-2, 9-3, 9-5	350 – 50
13. Flood maps	X			X	X	X	6-7, 9-5, 9-6	
13. Public information topics	X		X	X	X	X	5-1,5-2,8-4,9-1-9-6	
10.3. Administrative Action Items								
14. Plan adoption	X	X	X	X	X	X		510 –200
15. Mitigation Committee	X	X	X	X	X	X		
16. Financing			X	X		X	8-2	540 - 50
17. Community Rating System	X	X	X	X	X	X		

This table relates the 17 action items to the 6 goals of this *Plan*. The goals are stated in full on pages 4-3 and 10-1. The table also shows the relation between the action items and the recommendations at the end of chapters 5 – 9. For example action item 1, Property protection projects, supports goals 1, 4, and 6. It is derived from the 3rd and 5th recommendations at the end of Chapter 5. It is estimated that the Parish would receive 84 points under the CRS for this work. Municipal scores may be different.

Table 10-2 Action Items by Natural Hazard

Action Item	Tropical storms	Flooding	Repetitive flooding	Tornadoes	Wildfires	Drought	Fog	Earthquakes	Hailstorms	Land failure	Winter storm	Dam failure	Levee failure	Termites
10.1. Program Action Items														
1. Property protection projects	X	X	X											
2. Public property	X	X	X	X	X			X	X	X	X	X	X	X
3. Plans and regulations	X	X	X	X				X		X				X
4. Building code	X	X	X	X				X	X	X	X			X
5. Permit administration	X	X	X	X				X	X	X	X			X
6. Floodplain management		X	X									X	X	
7. Tree City	X			X	X						X			X
8. Emergency operations	X	X	X	X	X		X	X	X	X	X	X	X	
9. Flood control projects		X	X											
10. Project scoping	X	X	X											
10.2. Public Information Strategy														
11. Hazard mitigation materials	X	X	X	X	X	X	X	X	X	X	X	X	X	X
12. Outreach projects	X	X	X	X	X	X	X	X	X	X	X	X	X	X
13. Public information topics	X	X	X	X	X	X	X	X	X	X	X	X	X	X
10.3. Administrative Action Items														
14. Plan adoption														
15. Mitigation Committee														
16. Financing		X	X											
17. Community Rating System		X	X											

This table relates the 17 2009 action items to the 14 hazards described in Chapter 2.

Table 10-3 Action Items by Responsible Entity

Action Item	Homeland Security/Emergency Preparedness	Engineering	Permits and Regulatory	Public Works	Cultural and Governmental Affairs	Chief Administrative Officer	Abita Springs	Folsom	Madisonville	Pearl River	Sun
10.1. Program Action Items											
1. Property protection projects	X	X									
2. Public property	X										
3. Plans and regulations			X				X	X	X	X	X
4. Building code			X				X	X	X	X	X
5. Permit administration			X				X		X	X	
6. Floodplain management			X				X	X	X	X	X
7. Tree City				X			X	X	X	X	X
8. Emergency operations	X										
9. Flood control projects		X									
10. Project scoping	X	X									
10.2. Public Information Strategy											
11. Hazard mitigation materials					X						
12. Outreach projects					X		X	X	X	X	X
13. Public information topics					X		X	X	X	X	X
10.3. Administrative Action Items											
14. <i>Plan</i> adoption	X						X	X	X	X	X
15. Mitigation Committee	X										
16. Financing						X					
17. Community Rating System			X				X		X	X	
This table relates the 17 2009 action items to the Parish departments and municipalities responsible for implementing them.											

10.1. Program Action Items

Action Item 1. Property protection projects Continue to seek State and Federal funding support for property protection measures. Priority will be for flood protection projects for repetitive loss properties. All property protection projects that use FEMA funds will be voluntary.

While St. Tammany Parish will continue to support traditional funding programs, staff will also pursue flexible funding arrangements. The first priority will be to fund area-wide flood control or drainage improvement projects that will protect many properties at a lower cost. Where a watershed management plan concludes that certain properties will not be protected by a project, the Parish will seek funding for property protection measures on an individual property basis.

Staff will also work with funding agencies to allow funding for rebates for lower cost measures and alternatives to elevation and acquisition of severely flooded properties. Staff will monitor national and regional developments in policies, procedures and programs that protect properties from repetitive flooding.

Responsible agency: Parish Planning Department/Mitigation Office

Deadline: Varies with each funding cycle's application deadline

Cost: Staff time to arrange funding. The local cost share will be funded by the Parish for publicly-administered flood control and drainage improvement projects (see action item 16) and by the property owners for those projects that focus on one property at a time. In 2003, the costs to administer these programs has been \$122,000 for staff time \$12,000 for overhead and \$12,000 to maintain acquired properties.

Benefits: This approach will ensure that those properties most in need of flood protection will be addressed first and that the most cost-effective approaches will be used. The actual benefits of each project will vary, but at a minimum, Federal funding programs require that the Parish demonstrate that the benefits exceed the costs over time. The costs to the Parish should be compared to the millions of dollars in Federal funds that this effort has brought in.

2009 Update: As reported in Section 5.4.5, the Parish has continued its work to seek funding support for property protection measures. This workload significantly increased with the Hazard Mitigation Grant Program funds made available after Hurricane Katrina. More applications are in the mill.

As reported in Section 8.2, the Parish is working to be the local sponsor for the Corps of Engineers' SELA projects, a key step in getting those projects funded. There has been no action on alternative funding sources, such as rebates, primarily because of the heavy workload needed to pursue all the available sources of Federal and State funding.

2009 Action Item: This action item will continue. FEMA mitigation grants should be pursued at each grant cycle. Project scoping of property protection and flood control projects should be completed to facilitate obtaining FEMA funding (new Action Item 10).

The alternative funding for small projects should remain a lower priority because efforts should focus on readily available funding sources for areas that suffered major damage from recent storms.

Responsible agency: The mitigation grant programs have been transferred from the Planning Department to the Office of Homeland Security and Emergency Preparedness (OHS/EP). OHS/EP is responsible for the property protection projects and the Engineering Department is responsible for the flood control and drainage projects.

Deadline: Varies with each funding cycle's application deadline

Action Item 2. Public property Each department and municipality will evaluate its own properties to determine if they need to be retrofitted or modified to protect them from the hazards that they are exposed to. Priority will be given to critical facilities and major roads. Projects to protect a critical facility in the floodplain will be forwarded to the Planning Department's Mitigation office for submittal for federal funding support.

Responsible agency: Each agency head

Deadline: Report to the Mitigation Committee by March 31, 2005

Cost: Staff time to do the evaluation. Individual projects will be submitted for the following year's budget.

Benefits: Keeping critical facilities operational during and after a natural disaster is vital to public health and safety. Identifying and addressing their exposure to damage will not only reduce property damage to the facilities, it will ensure that they will be available when needed. It is hard to put a dollar value on potential damage averted, but damage to even one facility could exceed \$100,000 in repair costs plus the adverse ripple effect on people and other properties.

2009 Update: This action item has not been implemented. The project scoping work triggered a review of public facilities. Several were submitted and have made the cut for further analysis (Section 5.2.7 and new Action Item 10).

2009 Action Item: Scoping the proposed projects to harden several public facilities will be pursued as a demonstration project that will show the costs and benefits of such property protection actions.

- OHS/EP will disseminate the results to all department heads and the municipalities to encourage them to inventory their publicly owned properties to see if floodproofing or hardening would be appropriate.

- OHS/EP’s message should include a checklist of all the hazards in this Plan that affect structures (i.e., all except for drought and fog), and typical mitigation measures for each.

Responsible agency: Office of Homeland Security and Emergency Preparedness

Deadline: The project scoping should be completed by July 31, 2009. The message to the departments and municipalities should be sent by October 31, 2009.

Action Item 3. Plans and regulations Revisions to the zoning ordinance, capital improvement plan, and other plans and regulations will incorporate the 2025 plan’s recommendations and appropriate recommendations from this *Mitigation Plan*. The Parish and the municipalities will continue to administer their regulations for subdivisions, mobile homes, and coastal zone and wetlands protection. The Watershed Protection Regulations will be adopted.

Responsible agency: Planning and Permits Departments

Deadline: Ongoing.

Cost: Staff time.

Benefits: The current regulatory programs help ensure that hazardous areas will be avoided and new developments will be protected from damage (to some degree). By incorporating the recommendations of the New Directions 2025 plan and the watershed mapping and management efforts, these programs will be strengthened.

2009 Update: Several of the recommended plans and regulations have been adopted in one form or another, as reported in Chapter 6. The zoning ordinance is being revised, one area at a time and some of the municipalities are developing their own comprehensive plans (Section 6.1.4). The zoning ordinance revisions will include new language for mobile homes (Section 6.5.5). Alternative language has been adopted for watershed protection (Section 6.7.4) and Chapter 6 recommends no further action on it (Section 6.11.13).

2009 Action Item: The Parish and the municipalities will review and evaluate their regulatory standards periodically and make changes as needed.

Responsible agency: Department of Permits and Regulatory, each municipality.

Deadline: This is an ongoing activity.

Action Item 4. Building code The Parish will adopt the new State Uniform Construction Code, the 2000 IBC, required by Act 387, replacing the Standard Building Code presently enforced. The Parish will consider adopting the 2000 International Residential Code (IRC) and the 2000 International Mechanical Code. Meetings will be held with municipalities, developers and builders to review and address any concerns regarding the adoption of the I-Codes and/or any amendments recommended by the Permit Department Staff to strengthen the standards for new buildings against damage by high winds, tornadoes and hail.

Responsible agency: Permits Department, each municipal permit office.

Deadline: December 31, 2005

Cost: Staff time.

Benefits: This will improve the hazard protection standards for new construction and will ensure the Parish is compliant with State law. Involving the development and construction industry will ensure that the changes are realistic and supported by those who must implement them.

2009 Update: As reported in Section 6.4.7, all jurisdictions participating in this Plan Update adopted the various International Codes for new buildings. The Mitigation Planning Committee deleted the recommendation in Chapter 6 calling for adoption of the new codes as no longer needed (Section 6.11.3).

2009 Action Item: It is still a good idea to incorporate additional hazard protection standards, such as those recommended by the Institute of Business and Home Safety, the Federal Alliance for Safe Homes, and FEMA's post-Katrina mitigation assessment team. However, changes should not come hurriedly, especially soon after the new codes were adopted. Incorporating natural hazards will be considered every time the code standards are reviewed.

Responsible agency: Department of Permits and Regulatory, each municipality.

Deadline: This is an ongoing activity.

Action Item 5. Permit administration The Parish will request a BCEGS rating from the Property Insurance Association of Louisiana. Based on the BCEGS findings, the Permits Department will review and strengthen its procedures for administering and enforcing the building code and floodplain regulations.

Concurrently, procedures will be developed to require permits and conduct inspections after a flood or other disaster. This will be coordinated with the Office of Emergency Preparedness' assignment to prepare post-disaster procedures for public information and mitigation project identification

Staff from the Permits, Planning and Engineering Departments will review the reference materials for the Certified Floodplain Managers exam and determine which people would be most appropriate to become CFMs.

Responsible agency: Permits, Planning, Engineering and Emergency Preparedness and municipal permit offices

Deadlines:

- Request the BCEGS review by May 31, 2005
- Develop the procedures by May 31, 2005
- Pass the CFM exam by May 31, 2005

Cost: Staff time. The CFM exam is \$100 per person plus Association dues (\$80/year). There could also be a cost for the required continuing education, depending on how the credits are earned.

Benefits: Improved procedures mean that staff will pay more attention to the details of factors vital to natural hazard mitigation when they review plans and inspect sites, such as ensuring that a structure is securely connected to the foundation. Certification will also ensure that staff understand the Parish's and the municipalities' responsibilities under the National Flood Insurance Program.

2009 Update: There have been some staff changes in the Parish's permit office. The new floodplain manager has studied and plans to take the CFM exam. A recent Community Rating System (CRS) verification visit found that the Parish probably has enough points to improve from a Class 8 to a Class 7 (there are only five Class 7s in the state and none have a better class). However, a BCEGS rating is a prerequisite to go to a Class 7.

There is CRS credit for having a BCEGS rating and CFMs on staff, so all municipalities interested in CRS credit should implement this recommendation, too. It is likely that the CRS will initiate a new credit for having a post-disaster recovery and mitigation plan, similar to what is proposed here.

2009 Action Item:

- The floodplain manager, at least one other Parish permit staff member, and the floodplain managers for Madisonville, Abita Springs, and Pearl River will become Certified Floodplain Managers (Sun is not in the NFIP and Folsom's minor flood problem does not warrant the extra effort).
- The Parish and these three municipalities should apply for a BCEGS rating.
- Permit, OHS/EP, and public information staff will develop post-disaster procedures for public information and mitigation project identification.

Responsible agency: Department of Permits and Regulatory, OHS/EP, Cultural and Governmental Affairs, Madisonville, Abita Springs, and Pearl River.

Deadline:

- The CFM exams should be taken and the BCEGS request should be submitted by October 31, 2009. The Parish and the three municipalities should apply for a BCEGS rating.
- The post-disaster procedures will be drafted before the 2010 hurricane season.

Action Item 6. Floodplain management In coordination with the meeting with developers and builders to be held pursuant to action item 4, the Parish's floodplain regulations will be reviewed to determine where revisions would better protect new buildings. Community Rating System credits will be used as an initial guide for regulatory standards.

When the Flood Insurance Rate Map is being revised, the benefits of mapping a regulatory floodway will be reviewed.

The Parish will use every opportunity (within funding constraints) to preserve floodplain areas as open space or other use compatible with the flooding hazard. In coordination with action item 3, developers will be encouraged to set aside floodprone areas toward their open space credits.

It is recommended that Sun join the National Flood Insurance Program.

Responsible agency: Permits, Planning, Engineering

Deadline: Regulatory standard review to be concluded by July 31, 2004

Cost: Staff time.

Benefits: A strong and effective floodplain management program is the most important tool to keep a community's flood problems from getting worse. To be effective, a program needs regulatory standards that address local hazards, adequate maps and appropriate procedures. This action item maps out how to develop those components.

2009 Update: Residents and businesses of the planning jurisdictions have received over \$1 billion in flood insurance claim payments (Section 5.3.3). There are now nearly 39,000 policies in the Parish, Abita Springs, Folsom, Madisonville, and Pearl River, more policies than in 30 states.

St. Tammany Parish households are dependent on NFIP insurance policies to help them recover from a flood, so the Parish and the municipalities need to place a priority on keeping their good standing in the National Flood Insurance Program. Recent Community Assistance Visits found some problems, most of which have been rectified, but steps should be taken to avoid repeating them (Section 6.6.5).

The question of having a floodway on the Flood Insurance Rate Map has been settled. The new Digital FIRM does not show one. The Mitigation Planning Committee notes that the mapping recommendation should be deleted as no longer needed (Section 6.11.7).

The Parish has set aside some more floodprone open space (Section 6.2.4), but it is a small area compared to the size of all the floodplain. The Village of Sun voted in October 2008 to join the NFIP. It has passed the appropriate ordinance, but has not yet submitted the application (Section 6.6.5).

2009 Action Item:

- The Parish, Abita Springs, Madisonville, and Pearl River will have at least one Certified Floodplain Manager on staff (as per Action Item 5),
- The Parish, Abita Springs, Madisonville, and Pearl River will have at least one member of the Louisiana Floodplain Management Association who attend at least one training session each year,
- The Parish and all five municipalities will create a library of appropriate references, including the Coastal Construction Manual and FEMA 480, the desk reference on the NFIP rules, and
- The municipalities will apply to join the Community Rating System and the Parish will improve its CRS classification. This will devote more resources to monitoring local floodplain management and permit administration and encourage a review of their open space and regulatory standards.

The Village of Sun will submit its application to join the NFIP.

Responsible agency: Department of Permits and Regulatory, each municipality.

Deadline:

- Staff should take the CFM exams, join the LFMA, and create the libraries by October 31, 2009.
- The CRS applications should be submitted by April 1, 2010
- The Village of Sun should submit its NFIP application by June 30, 2009.

Action Item 7. Tree City The Parish will implement an urban forestry program modeled on the criteria of the Tree City USA program. This will involve:

- A tree care ordinance
- An Arbor Day observance and proclamation
- A landscape architect to provide advice and assistance

Current environmental programs will be reviewed to see how much of these criteria are already underway in the Parish. Note that Abita Spring is already a Tree City, so this action item is for the Town to maintain its eligibility

Responsible agency: Planning

Deadline: December 31, 2005

Cost: Staff time

Benefits: In addition to improving a community's appearance, an active urban forestry program will address the major problems caused by high winds and winter storms – loss of power, telephone and cable services and damage to vehicles and buildings due to falling trees or limbs.

2009 Update: As noted in Section 6.9.4, Abita Springs has lost its Tree City USA designation. The rules have changed and Parishes can now join.

2009 Action Item: The Parish and each municipality will apply for designation as a Tree City USA.

Responsible agency: Department of Public Works, each municipality

Deadline: The application should be submitted by April 1, 2010 (so any needed funds can be allocated under the next year's budget).

Action Item 8. Emergency operations The *St. Tammany Parish Multi-Hazard Emergency Operations Plan* will be reviewed in detail to determine where improvements can be made and how to maximize credit under the Community Rating System. This process will include the following:

- Identification of where geographic information systems, NOAA Weather Radios, and other new tools can be used to support the Parish's emergency operations,
- Completing the project to prepare flood stage forecast maps for developed areas and adding real-time inundation mapping.
- A review to ensure that all steps are being taken to alleviate traffic jams during an evacuation of the Parish and/or New Orleans.

Responsible agency: Office of Homeland Security and Emergency Preparedness

Deadline: May 31, 2005

Cost: Staff time.

Benefits: An emergency response plan that has been carefully prepared, that is based on all available data on the hazards and their potential impact, that utilizes the latest planning and management tools, and that is regularly exercised will greatly improve local disaster response capabilities. Better disaster response means less loss of life, injury to people and damage to property.

2009 Update: The Parish did evaluate its emergency operations and produced the new *St. Tammany Parish Multi-Hazard Emergency Operations Plan* after Hurricane Katrina (Sections 7.3.4 and 7.4.4). The revisions have been tested successfully by Hurricane Gustav.

Problems and issues continue to be identified with every emergency. While the Contra-Flow plan worked well in Louisiana, problems arose when evacuees entered Mississippi. There are also concerns that releases from the Ross Barnett Reservoir may aggravate Pearl River flooding in the Parish.

2009 Action Item:

- The Multi-Hazard Emergency Operations Plan will be submitted for CRS credit. This will provide an additional critique of the plan that would show whether any more improvements would be useful. It could also result in up to 150 points of CRS credit.
- Evacuation problems that arose during Hurricane Gustav will be reported to the State Police and the Governors Office of Homeland Security and Emergency Preparedness so that they can be avoided during the next emergency.
- Concerns over releases from the Ross Barnett Reservoir will be reported to the appropriate State agencies.

Responsible agency: Office of Homeland Security and Emergency Preparedness

Deadline:

- Submit the needed documentation with the CRS class improvement papers, by April 1, 2010 (see Action Item 6).
- Submit the needed information to the State by June 1, 2009, before the 2009 hurricane season starts.

Action Item 9. Flood control projects The current approach to flood control projects with watershed modeling and planning will be pursued. Priority will be given to protecting critical facilities, evacuation routes, and buildings. The criteria spelled out in section 8.7.1 will provide guidelines to ensure that projects do not adversely affect the environment or increase flood problems on other properties.

Responsible agency: Engineering Department

Deadline: Ongoing

Cost: Continue the current budget level of \$900,000/year. See also action item 16.

Benefits: The benefits of each project will vary, but this approach ensures that the projects selected will provide the most protection for the cost. This action item calls for ensuring the projects meet the criteria set in Section 8.7.1. Several of those criteria assure that adverse impacts will not be transferred on to neighboring or downstream properties.

2009 Update: The list of projects has greatly increased in the new 10-Year Infrastructure Plan and the watershed models (Section 8.3.1). Eight priority projects were selected for project scoping.

2009 Action Item:

- The Parish will pursue scoping and funding of the eight priority projects with FEMA funds.
- The Parish will pursue funding the projects listed in the 10-Year Infrastructure Plan as funds become available.

Responsible agency: Department of Engineering

Deadline: As funds become available

Action Item 10. Drainage system maintenance The Parish will continue its program of inspecting and cleaning drainage channels and retention basins. The drainage system maintenance program procedures will be revised to increase CRS credit. This will involve preparing more detailed procedures that identify sites that need special attention more frequently than the rest of the drainage system.

Responsible agency: Public Works Departments

Deadline: Ongoing

Cost: Staff time.

Benefits: An obstruction to a channel, such as a plugged culvert, can result in overbank flooding during a small rainstorm. By inspecting and maintaining the drainage system, potential flood problems can be identified and corrected before the next big rain. A proactive preventive activity can prevent thousands of dollars in flood damage, closed streets and threats to people.

2009 Update: The drainage system maintenance procedures were revised (Section 8.5.5). When the 2008 CRS verification visit reviewed them, they received almost the maximum credit.

2009 Action Item: The Mitigation Planning Committee recommends that this action item be deleted as no longer needed (Section 8.7.3). It is expected that the Parish and the municipalities will continue to implement their drainage maintenance programs.

Responsible agency: N/A

Deadline: N/A

New Action Item 10. Project scoping The Mitigation Planning team received 18 proposed projects that warranted further review to see if they were eligible and appropriate for a FEMA mitigation grant. This process is described in Section 1.1's 2009 Update and in Appendix D. The scoping will be completed and the best projects will be submitted for funding from FEMA.

Responsible agency: Office of Homeland Security and Emergency Preparedness, with technical support from the Engineering Department and the Department of Environmental Services.

Deadline: The scoping work will be completed by July 31, 2009. The applications for funding will be submitted based on each program's timetable.

Cost: Staff time to complete the scoping. There will be a local cost share for each project submitted, as detailed in Appendix D.

Benefits: To make the cut and receive detailed scoping, the benefits of each project have to be reviewed and it must be shown that they exceed the total costs of implementing them. The benefits and costs of each are summarized in Appendix D.

10.2. Public Information Strategy

Public information efforts that explain safety precautions, property protection measures, and insurance coverage will be continued and expanded.

Action Item 11. Hazard mitigation materials As funding permits, the Parish will prepare background information, articles, and other explanations of the hazard mitigation topics listed in section 9.7.2. Projects will include:

- The annual hurricane preparedness and safety brochure (see example, page 9-2).
- Short articles on different topics to be provided to newspapers, the website and other media.
- A newsletter or collection of articles that covers all of the topics listed in section 9.7.2.
- Brochures and handouts that can be reproduced at low cost.
- Short, one-sentence, notices that are appropriate for cable TV crawlers and utility bill messages.
- A collection of videos and programs that can be played on the cable TV's public access channel.
- Materials suitable for a display, such as maps and photographs.

Masters of these materials will be prepared and made available for reproduction and distribution by interested municipalities, schools, and area organizations. As funding permits, Parish offices will reproduce appropriate ones for their use.

Responsible agency: Cultural and Governmental Affairs

Deadline: The first materials will be ready by December 31, 2004

Cost: Staff time to prepare the masters. Reproduction of the materials will be borne by the users.

Benefits: By preparing a master set of locally pertinent articles and materials, each interested office can select the most appropriate media and distribute the messages. By simply inserting an article in a newsletter or putting it on the website, the local level of effort is greatly reduced, which increases that likelihood that the messages will get out. The messages will also be technically correct and consistent throughout the Parish.

2009 Update: All the 2004 action items were completed with the exception of brochures specifically dealing with flood protection. Other brochures, such as one on fill placement, were provided. The annual hurricane safety brochure has been updated each year and proved quite popular. The Parish has initiated use of old approaches, such as public meetings, and new media, including the President's e-newsletter and a greatly expanded website (Sections 9.1.4, 9.3.3, and 9.4.5).

2009 Action Item: Based on past successes and the results of the public information program strategy exercises (Section 9.5.5), the following materials will be prepared to help disseminate hazard awareness and preparedness messages:

- The annual hurricane preparedness and safety brochure.
- Short articles and news releases on different topics to be provided to newspapers, municipal newsletters, the website and other media.
- Short, one-sentence, notices that are appropriate for cable TV crawlers.
- A collection of videos and programs that can be played on the cable TV's public access channel.
- Handouts, flyers and brochures as identified by OHS/EP to give to school children and to distribute at special events and presentations.
- Information on the Parish's website with links to other sources.

Responsible agency: Cultural and Governmental Affairs

Deadline:

- The annual hurricane preparedness and safety brochure will be ready for late Spring dissemination.
- The short articles and news releases will be timed with relevant activities. For example, information on the flood hazard will be distributed when the new Digital FIRM is finalized and takes effect. Evacuation and storm safety information will be distributed during hurricane season and when storm warnings are issued. Wildfire precautions can be publicized during National Fire Safety Week.
- The other materials will be collected and drafted by April 1, 2010.

Action Item 12. Outreach projects As funding permits, the Parish will prepare and disseminate outreach projects based on the materials provided under action item 11. Such projects will include:

- Distribution of the hurricane preparedness and safety brochure in the early summer.

- News releases issued periodically and in conjunction with special events, such as hurricane preparedness week.
- Playing videos and short programs on the public access cable channel.
- Running one – two sentence crawlers on the public access cable channel.
- Putting brochures out at public places, such as permit offices, libraries, the Courthouse and the administrative offices.
- Setting up a display at appropriate locations and festivities.
- Providing brochures and display materials for Parish officials when they speak to neighborhood and civic organizations.
- Putting more information on the Parish’s website and adding links to other sites with relevant materials.

Responsible agency: Cultural and Governmental Affairs, Management Information System

Deadline: The first projects will be released by December 31, 2004

Cost: Staff time.

Benefits: There are many benefits to having a well-informed public. For example, deaths from lightning have steadily decreased over the years because people are more aware of what they should and should not do. More self-help and self-protection measures will be implemented if people know about them and are motivated to pursue them.

2009 Update: The annual brochure, newspaper materials, and public meetings have been implemented (Sections 9.1.4 and 9.4.5). The website has been used more than predicted (Section 9.3.3).

The display was not prepared, but can be cumbersome and is probably not as effective as a good PowerPoint presentation at public meetings. It should be dropped.

2009 Action Item: The following outreach projects will be implemented:

- The hurricane safety brochure.
- News releases and articles developed under Action Item 11.
- Placing brochures and other materials collected or developed under Action Item 11 in public places and making them available to schools and organizations, such as neighborhood associations.
- Continuing the automated e-mail system that sends current news, including emergency information on pending hazard events, to residents who register.
- Running videos collected or developed under Action Item 11 on cable TV channels.
- Expanding the Parish’s website to include more flood information and links relevant to CRS credit and assisting the municipalities to link to the hazard pages.

Responsible agency: Cultural and Governmental Affairs, OHS/EP, and each municipality

Deadline: Each entity will select the best times to implement these projects.

Action Item 13. Flood maps The Parish will work with its watershed modeling contractors and FEMA to ensure that the next Flood Insurance Rate Map will accurately depict all flood hazards. The resulting maps (or information from the maps, such as flood elevations) will be made available to the public via the website and the Parish's map information service.

Parish staff will meet with the Northshore Area Board of Realtors to review hazard disclosure practices and how the Parish's map information service can help real estate agents advise purchasers of property about the flood hazard.

Responsible agency: Engineering, Management Information Systems

Deadline:

- The schedule for the new maps are dependent on FEMA's timetable.
- A meeting will be held with the Board of Realtors by December 31, 2004.

Cost: Staff time.

Benefits: Learning about the flood hazard, where it is and how high water can go, is the first step to protecting a property from flood damage. This action item will facilitate making that information available to all present and future residents of the Parish.

2009 Update: The new draft Digital Flood Insurance Rate Map has been published and explained at public meetings. The new state laws regarding real estate disclosure are expected to greatly improve the buyer's level of knowledge of a property's exposure to hazards (Section 9.2.4).

2009 Action Item: The new FIRM is essentially done, so the Mitigation Planning Committee recommends that mapping issues be deleted (Section 6.11.7). The Mitigation Planning Committee also recommends that disclosure issues be deleted (Section 9.7.7).

Responsible agency: N/A

Deadline: N/A

New Action Item 13. Public information topics Action Items 11 and 12 identify the most appropriate methods and media to inform the public about the 14 hazards and how people can best protect themselves. This action item focuses on the messages: what those outreach projects should cover. The following topics are the priorities for this effort:

- Safety precautions, including emergency protection measures, family preparedness, fog safety, and evacuation guidance.
- Property protection measures, including protection of buildings and insurance, especially for flooding, wind, storms, wildfires, earthquakes, and termites.
- Flood control measures, including drainage, ditch flooding protection, and dumping regulations.
- Regulations related to flood and wetland protection, including permit requirements
- The Parish's and the municipalities' hazard mitigation projects
- Topics that are credited by the Community Rating System (for specific CRS-credited projects)
- Where people can get help with the above topics

Responsible agency: Cultural and Governmental Affairs, and each municipality

Deadline: Each entity will select the best times to implement these projects.

Cost: Staff time. There will be some cost to copying and distributing projects like newsletters, for example, but the costs can be minimized by “piggy backing” on other projects.

Benefits: As noted for Action Items 11 and 12, there are many benefits to having a well-informed public. Considering the costs to the government of responding to accidents, repairing damaged public facilities, and losing tax income because of a disaster, the cost to educate people on how to avoid harm and property damage is a small investment.

10.3. Administrative Action Items

This section reviews the additional action items that are needed to administer and support the recommendations of the two previous sections.

Action Item 14. *Plan adoption* The Parish Council will adopt this *Natural Hazards Mitigation Plan* by passing the resolution in Section 10.4. The Parish's resolution creates the Mitigation Coordinating Committee which is described in the next action item. The participating municipalities will adopt a similar resolution, to include those action items that are pertinent to the community. The municipal resolutions will assign the appropriate person responsible for each action item.

Responsible agency: Parish Council

Deadline: June 30, 2004

Cost: Staff time.

Benefits: Council adoption of the *Plan* will ensure its implementation. This is also a requirement for recognition of the *Plan* by FEMA funding programs and the Community Rating System.

2009 Update: The *Plan* was adopted in 2005 by the Parish, Abita Springs, Folsom, Pearl River and Sun. Madisonville did not participate at that time.

2009 Action Item: This Update to the Plan will be submitted to the State and FEMA for review to ensure that it meets their planning criteria. Once it is approved, it will be submitted to the Parish Council and each municipal council for adoption. Then, it will be submitted to the Community Rating System for credit.

Responsible agency: Office of Homeland Security and Emergency Preparedness, and each municipality

Deadline: Each entity will adopt the Update within two months of final FEMA approval of the draft *Plan*.

Action Item 15. Mitigation Coordinating Committee The Natural Hazards Mitigation Planning Committee will be converted to a permanent advisory body in the Parish's resolution to adopt this *Plan*. It will:

- Act as a forum for hazard mitigation issues
- Disseminate hazard mitigation ideas and activities to all participants.
- Monitor implementation of this *Action Plan* and
- Report on progress and recommended changes to the Parish Council and each participating municipality.

The Committee will not have any powers over staff or the municipalities. It would be purely an advisory body. Its primary duty is to collect information and report to the Parish Council, the municipalities, and the public on how well this *Plan* is being implemented. Other duties include reviewing mitigation proposals, hearing resident concerns about flood protection and related matters, passing the concerns on to the appropriate entity, and posting its meetings and reports on the Parish's website.

The Mitigation Committee will be, in effect, St. Tammany Parish's hazard mitigation conscience, reminding the member agencies and municipalities that they are all stakeholders in the plan's success. The resolution charges it with seeing the *Plan* carried out and recommending changes that may be needed. While it has no formal powers, its work should act as a strong incentive for the offices responsible for the action items to meet their deadlines.

Responsible agency: Staff support for the Committee will be provided by the Office of Homeland Security and Emergency Preparedness

Deadline: The progress reports are due on the anniversary of the date the *Plan* is adopted by the Parish Council. An annual evaluation of the plan's implementation is required for credit under the Community Rating System. A five year update is required for continuing credit of this *Plan* under the Community Rating System and FEMA's mitigation funding programs.

Cost: Staff time.

Benefits: Those responsible for implementing the various recommendations have many other jobs to do. A monitoring system helps ensure that they don't forget their assignments or fall behind in working on them. The *Plan* should be evaluated in light of progress, changed conditions, and new opportunities.

2009 Update: The committee did not meet after adoption of the *Plan* in 2005. It was re-instituted in 2008 as the Mitigation Planning Committee to manage preparation of this Update. While many original members were re-appointed, they did not all attend.

2009 Action Item:

- The Committee will assume it's new name as the Mitigation Coordinating Committee.
- The Parish President and the mayors will appoint its members with an eye to having fewer, but more interested participants.
- The Committee will prepare the annual evaluations and ensure that they fulfill the annual report requirement for Community Rating System credit.

Responsible agency: The Office of Homeland Security and Emergency Preparedness will coordinate the activities of the Committee.

Deadline: The Committee will meet before the first anniversary of the Parish's adoption of the Update in order to prepare the annual evaluation.

Action Item 16. Financing More funds are needed for flood protection and drainage projects and for meeting the cost-share requirement for state and federal projects. New, dependable sources of funding for flood control, drainage improvements, and drainage maintenance will be sought.

Among other things, a dependable source of funds would allow the Parish to prepare an annual capital improvements budget for drainage improvements. This would receive special CRS credit.

Responsible agency: Chief Administrative Officer

Deadline: Ongoing

Cost: Staff time.

Benefits: Flooding and tropical storms are the greatest hazards facing St. Tammany Parish and without proper controls, flooding will get worse. Constructing flood protection and drainage improvement projects are the most expensive hazard mitigation activities recommended by this *Plan*, but they are the only ones that will reduce the impact of these hazards.

Additional funds are needed, if only to help match available State and Federal funds. A dependable source of funds would finance the planning, construction and maintenance needed to reduce flooding and to prevent obstructions and other problems from aggravating flooding.

2009 Update: Thanks to Hurricane Katrina and other complications, this project did not get started.

2009 Action Item: Creating a new source of revenue can be likened to raising taxes. Given the current economic times, this should not be pursued for the immediate future.

Responsible agency: Chief Administrative Officer

Deadline: When conditions appear appropriate the CAO should present some alternatives to the Mitigation Committee.

Action Item 17. Community Rating System St. Tammany Parish is participating in the CRS as a Class 9. Based on the recommendations in this *Mitigation Plan*, the Parish can improve to a Class 8, saving residents in the unincorporated areas over \$400,000 each year in flood insurance premiums. Once the appropriate action items have been implemented (see Table 10-1), the Parish will submit a request for the class improvement.

The Town of Abita Springs has an active floodplain management program and staff has attended training. The Town currently administers several activities that would receive CRS credit. Therefore, it is recommended that Abita Springs review the CRS Application and other documents and determine if it should apply to join. For each class in the CRS, Abita Springs' residents would save a total of \$2,000 each year, a savings that may not cost any additional effort of Town staff time.

Responsible agency: Planning Department

Deadline: December 31, 2004

Cost: Staff time.

Benefits: In addition to saving residents money, CRS participation has been shown to provide an effective incentive to implement and maintain floodplain management activities, even during times of drought. Therefore, by tying the action items to CRS credits, there is an added reason to ensure that they are implemented.

2009 Update: The Parish did not apply for a class improvement, but is expected to move from a Class 9 to an 8 based on the results of the 2008 “cycle” verification visit. It is calculated that with a little effort, the Parish could improve to a 7. Abita Springs has not applied.

2009 Action Item:

- The Parish should review the following actions with FEMA’s ISO/CRS Specialist for the area to confirm that implementing them will result in the class improvement:
 - Adoption of this Update and preparation of the annual evaluation reports
 - Implementation of the public information strategy action items
 - Obtaining a BCEGS evaluation
 - Submitting the *Multi-Hazard Emergency Operations Plan* for credit
 - Getting two Certified Floodplain Managers for both the CRS credit and to ensure that the Parish stays in good standing in the NFIP
 - Expanding and making a few changes to the website.
- Abita Springs, Madisonville, and Pearl River should apply to the CRS, with assistance from the Parish’s CRS Coordinator and the ISO/CRS Specialist. It is expected that they can receive a Class 9 substantially based on activities administered by the Parish. Folsom does not have the flood hazard to warrant the work and Sun must be in the NFIP for at least a year before it can apply.

Responsible agency: Department of Permits and Regulatory (CRS Coordinator) and the municipalities

Deadline: Within six months of adoption of this Update and receipt of the BCEGS classification.