



Planning Associates Program 2008

PA Team: The Blue Eagles Team

PA Team Members: T. Friona, M. Gilmer, R. Pinzon, G. Williams

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Critical Think Piece Title: *A Partnership for Flood Risk Communication*

"Many Partners – One Voice – Communicating Risk"

INTRODUCTION:

The purpose of this Critical Think Piece (CTP) is to educate the public about flood risk so that they can make informed decisions about living and working in and near floodplains. This creates an environment for federal, state, and local governments to be accountable for their actions taken in the floodplain and its adjacent areas. With this purpose in mind, the goals of our CTP are to: 1) Increase flood risk awareness of individuals and communities; 2) Promote shared responsibility at all levels (federal, state, local, NGOs, private sector, and individuals); 3) Create a platform for informed decisions in floodplain management; and 4) Act as a catalyst for policy changes concerning land use. To achieve these goals, the objective of our CTP is to launch the development of a Partnership for Flood Risk Communication NOW!

ISSUES:

The physical and social events that followed Hurricane Katrina emphasized the national need to more effectively communicate to the public the

likelihood that an individual will experience a flood and the severity of the impact of that flood on their home, work, or school - their flood risk. The consequences of poorly communicating that risk were profound and clearly illustrated the need to improve communication both internal to the Corps of Engineers (Corps) as well as in partnership with other institutions, agencies, and organizations.

Examples of those who need to be included in that partnership are Congress, federal partners [the Corps, Federal Emergency Management Agency (FEMA), Natural Resource Conservation Service (NRCS), National Oceanic and Atmospheric Administration (NOAA), Department of Homeland Security, US Coast Guard, and others] and national stakeholders [National Association of Flood & Storm Water Management Agencies (NAFSMA), Association of Flood Plain Managers (ASFPM), and others]. The Interagency Flood Risk Management Committee (IFRMC) is an excellent example of this kind of collaboration at work: its members include the Corps, FEMA, NAFSMA, and ASFPM. An efficient way to develop risk communication tools is through a partnership that includes these organizations, because these and other national organizations represent many local and state governments. All the agencies involved need to be part of a Partnership designed to better communicate flood risk to the public so that they can make informed decisions about living and working in and near floodplains.

Internally, the Corps' flood risk communication process is a complex and fundamental issue. Historically, flood risk communication has generally centered on project specific messages and was stated in engineering jargon. It has been

recognized within the Corps that there is a need to move to a more systematic and system wide approach for more meaningful flood risk communication. Externally, flood risk communication needs a similar approach. This change in approach includes the standardization of vetted flood risk messages and the effective distribution of these messages by the Corps and the Corps' partners. A systems approach to informing the public complements the Corps' internal changes. The Corps has also recognized that when a product must meet the needs of a group of individuals with wide ranging needs collaboration leads to a more balanced and effective outcome and creates economic efficiencies in a time of dwindling local, state, and federal resources. The natural conclusion is that it will take a significant and unprecedented partnership effort to get the job done.

THREE KEY ELEMENTS:

Our CTP proposes to provide a framework for the creation of this Partnership. The goal of the Partnership is to provide uniformity for effective communication from an organized collaboration that includes all relevant federal agencies and non-federal entities that have a wide range of missions and authorities. The framework will address sharing information with an individual, sharing information among broad partnerships (for example: municipalities, counties, special purpose districts, states, and major [often interstate] systems at risk), and sharing information with a national audience. Topics of concern include but are not limited to: 1) **Confusing terminology and definitions** that

have proven to be ineffective and often leave the public with a false sense of security; 2) The **lack of efficient and effective distribution** of communication standards designed to reach the greatest number of people both in and out of the floodplain due in part to failing to optimize all of the available tools and technology that are available and; 3) **Not speaking to the nation with one voice**, but as scores of seemingly unrelated and/or disconnected agencies and associations.

Element #1 – Develop Graspable Messages

The first element of the Partnership for Flood Risk Communication is to develop explanations for flood risk that are meaningful to the audience and can be understood the first time the messages are read or heard. The current practice of using technical jargon that is poorly comprehended by the public has shown itself to be ineffective. The uses of the terms such as “100-year flood,” “100 year storm,” or “1 percent event” are good examples. In many instances, the public would believe that a flood or storm of this magnitude would only occur once every 100 years or that an event with a higher magnitude than the design of a structure/project that overtops/exceeds that structure/project would not occur. The term “residual flood risk” can be more clearly translated to “No matter what we do, there is still some chance of a flood occurring.¹” People, as a whole, are less able to relate and less responsive to explanations that involve only data or technical language. Instead, people relate better and are more responsive to

¹ Tinker, T. and Galloway, G.E., “*How Do You Effectively Communicate Flood Risks? Looking To The Future*”. 2008.

messages that address the personal/emotional reasons behind their decision to put themselves at risk or reduce their risks. Because these messages need to address emotion-based decisions, assistance from social scientists will need to be acquired.

It is also well known that once a message is distributed by the (government) agency, it continues to be spread by word of mouth. When a good or bad message goes “viral” it is often very difficult to shake it from the public consciousness regardless of the actual facts. An easily understood message that is given in lay terms is more likely to be repeated accurately than a message that is loaded, for example, with statistical probabilities.

In spite of these truths the Corps and other entities interested in communicating flood risk continue to use ineffective messages when there is clear evidence pointing to more effective method(s). Each time a Corps, FEMA, NAFSMA member or any authoritative body represents the potential risk in a poorly understood or ineffective way, regardless of its technical accuracy, the misunderstanding continues and the general public feels misled.

Element # 2 – Optimize Distribution

The second element of the Partnership for Flood Risk Communication is to leverage today’s technology to optimize distribution of the message. The use of classic media (newspapers, TV, magazines) to distribute these graspable messages is very important and must be optimized for effective communication².

² Tinker, T. and Galloway, G.E., “*How Do You Effectively Communicate Flood Risks? Looking To The Future*”. 2008.

In addition, one of the most efficient and effective methods of distribution may be the Internet. Fifty-two percent of Americans between the ages of 18 and 49 say they log onto the Internet every day, but frequency of daily use begins to significantly decline after age 50, and drops dramatically after age 65 -- just 17% of Americans age 65 and older use the Internet on a daily basis.³ The interactive nature and visualizations available via websites enhances the absorption of risk-based messages. While there are numerous websites available to the public that attempt to communicate flood risk, there is nothing from a vital partnership such as the one our CTP team proposes. One possibility is to collaboratively develop a website to optimize the potential impact of this technology. The website would be useful to the partnership in; vetting messages that convey meaning to all aspects of the public and facilitating agreement on user friendly visualization tools that encourage people interested in learning more about the risk they personally face as well the risk that their family and property face. Effective computer generated visualization tools exist such as the Floodplain Mapping Tool on the Harris County Flood Control District's website⁴. This interactive tool informs an individual if he/she lives in or near a floodplain. This type of tool exists within the Corps (Refer to Wilmington District's website), but it is not clear if all tools are accessible to the public in a user friendly format. The System-Wide Water Resources Program (SWWRP) at the Corps' Engineering Research & Development Center (ERDC) has created fantastic tools for visualization, but very few people know about them and therefore very few see and utilize them.

³ See <http://www.gallup.com/poll/10993/Internet-Use-Whats-Age-Got-It.aspx>

⁴ See <http://www.hcfcd.org>

These tools often help the public understand risk as it relates to an entire system. Better public access to these tools could help influence more informed land-use decisions at the local level. In 2000, approximately 44% of the nation used the Internet⁵ to get their information. This has grown to 70.2% in 2008⁶. With this mass usage of the Internet, it is critical that the Partnership effectively harness this medium for effective proactive risk communication and potentially illuminating a broader cross section of risk informed decision making in the future.

Element #3 – Speak With One Voice

Finally, the third element of the Partnership for Flood Risk Communication is to consistently speak with one voice to the nation so that the confusion and manipulation that exists within the system today ends. Saving lives, reducing flood damages as well as saving dollars better spent on other local, state, and national priorities is best served by a united front of parties who all share the same message rather than scores of seemingly unrelated and/or disconnected agencies and associations. For these reasons our CTP team believes the Partnership should influence and/or conduct a national media campaign that will reach all aspects of the public including those that do not use the Internet. This campaign should be designed using a collaborative approach as with the previous objectives described. The campaign should be designed to reach the entire nation in year-long increments. The campaign should speak to not only

⁵ See <http://www.internetworldstats.com/am/us.htm>

⁶ See <http://www.internetworldstats.com/am/us.htm>

those who are in floodplains and not only during high risk seasons, but speak to a national audience to be prepared before a disaster and prevent or lessen damage that would otherwise occur.

Since the public learns about floods in other parts of the country almost immediately from the national media, consistency in describing risk to the public across the nation will have tremendous benefits in educating the public in our local communities because they will learn from real flood events elsewhere. The Partnership needs to develop the “standard,” incorporate it into our various cultures, and to teach the media⁷. None of these tasks will be easy. The benefits will include a positive feedback loop involving the public. When a message is spread by word of mouth, it must be understandable and unambiguous to the people who will be repeating it.

It is critical that once the Partnership develops messages that are understandable to the general public, that the Partnership use those messages and only those messages. Every employee of any of the related parties continually communicates risk formally (i.e. at the project level) and informally (i.e. being asked about Hurricane Katrina by a neighbor at the super market or at a project site that is not related to Flood Risk Management). Not only is it incumbent on the Partnership to train their team in what to say and what not to say, but why it is important to follow the training.

Properly informing all of the stakeholders involved gives the best chance of impacting policy changes that will reduce risk at all levels of government. The

⁷ Tinker, T. and Galloway, G.E., *“How Do You Effectively Communicate Flood Risks? Looking To The Future”*. 2008.

campaign for flood risk communication will need to take the best of previous national public awareness campaigns for change and learn from their successes (i.e. like the well known “Crying Indian Campaign”) and failures (i.e. the ineffectiveness of the “Brain on Drugs Campaign”) as well. The application of adaptive management techniques including monitoring of the communication process - by working with focus groups to find out what messages were actually received and confirming that the process fulfilled its stated objectives - will ensure that the campaign constantly improves to meet the needs of the nation.

CONCLUSION:

It has been recognized within the Corps that there is a clear need to move to a more systematic and collaborative approach for more meaningful flood risk communication. The natural conclusion to this challenge is that it will take a significant and unprecedented Partnership to effectively change the culture where individual property owners, local officials and local governments, communities of all shapes and sizes, will accept shared accountability for the decisions and actions of living and working in or near a floodplain. These challenges also encompass competing with powerful social influences such as government subsidies and developmental pressures that tell the public its okay to live in a floodplain.

By leveraging federal, state, and local resources to work collaboratively in developing risk communication messages that all levels of government can communicate and all levels of the public can understand our CTP team believes

that the ***Partnership for Flood Risk Communication*** needs to address the issues of: 1) **Confusing terminology** and **definitions** that have proven to be ineffective and often leave the public with a false sense of security **by collaboratively developing graspable messages**; 2) A **lack of efficient and effective distribution** of communication standards by monopolizing on all available technologies and mediums that **optimize the distribution** of Partnership messages and; 3) **Not speaking to the nation with one voice**, but as scores of seemingly unrelated and/or disconnected agencies and associations by working collaboratively at all levels to **speak with one voice** with the single purpose of effectively communicating flood risk to the public.

An adaptation of the Silver Jackets Program message related to our CTP could read:

Many Partners – One Voice – Communicating Risk