

accidents, hazardous materials in transit, terrorism, fire, explosion, water supply contamination, hazardous materials at a fixed site, and radiological (in transit).

III. MITIGATION STRATEGY

A. Goal

To develop a planning process and adopt a plan that determines how to reduce or eliminate the loss of life and property damage resulting from natural and human-caused hazards.

B. Objectives

- Identify hazards and assess risks associated with those hazards
- Involve the public and create awareness and understanding of hazards and risks that will lead to support for actions to mitigate those risks.
- Cost-effective selection of risk reduction actions
- Build partnerships
- Contribute to a sustainable community
- Establish funding priorities
- Adopt the mitigation plan and secure approval of the plan by SEMO and FEMA

C. Legislation, Regulations and Programs

1. Federal Pre-Disaster Mitigation Program

The Pre-Disaster Mitigation (PDM) Program was authorized by §203 of the Robert T. Stafford Disaster Assistance and Emergency Relief Act (Stafford Act), 42 USC, as amended by §102 of the Disaster Mitigation Act of 2000. Funding for the program is provided through the National Pre-Disaster Mitigation Fund to assist States and local governments (to include Indian Tribal governments) in implementing cost-effective hazard mitigation activities that complement a comprehensive mitigation program. All applicants must be participating in the National Flood Insurance Program (NFIP) if they have been identified through the NFIP as having a Special Flood Hazard Area (a Flood Hazard Boundary Map (FHBM) or Flood Insurance Rate Map (FIRM) has been issued). In addition, the community must not be suspended or on probation from the NFIP.

44 CFR Part 201, Hazard Mitigation Planning, establishes criteria for State and local hazard mitigation planning authorized by §322 of the Stafford Act, as amended by §104 of the DMA. After November 1, 2003, local governments and Indian Tribal governments applying for PDM funds through the States will need to have an approved local mitigation plan prior to the approval of local mitigation project grants. States will also be

required to have an approved Standard State mitigation plan in order to receive PDM funds for State or local mitigation projects after November 1, 2004. Therefore, the development of State and local multi-hazard mitigation plans is key to maintaining eligibility for future PDM funding.

2. New York State Hazard Mitigation Grant Program

The Hazard Mitigation Grant Program (HMGP) is a Post Disaster Program designed with the intent to reduce future disaster damages, public expenditure, private losses and a community's vulnerability to natural hazards.

The Hazard Mitigation Grant Program was established by the Robert T. Stafford Disaster Relief and Emergency Assistance Act (The Stafford Act), Public Law 93-288, as amended. Authorized under Section 404 of the Stafford Act, regulations implementing the program are found in the Code of Federal Regulations (CFR) at 44 CFR Part 206, Subpart N--ATTACHMENT A.

In conjunction with other hazard mitigation plans and programs, the 404 HMGP provides an opportunity for a community to develop a comprehensive hazard mitigation program, which can be its best insurance against the impacts and costs of future disasters.

a. New York State Responsibilities

State Government Program Administration: Under the 404 HMGP, the state, as grantee, is responsible for processing subgrants to eligible applicants. The Governor's Authorized Representative (GAR) serves as the grant administrator for all authorized HMGP funds. On behalf of the GAR, the Mitigation and Disaster Administration Branches in the New York State Emergency Management Office (SEMO) handles the day to day activities of the 404 HMGP. Among other things, the Hazard Mitigation Branch provides technical advice and assistance to eligible subgrantees, informs them of the availability of the program, and assists in the preparation and review of project applications. The financial management component of the program such as disbursements and financial reports to FEMA are administered by the Disaster Administration Branch.

It is the state's responsibility to identify and select hazard mitigation projects and forward them to the Federal Emergency Management Agency (FEMA) for review and approval.

The state is responsible for establishing procedures and priorities for selecting mitigation measures. In addition to the consideration of the minimum program criteria outlined above, project selection will consider the following:

- measures which best fit the overall plan for development and/or hazard mitigation in the community, disaster area, or state;

- measures that, if not taken will have a severe detrimental impact on the applicant, such as the potential for loss of life, loss of essential services, damage to critical facilities, or economic hardship on the community;
- measures that have the greatest potential impact on reducing future disaster losses;
- measures that are designed to accomplish multiple objectives such as damage reduction, environmental enhancement and economic recovery.

The Hazard Mitigation Policy Committee, of the State Disaster Preparedness Commission, and its subcommittees provide specialized assistance to the mitigation Branch, where necessary, for the purposes of administering the HMGP. An example of such assistance in the formation of a Project Review Board to review and prioritize projects.

A Project Review Board will be convened in order to select and/or prioritize the projects, which will be forwarded to FEMA for funding approval. If available funding is sufficient to fund all of the projects for which funding is requested, all completed project applications received will be ranked and forwarded to FEMA for funding. If there are insufficient funds, SEMO will transmit to FEMA prioritized list of projects whose funding equals the amount available. This prioritized project listing will be developed with the assistance of the Project Review Board. All additional projects will be prioritized and submitted to FEMA as alternatives to the first group of prioritized projects.

If during the review and ranking process additional information is required for a project, such supplementary information will be requested by the Mitigation Branch of SEMO.

Based upon the list of selected projects submitted by the Review Board, the GAR will notify all subgrantees of the decision regarding their application.

SEMO will transmit to FEMA the application package containing all required documentation.

b. Local Government Responsibilities

Local governments and other eligible local entities will assist the state in identifying appropriate mitigation measures. The Chief Elected Official (CEO) of each jurisdiction or non-profit organizations applying for 404 HMGP funding assistance is ultimately responsible for the satisfaction of all local requirements under Sections 404 and 409, P.L. 93-288.

SEMO strongly recommends that the CEO of each County that is applying for 404 HMGP funding, or that contains jurisdictions or non-profit organizations which are applying, appoints a Local Hazard Mitigation Officer (LHMO) who will serve as the point of contact with the State Hazard Mitigation Section. This appointee will also assist in the coordination of all local hazard mitigation activities taking place in all jurisdictions in the county.

The Chief Executive, or his designee, from each eligible entity that applies for 404 HMGP funding must sign the Project Application Form, the State-local Disaster Assistance Agreement, and all required attachments to the application. Each applicant for 404 funding must designate a point of contact for each project.

c. Federal Government Responsibility

The Federal Emergency Management Agency (FEMA) reviews the prioritized list of state submitted applications and decides which to approve or reject based on program guidelines. FEMA has final approval authority for funding all projects. Upon approval of a project application, the FEMA Region II Director will notify the Governor's Authorized Representative (GAR). FEMA will also notify the GAR when funding for approved projects is available for disbursement to subgrantees.

3. Wyoming County

a. Emergency Management Plan

The Wyoming County Comprehensive Emergency Management Plan outlines “a general all-hazards management guidance, using existing organizations and lines of authority to allow the county to meet its responsibilities before, during, and after an emergency occurs. (*Wyoming County Emergency Management Plan*, ii) The plan stipulates that specific annexes such as this flood mitigation action plan can be attached as a “hazard-specific” annex.

Flooding was determined to possess a significant potential for the creation of hazards within the county. While the plan makes no specific mention of the Village or Town of Arcade, flood-related risks received a high ranking for concern in the county’s hazard analysis.

The plan defines the chain of command and hierarchy under which emergency management operations in Wyoming County take place. The primary responsibility to prevent, respond, and aid in recovery during an emergency rests with the municipality. The local jurisdiction must fully utilize all of its own resources before requesting the aid and services of the County Emergency Management Department.

b. Hazard Analysis Report

On April 18, 2002, Wyoming County, in conjunction with the New York State Emergency Management Office, conducted a hazard analysis using the automated program HAZNY. The group analyzed 25 hazards potentially affecting Wyoming County. The analysis rated the 25 hazards in the following order: hazardous materials in transit, fire, flood, ice storm, winter storm (severe), water supply contamination, severe storm, terrorism, tornado, hazardous materials fixed site, epidemic, utility failure, oil spill, transportation accident, blight, civil unrest, drought, explosion, earthquake, radiological fixed site, extreme temperatures, fuel shortage, air contamination, infestation, landslide,

ice jam. These are approximately the same as the hazard analysis ranking for the Town and Village of Arcade.

4. Town and Village of Arcade

a. Village of Arcade Emergency Management Plan

A Disaster/Emergency Plan for the Village of Arcade was completed in 1991 and revised in 2000. Based on the development of this Hazard Mitigation Plan it is recommended that the Emergency Management Plan be revised in 2003.

The Disaster/Emergency Plan was established for the Village of Arcade to respond rapidly and effectively to assure the coordinated activities of all participating agencies in the event of a natural or man-made disaster or in the event of reasonable apprehension of immediate danger.

b. Review of Existing Legislation

Generally, there are three pieces of legislation, which are all related to land use and development, and complement and reinforce the goals and objectives of the Hazard Mitigation Plan. They are the Town and Village Comprehensive Plan (1996), Village Subdivision Regulations (1988), and the Village Zoning (1991).

In particular, both the Comprehensive Plan and Subdivision Regulations specify new street design details, such as maximum allowable grades and curves, which help mitigate the effects of winter storms. Given the history of flooding in the community, it is encouraging to see the attention that the Comprehensive Plan and particularly the Zoning Ordinance pays to flood overlay districts and allowable uses within these. From a standpoint of fire protection, it is positive that the Comprehensive Plan outlines the construction of a new reservoir. Also, the Comprehensive Plan makes particular reference to supporting the Village Police, Fire Department, and Rescue Squad and maintaining these services at "appropriate" levels. Finally, the Comprehensive Plan notes the need for coordination between the village and the town. This joint hazard mitigation plan is a prime example of this positive and mutually beneficial municipal relationship.

However, there are a few instances in the legislation that might benefit from review and possible change in light of the new hazard mitigation plan.

- **Comprehensive Plan, Chapter 3, Section E. Potential industrial development sites identified in the Comprehensive Plan.** Two sites, one along Rt. 98 in the northeast corner of the Village and one along Rt. 98 southeast of the Village were identified as good sites for industrial development. From a hazard mitigation standpoint, these two sites, if developed, have the potential to add a significant amount of new commercial truck traffic to Routes 39 and 98

through the Village. This increases the possibility of a transportation accident or a hazardous materials in transit accident. This may be mitigated by the truck bypass also called for in the Comprehensive Plan, but this is a long term solution for what may be a fairly near-term problem.

- **Comprehensive Plan, Chapter 4, Section F. Spring and well-head protection.** The Comprehensive Plan calls for the protection of the sources of Arcade's drinking water. Given that the primary source is in the Town of Freedom, Cattaraugus County, this would require a new level of municipal cooperation in terms of regulating land use near the springs and in their recharge area.
- **Zoning Section 813. Prohibition of Toxic Substances.** This stipulates that the storage and processing of all toxic chemicals and wastes, as defined by the DEC, is prohibited. While an excellent idea from a hazard mitigation standpoint, this seems vague and ill-defined, as well as relatively unenforceable. This would seem to preclude most industrial activity, and even some commercial activity, from taking place in the village.
- **Comprehensive Plan, Chapter 4, Section F. Continued Support for Police, Fire, Rescue.** As mentioned above, the Comprehensive Plan makes a point to support the continuation of these vital civic institutions. However, the Fire Department and Rescue Squad have indicated the difficulty in attracting new volunteers. It is likely this problem will get worse for the foreseeable future, and any updates to the comprehensive plan might want to consider this crucial issue in more detail.

c. Town and Village of Arcade Agencies Responsible for Implementing Plans, Codes and Activity

Police Department - Responsibility for security and law related issues

Fire Department - Responsibility for accidents and fire safety

Department of Public Works - Responsibility for all other Village functions.

Zoning issues - Zoning Officer

Planning Board - Review of certain development projects

Zoning Board of Appeals (issues that can not be resolved by Planning Board)

Wyoming County Building Department - Responsibility for building and fire code enforcement

Village Board of Trustees - Local laws

Town Council - Local Laws

D. Action Plan

The action items presented here are measures that the Planning Committee has determined will meet the mitigation goals set forth by the Committee. The action items

attempt to build upon efforts and projects previously undertaken or currently underway. The action items are divided into six categories:

- Public Awareness and Information
- Preventive Measures
- Natural Resource Protection
- Property Protection
- Structural Measures
- Emergency Services

Each of the activities are ranked medium, or high for the moderately high hazards based on the hazard analysis (HAZNY) and recommended for action strategies by SEMO.

WINTER STORM (SEVERE)

Severe winter storms occur often in Western New York. These have had cascading effects such as transportation accidents, flood (spring melt-off in association with rain), utility failure (most commonly electric), and structural collapse (roofs). The actions determined by the Planning Committee to deal with Severe Winter Storm include a proactive education strategy, the development of a road closure system, and a system for emergency relocation.

Public Awareness and Information

Develop a proactive education strategy for severe winter storms that would include guidelines on a process for early release of school to avoid accidents and injury and clearance of snow from roofs to avoid structural damage.

Overall Ranking: High

Required Expenditures: \$1000

Cost Effectiveness: Good

Time Frame: By next winter

Potential Sources of Funds: Town and Village Budget

Lead and Supporting Agencies/Partners: Emergency services (Village Police and County Sheriff), Chamber of Commerce, Area businesses - contact personnel offices and target larger ones

Preventive Measures

Road Closure System

Develop a comprehensive road closure and detour system including a system to notify area schools and employees that work in the Town and Village of Arcade.

Overall Ranking: High

Required Expenditures: Less than \$1,000

Cost Effectiveness: Good

Time Frame: By November, 2003

Potential Funding Sources: Internal funding

Lead and Supporting Agencies/Partners: Town of Arcade Highway Department, Village of Arcade Police, Wyoming County Sheriff, Wyoming County Emergency Management Office

Roof Snow Removal

Develop a roof snow removal system and plan for the major public facilities with flat roofs including the Village Hall and Town Fire Hall

Overall Ranking: Moderately High

Required Expenditures: \$1,000

Cost Effectiveness: Excellent

Time Frame: As needed

Potential Funding Sources: Preventative - Internal, based on building, SEMO - if disaster

Lead and Supporting Agencies/Partners: Village of Arcade Public Works

Emergency Services

Emergency relocation

Develop an emergency relocation system that can be implemented for a severe winter storm. This will require revision of Arcade Emergency Management Plan.

Consideration will be given to formal designation of sites such as the Prestolite cafeteria facility (available for any emergency purpose that does not require food preparation).

The system will have a plan for keeping children overnight in the schools. Additionally, the plan should include a system for use in the event of electronic failure and 911.

Overall Ranking: High

Required Expenditures: Minimal, internal funding, volunteers

Cost Effectiveness: Excellent

Time Frame: Have a plan by Fall, 2003

Potential Funding Sources: Internal

Lead and Supporting Agencies/Partners: Village of Arcade Public Works, Village of Arcade Police, Town of Arcade

TRANSPORTATION ACCIDENT

There is a significant amount of truck and rail traffic through the Town and Village of Arcade, mostly on the state routes. Transportation accidents involving trucks have occurred over the past few years, the latest of which was 1986.

Public Awareness and Information

Operation Lifesaver (from National Organization for Rail Safety)

Operation Lifesaver is a national, non-profit education and awareness program dedicated to ending tragic collisions, fatalities and injuries at highway-rail grade crossings and on railroad rights of way. To accomplish its mission, Operation Lifesaver promotes 3 Es:

- Education: Operation Lifesaver strives to increase public awareness about the dangers around the rails. The program seeks to educate both drivers and pedestrians to make safe decisions at crossings and around railroad tracks.
- Enforcement: Operation Lifesaver promotes active enforcement of traffic laws relating to crossing signs and signals and private property laws related to trespassing.
- Engineering: Operation Lifesaver encourages continued engineering research and innovation to improve the safety of railroad crossings.

For the Town and Village of Arcade sessions will be held with schools and emergency responders.

Overall Ranking: Moderately High

Required Expenditures: No cost

Cost Effectiveness: Excellent

Time Frame: schedule in 2003

Potential Funding Sources: National Organization for Rail Safety, NYS Division

Lead and Supporting Agencies/Partners: Railroad

Preventive Measures

Simulation

Simulation would allow for the execution of a plan that would include road hazards/transportation accidents and setting up a detour.

Overall Ranking: Moderately high

Required Expenditures: Less than \$1,000

Cost Effectiveness: Good

Time Frame: Summer 2003

Potential Funding Sources: Local, including volunteer.

Lead and Supporting Agencies/Partners: Neil Williams (Fire Chief)

Natural Resources Protection

Transportation accident with spill

This would include the use of sand and sawdust (large accident) and absorbent (small accident) during a transportation accident with a spill. It includes the use of the county hazmat team and the NYSDEC spill response team.

Overall Ranking: High

Required Expenditures: \$500 (\$50 to \$60 per ton for disposal)

Cost Effectiveness: Very Good

Time Frame: When needed

Potential Funding Sources: Private insurance

Lead and Supporting Agencies/Partners: Wyoming County Emergency Management, Arcade Police, County Sheriff, State Police, NYSDEC

TERRORISM

There is no history of terrorism in the Town and Village of Arcade. However, due to recent events there is now a regional homeland security terrorism team that is primarily handled at the County Level (Wyoming County Emergency Management Office) although the Village of Arcade Police Department has some responsibility. Additionally terrorism needs to be addressed in a Arcade Emergency Management Plan revision.

Preventive Measures

Water Supply

Arcade operates a water supply. The Village and Town needs to continue to deal with increased security including lighting, locks, and windows.

Overall Ranking: High

Required Expenditures: \$3,000 - \$4,000 per facility (12 facilities)

Cost Effectiveness: Very Good

Time Frame: By end of 2003

Potential Funding Sources: Local, state and federal funding

Lead and Supporting Agencies/Partners: Village of Arcade Public Works

Security

Anti-Terrorism School

The school is run by the State Division of Criminal Services and includes a task force. The program has supplied a computer to the Village of Arcade Police Department.

Overall Ranking: Moderately high

Required Expenditures: Internal cost

Cost Effectiveness: Very Good

Time Frame: 2003

Potential Funding Sources: Local

Lead and Supporting Agencies/Partners: Village of Arcade Police, County Sheriff

FLOOD

The flood mitigation action items presented here are measures that the Flood Solutions Development Subcommittee (FSDS) of the Town and Village of Arcade Flood Mitigation Action Plan (1999) determined would meet the flood mitigation goals set forth by the Flood Mitigation Action Plan Technical Committee. These were later reviewed and revised accordingly by the Planning Committee. Therefore action items attempt to build upon efforts and projects previously undertaken or currently underway.

Each of the activities listed below were originally ranked low, medium, or high in three categories. These three categories were the interest in pursuing the action, the technical feasibility of the recommendation, and cost effectiveness of such measures. The FSDS then gave each action item an overall ranking of importance based on the three factors in combination. The action items presented here are those that received an overall ranking of high or medium.

Public Awareness and Information

Disclosure of flood hazards to potential property owners in Arcade is another important aspect of informing those at risk to flood hazards.

The Wyoming County SWCD currently handles requests from perspective homebuyers regarding the location of the proposed property in relation to the FIRM designated floodzones.

Real estate agents are another important resource in disseminating flood hazards to potential property owners.

Action Items:

- The Town and Village will work with SWCD staff to advise people of the SWCD services regarding requests by property owners concerning the location of their property in relation to the FIRM.
- The Town and Village will prepare a package for real estate agents that outlines the risks inherent in purchasing a property that lies in a floodzone and a description of the NFIP and who to contact for further information.

Overall Ranking: Medium
 Required Expenditures: Minimal
Time Frame: 2003 – 2004

Beyond providing information on the location of properties in relation to the FIRM-designated floodzones, it is important to develop a central clearinghouse of information pertaining to flooding, floodplain management, floodplains as viable natural resources, and techniques for protecting structures from flooding.

FEMA publishes a number of resources related to the topics listed above and makes them available at a minimal, if any, charge to municipalities.

Articles from the *Arcade Herald* and other periodicals detailing past flooding are another important resource in raising public awareness of flooding and floodplain management.

Action Items:

- The Village Clerk will use the Arcade Free Library as a clearinghouse for resources related to flooding and floodplain management and property protection techniques.
- Collect the resources available from FEMA and other sources and catalog them in the library's reference section.

Overall Ranking: High
Required Expenditures: Minimal
Time Frame: 2003

The provision of technical assistance to property owners is an important component of providing the public with information on reducing flood damages.

The Wyoming County SWCD currently does site visits to review the extent of damage done by flooding. The Village of Arcade Department of Public Works and Town of Arcade Highway Department do site visits to handle drainage and sewer issues. All three agencies provide this service at the request of property owners.

Action Items:

- The Village Superintendent of Public works will provide information about floodproofing techniques, how to pick a qualified contractor, and the recourse available to them if they are not satisfied with the work as part of the clearinghouse at the Arcade Free Library and in locations where the FIRM is available.
- The Town and Village will inform property owners of the services available from the village, town, and SWCD regarding assessment of damage due to flooding and drainage issues.

Overall Ranking: High
Required Expenditures: Minimal
Time Frame: 2003

Preventive Measures

Floodplain regulations for the village and town are currently in place, but do not completely limit development in the floodplain nor do they require that new structures be built at heights above the base flood elevation.

There are areas in Arcade not shown on the FIRM that are susceptible to flooding during periods of heavy rainfall. The village and town have contacted FEMA regarding revisions to the FIRM and the process is currently underway.

Training for zoning officers and planning board members is provided periodically by the NYSDEC in cooperation with Wyoming County.

Action Items:

- The Village and Town Boards will review and update the Floodplain Local Laws that were previously adopted.

- The Village and Town Boards will consider setting the elevation of new structures (if permitted) at two feet above the base flood elevation.

Overall Ranking: High
Required Expenditures: Minimal
Time Frame: 2003 – 2004

Zoning plays an important role in reducing flood damages to property and risks to the safety of residents and others by mitigating the adverse effects of properties on adjoining properties. The following action items are in process:

Action Items:

- The Village and Town will complete a joint update and create a uniform zoning law for both the Village and Town of Arcade to ensure consistency of development and consideration of floodplain management including:
 - ❑ Low density zoning
 - ❑ The model stormwater management regulations developed by the NYSDEC
 - ❑ Standards for private bridges
 - ❑ Setback requirements along streambanks
 - ❑ Standards for driveways and corresponding culverts
 - ❑ Limit lot sizes for impervious surfaces
 - ❑ Dams and ponds
- The Committee and Planning Board will make recommendations to the Village and Town Boards.

Overall Ranking: High
Required Expenditures: Minimal
Time Frame: In progress

As with zoning, subdivision regulations are another land use control that can be used to prevent increased flood damages.

Action Items:

- The Village and Town will complete a joint update and create uniform subdivision regulations including the consideration of:
 - ❑ A “safe building site” above the base flood elevation on each lot
 - ❑ The placement of roads with respect to base flood elevations
 - ❑ Require public utilities to be placed above base flood elevations
 - ❑ Exclude development or encroachment in the floodway
 - ❑ Include stormwater management regulations to provide for adequate drainage
 - ❑ Mandate that flood hazard areas be shown on the plat

Overall Ranking: High
 Required Expenditures: Minimal
 Time Frame: 2003 – 2004

Preservation of open spaces in flood prone areas offers another preventive action that helps in reducing flood damages by serving as detention areas for floodwaters, particularly where proper vegetation is placed. The costs for projects of this type can often be defrayed, in part, through existing Natural Resource Conservation Service (NRCS) and SWCD sediment and erosion control programs.

Action Items:

- The Committee will investigate the feasibility of placing vegetative buffers along Cattaraugus Creek, Monkey Run, Spring Brook, Clear Creek and Haskell Creek. Implementation options will be determined.

Overall Ranking: High
 Required Expenditures: Moderate
 Time Frame: 2003 – 2010

In addition to stormwater management regulations, the consideration of additional area-wide stormwater management facilities can reduce the long-term risk of flood damage to certain areas of the Village and Town.

Action Items:

- The Village Superintendent of Public Works and the Town Highway Superintendent will evaluate the feasibility of constructing stormwater management facilities in the following six areas of Arcade:
 - Dry Creek Area
 - East Arcade Road
 - Java Lake Road
 - Clear Creek (near Freedom, NY)
 - Cemetery Ditch on Park Street (*design underway*)
 - Deacon Drive Ditch (*under consideration*)
- If feasible, facilities will be designed and constructed, as funding is available.

Overall Ranking: High
 Required Expenditures: Moderate to High
 Time Frame: 2003 – 2010

Better-maintained drainage systems can reduce flood hazards and risks by reducing the amount of floodwaters that cause damage by riverine and overland flooding and runoff that affects properties.

Action Items:

- The Village Department of Public Works will prepare a drainage system maintenance plan that specifies needs and outlines responsibilities including temporary and permanent easements.

Overall Ranking: High
 Required Expenditures: Moderate
 Time Frame: 2003 – 2004

Natural Resource Protection

Wetlands serve numerous functions and are useful in detaining water from riverine and overland flooding because of their permeable soils and vegetation that require and hold larger amounts of moisture than other riparian habitats.

Action Items:

- The Planning Board will evaluate the feasibility of protecting wetlands in the Village of Arcade during site plan and subdivision reviews.

Overall Ranking: High
 Required Expenditures: Low
 Time Frame: Ongoing

Erosion and sediment control serves the dual purpose of protecting natural resources and mitigating flood hazards and risks. Erosion and sediment loss as a result of new development needs to not only be regulated but also enforced.

Action Items:

- The Village Superintendent of Public Works and the Town Board will implement erosion and sediment control projects as funding allows (i.e. the Environmental Bond Act) at the following sites:
 1. Clear Creek retaining wall – approximately 250 feet of pre-cast cantilever wall with concrete footer and grade control sills.
 2. Yansick Lumber Company (Cattaraugus Creek) – approximately 1000 feet of 10-foot high rock rip-rap.
 3. Agway (Cattaraugus Creek) – repair of approximately 1000 feet of 10-foot high rock rip-rap.
 4. Private Residence (Cattaraugus Creek) – approximately 200 feet of 10-foot high rock rip-rap.
 5. Other areas as identified.

Overall Ranking: High

Required Expenditures: Moderate
Time Frame: Ongoing

Property Protection

Many of the structures in the village are older having been built in the late 19th and early 20th centuries. Many of these were built without considering flood elevations. The placement and construction of these buildings makes elevation of the structures impossible.

Flood proofing is appropriate for some residences, while acquisition and removal of structures in certain areas would reduce the height of floodwaters and reduce flood risks to nearby properties. The Village of Arcade and Wyoming County have applied for funding to remove structures in frequently flooded areas.

Action Items:

- The Town and Village Boards will encourage property owners to consider floodproofing their properties and attempt to procure funding to defray the costs. Floodproofing would be most appropriate for property owners on Pearl Street, Mill Street, and Park Street.

Overall Ranking: High

Required Expenditures: Dependent on funding

Time Frame: As soon as possible for targeted acquisitions and removals

Throughout the planning process, the Committee (and the POPS in particular) has attempted to educate property owners about the benefits of NFIP coverage for residences and businesses. The most effective means the town and village have for receiving assistance from FEMA is to increase participation in the NFIP. The work of a local insurance agency has been vital in raising awareness.

Action Items:

- After formally adopting the all hazard mitigation plan, the Village and Town Boards will submit the plan for CRS credit and subsequent reductions in NFIP premiums.

Overall Ranking: High

Required Expenditures: Minimal

Time Frame: 2003

Structural Measures

Over time debris and settlement build up throughout stream channels resulting in heightened stream elevations that increase the likelihood of riverine flooding, and intensifying its effects when it does occur.

Permits have been received from the NYSDEC by the SWCD for debris removal in Clear Creek. No permits are required if machinery is not used and there are no significant alterations to fish and wildlife habitats.

Action Items:

- The Village Superintendent of Public Works will work with appropriate parties to ensure that storm sewers are installed at the following locations where stormwater runoff produces hazards and risks during flooding (ranked in order of importance):
 1. Mill Street from Park Street to Clear Creek (*partially done*)
 2. Culverts on Liberty Street
 3. Route 98 South near Bray Road on town's southern border
 4. Park Street from Mill Street to Sullivan Avenue (*cleaned only*)

- The Village Superintendent of Public Works will increase the capacity of the following storm sewers (ranked in order of importance):
 1. The old post office on Main Street
 2. Church Street at the Village Hall and Pioneer Elementary School (*cleaned only*)

Overall Ranking: High

Required Expenditures: Moderate to High

Time Frame: 2003 – 2010

As stated earlier, the limited capacity of the pipe under the railroad tracks in the Glenwood Avenue/Haskell Avenue/Deacon Drive area results in overland flooding during heavy rainfall.

Emergency Services

At present, the National Weather Service does not provide specific reports for Arcade. It is clear that alternative measures need to be found to warn residents of impending flooding to take a more proactive response to flood emergencies.

The current emergency plan for the village and town provides for a command structure, operations center, and other protocol for emergency service providers.

Action Items:

- The Committee will develop a flood warning system in Arcade with the cooperation of the Wyoming County Office of Emergency Management Services that includes installation of a rain gauge at the Village of Arcade Police Station and possibly marking bridges with critical flood elevations (the Main Street bridge has been marked).
- Village and Town Board will update the local emergency plan to more thoroughly address flood hazards and risks especially in regards to critical facilities.

Overall Ranking: Medium
Required Expenditures: Minimal
Time Frame: 2003 – 2005

Other Considered Mitigation Activities

In addition to the action items discussed above, other flood mitigation measures were also considered by the FSDS. However, for reasons particular to each one, they were not included in the plan. The list below illustrates other mitigation activities that were considered as action items for the Village and Town of Arcade.

Flood Information Outreach Projects

The planning process utilized for the flood mitigation action plan was two-fold in that it allowed for participation while simultaneously raising residents' awareness of the flooding issues and related hazards and risks through the survey, public meetings, and newspaper coverage of the plan. It was felt that the return on further outreach projects would not be justified when compared with the costs involved.

Other options that were explored included direct mailings containing information concerning floods, inclusion of information in utility bills, and designing special outreach products. In addition, the mandatory disclosure of flood problems on properties by real estate agents was another measure that was considered. The regulation and enforcement of such a measure was viewed to be too costly compared with the benefits it would provide.

Other forms of environmental education programs for children and adults were considered, but it was determined that their effect would be minimal in comparison to the time and resources needed to organize and conduct such programs. The Wyoming County SWCD currently conducts conservation field days for elementary school students and is willing to include flood education.

Preventive Activities

The FSDS focused largely on preventive, non-structural measures to reduce the flood hazards and risks in the Village and Town of Arcade. Therefore, the majority of measures available for preventive activities to mitigate flood hazards were included as specific action items. The following are measures discussed but not determined to be appropriate for Arcade.

A preventive activity discussed was the elevation of existing structures throughout the village and town above base flood elevations. However, given the location and design of the large majority of buildings in Arcade, this option was not found to be feasible or cost-effective.

The use of cluster development regulations in zoning and subdivision ordinances or as a separate ordinance was discussed. The FSDS decided that cluster development was not appropriate and would have little effect in reducing the flood hazards in the Arcade.

Natural Resource Protection

An additional natural resource protection measure discussed but not included as an action item was the inclusion of flood considerations in agricultural best management practices. The Wyoming County SWCD currently produces agriculture plans for local farmers and many of these do consider potential problems resulting from flooding. The FSDS ranked the measure as low in interest in implementing and cost-effectiveness, but high in technical feasibility.

Property Protection

The only measures not developed into specific action items in this category were the relocation and elevation of certain structures in the floodzone and acquisition of undeveloped floodzone property. Relocation and elevation were deemed not to be cost-effective. The acquisition of undeveloped properties in the floodplain was not possible due to the lack of undeveloped property in the floodplain, particularly in the village.

Structural Projects

As stated earlier, the FSDS attempted to focus on non-structural measures because of the benefits they produce in other facets of environmental protection and because of the high construction and maintenance costs involved with structural projects.

Reservoirs, levees, floodwalls, straightening of stream channels, and high flow diversion measures were all found to have too high of a cost in comparison with the return they would have in alleviating or reducing flood hazards and risks.

Emergency Services

Automated rain and stream level gauges were considered by the FSDS. However, the introduction and monitoring of manual gauges were considered more cost effective. Critical facilities were also examined for possible relocation or elevation, but the benefits of each were greatly outweighed by the costs.

FIRE

Major fires have occurred in the Town and Village of Arcade throughout the 1900's including the Main Street fire of 1902, and fires at industrial facilities in 1967 (Devere Plastics) and 1993 (Yansik Lumber). There was also a fire at the Elementary School in 1967. Fire could produce air contamination and will require additional education, fire safety training in the school, and a revision to the Arcade Emergency Management Plan.

Preventative Measures

Recruitment/Volunteers

With the current situation of decreased volunteers there needs to be consideration of a paid fire department, consideration of retirement benefits, and a need to document changes in number of volunteers.

Overall Ranking: High

Required Expenditures: \$100,000 per year

Cost Effectiveness: Good

Time Frame: Consideration and planning - 2003

Potential Funding Sources: Local

Lead and Supporting Agencies/Partners: Arcade Fire

Inspections

There needs to be increased resources for building inspections, especially industrial buildings. A formal recommendation such be made to Wyoming County to increase code enforcement staff.

Overall Ranking: High

Required Expenditures: \$1,000 per year

Cost Effectiveness: Very Good

Time Frame: as available

Potential Funding Sources: Local

Lead and Supporting Agencies/Partners: Wyoming County Code Enforcement and fire department

Natural Resources

Given some of the land use in the Town of Arcade there is the possibility of forest fire.

Overall Ranking: Medium

Required Expenditures: Less than \$1,000

Cost Effectiveness: Very Good

Time Frame: When needed

Potential Funding Sources: Local, county, state

Lead and Supporting Agencies/Partners: Wyoming County Emergency Management, Arcade Fire

Structural

Given the increase in population in the Town of Arcade there needs to be an increase in the number of dry hydrants. Locations should be investigated and 2-3 per year should be installed over the next few years.

Overall Ranking: Medium

Required Expenditures: Less than \$1,000

Cost Effectiveness: Good

Time Frame: 2-3 per year (especially with number of structures going into the Town)

Potential Funding Sources: Existing county program Wyoming County Soil & Water Conservation District, Arcade Fire, Wyoming County Emergency Management Office

Lead and Supporting Agencies/Partners: Wyoming County Soil & Water Conservation District, Arcade Fire, Wyoming County Emergency Management Office

HAZARDOUS MATERIALS IN TRANSIT

See Transportation Accidents

IV. PLAN MAINTENANCE

A. Maintenance System

1. Monitoring and Evaluation System

- The Plan will be reviewed and revised annually by the Planning Committee and the public and will be forwarded to the Town and Village Board for review and adoption every five years. Annual review will take place in March with Town and Village Board review and adoption of changes scheduled for April.
- Evaluation of the Plan will be done by comment of the general public. A notice will be put in the local newspaper announcing the annual review, the location of the Plan, and the solicitation of comments. The notice will be put in the local newspaper in February and allow 30 days for public comment prior to Planning Committee review and revision.
- The review and re-evaluation of risks and hazards will be done at the annual Planning Committee review of the Plan.