



# *Silver Jackets*

**Many Agencies**

**One Solution**

**Reducing Risk**

October 2006



*Dam failures, drought, earthquakes, flooding, hurricanes, levee failures, terrorism, tornadoes, wildfires... ..For any one of these hazards, the following can be stated,*

“We need to work collaboratively.”

“We need to apply lessons learned.”

“We need to develop strong partnerships.”

“We need to improve public communication.”

“We need to improve coordination during response and recovery.”

“We need to clarify agency roles and responsibilities.”

“We need to send the same message.”

“We need to improve processes.”

“We need to leverage resources.”

Today we are facing many issues, but more often than not it is easier to say there are too many issues to deal with and go back to our individual jobs. However, our roles in responding to or reducing risks associated with natural hazards overlap and impact each other. With so many issues surrounding us, the big question is - Where do we get started?

Here is the first step.....



## EXECUTIVE SUMMARY

The Silver Jackets Program is a program through which the US Army Corps of Engineers (USACE), the Federal Emergency Management Agency (FEMA), and other Federal agencies create an interagency team at the state level to develop and implement solutions to state natural hazard priorities. The Silver Jackets Program provides a formal and consistent strategy for an interagency approach to planning and implementing measures to reduce the risks associated with natural hazards. The program's primary goals are to leverage information and resources, improve public risk communication through a united effort, and create a mechanism to collaboratively solve issues and implement initiatives.

To date, the Silver Jackets Program has initiated pilot programs in Ohio, Indiana and California. These teams have succeeded not only in improving communication, but also in leveraging resources and programs between Federal agencies. For example, coordination through the Ohio team has enabled the small community of Marietta to acquire detailed mapping of its community by tapping into an ongoing, regional watershed study, at nominal costs. Through the same Silver Jackets team, an opportunity was discovered to integrate two different programs by utilizing the USACE Planning Assistance to States Program to provide resources and FEMA's Flood Mitigation Assistance (FMA) Program to outline the requirements - resulting in the town gaining eligibility for FEMA flood mitigation funds. Nancy Olson, Natural Hazards Program Specialist, FEMA Region V stated: *"Serving as a member of Silver Jackets has been an inspiring experience for me especially when we took the team into the field to work with the first pilot community, the City of Marietta. As the community officials voiced concerns or obstacles there were members of the team right there to identify a possible resource or idea to assist the community in defining a solution."*

Since its inception in April of 2005, the Silver Jackets Program has greatly advanced its goal of providing a unified, point source of flood risk and hazard mitigation support. In describing her experiences with the Silver Jackets team, Cindy Crecelius, Program Manager for the Ohio Department of Natural Resources stated: *"For the State of Ohio, the Silver Jackets initiative created a cooperative environment that brought local, state and Federal interests together to address actions that help communities make themselves less susceptible to the impacts of natural disasters. Prior to this effort, the Federal agencies with resources and influence generally operated independently from the state and local efforts. Silver Jackets is bridging the independent agency circle of influence. This approach employed planning, collaboration, and focus to local issues, and allowed the Federal and state resources to compliment the local abilities."*

For the future, the Silver Jackets Program proposes continuing with team development on a state by state basis, with the ultimate objective of establishing an interagency team in every state. Each team will include FEMA, USACE, the State National Flood Insurance Program (NFIP) coordinator, and the State Hazard Mitigation Officer as standing members and lead facilitators.



While the State of Ohio pilot demonstrated that this initiative can work, it also highlighted key lessons learned for future team building efforts, including,

- Results will take time. Teams will evolve and barriers need to be overcome. It will take an initial investment before long-term value is demonstrated.
- Requires dedicated resources. Each team will need a dedicated lead with the skills to maintain the momentum of the team.
- Each team has the flexibility to be different. Priorities will be set on the needs of each state. Need to establish an initial issue/focus area as a primary step.
- Benefits will translate across state boundaries.

Based on these lessons, the recommended next steps and resource needs for the Silver Jackets Program in the upcoming year include,

- Commitment from FEMA and USACE headquarters to implement the program nationwide and provide resources to the field to implement team activities;
- Designation of USACE and FEMA as lead Federal agencies;
- Designation of USACE as lead administrator;
- Designation of the Institute for Water Resources for program management;
- Implementation of a five year phased plan;
- Development of a competitive selection process for USACE field offices; and,
- Selection of the National Flood Risk Management Program activities as initial team focus.



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The name Silver Jackets comes from the different colored jackets which various agencies wear when responding to disasters, such as, USACE personnel wear red and FEMA personnel wear blue. The “Silver” Jackets represents a unified interagency team.

## 1.0 **Introduction**

The National Response Plan issued in December 2004 by the Department of Homeland Security provides the framework for collaboration between Federal, state, local, and tribal agencies, in addition to, nongovernmental organizations, private-sector, and emergency management entities in order to prepare for, respond to, and recover from major disasters. The planning and implementation of preventive solutions to these disasters have typically been achieved through individual agency processes and procedures. Even though many agencies and local governments have been successful with maintaining strong partnerships, overall national interagency collaboration on pre-disaster activities has been intermittent.

The Silver Jackets Program provides an opportunity to bring together all the key players and take what is learned from responding to natural hazard events and incorporate those lessons into planning measures to reduce risks to public safety. This has to be a combined effort. No one single agency will have the 100% solution. During these times of constrained resources, it has become even more crucial to leverage programs. Instead of competing for the same resources, agencies should be working together to prioritize the use of these resources for long-term comprehensive solutions.

This paper describes the advances in interagency collaboration that have already occurred through the Silver Jackets Program. Specifically, Section 2 provides an overview of the purpose and goals of the Program as a whole. Sections 3 through 5 describe the growth and current status of pilot Silver Jacket teams in Ohio, Indiana, and California. Section 6 outlines lessons learned from the development of these pilot teams. Sections 7 and 8 outline recommendations for the next steps for the Silver Jackets Program and the resource requirements for implementing these next steps.

## 2.0 **Purpose**

This Silver Jackets Program provides a formal and consistent strategy for implementing an interagency approach to planning and implementing measures to reduce the risks associated with natural hazards. The Program is serving as the mechanism for developing and maintaining interagency partnerships and collectively moving towards solutions to high priority issues. This program will also provide opportunity to identify barriers to collaboration between agencies, such as conflicting agency policies or authorities, and to elevate recommendations to the next level.

The program proposes continuing its efforts to establish an interagency team for each state with the Federal Emergency Management Agency (FEMA), the US Army Corps of Engineers (USACE), the State National Flood Insurance Program (NFIP) coordinator, and the State Hazard Mitigation Officer as standing members and lead facilitators. The lead facilitators of Silver Jackets teams work together to keep key stakeholders involved, the team focused, and help set team priorities based on the needs of the state. The state level was selected because it is a common boundary for all entities and is key in



emergency response and risk management planning. Also, the state provides the direct link to local governments and communities.

The purpose of the program is not to duplicate or take over similar efforts that may already exist within a state. The purpose is to -

1. Establish relationships where they do not exist;
2. Strengthen relationships which need improvement; and,
3. Supplement and expand already successful teams.

The result will be increased Federal agency collaboration with each other and the state.

The primary goals of the Silver Jackets Program are to,

- Find ways to leverage available resources and information between agencies, especially with national programs such as FEMA's Map Modernization (MapMod) Program and USACE's Levee Inventory and Assessment Initiative;
- Provide hazard mitigation assistance to high priority communities targeted by the states' mitigation plans;
- Define a process for interagency communication;
- Increase and improve public outreach in the area of risk management with the establishment of a united Federal effort;
- Gain familiarity of each agencies' processes and programs to better advise the public; and,
- Create a mechanism to collaboratively solve issues and implement activities.

### 3.0 **Pilot Team**

Working together towards a common solution is a basic fundamental concept for successful teams. However, if a Silver Jackets team is formed, will the results be worth the time and resources invested? To answer this question a Silver Jackets team was initiated in a pilot state.

FEMA Region V expressed support in participating in this program. Each FEMA region has established a Regional Interagency Steering Committee (RISC), which focuses on issues related to response and recovery. Members of the RISCs represent agencies that would respond to a major disaster under the National Response Plan. Each FEMA region conducts periodic RISC meetings to discuss initiatives and advances that relate to their disaster response capabilities. FEMA Region V saw the need to integrate the mitigation side to the response/recovery side and created a RISC mitigation sub-committee. The mission and purpose of the sub-committee is to –

1. Coordinate existing programs.
2. Eliminate duplication.
3. Develop comprehensive solutions.
4. Be better prepared during major disaster recovery efforts.



5. Support state mitigation advisory councils.
6. Present a united front for communities.

From the six main regional objectives above, FEMA Region V viewed Silver Jackets as an opportunity to implement these objectives at the state and local level.

For the initial state, Region V suggested Ohio as a participant because of its enhanced State All-Hazards Mitigation Plan and well established flood mitigation priorities.

The next step was to approach the State of Ohio with this concept. Initially, Ohio state agencies were hesitant. Issues they were concerned with included resources required to participate on the team and duplication of effort with other state mitigation activities. It was emphasized that this was a way for Federal agencies to become incorporated into the state all hazards planning. For the State of Ohio, this team would serve as the direct link to the “Federal” side and would fill in gaps with the State’s mitigation efforts.

### 3.1 Team Establishment

USACE, FEMA, Ohio Department of Natural Resources (ODNR), and Ohio Emergency Management Agency (OEMA) conducted discussions on the initial list of agencies, with the understanding that other members can be added as the team evolved and priorities changed.

The following is a list of current participating agencies:

- Economic Development Administration (EDA)
- Federal Emergency Management Agency (FEMA)
- National Oceanic and Atmospheric Administration’s National Weather Service (NOAA/NWS)
- Natural Resources Conservation Service (NRCS)
- Ohio Department of Natural Resources (ODNR)
- Ohio Emergency Management Agency (OEMA)
- Ohio Environmental Protection Agency (OEPA)
- US Army Corps of Engineers (USACE)
- US Department of Housing and Urban Development (HUD)
- US Geological Survey (USGS)

Each agency was contacted separately and the response was unanimous – “When do we get started?”

### 3.2 Initial Team Meeting

A two day team meeting was conducted in April 2005. The meeting served as the first face-to-face meeting of all the agencies invited to participate. All invited agencies attended. See Attachment I for agenda.



The main topics of the retreat included –

- Agency presentations describing each agency’s mission and programs.
- Discussion of the experiences with successful interagency teams.
- Development of mission statement to clarify the purpose and direction of the Silver Jackets team.
- Development of charter – verifying list of core members and defining team goals, structure. See Attachment II for final charter.
- Discussion of priorities and future direction.

Final mission statement:

*This interagency team is an implementation sub-team of the State of Ohio Mitigation Team dedicated to creating a collaborative environment to bring together Federal, State, local, and other stakeholders to develop and implement solutions to natural hazard response and mitigation problems.*

### 3.3 Initial Team Focus – Marietta, Ohio

As an outcome of the initial meeting, the State of Ohio identified a specific community, which was a state high priority and presented a good opportunity for the team – Marietta, Ohio. Located at the confluence of the Muskingum and Ohio Rivers, the City of Marietta, a small historical community, has suffered from repetitive flooding. Most recently, the City of Marietta has experienced three major flood events occurring in January 2004, September 2004 and January 2005. Within recent years, Marietta has been striving to improve their flood mitigation efforts. The City is ready to look at innovative and more comprehensive flood mitigation solutions. Recently, Marietta on its own has approached the National Weather Service (NWS), US Geological Survey (USGS), Federal Emergency Management Agency (FEMA), and most recently the US Army Corps of Engineers (USACE). The City had also submitted several grant proposals for various projects, but needed a comprehensive plan to outline how all these projects would tie together.

The Silver Jackets Program provided the City of Marietta an opportunity for all involved Federal and state agencies to come together and work with the City to develop a comprehensive flood mitigation strategy. Marietta, with the assistance of Silver Jackets, will be able to identify their flood hazards, assess what is vulnerable, prioritize measures, and pursue funding sources to accomplish their overall goal of reduced flood risk and more sustainable development.

There was an opportunity to utilize a USACE authority called Planning Assistance to States (PAS). Section 22 of the Water Resources Development Act (WRDA) of 1974, as amended, provides authority for the Corps of Engineers to assist states, local governments, and other non-Federal entities in the preparation of comprehensive plans for water and related land resources purposes. Typical studies are only planning studies that do not contain detailed design for project construction. The studies generally involve the analysis of existing data for planning purposes using standard engineering techniques,



although some data collection is often necessary. These studies are cost shared on a 50 percent Federal – 50 percent non-Federal basis. The study sponsor has the option of providing in-kind services for up to one-half of its share of the study cost.

The PAS program created an opportunity for Marietta to have ownership of the final flood mitigation strategy, because the City would not only be contributing financially, but they could also provide an in-kind contribution by committing to develop the plan with technical assistance provided by the team. Mayor Michael Mullen, the mayor of Marietta stated –

*“This is not going to be another plan which sits on a shelf.”*

Marietta also stated that they hope to become the model for other communities around the State. In January 2006, the final PAS agreement was signed with the City of Marietta. See Attachment III for the PAS scope of work.

### 3.4 Marietta Flood Mitigation Strategy – Current Status

The five main objectives of the Marietta Flood Mitigation Strategy are,

1. Identification of flood risks. This includes pulling together available mapping and hydrology and hydraulic information and displaying inundation limits for various flood events. This also includes identifying the structures at risk and estimated cost of damages for a variety of events.
2. Defining flood mitigation objectives. The lead will be the City of Marietta. The objective is to develop a long-term vision of what the City views as a sustainable community. Once they have their vision and objectives defined, it will assist them in prioritizing their flood mitigation measures in order to achieve their objectives.
3. Development of Potential Flood Mitigation Measures. Because this is being accomplished in an interagency collaborative environment, a variety of measures will be identified. These measures will include both short-term and long-term measures.
4. Identification of Programs and Potential Funding Sources. This component will consist of linking the appropriate agency and their program to each measure identified. It will also include identifying a point-of-contact for each program, program requirements, and funding process and limitations.
5. Prioritization. This component will consist of the City of Marietta prioritizing the measures based on the risks and objectives identified.

Format of Final Report –

Early in the process, Marietta asked about the format of the report. It was assumed that, because the PAS authority was a USACE program that the format would have to follow what was directed by the Corps. Because of the flexibility of the PAS program, there are no set format requirements for products. After further discussion within the team,



OEMA and FEMA suggested following FEMA’s Flood Mitigation Assistance (FMA) Program requirements for local mitigation plans. Because Washington County, which contains Marietta, had a countywide all-hazards plan under the Disaster Mitigation Act of 2000, the City of Marietta would be eligible for FEMA Hazard Grant Mitigation Program (HGMP) funding and Pre-Disaster Mitigation Competitive (PDMC) grant funds when the City officially adopted the County plan. With a local plan, Marietta takes it one step further. When FEMA accepts Marietta’s plan under FMA, Marietta will then become eligible for a third program – the FMA program. Marietta’s plan will then become an addendum to the Washington County plan.

This is a good example of how team discussion resulted in the use of a program from one agency, USACE’s PAS program, in conjunction with a program from another, FEMA’s FMA program, to achieve the most benefits.

Therefore, Marietta’s flood mitigation strategy will follow the requirements of FEMA’s FMA program, as outlined in 44CFR78.5 – Flood Mitigation Plan Development, which include:

1. Description of planning process and public involvement.

- This can include workshops, public meetings, or public hearings.
- The public involvement portion should address how the plan was developed and how the community was involved in development of the plan. This may include an initial public meeting to announce the start of the development of the plan, request for public comment as the plan is being developed, and a public comment period at the conclusion of plan development.
- FEMA’s “how to” guides are a good source of information for plan development.

2. Description of existing flood hazards and identification of flood risks.

- Review of Washington County Plan and current available data.
- Description of historical flooding.
- Reference to Washington County plan for other hazards.

3. Floodplain management goals for the area.

- Development of problem statements based on risk and linking the City’s mitigation goals to those problem statements.
- Development of long-term objectives.

4. Identification and evaluation of cost-effective and technically feasible mitigation actions considered.

- Feasible alternatives are ones that can be implemented. Not a wish list.
- Measures should be prioritized.
- Measures need to be linked to mitigation goals.



- Each measure/action should be tied to a program.
- There should be an estimated cost for each action. It could be a range.
- If there is no funding source available for the action, then state “as funding becomes available.”

5. Strategy for reducing flood risks and continued compliance with NFIP.

- The City only needs to address how they plan to continue compliance with the NFIP.
- This portion should include procedures for ensuring implementation, reviewing progress, and recommending revisions to the plan.

6. Documentation of formal plan adoption by legal entity submitting the plan.

- At completion of the FMA plan, the City will have to officially adopt the plan.

The Team has worked with Marietta to consolidate existing GIS mapping, hydraulic and hydrology data, identify possible measures, and brainstorm various funding sources. The next step is for the City of Marietta to pull together the information and develop a public involvement plan.

### 3.5 Results of Pilot Team

The team in the State of Ohio has been active for over a year. Results to-date include,

3.5.1 Agency support. State of Ohio, hesitant at first, fully supports the team. This was demonstrated in response to a request from Congressman Hobson to ODNR for a list of programs that should be funded. In a letter from Chad Berginnis, who was serving as a supervisor for ODNR Division of Water and the Chair of the Association of State Floodplain Managers (ASFPM) at the time, the following was stated –

*“There could be several possibilities for funding in Ohio. For example, the Huntington District has initiated a project called the Silver Jackets that is focusing on comprehensive solutions to flooding issues through the coordination of Federal agencies and pooling of resources. Currently, they have identified the City of Marietta as a pilot community who, as you know, was flooded severely in September and then again this past January. One of the needs identified is to do a comprehensive risk assessment and vulnerability analysis on flood prone structures in the downtown area and suggest some possible solutions to mitigate against future flooding.”*

The following are quotes from some Silver Jackets – Ohio team members:

Cindy Crecelius, Program Manager, ODNR –

*“For the State of Ohio, the Silver Jackets initiative created a cooperative environment that brought local, state and Federal interests together to address actions that help*



*communities make themselves less susceptible to the impacts of natural disasters. Prior to this effort, the Federal agencies with resources and influence generally operated independently from the state and local efforts. Silver Jackets is bridging the independent agency circle of influence. This approach employed planning, collaboration, and focus to local issues, and allowed the Federal and state resources to compliment the local abilities."*

Chad Berginnis, Chief of Mitigation Branch, OEMA –

*"As a colleague of mine once said during a conference 'we must learn to rub each other's nickels together.' Silver Jackets brought Federal, state, and local interests to the table and that collaborative effort resulted in better understanding of each other's resources, constraints, and opportunities so that we could collectively work on solving a problem. Such a format could be replicated for other problems in other areas."*

Nancy Olson, Natural Hazards Program Specialist, FEMA Region V –

*"Serving as a member of Silver Jackets has been an inspiring experience for me especially when we took the team into the field to work with the first pilot community, the City of Marietta. As the community officials voiced concerns or obstacles there were members of the team right there to identify a possible resource or idea to assist the community in defining a solution."*

*"The Silver Jackets initiative demonstrates how the whole is greater than the sum of the individual parts. All of the members of the team have resources and assets that they bring to the table. This initiative brings all of those resources together which makes it so much easier to identify who, what and where to go for assistance in resolving an issue of problem."*

*Silver Jackets validates the phrase, "Working together we can make a difference".*

Steve Wells, Division of Surface Water, OEPA –

*"A resource for a local government to ask state and Federal agencies for help (projects which have been completed elsewhere or funding) in solving a problem."*

Jim Morris, District Chief, USGS –

*"The USGS Ohio Water Science Center supports the collaboration of the various Federal, state, and local agencies, as proposed by the Silver Jackets Program, to explore innovative options for natural-hazard mitigation at the local level. Of particular value is the effort to maximize taxpayers' investment by using a collaborative approach to potentially combine various partners' programs and resources, resulting in more complete and cost-effective solution strategies."*



3.5.2 Leveraging Resources and Programs. One of the outcomes from working with Marietta was the discovery of the amount of data available. Several agencies contributed mapping and GIS information. During one occasion, it was discussed that if parcel data was available in GIS format, it would be easier to estimate damages. The Muskingum Watershed Conservancy District (MWCD) was at the meeting and had that information available from a current watershed study. It was also discovered that MWCD was preparing to collect more detailed mapping of certain areas of the watershed and for a nominal cost, Marietta could be added. Marietta took that opportunity. Marietta is also interested in pursuing a reconnaissance study with the Corps. One of the many benefits of the collaborative approach is new sources of information and opportunities are uncovered.

Through USACE's Planning Assistance to States (PAS) program, the Silver Jackets team partnered with Marietta to develop an interagency flood mitigation strategy. The plan will be modeled after FEMA's Flood Mitigation Assistance (FMA) program and will outline potential flood mitigation measures and match corresponding agency programs to implement those measures. Once completed and approved under the FMA program, Marietta will be eligible to apply for FMA grant funds. At the national level, Corps districts are being encouraged to follow FEMA's FMA requirements when a USACE project requires a sponsor to develop a floodplain management plan, so local sponsors will become eligible for FMA grant funds for future floodplain management activities.

3.5.3 Improved Communication Between Agencies. Agencies are sharing information and finding ways to make things work. Points-of-contact have been established that have fostered the resolution of issues and questions more quickly. For example, one USGS team member spent a day at the USACE Huntington District office. At the end of the day, the team member commented that he had learned much more about the Corps of Engineers in that one day, than he had during his past 20 years of experience in water resources.

The team members expressed the need for a list of all Corps projects and studies in the State of Ohio, which was provided. FEMA, ODNR, and OEMA were not aware of many of the projects listed. Being aware of all projects will supplement the State's ability to accomplish comprehensive floodplain management.

3.5.4 Better understanding of each agency's programs and resource constraints. Each agency has unique programs. For example, during discussion of additional gages for Marietta and the National Weather Service outlined a grant program they have for gages. As agencies learn more about current programs and new programs, the result will be development of more comprehensive solutions and being more informed to better advise the public on a variety of opportunities.

#### 4.0 Silver Jackets Team Indiana

Because of the success of the Silver Jackets team in the State of Ohio, FEMA Region V is ready to initiate teams in the remaining states within their region boundary. The State



of Indiana was selected as the next state. There is opportunity to expand and strengthen relationships between the state and Federal agencies. The response from all current participating agencies has been very positive. Each agency has committed resources to participate in the initial meetings. The team is currently outlining a charter to articulate team direction for long-term sustainability – a resource for communities and various levels of government. The charter was coordinated with other Federal agencies who have asked to be signatories to the charter. See Attachment IV for draft team charter. The focus of this group will very shortly turn to actively working on the short-term goals outlined in the charter.

## 5.0 **Silver Jackets Team California**

The State of California is faced with many challenges – alluvial fan flooding, fires, water supply, flooding, etc. With these challenges come opportunities to work collectively. Initial meetings have been conducted to begin discussion of implementing the Silver Jackets concept in California.

Results from meetings to-date:

Overall goal: To create an integrated program for risk management.

Priority issues:

- Risk Communication
- Floodplain mapping
- Levees
- The Delta
- Pre-disaster planning
- Development of long-term strategies for resources

Immediate Tasks:

- Structure team and develop charter
- Set up quarterly meetings
- Prepare list of key events
- Reinstigate flood preparedness forum

Even though there is not a structured Silver Jackets team in California, there are many Silver Jackets related activities occurring. USACE, FEMA, and the State of California have jointly attended numerous public meetings. Recently, a state-wide MapMod workshop was hosted jointly by USACE, FEMA, and the California Department of Water Resources (DWR). All three agencies will also be involved in the near-term and long-term activities concerning levee certification and decertification: the levee inventory, floodplain mapping, and determination of a comprehensive plan for the projects that are decertified and/or no longer eligible for PL 84-99 rehabilitation funding. Local communities and local levee districts will turn to all three agencies and it is essential that all three are working together as a team to address these issues. Silver Jackets can provide the structure to bring together the agencies in order to work with the local



communities to develop the best path forward and ensure that all the various flood risk management activities at the local, state, and Federal level are moving toward the same goal. In the near future as the USACE Levee Safety Program is established, it will be necessary for FEMA, USACE, and states to remain integrated.

## 6.0 Lessons Learned

1. The Silver Jackets team in Ohio demonstrates the initiative can work. For these teams to succeed, however, all agencies must be willing to view the team as a priority. Agencies tend to be overwhelmed with day-to-day short-term issues. To make improvements for the long-term, resources must be dedicated to this program in order to move forward.
2. Each team must have a lead facilitator/administrator. This is essential to keep the team focused. The lead will schedule/facilitate meetings and document/follow-up with the action items. A dedicated lead is someone that is committed to maintaining the momentum of the team. Ideally, the lead will change based on the current priorities of the team.
3. The team will evolve over time. Sometimes there will be trust barriers and preconceived perceptions that need to be overcome. The most difficult challenge is to demonstrate that the long-term benefits of the team will be worth the initial investment. All agencies and groups are facing constrained resources. It may take some time before the team members see value and improvements.
4. Each team should develop a charter. This is a combined effort and everyone has ownership in this team. Establishing one vision and common objectives can be challenging, but it provides opportunity to discuss different agency perspectives. A charter will also establish the goals of the team and provide metrics on how the team will measure success. The charter will also serve as a tool to explain to others the main objectives of the team. One of the other benefits of a charter is that it is a living document that can be updated as the team evolves.
5. As the team changes over time, team members can be added. The state will have the best insight on how to ensure local community involvement.
6. There is a lot information, data, and experience to be shared.
7. Partnerships will translate to other geographical areas. The HUD regional member in Chicago contacted their counterpart on the West Coast to encourage their participation on the Silver Jackets team being initiated in California. Ohio agency contacts were provided to the lead for the team being initiated in Indiana as a starting point. An employee for the Nature Conservancy in California is moving to Ohio and requested to become a member of the Ohio Silver Jackets team.



8. Each agency has a wide variety of programs.
9. Each team will be different. Because the State of Ohio chose a specific community as the first priority, does not mean this is how each team will choose priorities. One of the greatest benefits of this concept is its flexibility. There is a need out there for better collaboration between agencies and this program is trying to meet that need. Each team will work together to decide how to achieve the most benefit from this program.
10. Determine possible issues on which the team should focus. Having an initial priority, such as Marietta, created team focus, momentum, and sense of accomplishment. It also demonstrated the value of working as an interagency team towards a solution.

## **7.0 Opportunities for Future Program Direction -- Next Steps**

Prior to Hurricane Katrina, both USACE and FEMA had initiated discussions on how to better integrate the two agencies to improve flood risk management activities – floodplain mapping, levee certification, and risk communication. Hurricane Katrina demonstrated the need for interagency collaboration and changes that need to be made. Because both USACE and FEMA must be linked as the nation forms a national flood risk strategy, the next logical step is for USACE and FEMA to assume lead roles as these changes and initiatives are implemented in the field.

This program provides an implementation mechanism to bring together Federal, state, local, and other stakeholders to move forward in developing and implementing solutions to statewide issues. It creates a process to keep entities actively engaged in sharing information, finding ways to improve processes, prioritizing issues, and maintaining strong partnerships. The following sections describe the next steps and resources required to advance the Silver Jackets Program in order to take advantage of the many collaborative opportunities in the near term and well into the future.

### **7.1 Establishing Lead Federal Agencies: USACE and FEMA**

Why should USACE and FEMA be the lead Federal agencies? Both FEMA and USACE have extensive programs aimed at reducing flood hazards and preventing flood damages. USACE, with its many broad water resources authorities and various areas of expertise, is in a unique position to bring together various stakeholders. FEMA is the direct link between flood hazard information and the public. USACE, in partnership with states, Native American tribes/nations and local governments, plans, designs, and constructs projects that reduce future flood damages and preserve and enhance natural and beneficial floodplain values. The FEMA Hazard Mitigation Grant Program (HMGP) provides grants to states and local governments for property acquisition and relocation assistance. Additionally, FEMA's Pre-Disaster Mitigation Program provides funding to assist state and local governments (to include Indian Tribes/Nations) in implementing



cost-effective hazard mitigation activities that complement a comprehensive mitigation program.

Issue: Need commitment from FEMA headquarters (HQ) and HQUSACE to implement the program nationwide and act as co-Federal leads.

Solution: Continue discussion with FEMA HQ and encourage them to communicate support for this program to FEMA regional offices. Emphasize vision of Flood Risk Management Program and the need for FEMA and USACE field offices to become integrated. This program can become the implementation piece for coordination of the Map Modernization Program, which includes resolution of levee certification issues. HQUSACE needs to budget for this program and provide resources to the field offices.

Issue: Need more efficient communication with FEMA and USACE field offices. FEMA regions work with numerous points-of-contacts throughout Major Subordinate Commands (MSCs), which can lead to inconsistent messages and different interpretation of guidance and processes.

Solution: FEMA and USACE should develop a regional communication plan. This would include the regional implementation and coordination of Silver Jackets teams. Build and expand coordination plans developed as a result of the levee rollout plans and FEMA's Provisionally Accredited Levees (PAL) guidance. Funding for these activities should be provided to USACE field offices.

## 7.2 Designating a Lead Facilitator/Administrator: USACE

For the team to keep focus and moving forward, each team will require a lead facilitator. Ideally, these responsibilities will be shared between both USACE and FEMA. In certain situations, the lead could rotate between various team members, depending on the current team focus.

Issue: FEMA regional offices have limited staff. Across the nation, FEMA has approximately 1,700 permanent full-time employees. Some staff is assigned to be the contact for more than one state. Even though various FEMA regions are supportive of efforts, it is very difficult for them to provide resources to perform facilitation responsibilities, such as, serving as the central point-of-contact, maintaining meeting minutes, and following-up on action items.

Solution: USACE has numerous district offices and personnel to provide the support for this role. However, it is important that this program be set as a priority and funding be provided.

Potential Sources:

- Division Offices
- FPMS program managers
- Outreach Coordinators



Issue: The role of the facilitator/administrator must possess certain characteristics – interpersonal skills, communication skills, facilitation skills, enthusiasm, and commitment.

Solution: Develop a process which would require MSCs and/or field offices to develop and submit proposals on implementation of a Silver Jackets team. This would include determining who would serve as lead facilitator. Approval and selection of proposals would be accomplished at HQUSACE and IWR.

### 7.3 Establishing a Process for Future Team Development

Based on lessons-learned from the past year’s Silver Jackets team experiences, the following process is recommended for future Silver Jackets team development efforts.

- a. Work with MSC and/or district to select lead USACE representative. If a similar team is currently active, build from those activities.
- b. Work with FEMA regional office to establish agreement on concept and state selection. Each FEMA regional should be approached one at a time.
- c. USACE/FEMA meet with state NFIP coordinator and State Hazard Mitigation Officer.
  - Present concept.
  - Discuss similar state teams to expand upon.
  - Discuss additional initial members.
  - Discuss current related state initiatives or issues to start a list of team focus areas.
- d. Conduct initial team meeting.
  - Develop mission statement and team objectives.
  - Decide on frequency of meetings, possible once a quarter initially.
  - Develop calendar of upcoming events, such as FEMA RISC meetings or state conferences. Look for opportunities to combine meetings.
  - Determine method of communication and sharing of information (email, website, Groove site, etc.)
  - Identify the potential first team focus area. Possible areas are below.

### 7.4 Future Focus Areas for Silver Jackets Teams

Below is a description of various opportunities to utilize the Silver Jackets concept to move specific initiatives forward. These initiatives all require an interagency collaborative approach in order to be successful.

#### 7.4.1 Implementation of Flood Risk Management Program

The scope of the Flood Risk Management Program is to integrate and synchronize the ongoing, diverse flood risk management projects, programs and authorities of the US Army Corps of Engineers (USACE) with counterpart projects, programs and authorities of FEMA, other Federal agencies, state organizations, and regional and local agencies. The overall long term objective of the program is to develop an integrated national flood



risk management strategy to protect public safety through a reduction in damage and suffering caused by flood and coastal storm events. As this program moves forward in developing an integrated national flood risk management strategy, several actions will be implemented to address the challenges the nation is facing. These actions must be implemented using an interagency collaborative approach - Silver Jackets. Described below are the immediate components of the National Flood Risk Program. Coordination for these activities is taking place. Silver Jackets can be used to continue the coordination and collaboration into the future.

#### Map Modernization Coordination –

Starting in 2002, FEMA’s Map Modernization (MapMod) Program is a current nationwide program that provides a prime opportunity for FEMA and USACE to work together. FEMA is the Federal agency responsible for administering the National Flood Insurance Program (NFIP). As part of the NFIP, FEMA develops Flood Insurance Rate Maps (FIRMs) to identify areas at risk of flooding, to determine flood insurance rates, and for floodplain management activities. Through the MapMod Program, FEMA will provide the nation with digital flood hazard data and maps, known as Digital Flood Insurance Rate Maps (DFIRMs) that are more reliable, easy to use, and readily available. As part of this process, FEMA is working with Federal, state, and local agencies to ensure that the most up-to-date information possible is incorporated into this new digital product. The Corps of Engineers currently plays an active role with this program by contributing data from past studies and working with FEMA on new studies. After the MapMod Program is complete, a maintenance program for DFIRMs, which would involve a continuous cycle of updating the maps with the most current flood hazard information, should be in place.

There is a critical need for close collaboration between USACE, FEMA, and state and local governments throughout MapMod and after the program to maintain, update, and communicate flood hazard information so the public can make informed floodplain management decisions. The Silver Jackets Program can provide the solution to ensuring consistent and continuous coordination between FEMA Regions and Corps Districts as the Map Modernization Program is carried out.

#### Levees and USACE’s Levee Safety Program –

One of the biggest public safety challenges our nation faces today is the lack of knowledge of the true condition of our levee systems. Nearly 9,000 miles of levees and floodwalls have been constructed by the US Army Corps of Engineers (USACE) alone. While local agencies and USACE field offices may have information on structures in their jurisdictions, there currently exists no national database or single source of information concerning these structures. Because of this, USACE has initiated a national levee inventory and assessment program funded by congressionally approved emergency supplemental resources. The inventory will allow for performing assessments to identify risks to public safety associated with levee systems across the nation. The purpose of the assessments are to identify the failure mode associated with loss of life and economic risk



of the individual project components for the purpose of facilitating a prioritization of what things need to be done based on the assessments – what remedial actions.

Early in the Map Modernization process, it became evident that areas behind levees shown as providing protection from the one-percent-annual-chance (or “base flood”) flood would require special attention. FEMA recognized that many levees may have changed considerably or deteriorated since the current effective maps were published. As part of the remapping process, FEMA is verifying that all levees recognized as providing protection from the base flood meet the requirements outlined in Title 44 of the Code of Federal Regulations, Section 65.10 (44 CFR 65.10). Their current policy is formalized in their Procedure Memorandum No. 34, *Interim Guidance for Studies Including Levees* (August 22, 2005). The community or other parties seeking certification of a levee is responsible for providing the data defined and outlined in 44 CFR 65.10. This data addresses the integrity of a levee and its ability to contain the base flood. The levee must be certified by a registered professional engineer.

USACE and FEMA believe that those living behind a poor-quality levee should be aware of the actual flood risk they now face. Both agencies are working hand-in-hand throughout the inventory/assessment and MapMod initiatives to ensure all relevant information regarding levee conditions is shared among the levee maintaining entity and other stakeholders. These activities, which will impact many levels of government and the public, will require close collaboration between USACE, FEMA, other Federal agencies such as the Environmental Protection Agency (EPA) and the US Geological Survey, states and local communities.

There is a need for USACE and FEMA to be integrated throughout the levee certification and remapping cycle in order to make collective decisions. If a levee is decertified, what are the next steps? Are projects to protect against a 1% chance event appropriate considering the risks and consequences of the area? Would a combination structural/nonstructural plan be more appropriate? As these decisions are made, information is gathered, and measures are implemented, project data will be input back into the national levee inventory to continue the risk assessments and create a national perspective. Close collaboration is essential as USACE continues to form a Levee Safety Program. There is an opportunity to crosswalk MapMod activities with levee certification and the Levee Safety Program. The Silver Jackets Program will ensure that these activities are linked.

#### Risk Communication –

Public risk communication is a national concern. It is important for Federal, state, and local agencies to send the same, consistent message. The perception of flood risk seemingly equates only to the presence or absence of mandatory flood insurance requirements. Residual flood risk for populations protected by levees is not generally understood.



The Silver Jackets concept provides an opportunity to work with the state and local governments to help identify risks and to communicate those risks and their associated consequences to the public. Assessing risks must be a continuous process, because risks change over time. Silver Jackets teams provide the structure for agencies to stay engaged over time to address this.

#### 7.4.2 State All-Hazard Plans

The Disaster Mitigation Act of 2000 (DMA 2000) (P.L. 106-390) amended the Robert T. Stafford Disaster Relief and Emergency Assistance Act (the Act) by establishing a new set of mitigation plan requirements (Section 322). This new section emphasizes the need for state, Tribal, and local entities to closely coordinate mitigation planning and implementation efforts. The requirement for a state mitigation plan is continued as a condition of disaster assistance, adding incentives for increased coordination and integration of mitigation activities at the state level through the establishment of requirements for two different levels of state plans: standard and enhanced. States that demonstrate an increased commitment to comprehensive mitigation planning and implementation through the development of an approved enhanced plan can increase the amount of funding available through the Hazard Mitigation Grant Program (HMGP).

These multi-hazard state plans are a good starting point. They identify the hazards within the state such as riverine flood, tornado, severe winter weather, landslide and dam failure hazards. An additional hazard that is usually not included in these plans is levee breaches. These plans help identify some of the state's priority issues. Commonly, flooding is the highest priority hazard. The Silver Jackets team could begin evaluating the flooding priorities in the state plans and incorporate activities associated with the National Flood Risk Management Program.

#### 7.4.3 West Virginia Comprehensive Plan Example

Another future role for a Silver Jackets team would be to continue efforts that have been initiated. For example, the West Virginia Statewide Flood Protection Plan was initiated by the West Virginia Conservation Agency (an agency within the WV Department of Agriculture) in 1999. After years of funding requests from the WV Legislature to support flood damage reduction projects (either state sponsored or as matching funds for a Federal project (NRCS, USACE), the legislature requested that WVCA prepare a long range comprehensive plan for addressing flood damages in the state as a basis for future funding requests. Senator Byrd provided the Huntington District of the Corps of Engineers with \$900K to be used as cost sharing for a 50%-50% shared study of flooding issues in the state. The WV Legislature matched the Senator's funds. A Task Force of State, Federal, regional and local elements of government were created to comprehensive plan. Scoping began in 2000.

An executive committee was established that would address administrative issues and would direct the actions of the subcommittees. In an effort to identify and categorize flooding issues within the state, the Task Force sponsored a series of 10 regional



workshops throughout the state to solicit comments and views of local governments (counties and municipalities) and private citizens. In all, several hundred comments were recorded and through those workshops some common concerns and issues emerged as “targets” of the planning effort. These targeted flooding issues were matched with the initial planning goals and objectives and modifications were made to the direction of the study. The plan was completed in 2004. The West Virginia Statewide Flood Protection Plan is a good product that expresses the needs of the public for better floodplain management and recognizes the capabilities of multiple Federal and state agencies to meet those needs. Because this plan is now complete, there is an opportunity for a Silver Jackets team to implement the recommendations outlined in this plan.

Final recommendations focused around –

- a. Floodplain Management
- b. Flood Warnings
- c. Floodplain Mapping
- d. Flood Damage Assessments
- e. Building Codes, Permitting and Enforcement
- f. Environmental Impacts of Flooding
- g. Stream Crossings and Access Roads
- h. Dredging
- i. Resource Extraction
- j. Stormwater Management
- k. Education
- l. Existing Flood-Prone Structures and Facilities

#### 7.4.4 Western States Watershed Study

Another opportunity for the Silver Jackets Program is with the current Western States Watershed Study in which a Silver Jacket Team could help develop and implement a flood preparedness strategy. The Western States Watershed Study is one of five national studies being conducted under the authority of Public Law 109-103. The FY06 Energy and Water Development Appropriations Act directs the Secretary to conduct a full Federal expense, comprehensive analyses that examine multi-jurisdictional use and management of water resources on a watershed or regional scale.

In June 2006 the Western Governors’ Association (WGA) and the Western States Water Council (WSWC) released their report on Water Needs and Strategies for a Sustainable Future. Documented in this report are a series of initiatives and recommendations that address the following focus areas:

- Water Policy and Growth
- State Needs and Strategies to Meet Future Demands
- Water Infrastructure Needs and Promising Strategies for Meeting Them
- Resolution of Indian Water Rights
- Preparations for Climate Change Impacts



- Coordination and Cooperation in Protecting Aquatic Species under the Endangered Species Act

To the extent possible the Western States Watershed Study activities will be conducted in a collaborative manner and include the development of strategic plans for future activities consistent with the over-arching goal to help implement several high priority recommendations identified in the Water Needs and Strategies for a Sustainable Future report. It is envisioned that the strategic plans will be flexible and periodically updated, based on new information, in the future. If applicable, information from the study activities would also be used to help identify any unique circumstances that may present a valid basis for exceptions to existing policies.

In July 2006, it was determined that a collaborative multi-Federal agency team would be needed to help implement the June 2006 WGA/WSWC report recommendations. Because of the on-going Western States Watershed Study, the WSWC requested that the USACE help them facilitate the informal formation of a “Western States Federal Support Team”. The Western States Federal Support Team would, to the extent possible, provide comprehensive and collaborative technical, program, and policy support. The Western States Federal Support Team would work together in a collaborative, comprehensive, and integrated manner with the WGA/WSWC Team and other stakeholders. It is envisioned that this collaborative effort would culminate in a report to Congress in the spring of 2008.

One of the important tasks of the Western States Watershed Study Team is to develop a strategic plan to advance the commitment of resources at the Federal level to improve the effectiveness of collaboration between and among Federal, state, and tribal agencies in implementing a watershed approach. Based on the Silver Jackets Program successes and upcoming activities to collaboratively plan and implement measures to reduce the risks associated with natural hazards in Ohio, Indiana, and California, the following is an anticipated product for this study –

Strategic Plan for Implementing Measures to Reduce the Risks Associated with Natural Hazards. The strategic plan framework for future natural hazards risk management initiatives would be developed by the Silver Jackets team and would be included in a comprehensive Western States Strategic Plan to advance the commitment of resources at the Federal level to implement various watershed approaches. The Silver Jackets Program concept for natural hazards risk activities could potentially be recommended for implementation within the Western States at the state and local level.

## 8.0 Summary

As discussed in Section 7.4 - Future Focus Areas for Silver Jackets Teams, there are currently many immediate initiatives and activities that will require an interagency collaborative approach and there are most likely many more that could be identified. The Silver Jackets Program is a way to implement these initiatives. The Corps of Engineers is



participating more with the development of watershed management plans, but when these studies are complete there exists the question of how the Corps can continue to stay engaged. In relation to state all-hazard plans, which typically have been developed without USACE participation, through this program, USACE can interact with the state and contribute to solutions where USACE would have an active role. The Silver Jackets Program creates a long-term way for agencies to focus on the bigger picture and seek ways to integrate efforts that each agency is implementing individually.

Report Contributors:

Tammy Conforti, Institute for Water Resources (IWR)

Ron Conner, IWR

Gus Drum, Huntington District

Gene Lilly, Tulsa District

Pete Rabbon, IWR

Amy Sharp, Louisville District

Laura Zepp, IWR

Cited Silver Jackets – Ohio team members



## Attachment I



<h1 style="margin: 0;">The Silver Jackets Team</h1> <h2 style="margin: 0;">State of Ohio</h2> <h2 style="margin: 0;">Team Retreat</h2>	<p style="margin: 0;"><b>April 7-8, 2005</b>  <b>Peppercorn Room</b>  <b>Hyatt Regency Columbus</b>  <b>350 North High Street</b>  <b>Columbus, Ohio 43215</b>  <b>614-463-1234</b></p>
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Purpose: The purpose of this meeting is to begin establishing the structure of the State of Ohio interagency team known as the Silver Jackets Team.

- Objectives:
1. Team members will complete the team charter for the Silver Jackets Team.
  2. Team members will be able to identify pertinent mitigation programs for each agency.
  3. Team will define the next action items for the pilot area – Marietta, Ohio.

Facilitator: Jesse Vazzano

- Attendees:
- Art Brate, Natural Resources Conservation Service (NRCS), attending first day
  - Jack Brown, US Department of Housing and Urban Development (HUD), attending both days
  - Tammy Conforti, US Army Corps of Engineers (USACE), attending both days
  - Cindy Crecelius, Ohio Department of Natural Resources (ODNR), attending second day
  - Peter Gabrielsen, National Oceanic and Atmospheric Administration’s National Weather Service (NOAA/NWS), attending both days
  - Bob Hickey, Economic Development Administration (EDA), attending both days
  - Tom Leach, US Department of Housing and Urban Development (HUD), attending both days
  - Sima Merick, Ohio Emergency Management Agency (OEMA), attending both days
  - Jim Morris, US Geological Survey (USGS), attending both days
  - Nancy Olsen, Federal Emergency Management Agency (FEMA), attending both days

## Agenda

### Day 1

Icebreaker Breakfast (food provided)	8:00am – 8:30am
Introductions/Team Exercise	8:30am – 9:30am
What is a charter?	9:30am – 10:00am
Break	10:00am – 10:15am
Team Charter and Vision statement	10:15am – 12:30pm
Lunch (on your own)	12:30pm – 1:30pm
Agency Presentations	1:30pm – 5:00pm (with one 15 min. break)

### Day 2

Working Breakfast (food provided)	8:00am – 12:30pm (with breaks)
Finish Presentations and Discuss Marietta and Action items	

### Additional Information

Please bring 1 business card for each attendee if you have them.  
Please bring any agency brochures you would like to hand out.



## Attachment II



# THE SILVER JACKETS – A NATURAL HAZARD MITIGATION IMPLEMENTATION SUB-TEAM STATE OF OHIO MITIGATION TEAM

## CHARTER March 2006

*This interagency team is an implementation sub-team of the State of Ohio Mitigation Team dedicated to creating a collaborative environment to bring together Federal, State, local, and other stakeholders to develop and implement solutions to natural hazard response and mitigation problems.*

### **Purpose:**

This charter defines the organization, functions, and responsibilities of the Silver Jackets Team for the State of Ohio. This charter is a living document and can be adapted throughout this initiative. Each change will be discussed within the team.

### **Goals:**

1. Increase team members' knowledge of interagency mitigation programs and authorities in order to combine resources and identify gaps.
2. Provide hazard mitigation assistance to high priority communities targeted by the State's Mitigation Advisory Board
3. Coordinate team efforts into the updates of the Statewide Mitigation Plan.
4. Define a process for interagency communication and roles.
5. Improve upon response processes.
6. Develop a public involvement plan to educate potential users of given resources.
7. Develop relationships in order to share information and find answers to issues more quickly.
8. Increase the private sector involvement.
9. Set performance measures for success.

### **Organization and Membership:**

Team will be interagency in nature. Membership will vary based on available resources and team project focus; however, main agencies that will be involved at all times include US Army Corps of Engineers (USACE), Federal Emergency Management Agency (FEMA), Ohio Department of Natural Resources (ODNR), and Ohio Emergency Management Agency (OEMA). USACE and FEMA will act as the lead facilitators for the team and will coordinate activities in conjunction with the State and other agencies. Representatives may be from the regional and state levels of the organizations. A contact sheet will be maintained and distributed by the USACE representative.



Current agency team members:

- Economic Development Administration (EDA)
- Federal Emergency Management Agency (FEMA)
- National Oceanic and Atmospheric Administration's National Weather Service (NOAA/NWS)
- Natural Resources Conservation Service (NRCS)
- Ohio Department of Natural Resources (ODNR)
- Ohio Emergency Management Agency (OEMA)
- Ohio Environmental Protection Agency (OHEPA)
- US Army Corps of Engineers (USACE)
- US Department of Housing and Urban Development (HUD)
- US Geological Survey (USGS)

### **Responsibilities/Approach:**

The team will work within the State's Mitigation Plan by collaborating with the State's Mitigation Team. The Silver Jackets Team will focus on the State priority areas and provide available technical expertise and resources when possible.

USACE and FEMA will act as lead agencies with the coordination efforts. All other agencies will contribute experience and information to all team efforts.

### **Meetings:**

The team will have at least one annual meeting, in addition to, other meetings as needed. The annual meeting, when possible, will coincide with a State Mitigation Team meeting. Coordination may also occur through virtual teaming.

Agendas for meetings shall go out at least one week prior to meeting. Minutes shall be recorded by the USACE representative, unless that person requests another member to do so. Draft minutes shall be distributed via email for comment. USACE will maintain final minutes.

### **Decisions:**

Decisions will be accomplished by the team through consensus after discussion. If a decision can not be reached through consensus, the secondary method will be the "thumbs up" voting – thumbs up (vote is yes); thumbs sideways (vote is neutral); and thumbs down (vote is no). The core agencies that should be involved in all major decisions include USACE, FEMA, ODNR, and OEMA.



### Attachment III



## CITY OF MARIETTA, OHIO FLOOD MITIGATION STRATEGY

### Section 22, Planning Assistance to States (PAS) Overview – Appendix A

#### **Background**

Section 22 of the Water Resources Development Act (WRDA) of 1974, as amended, provides authority for the Corps of Engineers to assist states, local governments, and other non-Federal entities in the preparation of comprehensive plans for water and related land resources purposes. Typical studies are only planning level of detail and do not contain detailed design for project construction. The studies generally involve the analysis of existing data for planning purposes using standard engineering techniques, although some data collection is often necessary.

These studies are cost shared on a 50 percent Federal – 50 percent non-Federal basis. The study sponsor has the option of providing in-kind services for up to one-half of its share of the study cost.

#### **Project Purpose**

Located at the confluence of the Muskingum and Ohio Rivers, the City of Marietta, Ohio has suffered from repetitive flooding. Most recently, the City of Marietta has experienced three major flood events occurring in January 2004, September 2004 and January 2005. Within recent years, Marietta has been striving to improve their flood mitigation efforts. The City is ready to look at innovative and more comprehensive flood mitigation solutions. Recently, Marietta on its own has approached National Weather Service (NWS), US Geological Survey (USGS), Federal Emergency Management Agency (FEMA), and most recently US Army Corps of Engineers (USACE). This study provides the City of Marietta an opportunity for all these agencies to come together and work with the City to develop a comprehensive flood mitigation strategy. Marietta, with the assistance of the Silver Jackets – State of Ohio interagency team, will be able to identify their flood hazards, assess what is vulnerable, prioritize what to address first, and look for private, public (local, state, and Federal) funding and action support to move toward their goal of reduced flood risk and more sustainable development. Marietta is not only looking forward to working with this interagency team, but also to the possibility of serving as a model for other communities around the State of Ohio.

The following are the final products of this project:

#### I. Risk Assessment (Lead – USACE, FEMA, City of Marietta)

This component will consist of the following,



- Consolidate available data, which includes mapping, hydraulic, structural, and economic information, for the project area.
- Identify structures at risk for various events, including structures on FEMA's repetitive loss list.
- Identify problems with the City's existing infrastructure with regard to flood mitigation. For example, how does the flow capacity of the City's storm sewer system reduce as the water level rises on the Ohio and Muskingum Rivers from normal pool? How are operations at the wastewater treatment plant impacted as floodwaters approach the 100-year floodplain? Evaluate storm sewer outlets.
- Identify potential cost of damages for each various event.

## II. Flood Mitigation Objectives (Lead – City of Marietta)

This component will consist of Marietta establishing objectives and goals for future flood mitigation priorities. In other words, this will define the performance measures for success. Some questions that should be answered are,

- Based on the risks identified, what are the acceptable risk levels for the community?
- How do future development plans correspond with the identified risks?
- What are the City's future flood mitigation goals?

## III. Flood Mitigation Measures (Lead – USACE, FEMA, City of Marietta)

This component will consist of developing both short-term and long-term mitigation measures that the City will pursue. Each measure will be defined and expanded to the extent possible, based on the best available information. Some preliminary measures are as follows,

- Identification of any additional data that will need to be collected including detailed mapping, storm water and sewer infrastructure, impervious areas, defined drainage areas, etc.
- Achieving National Weather Service Storm Ready certification
- Pursuing a long-term in-depth study for nonstructural/structural measures
- Improving the current flood warning system and evacuation plan. Include recommendations on the necessary technology to provide automated notification of residents and business owners based upon real time river gages and a GIS based system. Ensure that all river gages are correlated to the 1988 NAVD Vertical Datum and flood warning information is then translated to both City of Marietta flood stage elevations and USGS elevations. Identify any additional gages needed.
- Evaluation of past HMGP proposals that may still be valid
- Adoption of this plan as the local flood mitigation plan
- Developing a public involvement plan to inform the community of flood risks and future initiatives



#### IV. Flood Mitigation Programs (Whole Team)

This component will consist of linking the appropriate agency and their program to each measure identified. It will also include identifying a point-of-contact for each program, program requirements, and funding process and limitations.

- Includes Federal and State programs
- Includes list of potential funding sources
- Includes information of various grants and associated application/evaluation process

#### V. Priorities (Lead – Marietta)

This component will consist of the City of Marietta prioritizing the measures based on the risks and objectives identified.

#### **Funding Source**

To date, it has been estimated that a total of \$60,000 (\$30,000 Federal and \$30,000 non-Federal) will be needed to complete this flood mitigation strategy. USACE has set aside \$30,000 for this effort. The City of Marietta has agreed to provide \$15,000 as in-kind services, which will include pulling together the report as well as participation on team activities. The City will have to find an additional source to fulfill the remaining \$15,000 cash requirement.



## Attachment IV



FEMA



US Army Corps  
of Engineers



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# Indiana Silver Jackets

## “A Natural Hazard Mitigation Team”

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\_\_\_\_\_  
Bruce A. Berwick  
BG, Corps of Engineers  
Commander

Date: \_\_\_\_\_

\_\_\_\_\_  
Edward G. Buikema  
Regional Director, Region 5  
Federal Emergency Management Agency

Date: \_\_\_\_\_

\_\_\_\_\_  
Eric Dietz  
Director  
Indiana Department of Homeland Security

Date: \_\_\_\_\_

\_\_\_\_\_  
Kyle Hupfer  
Director  
Indiana Department of Natural Resources

Date: \_\_\_\_\_



## INDIANA SILVER JACKETS CHARTER

This charter establishes and formalizes the expectations for implementation of the Silver Jackets Team for the State of Indiana. This charter will be reviewed annually and may be revised at any time per the consent of the core agencies.

### **Vision Statement:**

*A catalyst in developing comprehensive and sustainable solutions to natural hazard issues.*

### **Mission Statement:**

The core agencies will establish an inter-agency communications team working with other State and Federal Agencies to:

- enable the effective and efficient sharing of information,
- foster the leveraging of available agency resources,
- provide improved service to our mutual customers, and
- promote wise stewardship of the taxpayers' investment.

### **Goals:**

10. Document and share information on current projects and initiatives.
11. Catalog and share information on past and future projects and initiatives; incorporate documentation from Goal #1.
12. Prioritize current and future initiatives individually and collectively.
13. Identify other collaboration opportunities to combine resources and identify gaps in an effort to minimize duplication of effort.
14. Identify and facilitate improvements to existing programs, policies and processes.
15. Educate team members about individual programs, identifying limitations and opportunities within the program.
16. Foster education of agency programs to key stakeholders and authorities.
17. Work with communities to develop comprehensive and sustainable solutions to natural hazard issues.
18. Become a unified resource to State and Federal officials for natural hazard issues within the State of Indiana.

### **Roles & Responsibilities:**

Team will be interagency in nature. Membership will vary based on available resources and team project focus; however, the core agencies that will be involved at all times include the U.S. Army Corps of Engineers (USACE), the Federal Emergency Management Agency (FEMA), the Indiana Department of Natural Resources (IDNR), and the Indiana Department of Homeland Security (IDHS). Representatives may be from the regional and state levels of the organizations. All participating agencies will contribute experience and information to all team efforts. The USACE representative will maintain and distribute a contact sheet.



As this team evolves, other State and Federal agencies may choose to participate in this initiative. The current team members include:

- Federal Emergency Management Agency (FEMA)
- Indiana Department of Natural Resources (IDNR)
- Indiana Department of Homeland Security (IDHS)
- U.S. Army Corps of Engineers (USACE)

**Meetings:**

Meetings will be conducted on, at a minimum, a quarterly basis. Coordination may occur through email and teleconferencing. With the support all team members, the USACE representative will coordinate and facilitate team meetings. Agendas for meetings shall go out at least one week prior to meeting. Minutes shall be recorded by the USACE representative, unless that person requests another member to do so. Draft minutes shall be distributed via email for comment. USACE will maintain final minutes.

**Decisions:**

Decisions will be accomplished by the team through consensus after discussion. If a decision cannot be reached through consensus, the secondary method will be the “thumbs up” voting – thumbs up (vote is yes); thumbs sideways (vote is neutral); and thumbs down (vote is no). The core agencies that should be involved in all major decisions include USACE, FEMA, IDNR, and IDHS.