

Supporting Statement A
1 Flood Damage Surveys
OMB Control Number 0710-XXXX

Justification

- 1. Explain the circumstances that make the collection of information necessary. Identify any legal or administrative requirements that necessitate the collection.**

Information from the questionnaire items for the collection of planning data is needed: 1) to formulate and evaluate alternative water resources development plans in accordance with the *Principles and Guidelines for Water Related Land Resources Implementation Studies*, promulgated by the U.S. Water Resources Council, 1983, which specifically identifies personal interviews as a method of gathering primary flood damage data; 2) to determine the effectiveness and evaluate the impacts of Corps projects (P.L. 74-738); and 3) in the case of flood damage mitigation, to obtain information on flood damages incurred, whether or not a project is being considered or exists (P.L. 74-738). The information is also to be gathered under this collection also supports the mandate from the Flood Control Act of 1936 (P.L. 74-734) that established the criterion for Federal action that “the benefits, to whomsoever they may accrue are in excess of the estimated costs.” In the Corps of Engineers Engineering Regulation 1105-2-100, *Planning Guidance Notebook (April, 2000)*, benefits are defined for the project under consideration, with flood damages avoided contributing to willingness-to-pay.

- 2. Indicate how, by whom, and for what purpose the information is to be used.**

The Army Corps of Engineers provides flood risk management structural and nonstructural mitigation, planning and technical services to communities, residents, and business at risk of flooding. Flood damage surveys are administered by the Corps of Engineers and its contractors to determine the impacts and potential impacts of flooding and to determine how communities, residents, and businesses respond to flooding. The data are used for estimating damage for factors such as depth of flooding, construction types, and different occupancies of use. The data are also used for estimating other costs of flooding, such as agricultural losses, cleanup costs, and flood preparedness costs. Damage estimation models are then calculated and used to estimate the cost of flooding and to evaluate the benefits of alternative flood mitigation plans. Results of surveys will help communities to better determine and communicate their flood risks. The models are also used for programmatic evaluation of the Corps's National Flood Risk Management Program.

The following describes the type of information to be collected by each survey instrument:

Uses of the Information by Individual Survey Instrument

Agricultural

This is a comprehensive agricultural damage survey that can be used for estimating project benefits by determining with and without conditions. The survey covers historic flood experience, cropping patterns, effect of flooding on crops yield, crops damage, and production budgets. There are also questions to determine the effect of flooding on farm property.

- Background Information: Basic information on farm operation and flood history.
- Crops Distribution and Production Practices: To determine what crops are generally planted in what acreage to be able to estimate seasonally adjusted flood loss.
- Crops Damage: to use previous crops loss experience to be better able to predict future flood loss.
- Farm Property Damage: to determine actual non-crops flood loss to be able to estimate dollar loss to buildings and farm infrastructure
- Fish Pond Damage: to use damage information to be able to estimate

Coastal Storm Damage

This survey asks about property characteristics to determine susceptibility to coastal flooding and erosion. The survey inquires about previous flood and erosion experience and how the respondent and the community have adjusted to these problems.

- Background Information: to gain basic information about the property and the respondent's flood history.
- Structure and Outside Property Information: to be able determine the value of the property subject to flooding and to be able to classify the property to use the appropriate damage function.
- Costs and Damages: to be able to relate actual damages and other flood-related costs to levels of inundation, waves, and erosion for calculating damage and cost relationships based on structure characteristics.
- Warning and Response: to be able to design more effective warning notices and be able to estimate future damages prevented by increased leadtime and better preparedness activities. This survey can be used to determine the benefits, private costs, and the effectiveness of different flood warning methods and response activities are and how flood warning response might vary by demographic characteristics of the population. Respondents are asked about their behavior when there is an emergency evacuation, whether they evacuated, what influenced their behavior, and the nature of warning and preparedness measures that were in place during the emergency.

Nonresidential

This survey is used to learn about the responding business's recent flood experience and how the business has responded to the threat of flooding. Questions are included to determine the value of all contents, outside property, and the depreciated replacement value of the building. Respondents are asked to estimate the structure, content, and vehicle damage as well as emergency and cleanup costs for hypothetical flood levels.

- **Background Information:** to gain basic information about the business and the business's flood history.
- **Individual Building Information:** to be able determine the value of the property subject to flooding and to be able to classify the property to use the appropriate damage function.
- **Physical Damage and Other Costs:** to be able to relate actual damages and other flood-related costs to levels of inundation for calculating damage and cost relationships based on structure characteristics.
- **Damage Susceptibility:** to be able to estimate damages when recent flooding has not occurred based on the respondents knowledge of location of damageable property and susceptibility to damage if inundated. This survey facilitates the inventory of major components of business property. It includes questions about hypothetical damages at various flood levels to each of the inventoried components. The survey also inquires about the extent of other costs of flooding at hypothetical levels of inundation.
- **Flood Warning and Response:** to be able to design more effective warning notices and be able to estimate future damages prevented by increased leadtime and better preparedness activities.
- The survey also covers nonphysical flood costs, such as emergency expenses and income losses.

Public Damage and Costs

This is a short survey that asks about the extent of public damages and other public costs of flooding from a single event. Total public financial costs and hours of volunteer time for emergency operations and cleanup are included.

Residential

This is a thorough survey for estimating physical damage and other costs of flooding to residential property. Detailed household descriptions are used to estimate the depreciated replacement value of the structure. Structural damage and damages prevented are determined for various parts of the household structure. This survey is designed for post-flood evaluation and estimation of depth-damage functions.

- **Background Information:** to gain basic information about the property and the respondent's flood history.

- **Cost and Damages:** to be able to relate actual damages and other flood-related costs to levels of inundation for calculating damage and cost relationships based on structure characteristics.
- **Structure, Contents, and External Property Information:** to be able to determine the value of the property subject to flooding and to be able to classify the property to use the appropriate damage function.
- **Warning and Response:** to be able to design more effective warning notices and be able to estimate future damages prevented by increased leadtime and better preparedness activities.

Roadway Damage

These questions are used to determine the flood damages that occurred to public roads and other costs to communities, and to be able to estimate future damages and costs for similar magnitude events.

Information Collection Methods

On-Site and In-person intercept surveys:

Survey instruments are provided to respondents while on site to complete and then return it. This may include oral administration, paper forms, or the use of electronic technology and kiosks. The survey administrator is prepared to answer any questions the respondent may have about how to fill out the instrument but does not interfere or influence how the respondents answer the questions.

Mail and e-mail surveys:

Using existing lists of respondents addresses, a multi-contact approach based on Dillman's "Tailored Design Method" will be employed. Under the Dillman method, the first contact will be a cover letter explaining that a survey is coming to them and its importance. The second contact will be the survey instrument along with a postage-paid addressed envelope to return the survey. The third contact will be a reminder postcard sent 10 days after the survey was sent. Finally, the respondents will receive a letter thanking them for the willingness to participate in the survey and reminding them to return it if they have not already done so. At each juncture, the respondents will be given multiple ways to contact someone with questions regarding the survey (including phone, web, or email). If the survey has been lost, the respondent can request that another be sent to them. Electronic mail is sometimes used instead of postal mail to communicate with customers. Although this is a cost-effective mode to survey a large group of people, it does not usually generate the best response rate. Telephone calls to non-respondents can be used to increase response rates.

3. Describe whether, and to what extent, the collection of information involves the use of automated, electronic, mechanical, or other technological collection techniques or other forms of information technology, e.g., permitting electronic

submission of responses, and the basis for the decision for adopting this means of collection. Also describe any consideration of using information technology to reduce burden and specifically how this collection meets GPEA requirements.

Survey data collection will primarily be through in person interviews. Survey administrators will be encouraged to use laptop computers or tablets to minimize data recording and for better quality control and assurance. Mail surveys will also be used to maximize response, and survey administrators will be encouraged to have respondents complete their surveys on government-secure servers.

4. Describe efforts to identify duplication. Show specifically why any similar information already available cannot be used or modified for use for the purposes described in Item 2 above.

This effort does not duplicate any other survey being done by Federal agencies. No other Federal agency systematically collects information for the purpose computing damage relationships. The Corps has shared previous damage functions with the Federal Emergency Management Agency, and FEMA has used these damage relationships in their Benefit-Cost Analysis program for Hazard Mitigation Grant applications and as part of their HAZUS software for hazard mitigation planning. FEMA and the Small Business Administration are the only Federal agencies that we have been able to identify that collect flood damage data on a regular basis. We have concluded that the FEMA data are not usable because of the limitations in the amount of insurance coverage available to policy holders, policy deductibles, exclusions from coverage, and many inconsistencies between depth of flood and percent damage. SBA data does not contain sufficient information on the damaged buildings or depth of flooding to be useful for our purposes.

5. If the collection of information impacts small businesses or other small entities, describe any methods used to minimize burden.

Some of the surveys, especially those concerning flood mitigation (for example, determining the value of damageable property and historical flood damages), may require the interviewing of small businesses. When appropriate, the burden on such establishments is alleviated by such actions as: 1) pre-survey contacts to determine the most advantageous time such surveys can be conducted; 2) provision of pre-survey materials to inform the entities what information will be needed to expedite the survey process; and 3) assistance from experienced and trained staff to complete necessary questionnaires. The information being collected in these surveys has, for the most part, already been gathered for insurance, disaster relief, disaster loan, and tax purposes.

6. Describe the consequence to Federal program or policy activities if the collection is not conducted or is conducted less frequently, as well as any technical or legal obstacles to reducing burden.

If the needed information could not be collected for these occasions, the feasibility of a projects or their effectiveness could not be determined with data gathered directly from flood victims, potential flood victims, and communities directly by flood loss. Corps planners would also not know how people became aware impending floods or how they responded to warnings and visual evidence of flooding.

- 7. Explain any special circumstances that would cause an information collection to be conducted in a manner:**
 - a. requiring respondents to report information to the agency more often than quarterly;**
 - b. requiring respondents to prepare a written response to a collection of information in fewer than 30 days after receipt of it;**
 - c. requiring respondents to submit more than an original and two copies of any document;**
 - d. requiring respondents to retain records, other than health, medical, government contract, grant-in-aid, or tax records, for more than three years;**
 - e. in connection with a statistical survey that is not designed to produce valid and reliable results that can be generalized to the universe of study;**
 - f. requiring the use of a statistical data classification that has not been reviewed and approved by OMB;**
 - g. that includes a pledge of confidentiality that is not supported by authority established in statute or regulation, that is not supported by disclosure and data security policies that are consistent with the pledge, or which unnecessarily impedes sharing of data with other agencies for compatible confidential use; or**
 - h. requiring respondents to submit proprietary trade secrets, or other confidential information, unless the agency can demonstrate that it has instituted procedures to protect the information's confidentiality to the extent permitted by law.**

This request contains no special circumstances with respect to 5 CFR 1320.5 (2) for (a) and (c-h) above. There is an exception with b. We may be asking respondents to send back their responses in fewer than 30 days after receipt of the survey. On these types of surveys, respondents normally will respond rather quickly if they intend to respond at all. These are voluntary surveys and respondents are not obligated to respond.

- 8. If applicable, provide a copy and identify the date and page number of publication in the *Federal Register* of the agency's notice, required by 5 CFR 1320.8(d), soliciting comments on the information collection prior to submission to OMB. Summarize public comments received in response to that notice and in response to the PRA statement associated with the collection over the past three years, and describe actions taken by the agency in response to these comments. Specifically address comments received on cost and hour burden.**

The 60 day public notice was published in the Federal Register on February 5, 2015. It can be found on page 6064 of Volume 80, Number 23. No comments were received. The 30 day public notice was published on September 15, 2015. It can be found on page 55341 of Volume 80, Number 178. No Comments were received. Both public notices are included as part of this package.

9. Explain any decision to provide any payment or gift to respondents, other than remuneration of contractors or grantees.

Incentives, remuneration, and gifts are generally deemed inappropriate as part of plans for information collections conducted within the scope of USACE sponsored surveys. No gifts or payments will be made to any survey respondents.

10. Describe any assurance of confidentiality provided to respondents and the basis for that assurance in statute, regulation, or agency policy.

The Corps of Engineers Civil Works Program does not have the statutory authority to protect confidentiality or to exempt a survey from a request under the Freedom of Information Act. However, respondents will be told that their answers will be used only for statistical purposes. They will also be told that any reports prepared from this study will summarize findings across samples so that responses will not be associated with any specific individuals. Respondents will be informed further that the Corps will not provide information that identifies respondents, except as required by law. Personally identifying information (telephone numbers, e-mail addresses, and postal addresses) is typically stripped from data files before the files are made available to other parties. Therefore, the administration of surveys conducted under this program is essentially anonymous.

11. Provide additional justification for any questions of a sensitive nature, such as sexual behavior and attitudes, religious beliefs, and other matters that are commonly considered private. This justification should include the reasons why the agency considers the questions necessary, the specific uses to be made of the information, the explanation to be given to persons from whom the information is requested, and any steps to be taken to obtain their consent.

The questions used in these surveys will not be of a sensitive nature.

12. Provide estimates of the hour burden of the collection of information. The statement should:

Indicate the number of respondents, frequency of response, annual hour burden, and an explanation of how the burden was estimated. Unless directed to do so, agencies should not conduct special surveys to obtain information on which to base hour burden estimates. Consultation with a sample (fewer than 10) of potential respondents is desirable. If the hour burden on respondents is expected to vary widely because of differences

in activity, size, or complexity, show the range of estimated hour burden, and explain the reasons for the variance. Generally, estimates should not include burden hours for customary and usual business practices. If this request for approval covers more than one form, provide separate hour burden estimates for each form and aggregate the hour burdens. Provide estimates of annualized cost to respondents for the hour burdens for collections of information, identifying and using appropriate wage rate categories. The cost of contracting out or paying outside parties for information collection activities should not be included here. Instead, this cost should be included under “Annual Cost to Federal Government.”

Based on experience with the existing Programmatic Clearance, we estimate that there will be approximately 7,000 annual responses. Please see the table below for the estimated annual respondent burden for this collection. Given these estimates, the Corps of Engineers anticipates a budget of 5,000 hours per year for these proposed collections.

- We estimate the total dollar value of the annual burden hours for this collection to be \$159,650. We arrived at this figure by multiplying the estimated burden hours by \$32.20 valuation of volunteer time and the projected burden hours, an approximate aggregate annual cost to This wage figure included the multiplier for benefits and is based on the National Compensation Survey: Occupational Wages in the United States published by the Bureau of Labor Statistics (BLS) Occupation and Wages for average full compensation for private industry, (hour costs based on BLS news release USDL-11-849 for Employer Costs for Employee Compensation—June 8, 2011 at: <http://www.bls.gov/news.release/ecec.htm>, dated June 2014).

CORPS OF ENGINEERS FLOOD AND COASTAL DAMAGE SURVEYS PUBLIC HOUR AND PUBLIC COST BURDEN					
	Minutes/ Survey	Portion of Hour	Surveys/Year	Public Burden Hours	Public Burden Costs
AGRICULTURAL FLOOD DAMAGE SURVEY	45	0.75	500	375	\$12,075.00
COASTAL STORM DAMAGE QUESTIONNAIRE	45	0.75	2000	1500	\$48,300.00
NONRESIDENTIAL FLOOD DAMAGE SURVEY	60	1	1500	1500	\$48,300.00
PUBLIC DAMAGE SURVEY	60	1	500	500	\$16,100.00
RESIDENTIAL FLOOD DAMAGE QUESTIONNAIRE	45	0.5	2000	1000	\$32,200.00

ROADWAY FLOOD COSTS	15	0.25	500	125	\$4,025.00
TOTALS			7000	5000	\$161,000.00

13. Provide an estimate of the total annual non-hour cost burden to respondents or record keepers resulting from the collection of information. (Do not include the cost of any hour burden already reflected in item 12.)

This data collection effort requires no additional record keeping or time commitment on the part of the population being surveyed then what is required in the estimated time to complete the questionnaires.

14. Provide estimates of annualized cost to the Federal government. Also, provide a description of the method used to estimate cost, which should include quantification of hours, operational expenses (such as equipment, overhead, printing, and support staff), and any other expense that would not have been incurred without this collection of information.

Each survey or collection will be developed and designed on a case-by-case basis. The program staff will determine if it is more efficient and cost effective to develop, distribute, collect, and analyze these surveys in-house or to turn to private or other non-government entities to provide that service. However, in order to provide a reasoned estimate, we have assumed a ratio of three hours of Federal work for each hour of survey time, with the Federal work at an average pay level of GS-12 step 5, which is \$40.00 per hour based on 2015 pay scale with some locality adjustment. Using a multiplier of 1.5 [as implied by the previously referenced BLS news release] to add benefits, the full compensation cost would be \$60.00 per hour. Thus, including materials and travel, the estimated annual cost to the Federal government is \$126,4000.

**Survey Administration Costs to the Government
Flood Damage Surveys**

	Minutes/ Survey	Portion of Hour	Surveys/ Year	Public Burden Hours	Total Labor Hours, Including Administrative Scheduling and Travel Time	Labor Costs	Travel Costs	Equipment & Materials	Cost to Government
AGRICULTURAL FLOOD DAMAGE SURVEY	45	0.75	0.75	375	1125	\$63,664	\$25,000	\$1,000	\$89,664
COASTAL STORM DAMAGE QUESTIONNAIRE	45	0.75	0.75	1500	4500	\$254,655	\$100,000	\$4,000	\$358,655
NONRESIDENTIAL FLOOD DAMAGE SURVEY	60	1	1	1500	4500	\$254,655	\$75,000	\$3,000	\$332,655
PUBLIC DAMAGE SURVEY	60	1	1	500	1500	\$84,885	\$25,000	\$1,000	\$110,885
RESIDENTIAL FLOOD DAMAGE QUESTIONNAIRE	45	0.5	0.5	1000	3000	\$169,770	\$100,000	\$4,000	\$273,770
ROADWAY FLOOD COSTS	15	0.25	0.25	125	375	\$21,221	\$25,000	\$1,000	\$47,221
TOTALS	30		7000	5000	1125	\$848,850	\$350,000	\$14,000	\$1,212,850

15. Explain the reasons for any program changes or adjustments in hour or cost burden.

No programmatic changes have occurred that would require a major change in the annual burden hours. The number of required burden hours for flood risk management surveys has not increased.

16. For collections of information whose results will be published, outline plans for tabulation and publication. Address any complex analytical techniques that will be used. Provide the time schedule for the entire project, including beginning and ending dates of the collection of information, completion of report, publication dates, and other actions.

Most of the data collection efforts will generally not be published, but used to document internal reports and when found to have general application, be used as backup to internal guidance memorandum. Each information collection considered under this clearance will describe how the data will be analyzed and used. Each information collection will provide OMB with information on the specific tabulation methods used to collect and analyze the data.

Most analyses of surveys conducted under this program will involve simple tabulations to address concrete management and planning issues. These include response frequencies, means, standard deviations, confidence intervals, and breakdowns of these by important sub-groups of respondents. It is expected that regression analysis will be used to model the results for future application.

17. If seeking approval to not display the expiration date for OMB approval of the information collection, explain the reasons that display would be inappropriate.

We will display the OMB approval number and expiration date on the information collection instruments.

18. Explain each exception to the topics of the certification statement identified in "Certification for Paperwork Reduction Act Submissions."

No administrative exemptions are required for this survey package.