

# CRS Community Self Assessment

## Before You Begin

Two quick things before you begin the CRS Community Self Assessment: an overview of how the site works, and what you'll want to gather ahead of time to make the process as useful as possible.

## How the CRS Community Self Assessment Website Works

There are 5 steps in the CRS Community Self Assessment:

**STEP 1: Your Floodplain** (What's in your floodplain? What data do you have?)

**STEP 2: Identifying and Mapping Your Hazards** (Which hazards threaten your community? Where?)

**STEP 3: Identifying Assessment Areas** (Which types of areas are at risk from which types of flooding?)

**STEP 4: Analyzing Your Assessment Areas** (What's in these specific areas?)

**STEP 5: Overview and Next Steps** (Given all of this, how might you reduce your exposure?)

At the end of each step (except Step 3, which you'll complete with paper maps or in your GIS system) is an "Email me my answers and move on to next step" button. Once you click on that, your answers will be sent to the email address you provided when you registered. Please note:

- Some steps have multiple pages. Your answers will not be sent until you complete the entire step.

- Once you click on the “Email me my answers and move on to next step” button, it will **not** be possible to go back and edit your previously entered answers (if you go back to completed steps, you’ll find a blank form). You may either reenter your information for the entire step, or you may make edits to the emails you were sent for your records.
- The emails sent by the site will be your only records from the CRS Community Self Assessment. FEMA will not be processing your answers. Please keep your answers somewhere safe.

## **Recommended Materials to Have on Hand**

In order to make the best use of your efforts, we recommend that you take time now to gather a few things that will help you answer the questions in the CRS Community Self Assessment. We will be asking you about the nature of your community’s floodplain, population, economic and growth factors, and the history of many types of flooding. You’ll be creating a map showing all your hazards, either on paper or on your computer (but not on this website).

Here is a list of documents you may find useful:

- **A map of your community** – This could be a large printed map, if your community is relatively small, or you may want to complete the assessment with the assistance of your community’s GIS specialist. Not only will the map help you visualize the different areas within your community, but there are activities in the assessment that will be greatly enhanced by marking on the map or creating new GIS layers. If possible, you should also gather maps that illustrate details about your community’s
  - Current land use and zoning
  - Areas likely to experience development or redevelopment
  - Past flooded or stormwater problem areas
  - [Repetitive loss properties](#)/areas

- Areas designated for economic development
- Wetlands
- Information on any known endangered species
- Other natural hazards
- **Your Flood Insurance Rate Map (FIRM)**, a paper or digital copy, and the accompanying **Flood Insurance Study (FIS)**
- **Your Hazard Mitigation Plan**
- **Records of high water marks for past floods**
- **A list of critical or essential facilities**
- **A list of major employers** (industrial or commercial areas)
- **A list of industrial areas**
- **A list of major commercial/shopping areas**
- **Building counts**
- **Photos, news articles, or other data on past floods**

This information may be readily available to you, or you may need to do a little research, including talking to other staff members, community officials, or residents with historical knowledge of the area (you may even wish to gather a subset of these people together to work on this collectively). Other sources of helpful information include historical societies, libraries, economic development councils or commissions, councils of government, the Red Cross, fraternal organizations, schools or universities, real estate and insurance agents, and first responders.

## **Gathered the materials/people you need? Ready to get going?**

CREATE AN ACCOUNT *or if you've already done*

*that* GET STARTED WITH STEP 1 →

# CRS Community Self Assessment

## About the CRS Community Self Assessment

### **Why has FEMA created the CRS Community Self Assessment?**

The Community Rating System (CRS) provides credits for a variety of floodplain management and public information activities that go beyond the minimum requirements of the National Flood Insurance Program. The CRS is interested in communities selecting activities that best reduce current and future flood damage, and the CRS Community Self Assessment is a tool designed to assist communities in developing programs and identifying CRS activities that are most appropriate for their particular flood risks. For example, a fast growing community might most effectively focus its efforts on mapping and regulatory activities that would help it manage the development pressure in its floodplain instead of working only on drainage maintenance procedures.

### **How can it help my community?**

We've developed the CRS Community Self Assessment to help a community summarize its flooding problem(s) and the natural resources and functions of its floodplain and/or coastal area. This information will help a community identify appropriate CRS activities to pursue. This self-assessment process is not intended to replace the in-depth assessment that a community should undertake as part of its floodplain management or hazard mitigation planning.

The CRS Community Self Assessment will help provide communities with an overview of their current and some potential future flood risks, and help identify areas in which they may wish to focus their efforts.

Conducting a self-assessment does not earn CRS credit points, but it can meet the assessment requirements for Activity 330 PPI (Program for Public Information) and Activity 610 (Flood Warning Program). It can also be very helpful when getting ready to conduct other activities, such as Activities 320 (Map Information Service) and 510 (Floodplain Management Planning).

BEFORE YOU BEGIN →

To get started, let's get some general information about your community and its risks. This information will help set the backdrop for you to zero-in on in later steps.

If you have your hazard mitigation plan handy (and it's thorough), this step will likely go quickly.

### YOUR COMMUNITY'S FLOOD EXPOSURE

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#### Structures in your SFHA (Zones A and V)

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**Total number of structures in your A and V zones:**

**Percentage of these that are 1-4 family residential structures:**

(numbers only, no % sign)

**Percentage of these structures that are multifamily (5 or more families):**

(numbers only, no % sign)

**Percentage of these that are commercial or non-residential:**

(numbers only, no % sign)

#### Structures outside your SFHA (Zones B, C, and X)

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**Number of structures in your B, C, and X zones:**

**Percentage of these that are 1-4 family residential structures:**

(numbers only, no % sign)

**Percentage of these structures that are multifamily (5 or more families):**

(numbers only, no % sign)

**Percentage of these that are commercial or non-residential:**

(numbers only, no % sign)

### Critical Facilities at Risk

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**List all critical facilities that would be impacted by a flood or stormwater event.**

Your emergency manager should have a list of your community's critical facilities. If not, [click here for a definition](#).

# CRS Community Self Assessment<sup>self-assessment-default</sup>

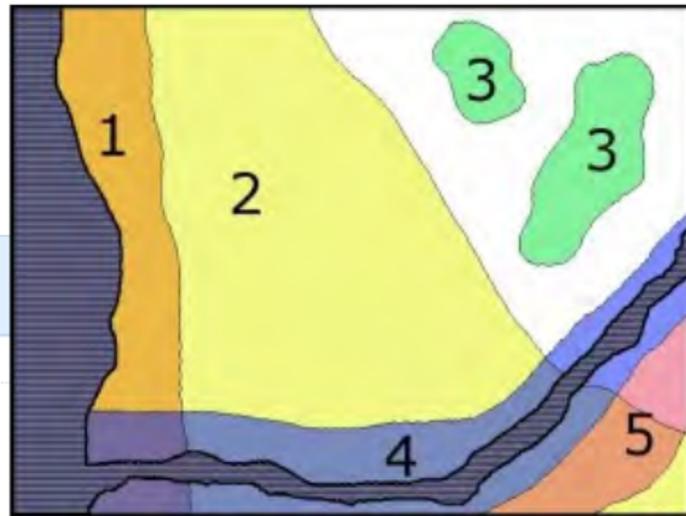
## Community Self Assessment

## Step 2: Mapping Your Hazards

In this section, you will create a map of your community's flood risks, hazard-type by hazard-type (all hazards will be recorded on the same base-map). You can create the map with GIS or similar mapping software, or if your community is small, you can use a large paper map that can be annotated as your move through the questions.

Have your information and base-map (GIS or paper) ready? Let's start by identifying which hazards could impact your community .

Next



LEGEND: 1. Coastal, 2. Tsunami, 3. Shallow Flooding, 4. Riverine, 5. Levee Failure

### Community Self Assessment

#### First, which of these types of flooding is your community susceptible to?

- |   |  |
|---|--|
| <input type="checkbox"/> Coastal/Lakeshore Storms                         | <input type="checkbox"/> Coastal Waves >3 feet (V Zones) |
| <input type="checkbox"/> Coastal Waves 1.5-3 feet (Coastal A Zones/LiMWA) | <input type="checkbox"/> Coastal Erosion                 |
| <input type="checkbox"/> Tsunamis   | <input type="checkbox"/> Riverine (Overbank) Flooding    |
| <input type="checkbox"/> Flash Flooding                                   | <input type="checkbox"/> Alluvial Fan Flooding           |
| <input type="checkbox"/> Channel Migration                                | <input type="checkbox"/> Shallow Flooding                |
| <input type="checkbox"/> Ponding  | <input type="checkbox"/> Local Drainage Problems         |
| <input type="checkbox"/> Sewer Back-Ups                                   | <input type="checkbox"/> Sheet Flow                      |
| <input type="checkbox"/> Closed Basins                                    | <input type="checkbox"/> Ice Jams                        |
| <input type="checkbox"/> Subsidence                                       | <input type="checkbox"/> Mudflows                        |

#### Does your community have any levees?

*Levee: a man-made structure; usually an earthen embankment constructed with the intent to impede the flow of water so as to provide protection from temporary flooding.*

- Yes  No

#### Could your community be flooded if an upstream dam failed?

- Yes  No

Next, you'll map which areas in your community are susceptible to each type of hazard you checked above.

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### Community Self Assessment

Now, for each hazard, answer a few questions and then record potentially impacted areas on your map (instructions are included below after each hazard).

### Riverine (Overbank) Flooding

Which zones on your FIRM are subject to Riverine (Overbank) Flooding?

- |   |                                     |                                       |
|---|-------------------------------------|---------------------------------------|
| <input type="checkbox"/> A              | <input type="checkbox"/> AE/A1-30   | <input type="checkbox"/> AO/AH        |
| <input type="checkbox"/> AR/A99         | <input type="checkbox"/> V/V1-30/VE | <input type="checkbox"/> B/X (Shaded) |
| <input type="checkbox"/> C/X (Unshaded) | <input type="checkbox"/> D          |                                       |

Do you have areas subject to Riverine (Overbank) Flooding mapped on a map other than your FIRM? This could include preliminary DFIRMs.

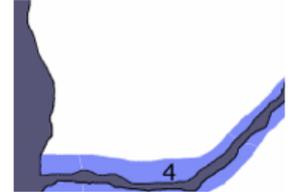
- Yes  No

Do you have additional or historical information (high water marks, photographs, news stories, etc.) on Riverine (Overbank) Flooding?

- Yes  No

### Map Your Hazard

Using the maps and data noted above, draw the areas subject to riverine (overbank) Flooding on your map. Use colors or symbols to identify the areas, as there will likely be multiple hazards that overlap the same area.



### Shallow Flooding

Which zones on your FIRM are subject to Shallow Flooding?

- |   |                                     |                                       |
|---|-------------------------------------|---------------------------------------|
| <input type="checkbox"/> A              | <input type="checkbox"/> AE/A1-30   | <input type="checkbox"/> AO/AH        |
| <input type="checkbox"/> AR/A99         | <input type="checkbox"/> V/V1-30/VE | <input type="checkbox"/> B/X (Shaded) |
| <input type="checkbox"/> C/X (Unshaded) | <input type="checkbox"/> D          |                                       |

Do you have areas subject to Shallow Flooding mapped on a map other than your FIRM? This could include preliminary DFIRMs.

- Yes  No

Do you have additional or historical information (high water marks, photographs, news stories, etc.) on Shallow Flooding?

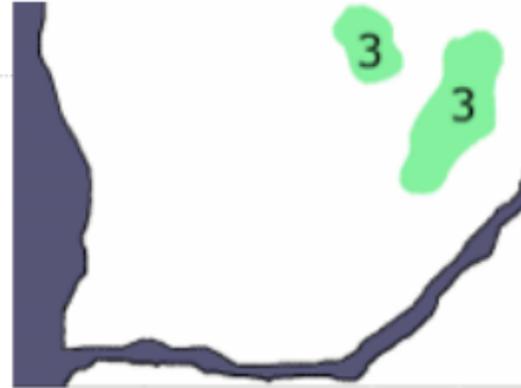
- Yes  No

### Map Your Hazard

Using the maps and data noted above, draw the areas subject to shallow flooding on your map. Use colors or symbols to identify the areas identified as affected by shallow flooding, as there will likely be multiple hazards that overlap the same area.

→ **On to Step 3**

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Now that you've marked all those areas on your map, it's time to consolidate them into areas you'll want to focus in on (we'll call them "assessment areas").

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[Email me my answers and move on to next step →](#)

### Your Hazard Data and Maps

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What is the date of your currently effective Flood Insurance Rate Map (FIRM)?

Month  Day  Year

Have you been keeping your copy of your FIRM up-to-date? This includes revisions for new subdivisions, annexations, letters of map change (LOMAs and LOMRs)?

Yes  No

Are there areas where your mapped SFHA underestimates the flood hazard due to new development or new bridges?

Yes  No

Are there areas where your mapped SFHA does not reflect changes to the landscape, such as channel migration and shoreline erosion?

Yes  No

Has your community experienced flooding outside of the SFHA shown on your FIRM?

Yes  No

Does your current effective FIRM have a delineated floodway for all rivers and streams?

Yes  No

Do you have alternative data that more accurately represents your floodways (including preliminary DFIRMs)?

Yes  No

Are any of your flood hazards mapped on a GIS layer that is available to your community staff?

Yes  No

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### Development and Redevelopment in your Watershed

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Are the watersheds in or upstream of your community subject to development?

Yes  No

Are the watersheds in or upstream of your community subject to regulations that will help minimize the stormwater impacts of new development?

Yes  No

Do people in your community cause drainage problems when they install swimming pools, build fences or regrade their yards, etc?

Yes  No

Do people in your community modify/alter their buildings to render them non-compliant with your floodplain regulations?

Yes  No

### Repetitive Loss Properties and Areas

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Do you have repetitive loss properties in your community?

See [FEMA's definition of repetitive loss properties here](#).

Yes  No

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### Natural Floodplain Functions

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Does your community have wetlands, threatened and/or endangered species habitat, and/or other areas deserving protection for their natural floodplain functions?

Yes  No

Is your community's floodplain used for hunting, fishing, or recreational uses?

Yes  No

Does your community have areas subject to bank erosion or sedimentation?

Yes  No

Does your community have water quality issues in your waterways (turbidity, phosphorus, other water quality parameters)?

You may be able to find this information in your state's 303(d) list.

Yes  No

What other concerns does your community have that are related to natural floodplain functions?\*

\*Seasonal flooding, development encroaching on beaches, upstream activities degrading water quality, bank erosion, etc.

Does your community prohibit fill within portions of the floodplain—including the floodway, channel migration areas, and other related areas?

Yes  No

### Emergency Management and Public Safety

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Does your community have a flood warning and response program that identifies specific flood response actions that are to be taken at different flood levels?

Yes  No

Does your community have a flood warning and response outreach project strategy?

Yes  No

Are additional flood warnings (including those events caused by levee or dam failure) needed for the critical facilities in your community?

Yes  No

### Flood Warning

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Does your community have a flood warning plan and program?

Yes  No

Does your community have flood stage inundation maps so it knows who to warn for different levels of flooding?

Yes  No

Are there areas of your community that may need to be evacuated during a flood emergency?

Yes  No

Does your community have a plan that ensures timely advanced warning of the public (day and night)?

Yes  No

Does your community utilize multiple methods to warn the public?

Yes  No

Does your community have a public information and outreach program to inform the public about your warning program (if you have one), and safety measures and mitigation actions they can take to protect their property and lives?

Yes  No

### Dams

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Could your community be impacted by the failure of a high hazard potential dam\* (in or outside of your community)?

\*High hazard potential dam: dams whose failure or mismanagement will probably cause loss of human life.

Yes  No

## Levees

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### Does your community have levees,\* a levee system,\*\* or could it be impacted by a levee failure?

\***Levee**: a man-made structure; usually an earthen embankment, designed and constructed using sound engineering practices to contain, control, or divert flood waters in accordance with a designated risk reduction level.

\*\***Levee system**: the levee structure itself, plus all appurtenant facilities, such as pump stations, closure devices, etc., that are needed to contain, control, or divert flood waters in accordance with a designated risk reduction level. For CRS purposes, credit is based on local activities related to the entire levee system not just to the levee structure.

Yes  No

## Post Disaster

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### Does your community have a post-disaster response plan (including provisions for orderly building inspections and the issuance of buildings permits)?

Yes  No

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[Email me my answers and move on to next step →](#)

### Community Self Assessment

In this Step, you will identify **assessment areas** that will be used in later steps of the CRS Community Self Assessment and in certain CRS activities (e.g., creating a Program for Public Information).

Study the map you created in the previous section. The map should depict areas of your community that are affected by the different types of flooding. Some areas will overlap, others will cover very small or very large areas. Areas may be densely or sparsely populated. Consider historical flooding, economic or (re)development pressures, open spaces, the natural functions of the floodplain, residential and commercial areas. Think about these characteristics and use the information you gathered in the first section to identify similar areas.



**Assessment areas** are neighborhoods, districts, or other areas of the community with similar flooding, building, and population characteristics.

#### Characteristics to consider while identifying assessment areas:

- Developed parts of the Special Flood Hazard Area
- Undeveloped areas subject to flooding
- The downtown business district
- Residential areas
- Industrial areas
- Parks
- Shopping centers, malls
- Schools/College Campus
- Critical facilities, hospitals
- Repetitive loss areas
- An area subject to an unmapped special hazard, such as sinkholes or ice jams
- An area protected by a levee
- An area subject to flooding due to a dam failure
- Beachfront hotels and rental units
- A floodprone trailer park
- Recently annexed land
- Residential neighborhoods
- Tourist attractions or hotel districts
- Residential areas with a high percentage of renters
- Elderly/infirm populations or retirement communities
- Non-English-speakers
- Areas outside the SFHA with historical flooding

Here's an example list of assessment areas:

- Area 1** – Downtown shopping area subject to stormwater drainage problems;
- Area 2** – Coastal/riverside commercial or boardwalk areas subject to coastal flooding and/or tsunamis;
- Area 3** – School campuses or critical facilities subject to shallow flooding or sheetflow;
- Area 4** – Agricultural areas subject to flooding with a concentration of non-English speaking residents;
- Area 5** – Residential areas with a high percentage of individuals who may need special assistance or consideration during a flood, such as a retirement community.

Assessment areas need not be in your SFHA. Area 5 in the example above could be a Zone X, but the community should plan for evacuation or services if roads or other infrastructure are impacted by a flood. Also note that not all the identified assessment areas may warrant community action in later steps. For example, some assessment areas that flood may be vacant and already protected from development.

Some Assessment areas may overlap one another. Your SFHA may only cover a small area, but a dam or levee failure would impact nearly the entire community. In this case, identify the larger and smaller areas separately and note the exclusive characteristics of each.

If your community is small, you may identify a small number of assessment areas. If yours is a very large community with many assessment areas that cover a large geographic area, consider grouping areas that have common characteristics, flood types and populations. For the purpose of the Community Self Assessment, we recommend identifying no more than 15-20 assessment areas, though there may be cases where more are needed to address a uniquely varied set of areas.

If using GIS to complete the Community Self Assessment, create layers with attributes that identify the assessment areas by location, characteristics, population, flooding types, etc. If you are using a printed map, outline the assessment areas on the map using colors or symbols. In either case, assign numbers and/or names to the areas and create a list or report as in the example below.

<b>Assessment Area</b>	<b>Location/Description</b>	<b>Hazards</b>	<b>Characteristics</b>	<b>Demographics</b>
1	Downtown	Stormwater backup	Urban, densely populated	Shopkeepers, young couples
2	Boardwalk	Tsunami, coastal flooding	Shoreline high-rise buildings, hotels	Business owners, tourists
3	College campus	Shallow flooding/ponding	Dorms, school buildings, gym	Students and teachers, campus employees, few with own transportation
4	Farmland east of town	Riverine flooding	Agricultural buildings and ranches	Non-English speaking, migrant workers, and farmers
5	Retirement community	None, but only access road is subject to frequent flooding	Multi-family, medical facilities	Elderly

[NEXT: Analyze Assessment Areas →](#)

# CRS Community Self Assessment<sup>self-assessment-default</sup>

## Community Self Assessment

### Step 4: Analyze Your Assessment Areas

In this step, you'll take a closer look at each of your assessment areas, including details such as building counts, potential impacts of flooding, and your data needs for that specific area.

Remember the information you gathered before you started the Community Self Assessment (e.g., your hazard mitigation plan, FIRMs, and Flood Insurance Studies): It's going to be very useful during this step.

**First, how many Assessment Areas did you identify in Step 3?**

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### Assessment Area 1

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#### Name this Assessment Area

(For example: "downtown," or "the undeveloped area north of town." Note: this is just for your reference.)

#### How would you characterize this area (check as many boxes as apply)?

Industrial  Business district  Residential neighborhood  Mixed business/residential  RV park

Undeveloped/likely to be developed  Undeveloped/protected from development  Protected by a levee

Protected by a dam

#### Briefly describe any additional relevant data about the area.

#### Number of structures in this area:

#### Are any of these structures residential?

Yes  No

#### Are any of these structures critical facilities?\*

\*See [this page](#) for a definition of critical facilities.

Yes  No

#### Are there major employers in your community who could be impacted by a flood event?

Yes  No

#### Could a flood event close critical roads or bridges?

Yes  No

#### How much of the area is currently undeveloped?

None  A little  Some  A lot  Actual area (square miles):

#### Is development expected in these undeveloped areas?

Yes  No  This area is fully developed

**Is redevelopment expected in the already-developed areas?**

Yes  No

**Do you have sufficient information on the hazards affecting this Assessment Area?**

Yes  No

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# CRS Community Self Assessment<sup>self-assessment-default</sup>

Community Self Assessment

## Step 4: Analyze Your Assessment Areas

### Submit Your Answers

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You've finished Step 4. Click on the "Email me my answers . . ." button below to move on to Step 5.

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[Email me my answers and move on to next step →](#)



### Community Self Assessment

*Which of the following statements about your community are true? Reflect back on your answers from prior sections of the self-assessment as you complete this. Remember: you should have all your answers from earlier steps in your email inbox.*

- Our maps do not fully cover and/or accurately show our current or expected future flood hazard risks.
- We have vacant areas or parcels that cannot/will not/should not be developed.
- We have vacant areas that may be developed in the future.
- We have natural features that should be protected from development or areas that perform important natural floodplain functions.
- Flooding will likely get worse if there is more development in the watersheds that drain to our community.
- We are interested in reducing the flood risk to existing development.
- We are interested in managing redevelopment to minimize future flood damage.
- We want to inform our residents about the flood hazard, natural floodplain functions, and how they can protect themselves and their properties.
- We have critical facilities that could be potentially affected by flooding.
- We have developed areas subject to repetitive flooding.
- Our citizens would benefit from advance notice that a flood is coming so they can get to a safe area and/or take steps to protect their property.
- We have areas subject to coastal flooding and storms.
- We have areas that would flood if a levee failed or was overtopped.
- We have areas subject to flooding if a dam failed.
- We have areas subject to special-flood related hazards (e.g., uncertain flow paths/alluvial fans, closed lake basins, ice jams, subsidence, mudflows, coastal erosion, or tsunamis).

**Given all of your answers above and those from prior sections, what are some first steps you can take to improve the management of your community's floodplain?**

**Your email address \***