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RESOLUTION NO. 2011-62

A RESOLUTION OF THE MAYOR AND VILLAGE COUNCIL OF THE VILLAGE OF PALMETTO BAY, FLORIDA, RELATING TO PROFESSIONAL SERVICES; AUTHORIZING KIMLEY-HORN AND ASSOCIATES TO ASSIST THE VILLAGE WITH THE PREPARATION OF AN APPLICATION FOR INCLUSION IN THE NATIONAL FLOOD INSURANCE (NFIP) COMMUNITY RATING SYSTEM (CRS); FURTHER AUTHORIZING THE VILLAGE MANAGER TO ISSUE A PURCHASE ORDER IN AN AMOUNT NOT TO EXCEED \$10,600; AND PROVIDING FOR AN EFFECTIVE DATE.

WHEREAS, The National Flood Insurance Program (NFIP) provides federally backed flood insurance that encourages communities to enact and enforce floodplain regulations; and,

WHEREAS, To be covered by a flood insurance policy, a property must be in a community that participates in the NFIP; and,

WHEREAS, The Village of Palmetto Bay adopted the Floodplain Management Ordinance in 2004, which was incorporated into the Land Development Code in early 2008; and,

WHEREAS, The Federal Emergency Management Agency (FEMA) promulgated additional rules in 2009 relating to Floodplain Management; and,

WHEREAS, Concurrently, the Village of Palmetto Bay approved Ordinance No. 09-20 updating the Floodplain Management Ordinance regulations to comply with FEMA modifications; and,

WHEREAS, The Community Rating System (CRS) is a program administered by FEMA; and,

WHEREAS, The CRS creates an incentive to do more than just regulate construction of new buildings to minimum national standards; and,

WHEREAS, Under the CRS, flood insurance premiums are adjusted to reflect community activities that reduce flood damage to existing buildings, manage development in areas not mapped by the NFIP, protect new buildings beyond the minimum NFIP protection level, help insurance agents obtain flood data, and help residents obtain flood insurance; and,

WHEREAS, To be recognized in the insurance rating system, community floodplain management activities must be described, measured, and evaluated; and,

WHEREAS, It is important to note that reduced flood insurance rates are only one of the benefits a community receives from participating in the CRS; and,

1 **WHEREAS**, In response to the Village's needs, the Department of Public Works requested
2 a proposal from Kimley-Horn and Associates Inc. for the preparation of a draft application for the
3 Village's inclusion in the NFIP CRS, prepare a memorandum listing potential activities to be
4 implemented for an improved CRS rating and staff preparation for the Community Assistance Visit
5 with FEMA; and,
6

7 **NOW, THEREFORE, BE IT RESOLVED BY THE MAYOR AND VILLAGE**
8 **COUNCIL OF THE VILLAGE OF PALMETTO BAY, FLORIDA, AS FOLLOWS:**
9

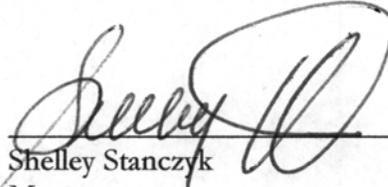
10 **Section 1:** The Village Manager is authorized pursuant to the continuing services agreement
11 with Kimley-Horn and Associates Inc. to approve a specific project agreement (under the
12 continuing services agreement) for the preparation of an application for inclusion in the national
13 flood insurance (NFIP) community rating system (CRS) for the Village of Palmetto Bay in an
14 amount not to exceed \$10,600. The project agreement proposal is attached and incorporated by
15 reference herein as exhibit 1, for execution.
16

17 **Section 2:** This Resolution shall take effect immediately upon approval.
18

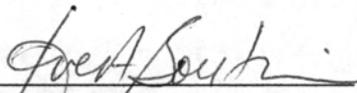
19 **PASSED and ADOPTED** this 3rd day of October, 2011.
20

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23 ATTEST:


Meighan Alexander
Village Clerk


Shelley Stanczyk
Mayor

26
27 **READ AND APPROVED AS TO FORM:**
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29
30 
31 Eve Boutsis
32 Village Attorney
33

34 **FINAL VOTE AT ADOPTION:**
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36 Council Member Patrick Fiore YES
37
38 Council Member Howard J. Tendrich YES
39
40 Council Member Joan Lindsay YES
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42 Vice-Mayor Brian W. Pariser YES
43
44 Mayor Shelley Stanczyk. YES

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RESOLUTION NO. 2010-36

A RESOLUTION OF THE MAYOR AND VILLAGE COUNCIL OF THE VILLAGE OF PALMETTO BAY, FLORIDA, RELATING TO PROFESSIONAL SERVICES; APPROVING THE QUALIFICATION OF FIRMS TO PROVIDE ARCHITECTURE, LANDSCAPE ARCHITECTURE, GENERAL CIVIL ENGINEERING/SURVEYING, TRANSPORTATION PLANNING AND ENGINEERING, ELECTRICAL ENGINEERING, STRUCTURAL ENGINEERING, GENERAL PLANNING SERVICES TO THE VILLAGE; AUTHORIZING THE VILLAGE MANAGER TO ENTER INTO CONTRACT NEGOTIATIONS WITH ~~CORZO CASTELLA CARBALLO THOMPSON SALMAN, P.A., BERMELLO AJAMIL AND PARTNERS, WOLFBERG ALVAREZ AND PARTNERS, CALVIN GIORDANO AND ASSOCIATES, O'LEARY RICHARDS DESIGN ASSOCIATES INC., KIMLEY-HORN AND ASSOCIATES, THE CORRADINO GROUP, FRAGA ENGINEERS, MACTEC ENGINEERING AND CONSULTING, BCC ENGINEERING INC.~~; PROVIDING FOR AN EFFECTIVE DATE.

WHEREAS, in order to implement recommended improvements to the Village as outlined in its Stormwater Master Plan, Transportation Master Plan, Parks Master Plan, and Comprehensive Master Plan, the need for quick response and professional expertise is required; and,

WHEREAS, a Request for Qualifications (RFQ) 2009-PW-106 was issued for qualified firms or teams of firms to obtain Professional Services in seven (7) service areas; and,

WHEREAS, pursuant to Chapter 287.055, Florida Statutes, the Village will retain consultants to provide professional services in Architecture, Landscape Architecture, Civil Engineering/Surveying, Engineering, Electrical Engineering, Structural Engineering, General Planning Services and Transportation Planning and Engineering; and,

WHEREAS, in order to fulfill the needs of quick response and professional expertise, the Village intends to retain three (3) Consultants in each Service Area; and,

WHEREAS, in response to the Village of Palmetto Bay's RFQ # 2009-PW-106, a total of sixty-nine (69) responses were received from many experienced, talented and highly capable firms; and,

WHEREAS, five professionals were selected to evaluate and make recommendations regarding RFQ # 2009-PW-106 submittals; and,

WHEREAS, the RFQ document detailed a two-part screening process; and,

1 **WHEREAS**, each proposal was individually evaluated and the five (5) highest ranking
2 proposals in each Service Area were then invited to make an oral presentation before the committee;
3 and,
4

5 **WHEREAS**, as a result of the two part screening process and deliberations, the selection
6 committee is recommending and requesting Village Council approval of the 3 highest ranking firms
7 in accordance with the attached evaluation tabulation for each service area; and,
8

9 **WHEREAS**, it should be noted that, along with the Village's overall desire to continue to
10 implement the recommendations of its Master Plans, there are also legislative requirements (Chapter
11 287.055, Florida Statute) that must be adhered to by municipalities; and,
12

13 **WHEREAS**, the eventual contracting for these services is in the best interest of Village
14 improvements and in certain instances their end products are mandated; and,
15

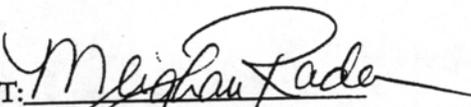
16 **NOW, THEREFORE, BE IT RESOLVED BY THE MAYOR AND VILLAGE**
17 **COUNCIL OF THE VILLAGE OF PALMETTO BAY, FLORIDA, AS FOLLOWS:**
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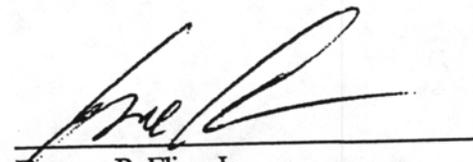
19 Section 1: The Village Manager is authorized to enter into contract negotiation with the
20 selected Consultants to provide professional engineering services.
21

22 Section 2: This resolution shall take effect immediately upon approval.
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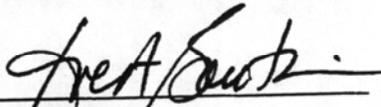
26 **PASSED and ADOPTED** this 12th day of April, 2010.
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31 ATTEST:


32 Meighan Rader
33 Village Clerk
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37 Eugene P. Flinn Jr.
38 Mayor
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42 **READ AND APPROVED AS TO FORM:**
43
44


45 Eye Boutsis
Village Attorney

1
2 FINAL VOTE AT ADOPTION:
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4 Council Member Ed Feller YES
5
6 Council Member Howard Tendrich YES
7
8 Council Member Shelley Stanczyk YES
9
10 Vice-Mayor Brian W. Pariser YES
11
12 Mayor Eugene P. Flinn, Jr. YES
13

EXHIBIT "A"

PROJECT AGREEMENT

Between

VILLAGE OF PALMETTO BAY, FLORIDA

And

Kimley-Horn and Associates, Inc.

for

Work Authorization No. 11-01

Community Rating System Application

PROJECT AGREEMENT

Between

THE VILLAGE OF PALMETTO BAY, FLORIDA

And

Kimley-Horn and Associates, Inc.

For

Work Authorization No. 11-01

Community Rating System Application

Pursuant to the provisions contained in the "continuing services agreement" between the VILLAGE OF PALMETTO BAY, FLORIDA, 8950 SW 152nd Street, Palmetto Bay, Florida 33157 (the "VILLAGE") and Kimley-Horn and Associates, Inc., ("CONSULTANT" or "ENGINEER") dated June 11, 2010, this project agreement authorizes the CONSULTANT to provide the services as set forth below:

The VILLAGE and CONSULTANT agree as follows:

SECTION 1. SCOPE OF SERVICES

1.1 The CONSULTANT shall provide engineering services to the VILLAGE for the project as described in the "Project Description" attached as Exhibit "1."

1.2 The "Scope of Services and Project Schedule" and tasks to be provided by the CONSULTANT for this project are those services and tasks as listed in Exhibit "2."

1.3 The VILLAGE may request changes that would increase, decrease, or otherwise modify the Scope of Services. The changes must be contained in a written change order executed by the parties in accordance with the provisions of the continuing services agreement, prior to any deviation from the terms of the project agreement, including the initiation of any extra work.

SECTION 2. DELIVERABLES

As part of the Scope of Services and Project Schedule, the CONSULTANT shall provide to the VILLAGE the following Deliverables:

See Scope of Services in Attachments Exhibit "2"_____.

SECTION 3. TERM/TIME OF PERFORMANCE/DAMAGE

3.1 **Term.** This project agreement shall commence on the date this instrument is fully executed by all parties and shall continue in full force and effect until the project is completed, unless otherwise terminated pursuant to section 6 or other applicable provisions of this project agreement. The VILLAGE manager, in his sole discretion, may extend the term of this agreement through written notification to the CONSULTANT. The extension shall not exceed 30 days. No further extensions of this agreement shall be effective unless authorized by the VILLAGE council.

3.2 **Commencement.** The CONSULTANT's services under this project agreement and the time frames applicable to this project agreement shall commence upon the date provided in a written Notification of Commencement ("Commencement Date") provided to the CONSULTANT from the VILLAGE. The CONSULTANT shall not incur any expenses or obligations for payment to third parties prior to the issuance of the Notification of Commencement. CONSULTANT must receive written notice from the VILLAGE manager or his designee prior to the beginning the performance of services.

3.3 **Contract Time.** Upon receipt of the Notification of Commencement, the CONSULTANT shall commence services to the VILLAGE on the Commencement Date, and shall continuously perform services to the VILLAGE, without interruption, in accordance with the time frames set forth in the "Project Schedule," a copy of which is attached and incorporated into this agreement as Exhibit "2". The number of calendar days from the Commencement Date, through the date set forth in the Project Schedule for completion of the project or the date of actual completion of the project, whichever shall last occur, shall constitute the Contract Time.

3.4 **Liquidated Damages.** Unless otherwise excused by the village in writing, in the event that the consultant fails to meet to the contract time for completion of services as determined by the Project Schedule, the consultant shall pay to the village the sum of dollars identified below per day for each and every calendar day unexcused delay beyond the completion date, plus approved time extensions, until completion of the project: \$0 per day. The consultant may claim extension if the factors involved are not under their direct control.

Any sums due and payable hereunder by the consultant shall be payable, not as a penalty, but as liquidated damages representing and estimate at or before the time of executing this agreement. When the village reasonably believes that completion will be inexcusably delayed, the village shall be entitled, but not required, to withhold from any amounts otherwise due the consultant an amount then believed by the village to be adequate to recover liquidated damages applicable to the delays. If and when the consultant overcomes the delay in achieving completion, or any part thereof, for which the village has withheld payment, the village shall promptly release to the consultant those funds withheld, but no longer applicable, as liquidated damages.

3.5 All limitations of time set forth in this agreement are of the essence.

SECTION 4. AMOUNT, BASIS AND METHOD OF COMPENSATION

4.1 **Lump Sum Compensation.** VILLAGE agrees to pay CONSULTANT as compensation for performance of all services described in Exhibit "2" a Lump Sum amount of \$10,600.00

4.2 **Reimbursable Expenses.** The following expenses are reimbursable at their actual cost: travel and accommodations, long distance telephone calls, facsimile, courier services, mileage (at a rate approved by the VILLAGE), photo and reproduction services. All document reproductions are also reimbursable, at a rate approved by the VILLAGE.

SECTION 5. BILLING AND PAYMENTS TO THE CONSULTANT

5.1 **Invoices**

5.1.1 **Lump Sum Compensation and Reimbursable Expenses.** CONSULTANT shall submit invoices which are identified by the specific project number on a monthly basis in a timely manner. These invoices shall identify the nature of the work performed, the phase of work, and the estimated percent of work accomplished in accordance with the Payment Schedule set forth in Exhibit "3", to this project agreement. Invoices for each phase shall not exceed amounts allocated to each phase of the Project plus reimbursable expenses accrued during each phase. The statement shall show a summary of fees with accrual of the total and credits for portions previously paid by the VILLAGE. The VILLAGE shall pay CONSULTANT within 30 days of approval by the VILLAGE manager of any invoices submitted by CONSULTANT to the VILLAGE.

5.2 **Disputed Invoices.** In the event that all or a portion of an invoice submitted to the VILLAGE for payment to the CONSULTANT is disputed, or additional backup documentation is required, the VILLAGE shall notify the CONSULTANT within 15 working days of receipt of the invoice of the objection, modification or additional documentation request. The CONSULTANT shall provide the VILLAGE with additional backup documentation within five working days of the date of the VILLAGE's notice. The VILLAGE may request additional information, including but not limited to, all invoices, time records, expense records, accounting records, and payment records of the CONSULTANT. The VILLAGE, at its sole discretion, may pay to the CONSULTANT the undisputed portion of the invoice. The parties shall endeavor to resolve the dispute in a mutually agreeable fashion.

5.3 **Suspension of Payment.** In the event that the VILLAGE becomes credibly informed that any representations of the CONSULTANT, provided pursuant to subparagraph 5.1, are wholly or partially inaccurate, or in the event that the CONSULTANT is not in compliance with any term or condition of this project agreement, the VILLAGE may withhold payment of sums then or in the future otherwise due to the CONSULTANT until the inaccuracy,

or other breach of project agreement, and the cause thereof, is corrected to the VILLAGE's reasonable satisfaction.

5.4 **Retainage.** The village reserves the right to withhold retainage in the amount of 10 percent of any payment due to the consultant until the project is completed. Said retainage may be withheld at the sole discretion of the village manager and as security for the successful completion of the consultant's duties and responsibilities under the project agreement.

5.5 **Final Payment.** Submission of the CONSULTANT's invoice for final payment and reimbursement shall constitute the CONSULTANT's representation to the VILLAGE that, upon receipt from the VILLAGE of the amount invoiced, all obligations of the CONSULTANT to others, including its CONSULTANT's, incurred in connection with the project, shall be paid in full. The CONSULTANT shall deliver to the VILLAGE all documents requested by the VILLAGE evidencing payments to any and all subconsultant's, and all final specifications, plans, or other documents as dictated in the Scope of Services and Deliverable. Acceptance of final payment shall constitute a waiver of any and all claims against the VILLAGE by the CONSULTANT.

SECTION 6. TERMINATION/SUSPENSION

6.1 **For Cause.** This project agreement may be terminated by either party upon five calendar days written notice to the other party should the other party fail substantially to perform in accordance with its material terms through no fault of the party initiating the termination. In the event that CONSULTANT abandons this project agreement or causes it to be terminated by the VILLAGE, the CONSULTANT shall indemnify the VILLAGE against any costs incurred in replacing CONSULTANT for this project agreement. In the event that the CONSULTANT is terminated by the VILLAGE for cause and it is subsequently determined by a court of competent jurisdiction that the termination was without cause, the termination shall thereupon be deemed a termination for convenience under section 6.2 of this project agreement and the provision of section 6.2 shall apply.

6.2 **For Convenience.** This project agreement may be terminated by the VILLAGE for convenience upon 14 days' written notice to the CONSULTANT. In the event of termination, the CONSULTANT shall incur no further obligations in connection with the project and shall, to the extent possible, terminate any outstanding sub CONSULTANT obligations. The CONSULTANT shall be compensated for all services performed to the satisfaction of the VILLAGE and for reimbursable expenses incurred prior to the date of termination. The CONSULTANT shall promptly submit its invoice for final payment and reimbursement and the invoice shall comply with the provisions of paragraph 5.1 of this project agreement. Under no circumstances shall the VILLAGE make any payment to the CONSULTANT for services which have not been performed.

6.3 **Assignment upon Termination.** Upon termination of this project agreement, a copy of all of the CONSULTANT's work product shall become the property of the VILLAGE

and the CONSULTANT shall, within 10 working days of receipt of written direction from the VILLAGE, transfer to either the VILLAGE or its authorized designee, a copy of all work product in its possession, including but not limited to designs, specifications, drawings, studies, reports and all other documents and data in the possession of the CONSULTANT pertaining to this project agreement. Further, upon the VILLAGE's request, the CONSULTANT shall assign its rights, title and interest under any subconsultant's agreements to the VILLAGE.

6.4 **Suspension for Convenience.** The VILLAGE shall have the right at any time to direct the CONSULTANT to suspend its performance, or any designated part thereof, for any reason whatsoever or without reason, for a cumulative period of up to 30 calendar days. If the suspension is directed by the VILLAGE, the CONSULTANT shall immediately comply with same. In the event the VILLAGE directs a suspension of performance as provided for herein through no fault of the CONSULTANT, the VILLAGE shall pay to the CONSULTANT its reasonable costs, actually incurred and paid, of demobilization and remobilization, as full compensation for the suspension.

SECTION 7. INCORPORATION OF TERMS AND CONDITIONS OF CONTINUING SERVICE AGREEMENT

7.1 This project agreement incorporates the terms and conditions set forth in the continuing services agreement dated June 11, 2010 between the parties as though fully set forth herein. In the event that any terms or conditions of this project agreement conflict with the continuing services agreement, the provisions of this specific project agreement shall prevail and apply.

[THE REST OF THIS PAGE INTENTIONALLY LEFT BLANK.]

ATTEST:

VILLAGE OF PALMETTO BAY

VILLAGE Clerk

By: _____
Ron E. Williams, VILLAGE Manager

Date: _____

APPROVED AS TO FORM:

VILLAGE Attorney

ATTEST:

Kimley-Horn and Associates, Inc.

By: _____
Gary R. Ratay, P.E.
Senior Associate

Date: _____

WITNESSES:

Print Name: _____

Print Name: _____

Exhibit "1"

Project Description

This proposal is to assist the VILLAGE by providing consulting services to prepare a draft application for the VILLAGE's inclusion in the National Flood Insurance Program (NFIP) Community Rating System (CRS) and prepare a memorandum listing potential activities to be implemented for an improved CRS rating.

Exhibit "2"

Scope of Services and Project Schedule

The professional services for this project will include the following:

Task 1 - FEMA NFIP Community Assistance Visit

Prior to submitting an application to become a member of the Community Rating System (CRS), the VILLAGE must obtain a letter of compliance with the National Flood Insurance Program (NFIP). Prior to preparing a letter of compliance with the NFIP, the Federal Emergency Management Agency (FEMA) Regional Coordinator will require satisfactory completion of a Community Assistance Visit with the VILLAGE to review the VILLAGE's Floodplain Management Ordinance and building department enforcement of the ordinance. In order to facilitate a FEMA Community Assistance Visit, the consultant will prepare a letter requesting the visit for signature by the VILLAGE Manager.

Prior to the Community Assistance Visit, the Consultant will attend one (1) meeting with VILLAGE Building Department staff to assist with preparation for FEMA's visit. The Consultant will be present for the Community Assistance Visit with FEMA (up to 2 days). It is essential that Building Department staff also be available for this visit from FEMA.

Deliverables:

- Letter requesting Community Assistance Visit

Task 2 – Draft CRS Application

The Consultant will complete a draft of an NFIP Community Rating System (CRS) Application form for the VILLAGE to receive a rating and be included in the CRS. The application form will be completed based on activities the VILLAGE has in place at the time this Work Authorization is executed. The Consultant will work with the VILLAGE to compile copies of the required documentation to accompany the application form. This task will include up to two (2) meetings with the VILLAGE's CRS Coordinator and other department staff to determine which programs qualifying for CRS credit are currently being implemented.

Deliverables:

- Three (3) copies of the draft CRS application and documentation
- One (1) PDF copy of the draft CRS application and documentation

Task 3 –Improved CRS Rating Recommendation Memo

Upon completion of the draft CRS application form, the Consultant will work with the VILLAGE to identify tasks and programs that the VILLAGE could implement to improve its projected CRS rating. A brief description of the tasks and programs will be presented to the VILLAGE in memorandum form. The memorandum will also contain the CRS rating points

associated with each task. This task includes up to two (2) meetings with the VILLAGE's CRS Coordinator and other department staff to discuss the recommendations. Upon receipt of this memo and the draft CRS Application prepared in Task 2 above, the VILLAGE will have the option of directing the Consultant to submit the draft CRS Application as is or implementing some of the tasks and programs suggested in the memo. If the VILLAGE wishes to implement any of the tasks or programs listed in this memorandum, the Consultant may assist the VILLAGE in implementing them and including them in the VILLAGE's CRS Application under a separate work authorization.

Deliverables:

- Memo describing recommended tasks and programs to be implemented for an improved CRS rating

ADDITIONAL SERVICES

The VILLAGE may request changes that would increase, decrease, or otherwise modify the Scope of Services. The changes must be contained in a written change order executed by the parties in accordance with the provisions of the continuing services agreement, prior to any deviation from the terms of the project agreement, including the initiation of any extra work. These services may include but are not limited to such items as the following:

- Additional meetings not included in Task 1 through 3
- Preparation of annual reports to maintain CRS rating
- Assistance in implementing new activities for CRS credit
- Stormwater master planning
- Floodplain management planning

INFORMATION PROVIDED BY CLIENT

We anticipate partnering with the Client in all aspects of the project. We request that the Client assist us in the following areas:

- Providing Building Official and building department staff to assist in FEMA's review during the Community Assistance Visit
- Assistance in scheduling meetings with VILLAGE staff in departments that may be implementing programs that qualify for CRS credit
- Providing required CRS application back-up information for activities that are currently being implemented by the VILLAGE

PROJECT SCHEDULE

We will provide our services as expeditiously as practicable to meet a mutually agreed upon schedule. The VILLAGE should be aware that FEMA scheduling of Community Assistance Visits is dependent upon federal budget allocations for travel expenses and is, therefore, outside of the CONSULTANT's control.

Exhibit "3"

Payment Schedule

The CONSULTANT will complete this scope of services for the lump sum amount of **\$10,600.00.**

Task	Description	Labor Fee
1	FEMA NFIP Community Assistance Visit.....	\$3,000.00
2	Draft CRS Application	\$3,800.00
3	Improved CRS Rating Recommendation Memo	\$3,800.00
	LUMP SUM FEE.....	\$10,600.00

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ORDINANCE NO. 09-20

AN ORDINANCE OF THE MAYOR AND VILLAGE COUNCIL OF THE VILLAGE OF PALMETTO BAY, FLORIDA, RELATING TO CHAPTER 30, DIVISION 100, ENVIRONMENTAL REGULATIONS, RELATING TO SECTION 6 ENTITLED "FLOOD PLAIN MANAGEMENT"; AMENDING SAME TO COMPLY WITH THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) UPDATES REQUIRED OF ALL CITIES, COUNTIES ACROSS THE COUNTRY RELATING TO FLOOD PLAIN MANAGEMENT; SAID UPDATES WERE CREATED BY FEMA IN 2009 AND ARE MANDATED TO BE INCLUDED IN THE VILLAGE'S ORDINANCE 30-100.6, RELATING TO SAME; PROVIDING FOR ORDINANCES IN CONFLICT, CODIFICATION, SEVERABILITY AND AN EFFECTIVE DATE.

WHEREAS, the Mayor and Village Council of the Village of Palmetto Bay are concerned with the health, safety, and welfare of its residents; and,

WHEREAS, the Village, previously adopted its Flood Plain Management Ordinance in 2004, which was incorporated into the Land Development Code in early 2008, at 30-100.6; and,

WHEREAS, the Federal Emergency Management Agency (FEMA) has promulgated additional rules in 2009 relating to Flood Plain Management; and,

WHEREAS, FEMA requires all municipalities to update their Flood Plain Management regulations to comply with FEMA modifications; and,

WHEREAS, South Florida is subject to tropical storms, tropical depressions, and hurricanes and many areas of the Village are subject to flooding; and,

WHEREAS, the Village Council acknowledges that there exist flood hazard areas within the Village which are subject to periodic inundation, which can result in loss of life and property, health and safety hazards, disruption of commerce and governmental services, extraordinary public expenditures for flood protection and relief, and impairment of the tax base, all of which adversely affect the public health, safety and general welfare of the Village; and,

WHEREAS, losses due to floods may be caused by the cumulative effect of obstructions in floodplains causing increases in flood heights and velocities, and by the occupancy in flood hazard areas by uses vulnerable to floods or hazardous to other lands which are inadequately elevated, flood-proofed, or otherwise unprotected from flood damages; and,

WHEREAS, areas in the Village are vulnerable to floods and need to be protected against flood damage at the time of the initial construction; and,

1 impairment of the tax base, all of which adversely affect the public health, safety and
2 general welfare of the Village.

3
4 (2) Losses due to floods may be caused by the cumulative effect of
5 obstructions in floodplains causing increases in flood heights and velocities, and by the
6 occupancy in flood hazard areas by uses vulnerable to floods or hazardous to other lands
7 which are inadequately elevated, flood-proofed, or otherwise unprotected from flood
8 damages.

9
10 (c) Statement of Purpose. The purpose of this Division, the "floodplain
11 management regulations," is to promote the public health, safety, general welfare, and to
12 minimize public and private losses due to flood conditions in specific areas by provisions
13 designed to:

14
15 (1) Require that uses vulnerable to floods, including facilities which
16 serve such uses, be protected against flood damage at the time of initial
17 construction, and throughout their intended lifespan.

18
19 (2) Restrict or prohibit uses which are dangerous to health, safety
20 and property due to water or erosion hazards, or which result in damaging
21 increases in flood heights, velocities or erosion,

22
23 (3) Control the alteration of natural flood plains, stream channels
24 and natural protective barriers which are involved in the accommodation of
25 flood waters,

26
27 (4) Control filling, grading, dredging, and other development which
28 may increase flood damage or erosion, and

29
30 (5) Prevent or regulate the construction of flood barriers which will
31 unnaturally divert flood waters or which may increase flood hazards to other
32 lands.

33
34 (d) Objectives. The objectives of these flood regulations are:

35
36 (1) To protect human life and health and to eliminate or minimize
37 property damage;

38
39 (2) To minimize expenditure of public money for costly flood
40 control projects;

41
42 (3) To minimize the need for rescue and relief efforts associated with
43 flooding and generally undertaken at the expense of the general public;

44
45 (4) To minimize prolonged business interruptions;

46

1 (5) To minimize damage to public facilities and utilities such as water
2 and gas mains, electric, telephone and sewer lines, ~~and~~ streets and bridges and
3 culverts located in flood plains;

4
5 (6) To help maintain a stable tax base by providing for the sound use
6 and development of flood prone areas in such a manner as to minimize flood
7 blight areas; and

8
9 (7) To ensure that potential home buyers are notified that property is
10 in a flood hazard area.

11
12 (e) Methods of Reducing Flood Losses. In order to accomplish its purpose,
13 this section includes methods and provisions for:

14
15 (1) Restricting or prohibiting uses which are dangerous to health,
16 safety, and property due to water or erosion hazards, or which result in damaging
17 increases in erosion or in flood heights or velocities,

18
19 (2) Requiring that uses vulnerable to floods including facilities which
20 serve such uses be protected against flood damage throughout their intended life
21 span,

22
23 (3) Controlling the alteration of natural floodplains, stream channels,
24 and natural protective barriers, which help accommodate or channel flood
25 waters,

26
27 (4) Controlling filling, grading, dredging, and other development
28 which may increase flood damage, and

29
30 (5) Preventing or regulating the construction of flood barriers that
31 will unnaturally divert flood waters or may increase flood hazards in other areas.

32
33 (f) Definitions.

34
35 Accessory structure (Appurtenant structure) – For FEMA purposes, shall mean a
36 structure that is located on the same parcel of property as the principal structure and the
37 use of which is incidental to the use of the principal structure. Accessory structures
38 should constitute a minimal investment, may not be used for human habitation, and be
39 designed to have minimal flood damage potential. Examples of accessory structures are
40 detached garages, carports, storage sheds, pole barns, and hay sheds.

41
42 Appeal - shall mean a request for a review of the Floodplain Administrator's
43 interpretation of any provision of this ordinance or a request for a variance.

44
45 Area of shallow flooding - shall mean a designated AO or AH Zone on the
46 community's Flood Insurance Rate Map (FIRM) with base flood average depths of one
47 (1) to three (3) feet where a clearly defined channel does not exist, where the path of

1 flooding is unpredictable, and where velocity flow may be evident. Such flooding is
2 characterized by sheet flow or ponding.

3
4 Area of special flood hazard - shall mean the land in the floodplain within a
5 community subject to a one (1) percent or greater chance of flooding in any given year.
6 The term "special flood hazard area", for purposes of these regulations, is synonymous
7 with the phrase "area of special flood hazard."

8
9 Base flood - shall mean the flood having a one (1) percent chance of being
10 equaled or exceeded in any given year (also called the "100-year flood" and "regulatory
11 flood"). Base flood is the term used throughout this ordinance.

12
13 Base Flood Elevation - shall mean the water-surface elevation associated with
14 the base flood.

15
16 Basement - shall mean any portion of a building having its floor sub-grade
17 (below ground level) on all sides.

18
19 Breakaway wall - shall mean a wall that is not part of the structural support of the
20 building and is intended through its design and construction to collapse under specific
21 lateral loading forces, without causing damage to the elevated portion of the building or
22 the supporting foundation system.

23
24 Building. *See* Structure.

25
26 Certification - shall mean a certification by a registered professional engineer or
27 other party does not constitute a warranty or guarantee of performance, expressed or
28 implied. Certification of data is a statement that the data is accurate to the best of the
29 certifier's knowledge. Certification of analyses is a statement that the analyses have been
30 performed correctly and in accordance with sound engineering practices. Certification of
31 structural works is a statement that the works are designed in accordance with sound
32 engineering practices to provide protection from the base flood. Certification of "as
33 built" conditions is a statement that the structure(s) has been built according to the plans
34 being certified, is in place, and is fully functioning.

35
36 Coastal high hazard area - shall mean an area of special flood hazard extending
37 from offshore to the inland limit of a primary frontal dune along an open coast and any
38 other area subject to high velocity wave action from storms or seismic sources. The
39 area is designated on the FIRM as Zone V1 - V30, VE, or V.

40
41 Critical facility - shall mean a facility that is required to maintain function during
42 a significant flood event in order to protect life, health, and safety. Critical facilities
43 include, but are not limited to hospitals, police, fire and emergency response installations.

44
45 Datum - shall mean a reference surface used to ensure that all elevation records
46 are properly related. The current national datum is the National Geodetic Vertical

1 Datum (NGVD) of 1929, which is expressed in relation to mean sea level, or the North
2 American Vertical Datum (NAVD) of 1988.

3
4
5 Development - shall mean any man-made change to improved or unimproved
6 real estate, including, but not limited to buildings or other structures, mining, dredging,
7 filling, grading, paving, excavating, drilling operations, or storage of materials or
8 equipment.

9
10 Elevated building - shall mean a non-basement building built to have the lowest
11 floor elevated above the ground level by foundation walls, shear walls, posts, piers,
12 pilings, or columns.

13
14 Encroachment - shall mean the advance or infringement of uses, plant growth,
15 fill, excavation, buildings, permanent structures or development into a floodplain, which
16 may impede or alter the flow capacity of a floodplain.

17
18 Existing construction - shall mean for the purposes of floodplain management,
19 structures for which "the start of construction" commenced before the date of the initial
20 adoption of the floodplain management regulations by the Village of Palmetto Bay.
21 Existing construction, means for the purposes of determining insurance rates, structures
22 for which the "start of construction" commenced before June 18, 1974, the effective
23 date of the FIRM. This term may also be referred to as "existing structures".

24
25 Existing manufactured home park or subdivision - shall mean a manufactured
26 home park or subdivision for which the construction of facilities for servicing the lots on
27 which the manufactured homes are to be affixed (including at a minimum the installation
28 of utilities, the construction of streets, and either final site grading or the pouring of
29 concrete pads) is completed before the effective date of the floodplain management
30 regulations as identified by the Federal Emergency Management Agency (FEMA) in its
31 flood insurance study and FIRM adopted by Miami-Dade County, Florida on June 18,
32 1974, and any revisions thereto.

33
34 Expansion to an existing manufactured home park or subdivision - shall mean
35 the preparation of additional sites by the construction of facilities for servicing the lots
36 on which the manufactured homes are to be affixed (including the installation of utilities,
37 the construction of streets, and either final site grading or the pouring of concrete pads).

38
39 Flood or flooding means:

40
41 (a) A general and temporary condition of partial or complete inundation of
42 normally dry land areas from:

43
44 (1) The overflow of inland or tidal waters;

45
46 (2) The unusual and rapid accumulation or runoff of surface waters
47 from any source.

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(3) Mudslides (i.e., mudflows) which are proximately caused by flooding as defined in paragraph (a) (2) of this definition and are akin to a river of liquid and flowing mud on the surface of normally dry land areas, as when earth is carried by a current of water and deposited along the path of the current.

(b) The collapse or subsidence of land along a shore of a lake or other body of water as the result of erosion or undermining caused by waves or currents of water exceeding anticipated cyclical levels or suddenly caused by an unusually high water level in a natural body of water, accompanied by a severe storm or by an unanticipated force of nature, such as a flash flood or an abnormal tidal surge or by some similarly unusual and unforeseeable event which results in flooding as defined in paragraph (a) (1) of this definition.

Flood Boundary and Floodway Map (FBFM) - shall mean the official map of a community, on which the FEMA has delineated the areas of special flood hazard and regulatory floodways.

Flood Hazard Boundary Map (FHBM) - shall mean an official map of the community, issued by FEMA, where the boundaries of the special flood hazard areas have been identified as Zone A.

Flood Insurance Rate Map (FIRM) - shall mean an official map of a the community, on which FEMA has delineated both the areas of special flood hazard and the risk premium zones applicable to the community.

Flood Insurance Study (FIS) - shall mean the official hydrology and hydraulics report provided by FEMA. The study contains an examination, evaluation, and determination of flood hazards, and, if appropriate, corresponding water surface elevations, or an examination, evaluation, and determination of mudslide (i.e., mudflow) and other flood-related erosion hazards. The study may also contain flood profiles, as well as the FIRM, FHBM (where applicable), and other related data and information.

Floodplain - shall mean any land area susceptible to being inundated by water from any source (see definition of "flooding").

Floodplain management - shall mean the operation of an overall program of corrective and preventive measures for reducing flood damage and preserving and enhancing, where possible, natural resources in the floodplain, including but not limited to emergency preparedness plans, flood control works, floodplain management regulations, and open space plans.

Floodplain Administrator is the individual appointed to administer and enforce the floodplain management regulations of the community.

Floodplain management regulations - shall mean this section and any other zoning ordinances, subdivision regulations, building codes health regulations, special

1 purpose ordinances (such as floodplain ordinance, grading ordinance, and erosion
2 control ordinance), and other applications of police power which control development in
3 flood-prone areas. This term describes Federal, State of Florida, or local regulations, in
4 any combination thereof, which provide standards for preventing and reducing flood
5 loss and damage.

6
7 Floodproofing - shall mean any combination of structural and nonstructural
8 additions, changes, or adjustments to structures which reduce or eliminate flood damage
9 to real estate or improved real property, water and sanitary facilities, structures and their
10 contents.

11
12 Floodway - shall mean the channel of a river or other watercourse and the
13 adjacent land areas that must be reserved in order to discharge the base flood without
14 cumulatively increasing the water surface elevation more than a designated height of one
15 (1) foot. The term is also referred to as "regulatory floodway."

16
17 Floodway fringe – shall mean that area of the one-percent (base or 100-year)
18 floodplain on either side of the regulatory floodway.

19
20 Freeboard - shall mean the additional height, usually expressed as a factor of
21 safety in feet, above a flood level for purposes of floodplain management. "Freeboard"
22 tends to compensate for the many unknown factors, such as wave action, blockage of
23 bridge or culvert openings, and hydrological effect of urbanization of the watershed,
24 which could contribute to flood heights greater than the heights calculated for a selected
25 frequency flood and floodway conditions.

26
27 Free of obstruction – shall mean any type of lower area enclosure or other
28 construction element will not obstruct the flow of velocity water and wave action
29 beneath the lowest horizontal structural member of the lowest floor of an elevated
30 building during a base flood event. This requirement applies to the structures in velocity
31 zones (V-Zones).

32
33 Functionally dependent use - shall mean a use which cannot be used for its
34 intended purpose unless it is located or carried out in close proximity to water, such as
35 docking facilities, or port facility necessary for the loading and unloading of cargo or
36 passengers, shipbuilding or ship repair. The term does not include long-term storage,
37 manufacture, sales, or service facilities.

38
39 Hardship - as related to variances from this ordinance means the exceptional
40 difficulty associated with the land that would result from a failure to grant the requested
41 variance. The community requires that the variance is exceptional, unusual, and peculiar
42 to the property involved. Mere economic or financial hardship alone is not exceptional.
43 Inconvenience, aesthetic considerations, physical handicaps, personal preferences, or the
44 disapproval of one's neighbors likewise cannot, as a rule, qualify as an exceptional
45 hardship. All of these problems can be resolved through other means without granting a
46 variance, even if the alternative is more expensive, or requires the property owner to
47 build elsewhere or put the parcel to a different use than originally intended.

1
2 Highest adjacent grade - shall mean the highest natural elevation of the ground
3 surface, prior to construction, next to the proposed walls of a structure.
4

5 Historic Structure - shall mean any structure that is:

6
7 (1) Listed individually in the National Register of Historic Places (a
8 listing maintained by the Department of Interior) or preliminarily determined by
9 the Secretary of the Interior as meeting the requirements for individual listing on
10 the National Register:

11
12 (2) Certified or preliminarily determined by the Secretary of the
13 Interior as contributing to the historical significance of a registered historic or a
14 district preliminarily determined by the Secretary to qualify as a registered historic
15 district:

16
17 (3) Individually listed on the Florida inventory of historic places,
18 which have been approved by the Secretary of the Interior: or

19
20 (4) Individually listed on a local inventory for historic places with
21 historic preservation programs that have been certified by either:

22
23 a. By the approved Florida program as determined by the
24 Secretary of the Interior, or

25
26 b. Directly by the Secretary of the Interior.

27
28 Increased Cost of Compliance (ICC) - shall mean the coverage by a standard
29 flood insurance policy under the NFIP that provides for the payment of a claim for the
30 cost to comply with the state of Florida and the Village's floodplain management laws or
31 ordinances after a direct physical loss by flood, when the Village declares the structure to
32 be "substantially" or "repetitively" flood-damaged. ICC coverage is provided for in
33 every standard NFIP flood insurance policy, and will help pay for the cost to floodproof,
34 relocate, elevate, or demolish the structure.

35
36 Lowest adjacent grade - shall mean the lowest elevation, after the completion of
37 construction, of the ground, sidewalk, patio, deck support, or basement entryway
38 immediately next to the structure.

39
40 Lowest floor - shall mean the lowest floor of the lowest enclosed area (including
41 basement). An unfinished or flood resistant enclosure, used solely for parking of
42 vehicles, building access, or storage, in an area other than a basement, is not considered a
43 building's lowest floor, provided that such enclosure is not built so as to render the
44 structure in violation of the non-elevation design requirements of this ordinance.

45
46 Mangrove stand - shall mean an assemblage of mangrove trees which are mostly
47 low trees noted for a copious development of interlacing adventitious roots above the

1 ground and which contain one (1) or more of the following species: Black mangrove
2 (Avicennia Nitida); red mangrove (Rhizophora Mangle); white mangrove (Languncularia
3 Racemosa); and buttonwood (Conocarpus Erecta).

4
5 Manufactured home - shall mean a building, transportable in one (1) or more
6 sections, which is built on a permanent chassis and is designed for use with or without a
7 permanent foundation when connected to the required utilities. The term also includes
8 park trailers, travel trailers, and similar transportable structures placed on a site for 180
9 consecutive days or longer and intended to be improved property.

10
11 Manufactured home park or subdivision - shall mean a parcel (or contiguous
12 parcels) of land divided into two (2) or more manufactured home lots for rent or sale.

13
14 Map - shall mean the Flood Boundary and Floodways Map (FBFM), Flood
15 Hazard Boundary Map (FHBM) or the Flood Insurance Rate Map (FIRM) for a
16 community issued by FEMA.

17
18 Market value - shall mean the building value, which is the property value
19 excluding the land value and that of the detached accessory structures and other
20 improvements on site (as agreed to between a willing buyer and seller) as established by
21 what the local real estate market will bear. Market value can be established by an
22 independent certified appraisal (other than a limited or curbside appraisal, or one based
23 on income approach), Actual Cash Value (replacement cost depreciated for age and
24 quality of construction of building), or adjusted tax-assessed values.

25
26 Mean sea level - shall mean the average height of the sea for all stages of the tide.
27 It is used as a reference for establishing various elevations within the floodplain. For
28 purposes of this regulation, the term is synonymous with the National Geodetic Vertical
29 Datum (NGVD) of 1929 or North American Vertical Datum (NAVD) of 1988.

30
31 National Geodetic Vertical Datum (NGVD) of 1929 - shall mean a vertical
32 control used as a reference for establishing varying elevations within the floodplain.

33
34 New Construction - shall mean, for floodplain management purposes, any
35 structure for which the "start of construction" commenced on or after the adoption of
36 this section. The term also includes any subsequent improvements to such structures.
37 For flood insurance rates, structures for which the start of construction commenced on
38 or after June 18, 1974, the effective date of the FIRM, and includes any subsequent
39 improvements to such structures.

40
41 New manufactured home park or subdivision - shall mean a manufactured home
42 park or subdivision for which the construction of facilities for servicing the lots on
43 which the manufactured homes are to be affixed (including at a minimum, the
44 installation of utilities, the construction of streets, and either final site grading or the
45 pouring of concrete pads) is completed on or after the effective date of floodplain
46 management regulations adopted by the Village.

1 Non-Coastal High Hazard Area - shall mean an area of special flood hazard not
2 subject to high velocity wave action from storms or seismic sources. The area is
3 designated on the FIRM as Zone A, AE, AH, AO, or A99.

4 North American Vertical Datum (NAVD) of 1988 - shall mean a vertical control
5 used as a reference for establishing varying elevations within the floodplain.

6
7 Participating community, also known as an eligible community - shall mean a
8 community in which FEMA has authorized the sale of flood insurance.
9

10 Primary frontal dune - shall mean a continuous or nearly continuous mound or
11 ridge of sand with relatively steep seaward and landward slopes immediately landward
12 and adjacent to the beach and subject to erosion and overtopping from high tides and
13 waves during major coastal storms. The inland limit of the primary frontal dune occurs
14 at the point where there is a distinct change from a relatively steep slope to a relatively
15 mild slope.
16

17 Principally above ground - shall mean that at least 51 percent of the actual cash
18 value of the structure is above ground.
19

20 Program deficiency - shall mean a defect in the community's floodplain
21 management regulations or administrative procedures that impairs effective
22 implementation of those floodplain management regulations or of the standards required
23 by the National Flood Insurance Program.
24

25 Public safety and nuisance - shall mean anything which is injurious to safety or
26 health of the entire community or a neighborhood, or any considerable number of
27 persons, or unlawfully obstructs the free passage or use, in the customary manner, of any
28 navigable lake, or river, bay, stream, canal, or basin.
29

30 Reasonably safe from flooding - shall mean base flood waters will not inundate
31 the land or damage structures to be removed from the SFHA and that any subsurface
32 waters related to the base flood will not damage existing or proposed buildings.
33

34 Recreational vehicle - shall mean a vehicle which is:

- 35 (1) Built on a single chassis;
36
37 (2) 400 square feet or less when measured at the largest horizontal
38 projection;
39
40 (3) Designed to be self-propelled or permanently towable by a light
41 duty truck; and
42
43 (4) Designed primarily not for use as a permanent dwelling but as
44 temporary living quarters for recreational, camping, travel, or seasonal use.
45
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1 Regulatory floodway – shall mean the channel of a river or other watercourse
2 and the adjacent land areas that must be reserved in order to discharge the base flood
3 without cumulatively increasing the water surface elevation more than a designated
4 height.

5 Remedy a deficiency or violation – shall mean to bring the regulation, procedure,
6 structure or other development into compliance with State of Florida, Federal, or local
7 floodplain management regulations; or if this is not possible, to reduce the impacts of its
8 noncompliance. Ways the impacts may be reduced include protecting the structure or
9 other affected development from flood damages, implementing the enforcement
10 provisions of this ordinance or otherwise deterring future similar violations, or reducing
11 Federal financial exposure with regard to the structure or other development.

12 Repetitive Loss - shall mean flood-related damages sustained by a structure on
13 two (2) separate occasions during a 10-year period for which the cost of repairs at the
14 time of each such flood event, on the average, equaled or exceeded 25 percent of the
15 market value of the structure before the damages occurred.

16 Riverine - shall mean relating to, formed by, or resembling a river (including
17 tributaries), stream, brook, etc.

18 Sand dune - shall mean naturally occurring accumulations of sand in ridges or
19 mounds landward of the beach.

20 Shallow flooding – see area of shallow flooding.

21 Special flood hazard area (SFHA) - shall mean an area having special flood
22 hazard and shown on an FHBM or FIRM as Zone A, AO, A1-30, AE, A99, AH, V1-30,
23 VE, or V. (see area of special flood hazard)

24 Start of Construction (for other than new construction or substantial
25 improvements under the Coastal Barrier Resources Act (Pub. L. 97-348)) - shall include
26 substantial improvement, and shall mean the date the building permit was issued,
27 provided the actual start of construction, repair, reconstruction, rehabilitation, addition
28 placement, or other improvement was within 180 days of the permit date. The actual
29 start means either the first placement of permanent construction of a structure on a site,
30 such as the pouring of slab or footings, the installation of piles, the construction of
31 columns, or any work beyond the stage of excavation; or the placement of a
32 manufactured home on a foundation. Permanent construction does not include land
33 preparation, such as clearing, grading and filling; nor does it include the installation of
34 streets and/or walkways; nor does it include excavation for a basement, footings, piers,
35 or foundations or the erection of temporary forms; nor does it include the installation on
36 the property of accessory buildings, such as garages or sheds not occupied as dwelling
37 units or not part of the main structure. For a substantial improvement, the actual start
38 of construction means the first alteration of any wall, ceiling, floor, or other structural
39 part of a building, whether or not that alteration affects the external dimensions of the
40 building.

1 Storm cellar – shall mean a place below grade used to accommodate occupants
2 of the structure and emergency supplies as a means of temporary shelter against severe
3 tornadoes or similar windstorm activity.

4
5 Structure - shall mean, for floodplain management purposes, a walled and roofed
6 building, including a gas or liquid storage tank that is principally above ground, as well as
7 a manufactured home.
8

9
10 Substantial damage - shall mean damage of any origin sustained by a structure
11 whereby the cost of restoring the structure to its before damaged condition would equal
12 or exceed 50 percent of the market value of the structure before the damage occurred.
13 This term also includes “repetitive loss” structures as defined herein.

14
15 Substantial improvement - shall mean any reconstruction, rehabilitation, addition,
16 or other improvement of a structure, the cumulative cost of which equals or exceeds 50
17 percent of the market value of the structure before the “start of construction” of the
18 improvement. The term includes structures that have incurred “substantial damage”,
19 regardless of the actual work performed, or “repetitive loss”. The term does not,
20 however, include any repair or improvement of a structure to correct existing violations
21 of State of Florida or local health, sanitary, or safety code specifications which have been
22 identified by the local code compliance officer prior to the application for permit for
23 improvement, and which are the minimum necessary to assure safe living conditions.
24 This term does not include any alteration of a historic structure, provided that the
25 alteration will not preclude the structure's continued designation as a historic structure.

26
27 Substantially improved existing manufactured home parks or subdivisions - is
28 where the repair, reconstruction, rehabilitation or improvement of the streets, utilities
29 and pads equals or exceeds 50 percent of the value of the streets, utilities and pads
30 before the repair, reconstruction or improvement commenced.

31
32 Variance - shall mean a grant of relief by the Village from the requirements of
33 this section.

34
35 Violation - shall mean the failure of a structure or other development to be fully
36 compliant with the requirement of this section. A structure or other development
37 without the elevation certificate, other certifications, or other evidence of compliance
38 required in this section is presumed to be in violation until such time as that
39 documentation is provided.

40
41 Watercourse – shall mean a lake, river, creek, stream, wash, channel or other
42 topographic feature on or over which waters flow at least periodically. Watercourse
43 includes specifically designated areas in which substantial flood damage may occur.

44
45 Water surface elevation - shall mean the height, in relation to the National
46 Geodetic Vertical Datum (NGVD) of 1929, or the North American Vertical Datum

1 (NAVD) of 1988, of floods of various magnitudes and frequencies in the floodplains of
2 coastal or riverine areas.

3
4 (g) General Provisions

5
6 (1) Lands to which this section applies. This section shall apply to all
7 areas of special flood hazard within the jurisdiction of the Village Council of the
8 Village of Palmetto Bay.

9
10 (2) Basis for establishing the areas of special flood hazard. The areas
11 of special flood hazard identified by the Federal Emergency Management Agency
12 in the Flood Insurance Study (FIS) and flood insurance rate map for Miami-
13 Dade County, Florida and incorporated areas prepared by the Department of
14 Homeland Security's Federal Emergency Management Agency (FEMA) dated
15 September 11, 2009, with the accompanying maps and other supporting data,
16 and any subsequent revisions thereto, are adopted by reference and declared to
17 be a part of this section. The Flood Insurance Study and Flood Insurance Rate
18 Map are on file at the Department of Public Works.

19
20 (3) Designation of floodplain administrator. The Village Council of
21 the Village of Palmetto Bay hereby appoints the public works director to
22 administer and implement the provisions of this section, and shall be referred to
23 as the Floodplain Management Administrator, or the Administrator.

24
25 (4) Establishment of development permit. A development permit
26 shall be required for all proposed construction or other development, including,
27 but not limited to, the placement of manufactured homes, in conformance with
28 the provisions of this section prior to the commencement of any development
29 activity.

30
31 (5) Compliance. No structure or land shall hereafter be located,
32 extended, converted or structurally altered without full compliance with the
33 requirements of this section and other applicable laws and regulations.

34
35 (6) Abrogation and greater restrictions. This section is not intended
36 to repeal, abrogate, or impair any existing easements, covenants, or deed
37 restrictions. However, where this section and another conflict or overlap,
38 whichever imposes the more stringent restrictions shall prevail.

39
40 (7) Interpretation. In the interpretation and application of this
41 section all provisions shall be:

- 42 a. considered as minimum requirements;
43
44 b. liberally construed in favor of the governing body; and
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c. deemed neither to limit nor repeal any other powers granted under State of Florida statutes.

(8) Warning and disclaimer of liability. The degree of flood protection required by this section is considered reasonable for regulatory purposes and is based on scientific and engineering considerations. Larger floods can and will occur on rare occasions. Flood heights may be increased by man-made or natural causes. This section does not imply that land outside the areas of special flood hazard or uses permitted within such areas will be free from flooding or flood damages. This section shall not create liability on the part of the Village Council of the Village of Palmetto Bay or by any officer or employee of the Village for any flood damages that result from reliance on or any administrative decision lawfully made under this section.

(9) Penalties for violation. Violation of the provisions of this section or failure to comply with any of its requirements, including violation of conditions and safeguards established in connection with granting of variances or special exceptions, shall constitute a misdemeanor. Any person who violates this section or fails to comply with any of its requirements shall, upon conviction thereof, be fined not more than \$500 or imprisoned for not more than 60 days, or both, and in addition, shall pay all costs and expenses involved in the case. Each day such violation continues shall be considered a separate offense. Nothing in this section shall prevent the Floodplain Management Administrator from taking such other lawful actions as is necessary to prevent or remedy any violation.

(h) Administration.

(1) Permit procedures. An application for development permit shall be submitted to the Floodplain Management Administrator, on forms furnished by the Village prior to any development activities, and may include, but not be limited to, the following plans in duplicate drawn to scale showing the nature, location, dimensions, and elevations of the area under consideration for development; existing and proposed structures, earthen fill, storage of materials or equipment, drainage facilities, perimeter setbacks, environmental features such as base floodplain areas, wetlands, and other protected areas; and the location of the foregoing. Specifically, the following information, certified by a licensed professional engineer or architect who is authorized to certify such information in this state, is required:

a. Application Stage:

(i) Elevations of the area (including basement) of development in relation to mean sea level (such as a contour map) for both existing and proposed development;

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(ii) Elevation in relation to mean sea level of the lowest (including basement) floors of all proposed structures;

(iii) Elevation in relation to mean sea level to which any nonresidential structure will be floodproofed;

(iv) Certificate from a registered professional engineer or architect that the non-residential flood-proofed building will meet the flood-proofing criteria of this section;

(v) Description of the extent to which any watercourse will be altered or relocated as result of proposed development, and

(vi) Elevation in relation to mean sea level of the bottom of the lowest horizontal structural member of the lowest floor and provide a certification from a registered engineer or architect indicating that they have developed and/or reviewed the structural designs, specifications and plans of the construction and certified that are in accordance with accepted standards of practice in Coastal High Hazard Areas.

a. Construction Stage: Provide a regulatory floor elevation or floodproofing certification after the lowest floor is completed and prior to the issuance of a Certificate of Occupancy. Upon placement of the lowest floor, or instances where the structure is subject to the regulations applicable to coastal high hazard areas, after placement of the horizontal structural members of the lowest floor, or for nonresidential structures, floodproofing, whichever is applicable, it shall be the duty of the permit holder to submit to the Floodplain Management Administrator a certification of the elevation of the lowest floor, or flood-proofed elevation, or the elevation of the lowest portion of the horizontal structural members of lowest floor, whichever is applicable, as built in relation to mean sea level. Said certification shall be prepared by or under the direct supervision of a registered land surveyor or a state licensed professional engineer and certified by same. When floodproofing is utilized for a particular building, said certification shall be prepared by or under the direct supervision of a state licensed professional engineer or architect and certified by same. Any work undertaken prior to submission of the certification shall be at the permit holder's risk.

The Administrator shall review the floor elevation survey data submitted and floodproofing certificate. Should these documents be found not in conformance with the requirements of this ordinance, the permit holder shall immediately cease further work, and shall correct any

1 deficiencies. Failure of the permit holder to submit the surveyed lowest
2 floor elevation and floodproofing certificate, and failure to correct the
3 identified deficiencies required by the Administrator, shall be the cause to
4 issue a stop-work order for the project.

5
6 (i) Duties and responsibilities of the Floodplain Management Administrator.
7 Duties of the Administrator shall include, but are not be limited to the following:

8 (1) Review permits to assure sites are reasonably safe from flooding.

9
10 (2) Review all development permits to assure that the requirements
11 of this section have been fully met.

12
13 (3) Require copies of additional Federal, State of Florida, or local
14 permits, especially as they relate to Chapters 161.053; 320.8249; 320.8359;
15 373.036; 380.05; 381.0065; and 553, Part IV, Florida Statutes, be submitted along
16 with the development permit application and maintain such permits on file with
17 the development permit;

18
19 (4) Review and verify the V-Zone Certifications for new and
20 substantially improved structures in coastal high hazard areas.

21
22 (5) Review certified plans and specifications for compliance with the
23 requirements of this section. When flood-proofing is utilized for a particular
24 building, certification shall be obtained from a registered engineer or architect
25 certifying that all areas of the building, together with attendant utilities and
26 sanitary facilities, below the required elevation are water tight with walls
27 substantially impermeable to the passage of water, and use structural components
28 having the capability of resisting hydrostatic and hydrodynamic loads and the
29 effects of buoyancy in compliance with these regulations. In Coastal High
30 Hazard Areas, certification shall be obtained from a registered professional
31 engineer or architect that the building is designed and securely anchored to
32 pilings or columns in order to withstand velocity waters and hurricane wave
33 wash. Additionally in Coastal High Hazard Areas, if the area below the lowest
34 horizontal structural member of the lowest floor is enclosed, it may be done so
35 with open wood lattice and insect screening or with non-supporting breakaway
36 walls that meets the standards of these regulations.

37
38 (6) Verify and record the actual elevation (in relation to mean sea
39 level) of the lowest floor (including basement) or bottom of the lowest
40 horizontal structural member of the lowest floor of all new or substantially
41 improved structures, in accordance with these regulations.

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43 (7) Verify and record the actual elevation (in relation to mean sea
44 level) to which the new or substantially improved structures have been
45 floodproofed, in accordance with these regulations.
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(8) Interpret the exact location of boundaries of the areas of special flood hazard and regulatory floodway. When there appears to be a conflict between a mapped boundary and actual field conditions, the administrator shall make the necessary interpretation. The person contesting the location of the boundary shall be given a reasonable opportunity to appeal the interpretation as provided for in this section.

(9) When base flood elevation data or floodway data have not been provided in accordance with these regulations, the administrator shall obtain, review and reasonably utilize any base flood elevation and floodway data available from a federal, state, or any other source, in order to administer the provisions of these regulations.

(10) Notify, in riverine situations, adjacent communities and the appropriate state and regional agencies (Florida Department of Community Affairs- Division of Emergency Management - NFIP Coordinating Office, South Florida Water Management District, FEMA, and other Federal and/or State of Florida agencies with statutory or regulatory authority) prior to any alteration or relocation of a watercourse. Submit copies of the notifications to FEMA, and assure that the flood carrying capacity within the altered or relocated portion of any watercourse is maintained so that the flood carrying capacity is not diminished.

(11) Coordinate with planning, zoning, and public works and other departments in the Village to assure that the requirements of these regulations are fully met.

(12) Participate actively in evaluating the variance requests and provide input and recommendations in variance hearings, and

(13) Coordinate all change requests to the FIS and FIRM or FBFM, or all, with the requester, state, and FEMA.

(14) Requirement to submit new technical data.

(15) The Village's base flood elevations may increase or decrease resulting from physical changes affecting flooding conditions. As soon as practicable, but not later than six (6) months after the date such information becomes available, the Village shall notify FEMA of the changes by submitting technical or scientific data. The submission shall be necessary so that upon confirmation of those physical changes affecting flooding conditions, risk premium rates and flood plain management requirements will be based upon current data. The Village may require the applicant or owner to submit the data and review fees for FEMA.

(16) In coastal high hazard areas, the Village review plans for adequacy of breakaway walls in accordance with these regulations.

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2 (17) All records pertaining to the provisions of these flood regulations
3 shall be maintained by the Village and shall be open for public inspection.

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5 (j) Standards for Flood Hazard Reduction. In all areas of special flood
6 hazard, all development sites including new construction and substantial improvements
7 shall be reasonably safe from flooding, and meet the following requirements:

8
9 (1) Review permits for proposed construction or other development,
10 including the placement of manufactured homes, so that a determination may be
11 made whether or not such construction or other development is proposed within
12 flood-prone areas.

13
14 (2) New construction, substantial improvements, and other
15 development proposals shall assure that all necessary permits have been obtained
16 from those governmental agencies from which approval is required by federal or
17 state law, including Section 404 of the Federal Water Pollution Control Act, as
18 amended, or by area-wide agencies.

19
20 (3) New construction and substantial improvements shall be
21 constructed with materials and utility elements resistant to flood damage for any
22 areas up to one (1) foot above base flood elevation.

23
24 (4) New construction or substantial improvements shall be
25 constructed by methods and practices that minimize flood damage.

26
27 (5) Electrical, heating, ventilation, plumbing, air conditioning
28 equipment and other service facilities, including duct work, shall be designed
29 and/or located so as to prevent water from entering or accumulating within the
30 components during conditions of flooding.

31
32 (6) Subdivision proposals and other proposed new development,
33 including manufactured home parks or subdivisions, shall be assured that they
34 will be reasonably safe from flooding. If a subdivision proposal or other
35 proposed new development is in a flood-prone area, any such proposals shall be
36 reviewed to assure that:

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38 a. All such proposals are consistent with the need to
39 minimize flood damage within the flood-prone area,

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41 b. all public utilities and facilities, such as sewer, gas,
42 electrical, and water systems are located and constructed to minimize or
43 eliminate flood damage, and

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45 c. adequate drainage is provided to reduce exposure to flood
46 hazards.
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(7) New and replacement water supply systems shall be designed to minimize or eliminate infiltration of flood waters into the systems,

(8) New and replacement sanitary sewage systems shall be designed to minimize or eliminate infiltration of flood waters into the systems and discharges from the systems into flood waters, and on-site waste disposal systems shall be located and constructed to avoid impairment to them or contamination from them during flooding;

(9) New construction and substantial improvements, when located in multiple flood zones with varying base flood elevations or in same flood zone with multiple base flood elevations shall meet the requirements for the flood zone with the most stringent requirements and the highest base flood elevation.

(10) New construction and substantial improvements of existing structures shall be anchored to prevent flotation, collapse or lateral movement of the structure.

(11) Manufactured homes shall be anchored to prevent flotation, collapse, or lateral movement. Methods of anchoring may include, but are not limited to, use of over-the-top or frame ties to ground anchors. This standard shall be in addition to and consistent with applicable state requirements for resisting wind forces.

(12) Any alteration, repair, reconstruction or improvements to a structure that is in compliance with the provisions of this code shall meet the requirements as contained in this division.

(13) Any alteration, repair, reconstruction or improvements to a building that is not in compliance with the provisions of this ordinance, shall be undertaken only if said non-conformity is not furthered, extended, or replaced.

(14) All applicable additional Federal, State of Florida, and local permits shall be obtained and submitted to the Floodplain Management Administrator along with the application for development permit. Copies of such permits shall be maintained on file with the development permit. State of Florida permits may include, but not be limited to, the following:

a. South Florida Water Management District: in accordance with Chapter 373.036 Florida Statutes (F.S.), Section (2) (a) - Flood Protection and Floodplain Management;

b. Department of Community Affairs: in accordance with Chapter 380.05 F.S. Areas of Critical State Concern, and Chapter 553, Part IV F.S., Florida Building Code;

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c. Department of Health: in accordance with Chapter 381.0065 F.S. Onsite Sewage Treatment and Disposal Systems; and

d. Department of Environmental Protection, Coastal Construction Control Line: in accordance with Chapter 161.053 F.S. Coastal Construction and Excavation.

(15) When proposed new construction and substantial improvements are partially located in an area of special flood hazard, the entire structure shall meet the standards for new construction.

(k) Specific Standards for Non-Coastal High Hazard Areas. In all non-coastal areas of special flood hazard where base flood elevation data have been provided, as set forth in this section, but no regulatory floodways have been delineated, the following provisions shall apply:

(1) Standards of subsection (k), above.

(2) Residential Structures.

a. All new construction or substantial improvements of residential structures (including manufactured home) shall have the lowest floor (including basement) elevated to no lower than (one foot above) the base flood elevation. Should solid foundation perimeter walls be used to elevate a structure, there must be a minimum of two openings on different sides of each enclosed area sufficient to facilitate automatic equalization of flood hydrostatic forces in accordance with these regulations.

b. Should solid foundation perimeter walls be used to elevate a structure, there must be a minimum of two (2) openings on different sides of each enclosed area sufficient to facilitate automatic equalization of flood hydrostatic forces in accordance with these regulations.

(3) Nonresidential Structures.

a. All new construction or substantial improvements of non-residential structures shall have the lowest floor (including basement) elevated to be at or above the base flood elevation. Nonresidential structures within Zones A1-30, AE, and AH may be flood-proofed in lieu of being elevated provided that together with all attendant utility and sanitary facilities, be designed so that below the base flood elevation plus one (1) foot the structure is water-tight with walls substantially impermeable to the passage of water, and with structural

1 components having the capability of resisting hydrostatic and
2 hydrodynamic loads and the effect of buoyancy. A registered
3 professional engineer or architect, who is authorized to certify such
4 information in the state, shall certify that the provisions of this
5 subsection are satisfied. The FEMA Floodproofing Certificate shall be
6 prepared, and submitted to the Floodplain Management Administrator
7 along with the corresponding operational and maintenance plans.

8
9 (4) Elevated Structures. For all new construction and substantial
10 improvements, that include fully enclosed areas below the lowest floor elevation
11 shall be usable solely for parking of vehicles, building access, or storage. These
12 enclosed areas shall be designed and constructed to allow for the entry and exit
13 of floodwaters to automatically equalize hydrostatic flood forces on exterior
14 walls.

15 a. Designs for meeting with this requirement must either be
16 certified by a professional engineer or architect, who is authorized to
17 such information in the state, or meet or exceed the following minimum
18 criteria:

19
20 (i) A minimum of two (2) openings having a total net
21 area of not less than one (1) square inch for every square foot of
22 enclosed area subject to flooding shall be provided;

23
24 (ii) The bottom of all openings shall be no higher than
25 one (1) foot above adjacent interior grade (which must be equal
26 to or higher in elevation than the adjacent exterior grade); and

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28 (iii) Openings may be equipped with screens, louvers,
29 valves, or other coverings or devices provided they provide the
30 required net area of the openings and permit the automatic entry
31 and exit of floodwaters.

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33 b. Fully enclosed areas below the lowest floor shall solely be
34 used for parking of vehicles, storage, and building access. Access to the
35 enclosed area shall be minimum necessary to allow for parking of
36 vehicles (garage door) or limited storage of maintenance equipment used
37 in connection with the premises (standard exterior door) or entry to the
38 living area (stairway or elevator);

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40 c. The interior portion of such enclosed areas shall not be
41 partitioned, temperature-controlled, or finished into separate rooms; and

42
43 d. Where elevation requirements exceed six (6) feet above
44 the highest adjacent grade, a copy of the legally recorded deed restriction
45 prohibiting the conversion of the area below the lowest floor to a use or
46 dimension contrary to the building's originally approved design, shall be
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presented as a condition of issuance of the final Certificate of Occupancy.

(5) Provisions for Manufactured Homes and Recreational Vehicles.

a. All manufactured homes that are placed, or substantially improved within Zones A1-30, AH, and AE, on sites:

(i) outside of an existing manufactured home park or subdivision;

(ii) in a new manufactured home park or subdivision;

(iii) in an expansion to an existing manufactured home park or subdivision; or

(iv) in an existing manufactured home park or subdivision on which a manufactured home has incurred "substantial damage" as the result of a flood, be elevated on a permanent foundation and be securely anchored to an adequately anchored foundation system to resist foundation collapse and lateral movement.

b. All manufactured homes to be placed or substantially improved in an existing manufactured home park or subdivision within Zones A1-30, AH, and AE, that are not subject to the provisions of subsection (5)(a) must be elevated so that either:

(i) The lowest floor of the manufactured home is elevated to be at or above the base flood elevation, or

(ii) The manufactured home chassis is supported by reinforced piers or other foundation elements of at least an equivalent strength that are no less than 36 inches in height above the grade and be securely anchored to an adequate foundation system to resist flotation, collapse, and lateral movement.

c. All recreational vehicles placed on sites within Zones A1-30, AH, and AE must either:

(i) Be on the site for fewer than 180 consecutive days;

(ii) Be fully licensed and ready for highway use (A recreational vehicle is ready for highway use if it is on its wheels or jacking system, is attached to the site only by quick disconnect type utilities and security devices, and has no permanently attached additions; or

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(iii) Meet the requirements for new construction, including anchoring and elevation requirements for manufactured homes in paragraphs (4)(a) or (b) of this section.

d. Standards for waterways with established Base Flood Elevations, but without Regulatory Floodways.

e. Located within the areas of special flood hazard established in these regulations, where streams exist for which base flood elevation data has been provided by the Federal Emergency Management Agency without the delineation of the regulatory floodway (Zones AE and A1-30), the following provisions, in addition to those set forth in these regulations, shall apply:

(i) Until a regulatory floodway is designated, that no new construction, substantial improvements, or other development (including fill) shall be permitted within Zones A1-30 and AE on the FIRM, unless it is demonstrated that the cumulative effect of the proposed development, when combined with all other existing and anticipated development, will not increase the water surface elevation of the base flood more than one (1) foot at any point within the community.

(ii) Development activities which increase the water surface elevation of the base flood by more than one foot may be allowed, provided that the developer or applicant first applies - with the community's endorsement - for a conditional FIRM revision, and receives the approval of the Federal Emergency Management Agency (FEMA).

f. Within Zones AH and AO on the FIRM, adequate drainage paths around structures shall be provided on slope to guide floodwaters around and away from proposed structures.

(l) Standards for Floodways with established Base Flood Elevations and Floodways.

Located within areas of special flood hazard as established herein as areas designated as floodways. Since the floodway is an extremely hazardous area due to the velocity of floodwaters that carry debris, potential projectiles and have significant erosion potential, the following provisions shall apply:

(1) Standards of subsection (l).

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(2) Prohibit encroachments, including fill, new construction, substantial improvements and other developments within the regulatory floodway unless certification (with supporting technical data) by a registered professional engineer is provided through hydrologic and hydraulic analyses performed in accordance with standard engineering practice that the proposed encroachment would not result in any increase in flood levels within the community during the occurrence of the base flood discharge,

(3) Development activities including new construction and substantial improvements within the regulatory floodway that increase the base flood elevation may be allowed, provided that the developer or applicant first applies – with the community’s endorsement – for a conditional FIRM revision, and receives the approval of FEMA.

(4) When fill is proposed, in accordance with the permit issued by the Florida Department of Health, within the regulatory floodway, the development permit shall be issued only upon demonstration by appropriate engineering analyses that the proposed fill will not increase the water surface elevation of the base flood in accordance with this section.

For all structures located seaward of the Coastal Construction Control Line (CCCL), the lowest floor of all new construction and substantial improvements shall be elevated to no lower than the 100-year flood elevation established by the Florida Department of Environmental Protection or by FEMA in accordance with these regulations, whichever is higher. All non-elevation design requirements of this section shall apply.

(m) Specific standard for A-Zones without base flood elevations and regulatory floodways.

Located within the areas of special flood hazard established in these regulations, where there exist A Zones for which no base flood elevation data and regulatory floodway have been provided or designated by the Federal Emergency Management Agency, the following provisions shall apply:

(1) Require standards of this section.

(2) Require that all new subdivision proposals and other proposed developments (including proposals for manufactured home parks and subdivisions) greater than 50 lots or 5 acres, whichever is the lesser, include within such proposals base flood elevation data. Standards set forth in this section shall apply.

(3) The Floodplain Administrator shall obtain, review, and reasonably utilize any base flood elevation and floodway data available from a

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Federal, State of Florida, or any other source, in order to administer the provisions of this ordinance. When such data is utilized, provisions of this section shall apply. The Floodplain Management Administrator shall:

a. Obtain the elevation (in relation to the mean sea level) of the lowest floor (including the basement) of all new and substantially improved structures,

b. Obtain, if the structure has been floodproofed in accordance with the requirements of this section, the elevation in relation to the mean sea level to which the structure has been floodproofed, and

c. Maintain a record of all such information.

(4) Notify, in riverine situations, adjacent communities, the Florida Department of Community Affairs – NFIP Coordinating Office, and the South Florida Water Management District prior to any alteration or relocation of a watercourse, and submit copies of such notifications to FEMA.

(5) Assure that the flood carrying capacity within the altered or relocated portion of any watercourse is maintained.

(6) Manufactured homes shall be installed using methods and practices that minimize flood damage. They must be elevated and anchored to prevent flotation, collapse, and lateral movement. Methods of anchoring may include, but are not limited to, use of over-the-top or frame ties to ground anchors. This requirement is in addition to applicable State of Florida and local anchoring requirements for resisting wind forces.

(7) When the data is not available from any source, in accordance with standard set forth in this section, the lowest floor of the structure shall be elevated to no lower than three (3) feet above the highest adjacent grade. Standards set forth in this section shall apply.

(n) Standards for AO-Zones.

Located within the areas of special flood hazard established in these regulations, are areas designated as shallow flooding areas. These areas have flood hazards associated with base flood depths of one to three feet, where a clearly defined channel does not exist and the path of flooding is unpredictable and indeterminate; therefore, the following provisions, in addition to this section, apply:

(1) All new construction and substantial improvements of residential structures in all AO Zones shall have the lowest floor, including basement, elevated above the highest adjacent grade at least as high as the depth number specified in feet on the Flood Insurance Rate Map plus one foot. If no flood

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depth number is specified, the lowest floor, including basement, shall be elevated to no less than two feet above the highest adjacent grade.

(2) All new construction and substantial improvements of non-residential structures shall:

a. Have the lowest floor, including basement, elevated above the highest adjacent grade at least as high as the depth number specified in feet on the Flood Insurance Rate Map. If no flood depth number is specified, the lowest floor, including basement, shall be elevated to at least three feet above the highest adjacent grade, or

b. Together with attendant utility and sanitary facilities be completely floodproofed to (no less than one foot above) that level to meet the floodproofing standard specified in Article 5, Section D (2) (a).

(3) Adequate drainage paths around structures shall be provided on slopes to guide water away from structures.

(4) Fully enclosed areas below the lowest floor that are subject to flooding shall meet the non-elevation design requirements of this section.

(o) Coastal High Hazard Areas.

(1) Located within areas of special flood hazard areas established in this section, are Coastal High Hazard Areas, designated as Zones V1-30, VE, or V. These areas have special flood hazards associated with high velocity waters from hurricane and storm surges and, therefore, in addition to meeting all provisions in this ordinance, the following provisions shall also apply:

a. Standards of subsection (m).

b. All new construction and substantial improvements in Zones V1-30 and VE (Zone V if base flood elevation is available) shall be elevated on pilings or columns so that:

(i) The bottom of the lowest horizontal structural member of the lowest floor (excluding the pilings or columns) is elevated to be at or above the base flood elevation, and

(ii) The pile or column foundation and structure attached thereto is anchored to resist flotation, collapse, and lateral movement due to the effects of wind and water loads acting simultaneously on all building components. Water loading values used shall be those associated with the base flood. Wind

loading values used shall be those required by applicable state or local building standards.

(iii) For all buildings located seaward of the Coastal Construction Control Line (CCCL), the bottom of the lowest horizontal structural member of the lowest floor of all new construction and substantial improvements shall be elevated to the 100-year flood elevation established by the Florida Department of Environmental Protection or the base flood elevation, whichever is the higher.

c. A registered professional engineer or architect shall develop or review the structural design, specifications and plans for the construction, and shall certify that the design and methods of construction to be used are in accordance with accepted standards of practice for meeting the provisions of paragraph b. of this subsection.

d. Obtain the elevation (in relation to mean sea level) of the bottom of the lowest horizontal structural member of the lowest floor (excluding pilings and columns) of all new and substantially improved structures in Zones V1-30 and VE. The administrator shall maintain a record of all such information.

e. All new construction shall be located landward of the reach of mean high tide.

f. Provide that all new construction and substantial improvements have the space below the lowest floor either free of obstruction or constructed with non-supporting breakaway walls, open wood lattice work, or insect screening intended to collapse under wind and water loads without causing collapse, displacement, or other structural damage to the elevated portion of the building or supporting foundation system. For the purpose of this subsection, a breakaway wall shall have a design safe loading resistance of not less than ten (10) and no more than 20 pounds per square foot. Use of breakaway walls which exceed a design safe loading resistance of 20 pounds per square foot (either by design or when so required by local or state codes) may be permitted only if a registered professional engineer or architect certifies that the designs proposed meet the following conditions:

(i) Breakaway wall collapse shall result from water load less than that which would occur during the base flood, and

(ii) The elevated portion of the building and supporting foundation system shall not be subject to collapse, displacement, or other structural damage due to the effects of wind and water loads acting simultaneously on all building

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components (structural and nonstructural). Water loading values used shall be those associated with the base flood. Wind loading values used shall be those required by applicable state or local, if more stringent than those of the State of Florida, building standards.

(iii) Such enclosed space shall be useable solely for parking of vehicles, building access, or storage.

g. The enclosed space below the lowest floor shall be useable solely for parking of vehicles, building access, or storage. Such space shall not be partitioned into multiple rooms, temperature-controlled, or used for human habitation.

h. Prohibit the use of fill for structural support of structures. No development permit shall be issued for development involving fill in coastal high hazard area unless it has been demonstrated through appropriate engineering analyses that the subject fill does not cause any adverse impacts to the structure on site or adjacent structures. Placement of fill that would result in an increase in the base flood elevation may be permitted, provided that the permit applicant first applies for and receives a conditional FIRM revision, fulfilling the requirements for such revisions as established by FEMA.

i. Prohibit man-made alteration of sand dunes and mangrove stands that would increase potential flood damage.

j. All manufactured homes to be placed or substantially improved within Zones V1-30, VE, and V on the FIRM shall:

(i) Meet the requirements of subsection (o)a. – h., if they are located on sites:

A. Outside of an existing manufactured home park or subdivision;

B. In a new manufactured home park or subdivision;

C. In an expansion to an existing manufactured home park or subdivision; or

D. In an existing manufactured home park or subdivision in which a manufactured home has incurred "substantial damage" as the result of a flood; and

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(ii) All manufactured homes placed or substantially improved on other sites in an existing manufactured home park or subdivision shall meet the requirements of this section.

k. Recreational vehicles placed on sites within Zones V1 – V30, V, and VE on the FIRM shall be in conformance with the requirements of subsection (k)(5)c.

(i) Be on the site for fewer than 180 consecutive days;

(ii) Be fully licensed and ready for highway use (on its wheels or jacking system, is attached to the site only by quick disconnect type utilities and security devices, and has no permanently attached additions); or

(iv) Meet the requirements of this section.

l. For all structures located seaward of the Coastal Construction Control Line (CCCL), the bottom of the lowest horizontal structural member of the lowest floor of all new construction and substantial improvements shall be elevated to the flood elevation established by the Florida Department of Environmental Protection or the base flood elevation (plus one foot), whichever is higher.

m. When fill is proposed, in accordance with the permit issued by the Florida Department of Health, in coastal high hazard area, the development permit shall be issued only upon demonstration by appropriate engineering analyses that the proposed fill will not increase the water surface elevation of the base flood nor cause any adverse impacts to the structure on site or other properties by wave ramping or deflection.

(p) Critical Facilities

(1) Construction of new critical facilities shall be, to the extent possible, located outside the limits of the SFHA, preferably outside the point two (0.2) percent annual chance floodplain. Construction of new critical facilities may be permissible within the SFHA if feasible alternative sites are unavailable. Critical facilities constructed within the SFHA shall have the lowest floor elevated or floodproofed to three (3) or more feet above the base flood elevation at the site. Floodproofing and sealing measures must be taken to ensure that toxic substances will not be displaced by or released into floodwaters. Access

1 routes elevated to or above the level of the base flood elevation shall be provided
2 to all critical facilities to the maximum extent possible.

3
4 (q) Variances.

5
6 (1) Designation of variance and appeals board. The Village Council
7 shall hear and decide appeals and requests for variances from the requirements of
8 this section.

9
10 (2) Duties of the Village Council. The Village Council as the appeals
11 board shall hear and decide appeals when it is alleged an error in any
12 requirement, decision, or determination is made by the administrator in the
13 enforcement or administration of this section. Any person aggrieved by the
14 decision of the board may appeal such decision to the circuit court for the 11th
15 judicial circuit as provided for under Florida law.

16
17 (3) Considerations in granting variance requests. In acting upon
18 such applications, the Village Council shall consider all technical evaluations, all
19 relevant factors, provisions specified in other sections of these regulations, and:

- 20 a. The danger that materials may be swept onto other lands
21 to the injury of others;
- 22 b. The danger of life and property due to flooding or
23 erosion damage;
- 24 c. The susceptibility of the proposed facility and its contents
25 to flood damage and the effect of such damage on the individual owner;
- 26 d. The importance of the services provided by the proposed
27 facility to the community;
- 28 e. The necessity to the facility of a waterfront location,
29 where applicable;
- 30 f. The availability of alternative locations for the proposed
31 use which are not subject to flooding or erosion damage for the
32 proposed use;
- 33 g. The compatibility of the proposed use with existing and
34 anticipated development;
- 35 h. The relationship of the proposed use to the
36 Comprehensive Plan and floodplain management program for that area;
- 37 i. The safety of access to the property in times of flood for
38 ordinary and emergency vehicles;
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j. The expected heights, velocity, duration, rate of rise, and sediment of transport of the flood waters and the effects of wave action, if applicable, expected at the site;

k. The costs of providing governmental services during and after flood conditions, including maintenance and repair of public utilities and facilities such as sewer, gas, electrical, and water systems, and streets and bridges; and

l. The request for variance is not an after-the-fact request.

(4) Conditions for variances.

a. Variances may only be issued when there is:

(i) A showing of good and sufficient cause;

(ii) A determination that failure to grant the variance would result in exceptional hardship; and

(iii) A determination that the granting of a variance will not result in increased flood heights, additional threats to public expense, create nuisance, cause fraud on or victimization of the public, or conflict with existing local laws or ordinances.

b. Variances may only be issued upon a determination that the variance is the minimum necessary deviation from the requirements of this section, considering the flood hazard, to afford relief, and in the instance of an historic structure, a determination that the variance is the minimum necessary so as not to destroy the historic character and design.

c. Variances shall not be issued within any designated regulatory floodway if any increase in flood levels during the base flood discharge would result.

d. Variances may be issued for the repair or rehabilitation of historic structures upon a determination that the proposed repair or rehabilitation will not preclude the structure's continued designation as a historic structure, and the variance is the minimum necessary to preserve the historic character and design of the structure.

e. Variances may be issued for new construction and substantial improvements and for other development necessary for the conduct of a functionally dependent use provided that:

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f. The criteria of paragraphs a. through c. of this subsection are met; and

g. The structure or other development is protected by methods that minimize flood damages during the base flood and create no additional threats to public safety.

(5) Variance notification.

a. Any applicant to whom a variance is granted shall be notified in writing over the signature of the Village's administrative official that:

(i) The issuance of a variance to construct a structure below the base flood elevation will result in increased premium rates for flood insurance up to amounts as high as \$25 for \$100 of insurance coverage, and

(ii) Such construction below the base flood level increases risks to life and property.

b. A copy of the notice shall be recorded by the floodplain management administrator in the Village Clerk's Office and shall be recorded in a manner so that it appears in the chain of title of the affected parcel of land.

(i) The administrator shall maintain a record of all variance actions, including justification for their issuance or denial, and report such variances issued in its biennial report submitted to FEMA.

(6) Historic buildings. Variances may be issued for the repair or rehabilitation of "historic" building – meeting the definition in this ordinance – upon determination that the proposed repair or rehabilitation will not preclude the structure's continued designation as a "historic" building.

(7) Buildings in regulatory floodway. Variances shall not be issued within any designated floodway if any impact in flood conditions or increase in flood levels during the base flood discharge would result.

(8) Special conditions. Upon consideration of the factors listed in (r) and the purposes of this section, the Village Council may attach such conditions to the granting of variances, as it deems necessary to further the purposes of this section.

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Section 2. All ordinances or parts of ordinances in conflict with the provisions of this ordinance are repealed.

Section 3. This ordinance shall be codified and included in the code of ordinances.

Section 4. If any section, clause, sentence, or phrase of this ordinance is for any reason held invalid or unconstitutional by a court of competent jurisdiction, the holding shall not affect the validity of the remaining portions of this ordinance.

Section 5. This ordinance shall take effect immediately upon enactment.

PASSED AND ENACTED this 5th day of October, 2009.

Attest: Meighan Rader
Meighan Rader
Village Clerk

Eugene P. Flinn, Jr.
Eugene P. Flinn, Jr.
Mayor

APPROVED AS TO FORM:

Eve A. Boutsis
Eve A. Boutsis, Village Attorney

STATE OF FLORIDA
COUNTY OF MIAMI-DADE

I, Meighan Rader, Village Clerk of the Village of Palmetto Bay, Florida, hereby certify that the attached is a true and correct copy of Ordinance 09-20, as shown in the records of the Village on file in the office of the Village Clerk.

Witness my hand and corporate seal of the Village of Palmetto Bay, FL, this 14th day of October, 2009.

FINAL VOTE AT ADOPTION:

- Council Member Ed Feller YES
- Council Member Howard J. Tendrich YES
- Council Member Shelley Stanczyk YES
- Vice-Mayor Brian W. Pariser YES
- Mayor Eugene P. Flinn Jr. YES

Meighan Rader
Meighan Rader, Village Clerk



OMB No. 1660-0022
Expires: August 31, 2010

National Flood Insurance Program
Community Rating System

CRS Application

FIA-15A/2007



FEMA

OMB No. 1660-0022
Expires: August 31, 2010

Public reporting burden for this application is estimated to average 31 hours per response for the application process and 4 hours for annual recertification. The burden estimate includes the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and submitting the application. You are not required to respond to this collection of information unless a valid OMB control number is displayed in the upper right corner of the application. Send comments regarding the accuracy of the burden estimate and any suggestions for reducing the burden to Information Collections Management, Department of Homeland Security, Federal Emergency Management Agency, 500 C St., S.W., Washington, D.C. 20472, Paperwork Reduction Project (1660-0022). **Note: do not send your completed form to this address.**

Activity Worksheet No.	Title
AW-210	CRS Application Cover Page
AW-214	Recertification Worksheet
AW-230	Modification/Cycle Cover Page
AW-310	Elevation Certificates
AW-320	Map Information Service
AW-330	Outreach Projects
AW-340	Hazard Disclosure
AW-350	Flood Protection Information
AW-360	Flood Protection Assistance
AW-410	Additional Flood Data
AW-420	Open Space Preservation
AW-430	Higher Regulatory Standards
AW-430LD	Land Development Criteria
AW-440	Flood Data Maintenance
AW-450	Stormwater Management
AW-500	Repetitive Loss Requirements
AW-510	Floodplain Management Planning
AW-520	Acquisition and Relocation
AW-530	Flood Protection
AW-540	Drainage System Maintenance
AW-610	Flood Warning Program
AW-620	Levee Safety
AW-630	Dam Safety
AW-710	Community Growth Adjustment
AW-720	Community Credit Calculations
AW-720m	Community Credit Calculations (Modification)
AW-CB	Closed Basin Lake Hazards
AW-CE	Coastal Erosion Hazards
AW-DB	Dunes and Beaches
AW-IJ	Ice Jam Hazards
AW-MF	Mudflow Hazards
AW-SU	Land Subsidence Hazards
AW-TS	Tsunami Hazards
AW-UF	Uncertain Flow Path Hazards

FOREWORD

The Community Rating System (CRS) is a part of the National Flood Insurance Program (NFIP). When communities go beyond the minimum standards for floodplain management, the CRS can provide discounts up to 45% off flood insurance premiums for their policyholders.

Why Apply?

When your community participates in the CRS, everyone benefits, including those who don't live or own property in a floodplain. Even when there is no flooding, your community's public information and floodplain management efforts can improve the quality of life, protect the environment, make people safer, and save everyone money.

If there is a flood, your CRS activities

- Save lives;
- Prevent property damage;
- Avoid lost jobs and economic devastation caused by flooding of offices, factories, farms, stores, and other businesses; and
- Prevent damage and disruption to roads, schools, public buildings, and other facilities.

To earn CRS credit, your community can do things like

- Preserve open space in the floodplain,
- Enforce higher standards for safer new development,
- Maintain drainage systems, and
- Inform people about flood hazards, flood insurance, and how to reduce flood damage.

Your community is probably already doing many of these things. To get credit, you simply prepare an application showing what's being done. Once the information is verified, the Department of Homeland Security's Federal Emergency Management Agency (FEMA) provides the flood insurance premium discounts. The amount of your residents' discount depends on what your community does.

Where to start

- Read the Introduction section on pages 1–3 for an overview of the CRS.
- Contact your ISO/CRS Specialist (see Appendix C on page 57). He or she can tell you what credit is automatically provided in your state and answer all your questions.
- Read pages 4–9 on the application procedures and prerequisites.
- Pick those activities on pages 10–47 that your community is implementing now. Just spend your time on what will give you the 500 points needed for the application. Your ISO/CRS Specialist can help you with the other activities during the verification visit.

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100 INTRODUCTION

Background: Communities that regulate new development in their floodplains are able to join the National Flood Insurance Program (NFIP). In return, the NFIP provides federally backed flood insurance for properties in participating communities. Today, there are over 20,000 communities participating in the NFIP and there are over 4.6 million policies in effect.

The Community Rating System (CRS) is a part of the NFIP. The CRS reduces flood insurance premiums to reflect what a community does above and beyond the NFIP's minimum standards for floodplain regulation. The objective of the CRS is to reward communities for what they are doing, as well as to provide an incentive for new flood protection activities. The reduction in flood insurance premium rates is provided according to a community's CRS classification, as shown in the chart.

Community participation in the CRS is VOLUNTARY. To date, over 1,000 communities are participating as CRS Class 9 or better.

The rating formulas, verification procedures, credit criteria, and documentation requirements are described in more detail in the *CRS Coordinator's Manual*. This *CRS Application* discusses only the procedures, scoring, and documentation that is needed for an initial application.

Application: To apply, a community submits documentation that shows what it is doing and that its activities deserve at least 500 points. The documentation is attached to the appropriate worksheet pages in this *CRS Application*.

The application is submitted to the ISO/CRS Specialist (see page 57). The ISO/CRS Specialist is an employee of the Insurance Services Office, Inc. (ISO). ISO works on behalf of FEMA and the insurance companies to review CRS applications, verify the communities' credit points, and perform program improvement tasks.

CRS Classifications

Credit Points	CRS Class	Premium Discount
4,500+	1	45%
4,000-4,499	2	40%
3,500-3,999	3	35%
3,000-3,499	4	30%
2,500-2,999	5	25%
2,000-2,499	6	20%
1,500-1,999	7	15%
1,000-1,499	8	10%
500-999	9	5%
0-499	10	0

SFHA (Zones A, AE, A1-A30, V, V1-V30, AO, and AH): *Credit varies depending on class.*

SFHA (Zones A99, AR, AR/A, AR/AE, AR/A1-A30, AR/AH, and AR/AO): *10% credit for Classes 1-6; 5% credit for Classes 7-9.*

Non-SFHA (Zones B, C, X, D): *10% credit for Classes 1-6; 5% credit for Classes 7-9.*

Preferred Risk Policies are not eligible for CRS premium discounts.

Terminology: All CRS publications use the following terms and acronyms:

ISO/CRS Specialist: The person who reviews and verifies your application, and is also available to help you with questions on these materials.

FIRM: Flood Insurance Rate Map, published by FEMA and provided to communities.

SFHA or Special Flood Hazard Area: The floodplain delineated on the FIRM as A Zones.

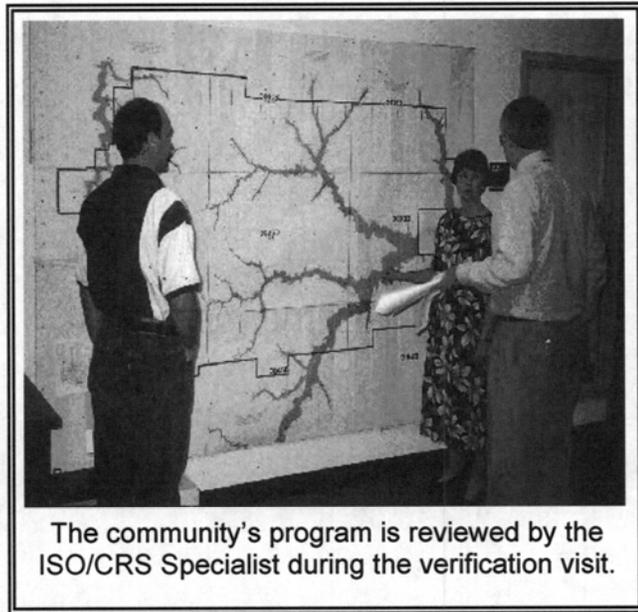
CEO or Chief Executive Officer: The mayor, county board chair, city manager, or other person of equivalent position.

The *Coordinator's Manual* and the ISO/CRS Specialist will explain additional materials that are needed for the verification visit and that are submitted annually to document continued implementation of the activities.

Some of the activities may appear to have relatively low scores. This *CRS Application* intentionally provides lower credit points for the more complicated activities where it is difficult to communicate the CRS credit criteria. The ISO/CRS Specialist or a technical reviewer will calculate the correct verified score based on the documentation submitted. You are encouraged to review the more detailed credit criteria in the *Coordinator's Manual* before you submit your application.

No fee is charged for a community to apply for participation in the CRS. All CRS publications and software are available at no cost by using the order form on page 53.

Verification: The ISO/CRS Specialist reviews the community's application documents on behalf of FEMA to confirm that there are enough credit points to warrant a Class 9 or better. If there are, a verification visit is scheduled. During the visit, the community's floodplain management program is reviewed in detail to provide all possible CRS points. The program is verified both in the office and in the field. ISO submits the findings to FEMA.



The community's program is reviewed by the ISO/CRS Specialist during the verification visit.

FEMA sets the credit to be granted and notifies the community, the state, insurance companies, and other appropriate parties. The community's CRS classification takes effect on either May 1 or October 1.

Recertification: Each year the community must recertify that it is continuing to perform the activities that are being credited by the CRS. Recertification is an annual activity that includes copies of projects conducted during the year, progress reports, and similar items that document continued implementation of the credited activities. At least once every five years, the community must also verify its program again.

Community Responsibilities: As part of its application, the community's Chief Executive Officer (CEO) must designate a staff person as the CRS Coordinator. The Coordinator is the point of contact for FEMA and the ISO/CRS Specialist on CRS matters.

Specifically, a community is responsible for:

- Designating its CRS Coordinator,
- Cooperating with the ISO/CRS Specialist and the verification procedures,

The CRS Coordinator should be someone familiar with the operation of all community departments that implement the credited activities.

- Continuing to implement its credited activities,
- Recertifying each year that it is continuing to implement its activities,
- Submitting the appropriate documents with its recertification,
- Advising FEMA of modifications in its activities,
- Maintaining elevation certificates, other permit records, and old Flood Insurance Rate Maps (FIRMs) forever, and
- Maintaining other records of its activities until the next verification visit.

Communities will receive periodic updates to the *Coordinator's Manual* and other CRS materials. They are encouraged to order other background publications, attend CRS workshops, and ask their ISO/CRS Specialists for help in understanding the CRS credit criteria for their current and planned activities.

CRS Activities: There are 18 floodplain management activities credited by the Community Rating System, organized under four series:

- 300 Public Information
- 400 Mapping and Regulations
- 500 Flood Damage Reduction
- 600 Flood Preparedness

Activity 310 (Elevation Certificates) is required of all CRS communities. Designated repetitive loss communities have additional responsibilities as explained on pages 33–38. The rest of the 18 activities are optional.

Communities should undertake activities that deal with their particular flood problems, regardless of whether they are credited by the CRS. Your community may already be implementing several activities that deserve CRS credit.

The CRS welcomes innovative ways to prevent or reduce flood damage. Communities that are implementing floodplain management activities not listed in this *CRS Application* or the *Coordinator's Manual* are encouraged to request a review to determine if they should be credited.

OMB No. 1660-0022
Expires: August 31, 2010

National Flood Insurance Program
Community Rating System

**Coordinator's
Manual**

FLA-15/2007

FEMA

For the sake of brevity, this CRS Application does not include all of the information on crediting activities that is contained in the more detailed CRS Coordinator's Manual. The section numbering matches the numbering in the Coordinator's Manual, so some section numbers are missing from this publication.

CRS Publications: This *CRS Application* provides summary information that is spelled out in more detail in the *Coordinator's Manual*. Additional guidance is provided in other publications listed on pages 51–52. All CRS materials use the same numbering system.

210 REQUESTING CRS CREDIT

The prerequisites for applying for a CRS classification are covered in Section 211 of this *CRS Application* and the more detailed *Coordinator's Manual*. Application documents and procedures are explained in Sections 212 and 213. If you do apply, you are required to submit all of the application documents needed, including application for credit under Activity 310 (Elevation Certificates).

211 Credit Prerequisites

a. Application Prerequisites: There are four prerequisites to applying to become a Class 9 or better community:

1. Your community must have been in the Regular Phase of the NFIP for at least one year;
2. Your community must be in full compliance with the minimum requirements of the NFIP. See the discussion below.
3. If there are one or more repetitive loss properties in the community, the community must take certain actions as specified on pages 33–38.
4. The community must maintain all flood insurance policies that it has been required to carry on properties owned by the community. See the discussion under item 6 on page 6.

Your application must include a letter from the FEMA Regional Office stating that your community is in full compliance with the NFIP. (The Regional Offices are listed on page 49.) The letter must have been written no earlier than six months before your application is submitted. The Regional Office or State NFIP Coordinator may need to visit your community if they have not been there recently. If so, your application cannot be processed until the visit is conducted and FEMA confirms your community's full compliance. If a CRS community is determined at any time to not be in full compliance, it will revert to a CRS Class 10.

b. Class 7 Prerequisite: In addition to having sufficient points, in order to be a Class 7 or better, your community must have received a classification of 6 or better under the Building Code Effectiveness Grading Schedule (BCEGS). Both BCEGS classifications (residential/personal and commercial) must be a Class 6 or better.

The BCEGS is administered by the Insurance Services Office, Inc. (ISO). It measures a community's building code standards as they relate to natural hazard mitigation and how the community administers its code. More information about BCEGS can be obtained from your ISO/CRS Specialist (see page 57).

There are additional prerequisites for a community to become a Class 4 or better.

c. Application Information: You **MUST** check with your FEMA Regional Office (listed on page 49) to determine if your community is in full compliance with the NFIP. If so, ask for a letter of confirmation. You cannot apply for a CRS classification until the FEMA Regional Office provides the letter. You may have to wait for the Region or the State Coordinator to conduct a community visit.

Call your ISO/CRS Specialist (see page 57) and discuss your application. The ISO/CRS Specialist can provide advice on helpful hints, common mistakes to avoid, how neighboring

communities have handled certain activities, and possible timing of the verification visit. Ask your ISO/CRS Specialist for the following information:

1. What is your community's BCEGS classification? Enter the two numbers (residential/commercial) in the blanks in the top line of the application cover page on page 7.
2. What parts of the application are submitted to the Regional Office and the State NFIP Coordinator? Some FEMA Regions and State Coordinators will want the entire application and some will want to review only certain parts. In any case, the entire application is submitted to the ISO/CRS Specialist. See also "Application Submittal" on page 9.
3. Is your community a repetitive loss community? If so, ask for the FEMA repetitive loss list so that you can meet the requirements of Sections 501-503 on pages 33-38.
4. How many credit points will you receive for your state's dam safety program under Activity 630 (Dam Safety)? Enter this in the blank before Section 631.a on page 47.
5. What is your community's growth adjustment factor? Enter this number in the blank before 711.a on page 48.
6. How many NFIP policies are in your community, how much flood insurance coverage is provided, and what are the annual premiums paid? This information is not required, but it will help determine the monetary impact of your participation in the CRS.

212 Application Documents

A complete application must include the appropriate worksheet pages from this *CRS Application* and the documents that must be submitted with them as noted in the Application Documentation section for each activity. Your application will not receive full credit, and may be rejected, if the documentation is not complete.

Application Cover Page: On page 7 is the application cover page that includes data needed about your community. It should be the first page of your application. The following notes explain Sections 1 through 7 on the cover page. All of these items must be included with your application package.

1. Your NFIP number and "FIRM Effective Date" are found on the legend of your FIRM. The latter is usually the date of conversion to the Regular Program of the NFIP. The "Current FIRM Date" is the date on the FIRM Index Map (or the FIRM legend if only one panel was printed).
2. Your Chief Executive Officer (CEO) is your mayor, county board chair, city manager, or other person of equivalent position. Your CEO must designate your community's CRS Coordinator.
3. Your application must include the letter from the FEMA Regional Office stating that your community is in full compliance with the NFIP. The letter must be dated no more than six months before your application date.
4. Check each activity for which you are applying. Activity 310 is already checked because maintaining Elevation Certificates is a minimum requirement for participation in the CRS. You must complete and submit the worksheet page for Activity 310 (page 10).

As noted on page 5, you must check to see if you are a repetitive loss community. Read and complete page 33 on Repetitive Loss Requirements. If you have one or more repetitive loss properties, you must obtain the list of properties from FEMA and complete the two worksheet pages for Sections 501–503 on pages 33–34. Category C communities (those with more than 10 repetitive loss properties) must also apply for Activity 510 (Floodplain Management Planning).

Your CEO's signature certifies that your community is actually implementing the activities in your application. This certification does NOT mean that you will START doing them; it means that your community IS doing them as of the date of your application.

This *CRS Application* contains examples of certifications and ordinance language. It is recommended that all certifications and proposed ordinances be reviewed by your attorney or corporation counsel.

5. Your application must include completed copies of the appropriate worksheet pages of this *CRS Application* and the documentation that is required for each activity. See "Worksheet Pages" on page 9. The worksheet page for 720 (Community Total Points) is also required to show your total points. You may apply for any of the other activities, as long as all of your activities add up to 500 points or more.
6. By signing the "CRS Application Cover Page," the CEO is certifying your community has all the flood insurance policies it has been required to have. The CRS is not concerned with past lapses in flood insurance coverage. What counts is that NFIP insurance is in effect at the time of the application and is kept in the future. The CRS Coordinator should make every effort to determine the community's legal requirement to purchase flood insurance.

Over the last several years, Congress has taken steps to encourage public agencies and private property owners to purchase flood insurance instead of relying exclusively on disaster assistance for help after a flood. Disaster assistance for a public building (and some private nonprofit buildings) will be reduced by the amount of NFIP flood insurance coverage (structural and contents) a community should be carrying on the building (regardless of whether the community is carrying a policy).

In effect, disaster assistance for a public agency now has a very large deductible equal to the flood insurance policy the agency should carry. The law expects public agencies to be appropriately insured as a condition of receiving federal disaster assistance.

There have also been recent cases in which communities were underinsured. Some communities have purchased only the required amount of coverage (e.g., coverage equal to the amount of a previous federal grant). The disaster assistance rule requires that the community fund all repairs up to the amount of flood insurance that it could purchase.

Whether there was a requirement to purchase and maintain flood insurance as a condition of some previous federal grant or not, the community's risk manager or other appropriate official should ensure that all community-owned buildings exposed to flooding are insured for flood damage. Many agencies find out too late that their all-risk insurance policies do not cover flooding.

7. The cover page must be signed by your community's CEO. This form cannot be signed by a department head or other staff person.

210 CRS APPLICATION COVER PAGE

1. Community Name: _____ State: _____ BCEGS: _____ / _____
NFIP Number: _____ FIRM Effective Date: _____, _____
Population: _____ Current FIRM Date: _____, _____
Application Date: _____, 200____ County: _____

2. Chief Executive Officer CRS Coordinator
Name: _____
Title: _____
Address: _____
Coordinator's Telephone: _____ Fax: _____
Coordinator's email: _____

3. Attached is our letter from FEMA stating that we are in full compliance with the minimum requirements of the National Flood Insurance Program.

4. I hereby certify that _____ [community name] is implementing the following activities (check the ones that apply). We will continue to implement these activities and will advise FEMA if any of them are not being conducted in accordance with this certification. We will cooperate with the ISO/CRS Specialist verification visit and will submit the documentation and annual recertification needed to validate our program.

- | | |
|--|--|
| <input checked="" type="checkbox"/> 310 Elevation Certificates | <input type="checkbox"/> 440 Flood Data Maintenance |
| <input type="checkbox"/> 320 Map Information Service | <input type="checkbox"/> 450 Stormwater Management |
| <input type="checkbox"/> 330 Outreach Projects | <input checked="" type="checkbox"/> Repetitive Loss Requirements |
| <input type="checkbox"/> 340 Hazard Disclosure | <input type="checkbox"/> 510 Floodplain Management Planning |
| <input type="checkbox"/> 350 Flood Protection Information | <input type="checkbox"/> 520 Acquisition and Relocation |
| <input type="checkbox"/> 360 Flood Protection Assistance | <input type="checkbox"/> 530 Flood Protection |
| <input type="checkbox"/> 410 Additional Flood Data | <input type="checkbox"/> 540 Drainage System Maintenance |
| <input type="checkbox"/> 420 Open Space Preservation | <input type="checkbox"/> 610 Flood Warning Program |
| <input type="checkbox"/> 430 Higher Regulatory Standards | <input type="checkbox"/> 620 Levee Safety |
| <input type="checkbox"/> 430LD Land Development Criteria | <input type="checkbox"/> 630 Dam Safety |

5. Attached are the worksheet pages and the documentation for the checked activities as well as the page for Section 720, showing that we have at least 500 points for CRS credit.

6. I hereby certify that to the best of my knowledge and belief, we are maintaining in force all flood insurance policies that have been required of us as a condition of Federal financial assistance for insurable buildings owned by us and located in the Special Flood Hazard Area shown on our Flood Insurance Rate Map. I further understand that disaster assistance for flooded public buildings in the Special Flood Hazard Area will be reduced by the amount of flood insurance available from the National Flood Insurance Program for the buildings, even if we do not have a policy.

7. Signed: _____ (Chief Executive Officer)

Public reporting burden for this application is estimated to average 31 hours per response for the application process and 4 hours for annual recertification. The burden estimate includes the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and submitting the application. You are not required to respond to this collection of information unless a valid OMB control number is displayed in the upper right corner of the application. Send comments regarding the accuracy of the burden estimate and any suggestions for reducing the burden to Information Collections Management, Department of Homeland Security, Federal Emergency Management Agency, 500 C St., S.W., Washington, D.C. 20472, Paperwork Reduction Project (1660-0022). **Note: do not send your completed form to this address.**

Activity Worksheet No.	Title
AW-210	CRS Application Cover Page
AW-214	Recertification Worksheet
AW-230	Modification/Cycle Cover Page
AW-310	Elevation Certificates
AW-320	Map Information Service
AW-330	Outreach Projects
AW-340	Hazard Disclosure
AW-350	Flood Protection Information
AW-360	Flood Protection Assistance
AW-410	Additional Flood Data
AW-420	Open Space Preservation
AW-430	Higher Regulatory Standards
AW-430LD	Land Development Criteria
AW-440	Flood Data Maintenance
AW-450	Stormwater Management
AW-500	Repetitive Loss Requirements
AW-510	Floodplain Management Planning
AW-520	Acquisition and Relocation
AW-530	Flood Protection
AW-540	Drainage System Maintenance
AW-610	Flood Warning Program
AW-620	Levee Safety
AW-630	Dam Safety
AW-710	Community Growth Adjustment
AW-720	Community Credit Calculations
AW-720m	Community Credit Calculations (Modification)
AW-CB	Closed Basin Lake Hazards
AW-CE	Coastal Erosion Hazards
AW-DB	Dunes and Beaches
AW-IJ	Ice Jam Hazards
AW-MF	Mudflow Hazards
AW-SU	Land Subsidence Hazards
AW-TS	Tsunami Hazards
AW-UF	Uncertain Flow Path Hazards

213 Application Procedures

a. Application Submittal: Ask your ISO/CRS Specialist who gets what parts of the application. A complete application (appropriate worksheet pages and all needed documentation) is sent to your ISO/CRS Specialist.

Worksheet Pages: Each activity has one or more pages that explains the credit points and/or a worksheet page. Worksheet pages are the pages in this *CRS Application* with the space at the top for the community's name. Enter the appropriate credit points in the blanks in the left column of the worksheet page. The credit points are added and the total points for each activity are transferred to page 48.

Documentation: The last section of each activity is the Application Documentation section. You must check off the documentation that is needed with the application and you must check that those items needed for verification will be provided during the verification visit. Attach the documentation that is submitted with the application to the worksheet page for that activity. Mark the margins of the documents to show where the credited element is covered (see example on pages 19–20). Your ISO/CRS Specialist will explain any additional documentation that may be needed for the verification visit or your annual recertification.

Submittal: All or parts of the application are sent to the FEMA Regional Office, Attn: Director, Flood Insurance and Mitigation Division, and to your State NFIP Coordinator. The FEMA Regional Offices are listed in Appendix A, page 49. They or the ISO/CRS Specialist can provide the name, address, and telephone number of your State NFIP Coordinator.

A complete application includes the following:

- A completed *CRS Application* Cover Page (page 7), signed by the CEO;
- Completed worksheet pages (those pages with “Community: _____” at the top); and
- All needed documentation, as noted at the end of each worksheet page.

Your application will not be processed under the following circumstances:

- If your community is not in full compliance with the NFIP,
- If your application is incomplete, or
- If your application does not have the 500 points needed to warrant a Class 9.

b. Application Review: The ISO/CRS Specialist and FEMA Regional Office will need approximately one month to conduct the application review. Once the application review confirms that your community should have the 500 points needed for a Class 9, the ISO/CRS Specialist schedules a verification visit. This visit is usually held within six months of receipt of a complete application.

During the verification visit, the ISO/CRS Specialist will review your activities according to the scoring criteria in the *Coordinator's Manual*. For example, a random sample of your elevation certificates will be checked to see if they are complete and correct. Your credit points could increase or decrease based on these reviews and the more accurate scoring formulae in the *Coordinator's Manual*.

310 ELEVATION CERTIFICATES

Community: _____

NOTE: Section 311.a is required of all communities.

This activity provides credit for maintaining records of flood data and elevations of new, substantially improved, and substantially damaged buildings on FEMA's elevation certificate. For this credit, your community's program must do all of the following:

- a. The records must be on a FEMA elevation certificate (FEMA Form 81-31) or FEMA floodproofing certificate (FEMA Form 81-65). Copies of the forms are available for downloading at <http://www.fema.gov/business/nfip/elvinst.shtm>. The elevation certificate's first page is on page 11. You may transfer data from earlier records to the FEMA forms.
- b. You must maintain completed certificates for all buildings constructed or substantially improved in the Special Flood Hazard Area (SFHA) during the period credited. The forms must show the "finished construction" elevations.
- c. You must review the certificates to ensure that the information is correct (each FEMA certificate includes instructions). It is the community's responsibility to ensure that the elevation certificates it maintains have been completed correctly. Certificates provided by surveyors must be proofread and corrected if there are errors or omissions.
- d. You must make copies of the certificates available to any inquirer.

311 Credit Points

- 56 a. All CRS communities must receive credit for this element. Enter 56 points because you will complete and maintain FEMA's certificates for ALL buildings constructed or substantially improved in the SFHA after the date you apply to the CRS.
- ___ b. This credit is for maintaining FEMA elevation certificates on buildings built or substantially improved during the period between your community's initial FIRM effective date and the date you applied to the CRS. These buildings are known as post-FIRM buildings. Enter 56 points if you have FEMA elevation certificates for ALL your post-FIRM buildings or enter 14 points if you have FEMA certificates on at least 25% of the buildings built in the SFHA since your initial FIRM date.
- ___ c. This credit is for maintaining FEMA elevation certificates on buildings built before your community's initial FIRM effective date. These buildings are known as pre-FIRM buildings. Enter 15 points if you have FEMA elevation certificates for ALL your pre-FIRM buildings or enter 4 points if you have FEMA certificates on at least 25% of the buildings built in the SFHA before your initial FIRM date.
- ___ d. Enter 10 points if the data from your certificates have been entered into a computer data base. A free copy of computer software for elevation certificates is available (see page 51). There is also credit for putting the data on your community's website.
- ___ e. Enter 10 if all elevation certifications, regulations, plans, and other records are kept in a secure area away from the permit office.
- ___ Enter the total of a through e. Enter this value in the blank after "310" on page 48.

314 Application Documentation During the verification visit, you must provide copies of completed certificates to support your credit.

FEMA Elevation Certificate, Page 1

Note: CRS credit is dependent on use of the proper form. The community must make sure that the form illustrated here is used to record the required data for all new, substantially improved, and substantially damaged buildings in the SFHA after the date of applying to the CRS. This form and its instructions can be downloaded from <http://www.fema.gov/business/nfip/elvinst.shtm>.

U.S. DEPARTMENT OF HOMELAND SECURITY
Federal Emergency Management Agency
National Flood Insurance Program

ELEVATION CERTIFICATE

OMB No. 1660-0008
Expires February 28, 2009

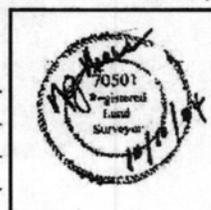
Important: Read the instructions on pages 1-8.

SECTION A - PROPERTY INFORMATION		For Insurance Company Use
A1. Building Owner's Name <u>William Smith</u>	Policy Number	
A2. Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No. <u>3902 Woodbridge Road</u>	Company NAIC Number	
City <u>Floodville</u> State <u>ST</u> ZIP Code <u>98765</u>		
A3. Property Description (Lot and Block Numbers, Tax Parcel Number, Legal Description, etc.) <u>Lot 3, Block 4, Foster Creek Addition</u>		
A4. Building Use (e.g., Residential, Non-Residential, Addition, Accessory, etc.) <u>Residential</u>		
A5. Latitude/Longitude: Lat. _____ Long. _____ Horizontal Datum: <input type="checkbox"/> NAD 1927 <input type="checkbox"/> NAD 1983		
A6. Attach at least 2 photographs of the building if the Certificate is being used to obtain flood insurance.		
A7. Building Diagram Number <u>1</u>		
A8. For a building with a crawl space or enclosure(s), provide: a) Square footage of crawl space or enclosure(s) _____ sq ft b) No. of permanent flood openings in the crawl space or enclosure(s) walls within 1.0 foot above adjacent grade _____ c) Total net area of flood openings in A8.b _____ sq in		A9. For a building with an attached garage, provide: a) Square footage of attached garage _____ sq ft b) No. of permanent flood openings in the attached garage walls within 1.0 foot above adjacent grade _____ c) Total net area of flood openings in A9.b _____ sq in

SECTION B - FLOOD INSURANCE RATE MAP (FIRM) INFORMATION					
B1. NFIP Community Name & Community Number <u>Floodville 123456</u>		B2. County Name <u>Isler</u>		B3. State <u>ST</u>	
B4. Map/Panel Number <u>123456 0001</u>	B5. Suffix <u>B</u>	B6. FIRM Index Date <u>5/15/80</u>	B7. FIRM Panel Effective/Revised Date <u>5/15/80</u>	B8. Flood Zone(s) <u>A15</u>	B9. Base Flood Elevation(s) (Zone A0, use base flood depth) <u>1142.8</u>
B10. Indicate the source of the Base Flood Elevation (BFE) data or base flood depth entered in Item B9. <input checked="" type="checkbox"/> FIS Profile <input type="checkbox"/> FIRM <input type="checkbox"/> Community Determined <input type="checkbox"/> Other (Describe) _____					
B11. Indicate elevation datum used for BFE in Item B9: <input checked="" type="checkbox"/> NGVD 1929 <input type="checkbox"/> NAVD 1988 <input type="checkbox"/> Other (Describe) _____					
B12. Is the building located in a Coastal Barrier Resources System (CBRS) area or Otherwise Protected Area (OPA)? Designation Date _____ <input type="checkbox"/> CBRS <input type="checkbox"/> OPA <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No					

SECTION C - BUILDING ELEVATION INFORMATION (SURVEY REQUIRED)	
C1. Building elevations are based on: <input type="checkbox"/> Construction Drawings* <input type="checkbox"/> Building Under Construction* <input checked="" type="checkbox"/> Finished Construction *A new Elevation Certificate will be required when construction of the building is complete.	
C2. Elevations - Zones A1-A30, AE, AH, A (with BFE), VE, V1-V30, V (with BFE), AR, AR/A, AR/AE, AR/A1-A30, AR/AH, AR/AO. Complete items C2.a-g below according to the building diagram specified in Item A7. Benchmark Utilized <u>NGS 14-21</u> Vertical Datum <u>NGVD 29</u> Conversion/Comments <u>N/A</u>	
Check the measurement used.	
a) Top of bottom floor (including basement, crawl space, or enclosure floor) <u>1145.0</u> feet <input checked="" type="checkbox"/> meters (Puerto Rico only)	
b) Top of the next higher floor <u>N/A</u> feet <input type="checkbox"/> meters (Puerto Rico only)	
c) Bottom of the lowest horizontal structural member (V Zones only) <u>N/A</u> feet <input type="checkbox"/> meters (Puerto Rico only)	
d) Attached garage (top of slab) <u>1144.6</u> feet <input checked="" type="checkbox"/> meters (Puerto Rico only)	
e) Lowest elevation of machinery or equipment servicing the building (Describe type of equipment in Comments) <u>1144.6</u> feet <input checked="" type="checkbox"/> meters (Puerto Rico only)	
f) Lowest adjacent (finished) grade (LAG) <u>1144.2</u> feet <input type="checkbox"/> meters (Puerto Rico only)	
g) Highest adjacent (finished) grade (HAG) <u>1144.5</u> feet <input type="checkbox"/> meters (Puerto Rico only)	

SECTION D - SURVEYOR, ENGINEER, OR ARCHITECT CERTIFICATION	
This certification is to be signed and sealed by a land surveyor, engineer, or architect authorized by law to certify elevation information. I certify that the information on this Certificate represents my best efforts to interpret the data available. I understand that any false statement may be punishable by fine or imprisonment under 18 U.S. Code, Section 1001.	
<input checked="" type="checkbox"/> Check here if comments are provided on back of form.	
Certifier's Name <u>N.G. Nears</u>	License Number <u>70501</u>
Title <u>Registered Land Surveyor</u>	Company Name <u>Nears & Co.</u>
Address <u>4305 W. St. Paul</u>	City <u>Floodville</u>
State <u>ST</u>	ZIP Code <u>98765</u>
Signature <u>NG Nears</u>	Date <u>10/10/04</u>
Telephone <u>101/555-0704</u>	



FEMA Form 81-31, February 2006

See reverse side for continuation.

Replaces all previous editions

320 MAP INFORMATION SERVICE

This activity credits reading Flood Insurance Rate Maps (FIRMs) in response to requests from the public. For this credit, your community's program must do ALL of the following:

1. You must respond to all inquiries to identify a property's FIRM zone within a reasonable period of time. You may charge a reasonable fee for this service and you may require the inquirer to visit your office, submit the request in writing, or show the property on a street map. If the property is too close to the floodplain boundary, you may provide the inquirer with a copy of the FIRM and advise that a FIRM zone determination cannot be made. Inquirers should be advised that this service does not relieve a lending institution of its responsibility to determine if flood insurance should be required as a condition of a loan.

If asked, you must provide additional information that is shown on the FIRM. Such data include the community NFIP number, FIRM panel number, FIRM index date, the FIRM zone, and the base flood elevation or depth.

2. You must advise those who inquire about a property in the SFHA that flood insurance is required as a condition of a loan or federal assistance or provide a handout that explains the flood insurance purchase requirement (see example, page 14).
3. If you are a coastal community and find that a property is in a designated "undeveloped coastal barrier," "otherwise protected area," or mapped coastal A Zone, you must inform the inquirer about the designation and the limits on federal assistance under the Coastal Barrier Resources Act (see page 15) and about the coastal A Zone wave, scour, and velocity flood hazards.
4. You must use the latest FIRM and you must maintain copies of all FIRMs in effect since the date you apply for this credit. You are responsible for ensuring that the map used is updated to reflect new subdivisions, changes in corporate limits, and all new FIRM data from flood insurance restudies, map revisions, map amendments, and Letters of Map Amendment (LOMAs) and Map Revision (LOMRs).
5. EACH YEAR, you must publicize this service to local banks, lending institutions, insurance agencies, and real estate agencies. The publicity must note that copies of FEMA elevation certificates are available from the community. An example of a letter or e-mail message publicizing this service is on the next page. As an alternative, you may publicize this service in a newsletter or other outreach project that reaches everyone in the community (see example on page 19). A news article or legal notice in a newspaper will not suffice.

If you use a website to provide the service, the site's address or URL must be publicized.

6. If you receive credit for one of the special hazards discussed on page 26, you must advise inquirers whether the property is subject to that hazard.
7. If you use a website or other provider of the service, the inquirer must be able to obtain the information by entering a street address. There is no credit for simply having a map on a website or expecting an inquirer to read a map. The service must provide an opportunity for the inquirer to talk to community staff about map and floodplain management questions, so a website must include a telephone number that one can call for more help.
8. You must keep a log or other record of this service. The record must include the date, the address or location of the property, FIRM zone, and whether the inquirer was advised of the flood insurance purchase requirement (see example on page 15).

320 MAP INFORMATION SERVICE

Community: _____

321 Credit Points

___ If your community does ALL EIGHT of the items listed on page 12, enter 140 points. Enter this value in the blank after "320" on page 48.

323 Application Documentation You must attach the following documentation to this page of your application. Check the sections that apply:

- a. Documentation that shows how you publicized the service each year (use one of the following methods). The publicity must also state that your community has elevation certificates for recent construction.
 - ___ 1. If you send letters to appropriate institutions and agencies, a copy of one of the letters (see example, below);
 - ___ 2. If you notify organizations of or agencies responsible for lenders, insurance and real estate agencies, copies of the notifications in their publications; or
 - ___ 3. The documentation attached to Activity 330 (Outreach Projects) includes a section that publicizes this service in the outreach project sent to the entire community (mark the notice for this activity in the margin of the project).

You must have the following items available for the verification visit. Check that you will have the applicable ones available:

- ___ c. If you send letters to institutions and agencies, a mailing list for those institutions and agencies.
- ___ d. Copies of the letters to inquirers or other record (such as the log on page 15) that notes the date, the address or location of the property, and that the inquirer was advised of the flood insurance purchase requirement, if applicable.
- ___ e. Documentation showing how you keep your FIRM updated.

Example of a Notice Publicizing the Map Information Service

NOTICE TO: Lending Institutions and Real Estate and Insurance Agents

SUBJECT: Flood Insurance Rate Map Zone Information

As a public service, the City of Floodville will provide you with the following information upon request:

- Whether a property is in or out of the Special Flood Hazard Area (SFHA) as shown on the current Flood Insurance Rate Map (FIRM) of the City.
- Additional flood insurance data for a site, such as the FIRM zone and the base flood elevation or depth, if shown on the FIRM.
- We have a handout on the flood insurance purchase requirement that can help people who need a mortgage or loan for a property in the SFHA.
- We have copies of completed FEMA Elevation Certificates for buildings built in the floodplain since 1991.

If you would like to make an inquiry, please tell us the street address and, if available, the subdivision, lot and block number. We are open 9:00 am to 4:30 pm, Monday – Friday. Call us at (101) 555-1234 or drop by the Building Department in City Hall. Anyone in the office can provide the needed information. There is no charge for this service.

Example Handout Explaining the Flood Insurance Purchase Requirement

[Community Letterhead]

The Mandatory Purchase of Flood Insurance Requirement

NFIP: This community participates in the National Flood Insurance Program (NFIP) which makes federally backed flood insurance available for all eligible buildings, whether they are in a floodplain or not. Flood insurance covers direct losses caused by surface flooding, including a river flowing over its banks, a lake or ocean storm, and local drainage problems.

The NFIP insures buildings, including mobile homes, with two types of coverage: building and contents. Building coverage is for the walls, floors, insulation, furnace, and other items permanently attached to the structure. Contents coverage may be purchased separately, if the contents are in an insurable building.

Mandatory Purchase Requirement: The Flood Disaster Protection Act of 1973 and the National Flood Insurance Reform Act of 1994 made the purchase of flood insurance mandatory for Federally backed mortgages on buildings located in Special Flood Hazard Areas (SFHAs). It also affects all forms of Federal or Federally related financial assistance for buildings located in SFHAs. The SFHA is the base (100-year) floodplain mapped on a Flood Insurance Rate Map (FIRM). It is shown as one or more zones that begin with the letter "A" or "V."

The requirement applies to secured mortgage loans from financial institutions, such as commercial lenders, savings and loan associations, savings banks, and credit unions that are regulated, supervised or insured by Federal agencies such as the Federal Deposit Insurance Corporation and the Office of Thrift Supervision. It also applies to all mortgage loans purchased by Fannie Mae or Freddie Mac in the secondary mortgage market.

Federal financial assistance programs affected by the laws include loans and grants from agencies such as the Department of Veterans Affairs, Farmers Home Administration, Federal Housing Administration, Small Business Administration, and the Department of Homeland Security's FEMA.

How it Works: Lenders are required to complete a Standard Flood Hazard Determination (SFHD) form whenever they make, increase, extend, or renew a mortgage, home equity, home improvement, commercial, or farm credit loan to determine if the building or manufactured (mobile) home is in an SFHA. It is the Federal agency's or the lender's responsibility to check the current Flood Insurance Rate Map (FIRM) to determine if the building is in an SFHA. Copies of the FIRM are available for review in most local government building or planning departments. Lenders may also have copies or they may use a flood zone determination company to provide the SFHD form.

If the building is in an SFHA, the Federal agency or lender is required by law to require the recipient to purchase a flood insurance policy on the building. Federal regulations require building coverage equal to the amount of the loan (excluding appraised value of the land) or the maximum amount of insurance available from the NFIP, whichever is less. The maximum amount available for a single-family residence is \$250,000. Government-sponsored enterprises, such as Freddie Mac and Fannie Mae, have stricter requirements.

The mandatory purchase requirement does not affect loans or financial assistance for items that are not covered by a flood insurance policy, such as vehicles, business expenses, landscaping, and vacant lots. It does not affect loans for buildings that are not in an SFHA, even though a portion of the lot may be. While not mandated by law, a lender may require a flood insurance policy, as a condition of a loan, for a property in any zone on a FIRM.

If a person feels that an SFHD form incorrectly places the property in the SFHA, he or she may request a Letter of Determination Review from FEMA. This must be submitted within 45 days of the determination. More information can be found at http://www.fema.gov/plan/prevent/fhm/fq_gen11.shtm.

LOG OF WALK-IN AND TELEPHONE MAP INFORMATION INQUIRIES

DATE	TYPE	ADDRESS	PANEL	ZONE	ELEV	INSURANCE INFORMATION GIVEN	COASTAL A ZONE OR CBRS
2/3	W	201 W. Main	0001B	AE	734	H	No
2/4	T	309 W. Mumford	0001B	X	N/A	N/A	No
2/5	T	907 S. Busey	0001B	AE	732	H	No

Codes: W - walk in T - telephone request L - written request
H - gave handout V - told verbally N/A - not applicable

Example of a Handout Explaining the Coastal Barriers Resources System

[Community Letterhead]

The Coastal Barrier Resources System

The Coastal Barrier Resources Act of 1982 (CBRA), and the Coastal Barrier Improvement Act of 1990 removed the federal government from financial involvement associated with building and development in undeveloped portions of coastal areas (including the Great Lakes). These areas were mapped and designated as Coastal Barrier Resources System (CBRS) units and Otherwise Protected Areas. They are colloquially called "CBRA areas" (pronounced "cobra" but not spelled that way).

Any federal program that may have the effect of encouraging development on coastal barrier islands is restricted by law. These programs include "any form of loan, grant, guarantee, insurance, payment, rebate, subsidy or any other form of direct or indirect Federal assistance" with specific and limited exceptions. For example, federal disaster assistance is limited to emergency relief in CBRS areas—there are no loans or grants to repair or rebuild buildings in those areas.

The legislation also banned the sale of National Flood Insurance Program (NFIP) flood insurance for structures built or substantially improved on or after a specified date. For the first CBRA designations, that date is October 1, 1983. For all subsequent designations, it is the date the CBRA area was identified. CBRA areas and their identification dates are shown in the legend of Flood Insurance Rate Maps (FIRMs).

If an owner of a building in a CBRA area wants to buy flood insurance, he or she would need a copy of the building permit showing that the building was properly built before the designation date and a signed statement from the floodplain ordinance administrator that it had not been substantially damaged or improved since then. The insurance agent may need to provide more documentation.

The boundaries of a CBRA area cannot be revised through the Letter of Map Amendment or Revision (LOMA/LOMR) process. They can only be revised through

- Congressional action,
- Interpretation of boundaries by the U.S. Department of the Interior's Fish and Wildlife Service, or
- Cartographic modifications by Department of Homeland Security's FEMA to correct errors in the transcription of the Department of the Interior maps onto FIRMs.

If an NFIP policy is issued in error in a CBRA area, it will be cancelled and the premium refunded. No claim can be paid, even if the mistake is not found until a claim is made.

If a grandfathered building (i.e., a building built before the date of designation) is substantially improved or substantially damaged, its flood insurance policy will be cancelled.

Lenders are required to notify borrowers if the structure is in a CBRA area and that NFIP flood insurance and/or disaster assistance may not be available. Many lenders are reluctant to lend without protecting their investment with flood insurance and private flood insurance may not be available.

330 OUTREACH PROJECTS

Credit is provided for advising people every year of the flood hazard, the availability of flood insurance, and/or flood protection methods. Credit points are based on two factors: the type of outreach project and the topics covered by each project. More information and examples of this activity are provided in *CRS Credit for Outreach Projects* (see page 51).

331 Credit Points

Type of projects: Credit is provided for four types of outreach projects. Each outreach project credited under a, b, or c.1 must be conducted every year.

- a. Outreach projects to the entire community: Up to 40 points are provided for sending written information in a newsletter, utility bills, telephone book, or other document that is sent to all properties in the community. A newspaper article is usually not credited as reaching all properties because many people do not subscribe to a newspaper. Each topic covered is worth 4 points. An example of this type of project is shown on pages 19–20.
- b. Outreach projects to floodplain properties: Up to 100 points are provided for sending a notice to all properties in floodprone areas. The notice must be distributed to all properties in the SFHA and those additional areas known to have flooding problems. The notice must clearly explain that the recipient's property is subject to flooding with a phrase such as, "Your property is in or near the floodplain." Each topic covered is worth 9 points.
- c.
 1. Additional outreach projects: Up to 60 points are provided for conducting other outreach projects, such as a "flood awareness week" or flyers inserted in local newspapers. Each topic is worth 2 points, and up to three projects can be credited. If you apply for this, you cannot receive credit for outreach projects pursuant to a public information program strategy under 331.c.2.
 2. As an alternative to c.1, the community can prepare a public information program strategy. This is worth 100 points and is explained in detail in the *Coordinator's Manual* or *CRS Credit for Outreach Projects*.

Topics covered: The credit points for each project are based on the number of topics covered. The topic must be covered in enough detail to provide useful information to the reader. References on these topics are listed on page 55. The topics credited are:

1. **The local flood hazard:** The project should include the names of the rivers, information on past floods, and additional data on local flooding, such as velocities or debris.
2. **Flood safety:** Emergency precautions, such as turning off the electricity and gas and staying away from moving water or unstable banks, should be discussed. Precautions against driving through flooded areas must be included.
3. **Flood insurance:** The project should note that flooding is not covered by standard property insurance but that flood insurance is available in the community. It should include some of the basic facts, such as types and amounts of coverage and the 30-day waiting period. Communities with designated coastal barriers should explain the restrictions reviewed on page 15.

4. **Property protection measures:** Ways to protect a building from flood damage should be explained, such as retrofitting, floodwalls, regrading, and correcting local drainage problems.
5. **Natural and beneficial floodplain functions:** The outreach project should discuss the natural and beneficial functions of local floodplains, any unique local features, the importance of preserving these functions, and how they can be protected.
6. **Map of the local flood hazard:** If the project includes a map of the community's flood hazard areas (including the coastal A Zone, if mapped), the map must clearly show every street affected, although all streets do not have to be named. The floodprone area must be clearly shown through shading or another method.
7. **The flood warning system:** Information on warning procedures, warning time, what radio station(s) to tune to, and similar data should be disseminated. There is no credit for this topic if the community does not have a flood warning system.
8. **Floodplain development permit requirements:** The outreach project should explain that all development in the floodplain (not just construction of buildings) needs local permits. People should be advised to contact the community's regulatory department before they build, fill, or otherwise develop. They should also be told how to report illegal floodplain development.
9. **Substantial improvement requirements:** Floodplain building additions, improvements, and repairs that equal or exceed 50% of the value of the existing building must meet the same construction requirements as new buildings. Substantially improved or substantially damaged residential buildings must be elevated to or above the base flood elevation. The project should summarize the local procedures for enforcing this requirement.
10. **Drainage system maintenance:** The project should discuss regulations against dumping in channels, how to report violations, and why it is important to maintain the drainage system. These three items must be covered if you use an outreach project to the entire community to publicize your stream dumping regulations credited under Activity 540 (Drainage System Maintenance).

An example of an outreach project to the entire community is on pages 19 and 20. This flyer is a supplement to the city's newsletter. This example shows how to mark your submittal so the ISO/CRS Specialist can identify where the topics are covered.

The example covers six topics: local flood hazard, flood safety, flood insurance, property protection measures, floodplain development permit requirements, and drainage system maintenance. In completing its application, the example community would enter the number "4" in column a next to each of these six topics and the total score of 24 at the bottom of this column.

The total for each outreach project is entered at the bottom of each column. The total for all projects is entered in the blank to the left of "Total for all five columns." Include a marked-up copy or description of each outreach project and check the blank in the left column next to 333.a. Also submit a memo or other evidence that the projects are distributed or conducted annually and check the blank to the left of 333.c.

330 OUTREACH PROJECTS

Community: _____

331 Credit Points

- a. In the first column, enter 4 points for each topic covered by the outreach project that you send out each year to the entire community.
- b. In the second column, enter 10 points for each topic covered by the outreach project that you send out each year to floodplain properties.
- c. In the third, fourth, and fifth columns (c.1.a, c.1.b, and c.1.c), enter 2 points for each topic covered by other annual outreach projects.

Project:	a	b	c.1.a	c.1.b	c.1.c
Points per topics covered:	4	10	2	2	2
1. Local flood hazard:	_____	_____	_____	_____	_____
2. Flood safety:	_____	_____	_____	_____	_____
3. Flood insurance:	_____	_____	_____	_____	_____
4. Property protection:	_____	_____	_____	_____	_____
5. Natural functions:	_____	_____	_____	_____	_____
6. Flood hazard map:	_____	_____	_____	_____	_____
7. Flood warning:	_____	_____	_____	_____	_____
8. Permit requirements:	_____	_____	_____	_____	_____
9. Substantial improvements:	_____	_____	_____	_____	_____
10. Drainage maintenance:	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____

_____ Enter the total for all 5 columns here and in the blank after "330" on page 48.

333 Application Documentation You must attach the following documentation to your application. The ISO/CRS Specialist will explain what additional materials will be needed during the verification visit and for your annual recertification. Check each section that applies:

- _____ a. Copies of the notices, flyers, and other materials used in the outreach projects. Mark them with an "a," "b," "c.1," etc. to designate the type of project. Clearly identify where the topics are covered (see example on pages 19–20).
- _____ c. Documentation that shows when the projects are undertaken. *NOTE: Projects credited under a, b, and c.1 must be implemented at least annually.*

Additional credit is provided for preparing a public information program strategy and for mailing specially prepared information on flood insurance to all residents of the community. More information on these credits can be found in Sections 331c.2 and 331d of the *Coordinator's Manual*.

331a Outreach project to entire community

City of Floodville Flood Protection Information

Flooding in our city is caused by three sources: Foster Creek leaves its banks during heavy storms, snowmelt or ice jams. Floodwaters can cover many blocks up to four or five feet deep. The Southeast Ditch and Deadman's Run are smaller streams which flood during or soon after heavy storms. Floodwaters are not as deep, but they still cover streets and yards and can flood cars, garages, basements and lower floors.

Flooding in all three areas can come with little warning. An ice jam on Foster Creek in 1982 covered streets within 15 minutes of forming. In July 1986, Southeast Ditch and Deadman's Run flooded within an hour after a thunderstorm started. Floods are also dangerous. Even though they appear to move slowly (three feet per second), a flood two feet deep can knock a man off his feet and float a car.

Your property may be high enough that it was not flooded recently. However, it can still be flooded in the future because the next flood could be worse. If you are in the floodplain, the odds are that someday your property will be damaged. This flyer gives you some ideas of what you can do to protect yourself.

320 Publicity

Local Flood

City Flood Services: The first thing you should do is check your flood hazard. Flood maps and flood protection references are available at the Floodville Public Library. You can also visit the Building Department on the first floor of City Hall to see if you are in a mapped floodplain. If so, they can give you more information, such as depth of flooding over a building's first floor and past flood problems in the area and copies of Elevation Certificates on buildings built in the floodplain since 1991. They also have a handout on selecting an architect, engineer, or contractor.

If requested, the Public Works Department will visit a property to review its flood problem and explain ways to stop flooding or prevent flood damage. Call the Department at 555-1234. These services are free. If you are in a floodplain or have had a flood, drainage or sewer backup problem, check out these sources of assistance.

360 Publicity

What You Can Do: Several of the City's efforts depend on your cooperation and assistance. Here is how you can help:

Drainage

- Do not dump or throw anything into the ditches or streams. Dumping in our ditches and streams is a violation of Floodville City Ordinance 21.35. Even grass clippings and branches can accumulate and plug channels. A plugged channel cannot carry water and when it rains the water has to go somewhere. Every piece of trash contributes to flooding.
- If your property is next to a ditch or stream, please do your part and keep the banks clear of brush and debris. The City has a stream maintenance program which can help remove major blockages such as downed trees.
- If you see dumping or debris in the ditches or streams, contact the Public Works Department at 555-1234.

Permits

- Always check with the Building Department before you build on, alter, regrade, or fill on your property. A permit may be needed to ensure that projects do not cause problems on other properties.
- If you see building or filling without a City permit sign posted, contact the Building Dept. at 555-1234.
- Check out the following information on floodproofing, flood insurance and flood safety.

Property

Floodproofing: There are several different ways to protect a building from flood damage. One way is to keep the water away by regrading your lot or building a small floodwall or earthen berm. These methods work if your lot is large enough, if flooding is not too deep, and if your property is not in the floodway. The Building Department can provide this information.

Another approach is to make your walls waterproof and place watertight closures over the doorways. This method is not recommended for houses with basements or if water will get over two feet deep.

331a Outreach project to entire community, page 2

A third approach is to raise the house above flood levels. A small wood frame house can be elevated for less than \$10,000. Sound crazy? Check out some of the houses on St. Mary's Road near 40th Street. The owners had a contractor raise their homes three feet for under \$10,000 each. The owners did the stairs, the deck, and the landscaping themselves. In 1988, the Foster Creek flood went under these houses without damaging them.

Many houses, even those not in the floodplain, have sewers that back up into the basement during heavy rains. A plug or standpipe can stop this if the water doesn't get more than one or two feet deep. They can be purchased at a hardware store for under \$25. For deeper sewer backup flooding, talk to a plumber about overhead sewers or a backup valve. Last year five Floodville homes got overhead sewers or backup valves.

These measures are called floodproofing or retrofitting. More information is available at the Floodville Public Library. *Important note:* Any alteration to your building or land requires a permit from the Building Department. Even regrading or filling in the floodplain requires a permit.

If you know a flood is coming, you should shut off the gas and electricity and move valuable contents upstairs. It is unlikely that you will get much warning, so a detailed checklist prepared in advance would help ensure that you don't forget anything.

Flood Insurance: If you don't have flood insurance, talk to your insurance agent. Homeowner's insurance policies do not cover damage from floods. However, because Floodville participates in the National Flood Insurance Program, you can purchase a separate flood insurance policy. This insurance is backed by the Federal government and is available to everyone, even for properties that have been flooded.

Some people have purchased flood insurance because it was required by the bank when they got a mortgage or home improvement loan. Usually these policies just cover the building's structure and not the contents. During the kind of flooding that happens in Floodville, there is usually more damage to the furniture and contents than there is to the structure.

At last count, there were 55 flood insurance policies in Floodville. If you are covered, check out the amount and make sure you have contents coverage. Remember: Even if the last flood missed you or you have done some floodproofing, the next flood could be worse. Flood insurance covers all surface floods.

Don't wait for the next flood to buy insurance protection. There is a 30-day waiting period before National Flood Insurance Program coverage takes effect. Contact your insurance agent for more information on rates and coverage.

If your flooding problem is caused or aggravated by sewer backup, check out a sewer backup rider to your homeowners insurance policy.

Flood Safety

Do not walk through flowing water. Drowning is the number one cause of flood deaths, mostly during flash floods. Currents can be deceptive; six inches of moving water can knock you off your feet. If you walk in standing water, use a pole or stick to ensure that the ground is still there.

Do not drive through a flooded area. More people drown in their cars than anywhere else. Don't drive around road barriers; the road or bridge may be washed out.

Stay away from power lines and electrical wires. The number two flood killer after drowning is electrocution. Electrical current can travel through water. Report downed power lines to the Power Company or City emergency management office.

Have your electricity turned off by the Power Company. Some appliances, such as television sets, keep electrical charges even after they have been unplugged. Don't use appliances or motors that have gotten wet unless they have been taken apart, cleaned, and dried.

Look out for animals, especially snakes. Small animals that have been flooded out of their homes may seek shelter in yours. Use a pole or stick to poke and turn things over and scare away small animals.

Look before you step. After a flood, the ground and floors are covered with debris including broken bottles and nails. Floors and stairs that have been covered with mud can be very slippery.

Be alert for gas leaks. Use a flashlight to inspect for damage. Don't smoke or use candles, lanterns, or open flames unless you know the gas has been turned off and the area has been ventilated.

340 HAZARD DISCLOSURE

Community: _____

Various ways of telling people that a property is in a floodplain are credited under the CRS. No credit is given if the information is provided only if a person asks. The disclosure information must be volunteered or appear on a document, such as a Multiple Listing Service printout, fact sheet, or offer to purchase contract, that house hunters see before they have committed to buying or renting the property.

341 Credit Points

_____ a. Enter 46 points if real estate agents notify those interested in purchasing properties located in the floodplain about the flood hazard AND the flood insurance purchase requirement. Disclosure at the time of closing is not credited. See the *Coordinator's Manual* for the details about this credit; OR

Enter 20 points if a state law requires real estate agents to advise people whether a property is located in a Special Flood Hazard Area.

_____ b. Enter 5 points each for other legal requirements that a property's flood hazard be disclosed to potential purchasers or renters. Examples of disclosure requirements include state or local laws that require sellers to state whether a property has ever flooded, require final recorded subdivision plats to show the hazard, or require lot surveys to state if the property is in a floodplain. Credit is provided for up to three different disclosure methods (maximum credit is 15 points).

_____ c. Enter 10 points if real estate agents give potential buyers brochures or flyers that advise them to investigate the flood hazard for a property and discuss the flood insurance purchase requirement. An example of such a flyer is shown on page 22.

_____ d. Enter 10 points if the real estate agents' notification under 341.a also includes disclosure of other flood-related hazards, such as erosion, subsidence, wetlands, or coastal A Zones.

_____ Enter the total of a through d. Enter this value in the blank after "340" on page 48.

343 Application Documentation You must attach the following documentation to your application. The ISO/CRS Specialist will explain what additional materials will be needed during the verification visit and for your annual recertification. Check each section that applies:

_____ a. [If you are applying for 46 points under Section 341.a] Copies of disclosure notices from at least five real estate agencies. If there are fewer than five agencies that serve the community, then submit at least one notice from each agency. Blank forms are not creditable.

_____ b. [If you are applying for credit under Section 341.b or for 20 points under 341.a] A copy of the portion of the ordinance or law that requires one or more additional disclosure methods at the time of sale or rental of a property.

_____ c. [If you are applying for credit under Sections 341.c or d] A copy of the brochure, flyer, or other document.

Example Real Estate Advisory Flyer
FLOOD HAZARD: CHECK BEFORE YOU BUY

Flooding and other surface drainage problems can occur well away from a river, lake, or ocean. If you're looking at a property, it's a good idea to check out the possible flood hazard before you buy. Here's why:

- The force of moving water or waves can destroy a building.
- Slow moving flood waters can knock people off their feet or float a car.
- Even standing water can float a building, collapse basement walls, or buckle a concrete floor.
- Water-soaked contents, such as carpeting, clothing, upholstered furniture, and mattresses may have to be thrown away after a flood.
- Some items, such as photographs and heirlooms, may never be restored to their original condition.
- Flood waters are not clean: floods carry mud, farm chemicals, road oil, and other noxious substances that cause health hazards.
- The impact of a flood, cleaning up, making repairs, and the personal losses can cause great stress to you, your family, and your finances.

Floodplain Regulations: Your community regulates construction and development in the floodplain to ensure that buildings will be protected from flood damage. Filling and similar projects are prohibited in certain areas. Houses that are substantially damaged by fire, flood, or any other cause must be elevated to or above the flood level when they are repaired.

Check for the Flood Hazard: Before you commit yourself to buying property, do the following:

- Ask the local building, zoning, or engineering department if the property is in a floodplain, if it has ever been flooded, what is the flood depth, velocity, and warning time, if it is subject to any other hazards, and what building or zoning regulations are in effect.
- Ask the real estate agent if the property is in a floodplain, if it has ever been flooded, and if it is subject to any other hazards, such as sewer backup or subsidence.
- Ask the seller and the neighbors if the property is in a floodplain, how long they have lived there, if the property has ever been flooded, and if it is subject to any other hazards.

Flood Protection: A building can be protected from most flood hazards, sometimes at a relatively low cost. New buildings and additions can be elevated above flood levels. Existing buildings can be protected from shallow flood waters by regrading, berms, or floodwalls. There are other retrofitting techniques that can protect a building from surface or subsurface water.

Flood Insurance: Homeowners insurance usually does not include coverage for a flood. One of the best protection measures for a building with a flood problem is National Flood Insurance, which is purchased through any property insurance agent. If the building is located in a floodplain, flood insurance will be required by most mortgage lenders (see other side). Ask an insurance agent how much a flood insurance policy would cost.

[NOTE: The other side of this flyer is the same as the example on page 14.]

350 FLOOD PROTECTION INFORMATION

This activity's credit points are provided for two approaches to providing detailed flood-related information to your residents: through your local public library or through your community's website. Both locations can contain a great deal of information and both offer alternatives for people who are hesitant or unable to go to City Hall or talk to a local official. Credit is available for either approach or both.

351.a Library: An order form for documents available free from FEMA is on page 55. The library must meet the following prerequisites:

- (a) For the purpose of CRS credit, "library" means the public library most accessible and most widely used by your residents. In a community with branch libraries, the publications and other documents must be available to all branches, although it is not necessary for each branch to maintain a full set. Credit is not allowed for keeping documents in a city office or location other than a public library.
- (b) The documents must be entered into the library's card catalog or similar system that allows patrons to find publications related to flooding and flood protection. Some libraries place these documents in the reference library that includes items not cataloged. In such cases, the card catalog still needs an entry under "flood" that could read "See Reference Librarian for materials on flooding and flood protection."

351.c Website: The website must meet the following prerequisites:

- (a) The site must be easy to locate by its internet address, universal resource locator (URL), or a search feature. If searching for the community's name will not get the user to the community's website, then the address must be publicized through an outreach project that reaches at least 90% of the community.
- (b) The link to the flood protection information must be clearly noted on the home page of the community's website.
- (c) Information may be provided via links to other websites, provided they are pertinent to the community's flood conditions.
- (d) The site must include a link to FEMA's website (<http://www.FEMA.gov>).
- (e) The site must be reviewed and updated at least once each year.

The website must fully cover a topic at the same level of detail as required for Activity 330 (Outreach Projects) (see pages 19 and 20 for an example). More information can be provided by having a link to another site (e.g., "For more information on flood insurance, see www.fema.gov/nfip/infocon"). If the topic must be "local" or "relevant," the linked website must address local conditions.

A tutorial on designing and operating a municipal floodplain management website is available at no charge from the CRS. It is on a CD for IBM-compatible personal computers. Copies are available by calling (317) 848-2898 or e-mailing NFIPCRS@ISO.com.

350 FLOOD PROTECTION INFORMATION

Community: _____

351 Credit Points

- a. Enter the following points if the library meets the prerequisites listed on page 23 and contains at least one document that discusses the following topics:
- ___ 4 points for a copy of your community's Flood Insurance Rate Map and Flood Boundary and Floodway Map and an explanation of their use.
 - ___ 2 points for documents on flood insurance.
 - ___ 8 points for documents on protecting a building from flood damage.
 - ___ 3 points for documents on floodplain management or flood hazard mitigation.
 - ___ 3 points for documents on the natural and beneficial functions of floodplains.
 - ___ 3 points for an up-to-date directory of addresses and telephone numbers of local agencies that can provide more information on the above topics. This directory must be of local or nearby offices that are willing to provide more information. Credit is not provided if only state and national offices are listed.
 - ___ 2 points for documents on special hazards that affect the community (see page 26).
- b. Enter 1 point for each document in the library that specifically addresses conditions in your community. Credit is provided for up to five documents (maximum credit is 5 points).
- c. Enter the following points if the website meets the prerequisites listed on page 23 and covers the following topics:
- ___ 3 points for discussing the local flood hazard.
 - ___ 3 points for including flood safety.
 - ___ 3 points for covering flood insurance.
 - ___ 3 points for covering property protection measures.
 - ___ 3 points for discussing natural/beneficial functions.
 - ___ 3 points for including a map of the local flood hazard.
 - ___ 3 points for describing the local flood warning system.
 - ___ 3 points for discussing floodplain development permit requirements.
 - ___ 3 points for explaining the substantial improvement/damage requirements.
 - ___ 3 points for explaining drainage system maintenance.
 - ___ 2 points for publicizing that the community has copies of elevation certificates.
 - ___ 7 points for providing real-time river gage data for sites that affect the community. For this credit, the website must also cover the flood safety topic.
 - ___ 10 points for other flood warning information (evacuation routes, etc.) if the community is credited for dissemination of flood warning under Activity 610

___ Enter the total of the above. Enter this value in the blank after "350" on page 48.

353 Application Documentation If you apply for the library credit, you must attach a statement from the head of the library. The statement must include the following:

- ___ a. A list of the documents available in the library with their publication dates,
- ___ b. A certification that the documents have been entered into the card catalog or similar indexing system or a copy of the printout from the indexing system, and
- ___ c. Certification that the library will maintain adequate numbers of the documents to meet the demand and that the FIRM and other materials will be kept up to date.

360 FLOOD PROTECTION ASSISTANCE

Community: _____

The objective of this activity is to provide interested property owners with general information that responds to their needs. Providing construction plans or specifications that should be prepared by an architect or engineer is not necessary.

This activity must be publicized annually in a newsletter, telephone book, or other outreach project that reaches everyone in the community or everyone in the floodplain. The publicity must meet the same criteria as an outreach project that is credited under Section 331.a or b (see page 16). An example of publicity is in the flyer on page 19.

The assistance office need not be local staff if other agencies have agreed to answer inquiries. Assistance can be provided by a combination of offices to secure a range of expertise. This activity does not give credit for floodplain ordinance enforcement activities normally conducted by a building department, like providing base flood elevations, making site visits, and/or reviewing plans to ensure that they comply with the building code.

361 Credit Points Enter the following points based on the types of assistance provided:

- ___ a. 10 points for providing site-specific flood and flood-related data, such as floor elevations, data on historical flooding in the neighborhood, or similar information so that inquirers can relate the flood threat to their own properties.
- ___ b. 4 points for providing names of contractors and consultants knowledgeable or experienced in retrofitting techniques and construction.
- ___ c. 3 points for providing material on how to select a qualified contractor and what recourse people have if they are dissatisfied with a contractor's performance.
- ___ d. 35 points for making site visits to review flooding, drainage, and sewer problems and providing one-on-one advice to the property owner, in writing.
- ___ e. 14 points for providing advice and assistance on how to retrofit or modify a building to protect it from flood damage, in writing.
- ___ f. 5 points if the person providing the assistance graduated from the Emergency Management Institute's course on Retrofitting Floodprone Residential Buildings (see inside back cover). Use 2 points if the person successfully completed the independent study version of this course (IS-279).

___ Enter the total of a through f. Enter this value in the blank after "360" on page 48.

363 Application Documentation You must attach the following documentation to your application. The ISO/CRS Specialist will explain what additional materials will be needed during the verification visit and for your annual recertification. Check each section that applies:

- ___ a. A copy of an annual outreach project that (1) reaches everyone in the community or everyone in the floodplain, and (2) publicizes the assistance provided.
- ___ b. A resume or description of the qualifications of all persons who are providing the site visit and retrofitting assistance credited under Sections 361.d and e.
- ___ c. If the person is not a community employee, a copy of a letter stating that the person and/or agency has agreed to do the work.

You must have the following items available for the verification visit:

- ___ d. Copies of handout materials used.
- ___ e. [For credit under items 361.d and e, above] Records noting the date and person assisted, the type of assistance provided, the findings, and recommendations.

401 SPECIAL HAZARD AREAS

FEMA and many states and communities have long recognized that the mapping and regulatory standards of the NFIP do not adequately address all of the flood problems in the country. There are many special local situations in which flooding or flood-related problems do not fit the national norm. Therefore, there are situations in which the NFIP's floodplain management criteria do not adequately protect property from flood damage.

To encourage communities to address these hazards, the CRS provides credit for mapping, preserving open space, and regulating new development in areas subject to the following special hazards:

1. Uncertain flow paths—alluvial fans, moveable bed streams, and other floodplains where the channel moves during a flood.
2. Closed basin lakes—lakes that have a small or no outlet that may stay above flood stage for weeks, months, or years.
3. Ice jams—flooding caused when warm weather and rain break up a frozen river. The broken ice floats downstream until it is blocked by an obstruction, such as a bridge or shallow area, creating a dam.
4. Land subsidence—lowering of the land surface caused by withdrawal of subsurface water or minerals or by compaction of organic soils.
5. Mudflow hazards—a river, flow, or inundation of liquid mud down a hillside, usually as a result of a dual condition of loss of brush cover, and the subsequent accumulation of water on the ground preceded by a period of unusually heavy or sustained rain.
6. Coastal erosion—areas subject to the wearing away of land masses caused primarily by waves on the oceans, Gulf of Mexico, and the Great Lakes.
7. Tsunamis—large ocean waves caused by an underwater earthquake or volcano.

These special hazards are addressed in separate publications. Each has a brief summary of the research findings on the nature of the hazards, the mapping and regulatory techniques being used across the country, and the goals of the mapping and regulatory standards for which CRS credit is offered. They also discuss credit points, impact adjustment, and credit calculation formulae for each hazard and include the worksheets needed for special hazards credit. To order copies, see Appendix B.

410 ADDITIONAL FLOOD DATA

Community: _____

“Flood data” include base flood elevations and delineation of floodways and coastal velocity zones. This activity credits (1) studies conducted outside the SFHA, (2) studies conducted in the SFHA where base flood elevations were not shown on the FIRM, (3) restudying an area shown on the FIRM where the new study produced HIGHER base flood elevations, (4) studies that were conducted to higher standards than the normal FEMA mapping criteria, and (5) cost sharing with FEMA on a Flood Insurance Study.

PREREQUISITES:

1. The study must be based on a FEMA-approved technique or specifically approved by the FEMA Regional Office.
2. The community must use the new data in its floodplain development regulations.
3. If the study affects a length of stream or shoreline, it must be submitted to FEMA to revise the community’s FIRM. This prerequisite does not apply to small scale studies.
4. At each cycle verification, the community must certify whether its regulatory floodplain maps and related data still reflect current conditions.

411 Credit Points

- ___ a. Enter 50 points if (1) you have adopted base flood elevations for regulatory purposes in one or more areas (a) outside the SFHA, (b) where there are no flood elevations shown on the FIRM, and/or (c) where a restudy produced higher flood elevations, OR (2) you require regulatory flood elevations to be calculated as a condition of a permit.
 - ___ b. Enter 10 points if your community contributed to the cost of preparing a Flood Insurance Study, such as providing topographic mapping.
 - ___ d. Enter 25 points if your regulatory floodway standard is more restrictive than FEMA’s one foot of allowable surcharge. (Do not confuse this with the FEMA requirement that development in the mapped floodway cannot increase flood heights at all.)
 - ___ f. Enter 10 points if your community, regional district, or your state has signed a Cooperating Technical Partner agreement with FEMA that includes a study of one of the floodplains in your community.
- ___ Enter the total of a through f. Enter this value in the blank after “410” on page 48.

414 Application Documentation You must attach the following documentation to this page of your application. The ISO/CRS Specialist will explain what additional materials will be needed during the verification and for your annual recertification. Check each section that applies:

- ___ a. The ordinance or law that adopts the map or study standard.
- ___ b. A copy of the Flood Insurance Study pages or Letter of Map Revision (LOMR) that show that the study has been accepted by FEMA to revise the FIRM.
- ___ d. [If applying for credit for cost sharing on the Flood Insurance Study or Restudy under 411.b] Documentation that explains what was paid by the community.

420 OPEN SPACE PRESERVATION Community: _____

This activity credits preserving vacant land in the floodplain as open space, i.e., as areas where there will be no buildings and no filling. The areas must be PRESERVED as open space either through public ownership or by development regulations that prohibit buildings and filling. The areas can be public parks, private preserves, playing fields, golf courses, or other uses provided that the owner documents that the land will stay as open space.

The open space must not be federal land and it must not be water (i.e., not a lake or river). There must be no buildings on the land, although parcels larger than 10 acres may have one building that is a necessary appurtenance to open space use, such as a restroom facility, ranger's cabin, or bleachers. Open space is not credited in FIRM Zones A99 or AR.

421 Credit Points

- ___ a. Enter 36 points if at least 5 acres of your community's SFHA are preserved as open space. Enter 72 points if at least 10% of your SFHA is preserved as open space.
- ___ b. Enter 7 points if at least 5 acres of the open space credited under 421.a have deed restrictions that prohibit future owners from building or filling on the property. The deed must have clauses ensuring that no new buildings may be allowed on the property, that the restriction runs with the land, and that the restriction cannot be changed by a future owner (it can only be amended by a court for just cause).
- ___ c. Enter 10 points if at least 5 acres of the open space credited under 421.a are in an undeveloped natural state or have been restored to a natural state (i.e., there are no picnic grounds, ball fields, or recreational facilities other than trails).
- ___ Enter the total of 421.a through c. Enter this value in the blank after "420" on page 48.

424 Application Documentation You must attach the following documentation to this page of your application. The ISO/CRS Specialist will explain what additional materials will be needed during the verification visit and for your annual recertification. Check each section that applies:

- ___ a. A copy of the prohibitory ordinance language (if your credit is based on restrictive regulations).

You must have the following items available for the verification visit. Check that you will have the applicable ones available:

- ___ b. Documentation that shows that at least 5 acres of floodplain will continue to be preserved as open space, such as a letter from the head of the parks department that states that it is the community's intent to keep the parcel(s) as public open space.
- ___ c. [If you are applying for credit for deed restrictions, Section 421.b] The deed restrictions for at least 5 of the acres credited as open space under 421.a.
- ___ d. [If you are applying for credit for open space in a natural state, Section 421.c] Documentation that shows that at least 5 of the acres credited as open space under 421.a are in an undeveloped natural state or have been restored to a natural state. This documentation must be signed by a professional qualified in a natural science, conservation, or environmental protection.
- ___ e. A map showing the floodplain and the areas preserved as open space.

430 HIGHER REGULATORY STANDARDS Community: _____

This activity provides credit for regulations that require new development to be protected to one or more standards stricter than the NFIP's minimum requirements. More information on this activity and example regulatory language are provided in *CRS Credit for Higher Regulatory Standards* (see page 51).

431 Credit Points

- _____ a. Enter 60 points if you have floodplain management regulations that require freeboard for all new buildings and substantial improvements (i.e., all new buildings (and their furnaces, utilities, ductwork, etc.) must be elevated or floodproofed to a level at least 1 foot above the base flood elevation).
- _____ b. Enter 15 points if new buildings in the floodplain must be constructed on properly designed and compacted fill that extends beyond the building walls before dropping below the base flood elevation and has appropriate protection from erosion and scour.
- _____ c. Enter 40 points if you have regulations that require ALL improvements, modifications, additions, and reconstruction projects to an existing building to be counted cumulatively over a period of at least five years. (Once the total cost of all the projects reaches 50% of the building's value, the project is considered a substantial improvement and the building is treated as a new building and must be elevated). Enter 15 points if all additions to buildings (regardless of size) must be elevated above the base flood elevation.
- _____ d. Enter 18 points if your threshold for substantial improvements is less than 50%.
- _____ e. Enter 40 points if you prohibit or restrict critical facilities in the floodplain.
- _____ f. Enter 60 points if you have regulations that prohibit fill in the floodplain (not just in the floodway) or that require compensatory storage.
- _____ g. Enter 5 points if you have regulations that prohibit activities in the floodplain that are hazardous to public health or water quality, require buffer zones along streams, or that require that new floodplain developments avoid or minimize disruption to shorelines or stream channels and their banks.
- _____ h. Enter 40 points if your regulations prohibit or restrict building enclosures, including breakaway walls, below the base flood elevation.
- _____ i. Enter 5 points if any of your regulations are mandated by state law.
- _____ m. Enter 10 points if your community has a Building Code Effectiveness Grading Schedule of class 6 or better. Add 35 more points if your community has adopted the current or immediately preceding edition of either the International Residential Code or the International Building Code (70 points if your community adopted both codes).
- _____ n. Enter 25 points if all proposed development projects in the floodplain and the certificates of occupancy for such projects are reviewed by a Certified Floodplain Manager (CFM). If not, enter 5 points for each staff member in the office that regulates floodplain development who is a CFM or who has graduated from the Emergency Management Institute's courses on Managing Floodplain Development or Coastal Construction, Advanced Floodplain Management Concepts, or the field-deployed versions (see inside back cover). The maximum for this credit is 25 points.

430 HIGHER REGULATORY STANDARDS

Community: _____

- ___ o. Enter 25 points if you have a manufactured home park in the floodplain where the base flood elevation is more than 3 feet deep, and you require that newly placed manufactured homes be elevated above the base flood elevation.
- ___ p. Enter 50 points if you map or otherwise designate the community's coastal AE Zone (i.e., the coastal SFHA that is not mapped as V Zone) and require that all new buildings in the coastal AE Zone meet the requirements for buildings in V Zones and for openings in A Zones
- ___ Enter the total of a through p. Enter this value in the blank after "430" on page 48.

430LD LAND DEVELOPMENT CRITERIA

This section credits regulatory provisions that encourage developers to avoid the floodplain or to minimize the amount of construction in the floodplain. The area(s) designated for this credit cannot be the same as the area(s) designated for open space credit under Activity 420.

431LD Credit Points

- ___ a. Enter 25 points if your regulations require developments to set aside floodplain areas as open space or drainage easements, require all new lots to be on natural high ground, require cluster developments, provide density transfers to flood-free sites, or otherwise discourage new buildings in the floodplain.
- ___ b. Credit is provided for having at least 5 acres of your floodplain in one or more zoning districts that requires a minimum lot size of 1 acre. This credit is available for undeveloped land within low density zoning districts, as well as for areas developed in accordance with the density requirements. For this element, it does not matter why an area is zoned for low density; what counts is the minimum lot size allowed.

Multiply the minimum lot size of your least-dense floodplain zoning district by 5. (The minimum lot size must be at least 1 acre.) Enter this value. If the result is greater than 50, enter 50. (Example: if the zoning district includes floodplain areas and requires lots to be at least 10 acres, $10 \times 5 = 50$)

- ___ Enter the total of a and b. Enter this value in the blank after "430LD" on page 48.

434 Application Documentation You must attach the following documentation to this page of your application.

- ___ a. A copy of the page(s) from the law or ordinance that adopts the regulatory standard. The document must be marked to clearly show where the credited language appears.
- ___ [If applying for zoning credit under 431LD.b] a map showing the floodplain and the low density zoning districts for which credit is requested.

The ISO/CRS Specialist will explain what additional materials will be needed during the verification visit and for your annual recertification. For example, you will need to show how you enforce the regulatory provisions to be credited, e.g., permit records and certificates.

440 FLOOD DATA MAINTENANCE

Community: _____

Credit is provided for keeping the community's floodplain maps and elevation reference marks more current, useful, or accurate in order to improve local regulations, planning, disclosures, and property appraisals.

441 Credit Points

- a. This element credits a system that improves access, quality, and/or ease of updating flood and FIRM data. These systems are usually a geographic information system (GIS) or other digitized mapping system or a database management program for parcel records.

1. To receive this credit, the system must meet the following prerequisites:

- (a) The system must be used regularly by the community regulatory staff.
- (b) New data, including annexations, new subdivision maps, flood insurance restudies, Letters of Map Revision (LOMRs), Letters of Map Amendment (LOMAs), and studies performed for site-specific analyses, must be added at least annually to the data base or overlay map.
- (c) Digitized data must be made available annually to FEMA at no cost (if requested).

2. Enter the following points. No credit is provided unless the first item is included.

- _____ (a) 32, for showing the regulatory floodplain boundaries, corporate limits, streets, and parcel or lot boundaries (a database management program must show whether a parcel is in the regulatory floodplain).
- _____ (b) 15, for showing the location of buildings;
- _____ (c) 8, for showing floodways or coastal high hazard areas;
- _____ (d) 8, for showing base flood elevations;
- _____ (e) 6, for including FIRM zone attributes (e.g., A3, VE, etc.);
- _____ (f) 8, for showing the 500-year floodplain elevations or boundaries;
- _____ (g) 8, for showing areas subject to other natural hazards;
- _____ (h) 10, for showing topographic contour lines;
- _____ (i) 8, for including updated floodplain data in the tax assessment data base;
- _____ (j) 8, for including an overlay or layers for all FIRMs that have been in effect; and
- _____ (k) 8, for other overlays or databases used for regulation or mitigation programs.

_____ b. Enter 20 points if your community has a formal program to maintain permanent benchmarks so surveyors can find them and can depend on them to be accurate.

_____ d. Enter 15 points if your community has been issued at least one revision to its FIRM and you maintain copies of all past FIRMs, Flood Insurance Studies, and Flood Boundary Floodway Maps.

_____ Enter the total of a, b, and d. Enter this value in the blank after "440" on page 48.

444 Application Documentation You must attach the following documentation to this page of your application. The ISO/CRS Specialist will explain what additional materials will be needed during the verification visit and for your annual recertification.

_____ a. A written summary of (or examples from) the system or map being credited.

450 STORMWATER MANAGEMENT

Community: _____

This activity credits regulating new development in the watershed (not just the floodplain) to minimize the adverse impacts of stormwater runoff on downstream flooding and water quality. More information and examples of this activity are provided in *CRS Credit for Stormwater Management* (see page 52).

451 Credit Points

- ___ a. Enter 25 points if you have retention/detention regulations for new development in the watershed (not just the floodplain). The law or ordinance must clearly require that the peak runoff of 10-year or greater storms from new developments in the watershed be no greater than the runoff from the site in its pre-development condition. The document must be marked to clearly identify this requirement, the types of development regulated (or exempt from regulation), and the design storm(s) used for this regulation.
 - ___ b. Enter 25 points if you receive credit under Section 451.a and your community has adopted a master plan(s) that sets stormwater regulatory criteria for new development in your watershed(s).
 - ___ c. Enter 25 points if you have regulations for all new buildings OUTSIDE of your floodplain that require either that (1) the lowest floor or lowest opening be at least 1 foot above the crown of the nearest street or above the highest grade adjacent to the building, or (2) site plans that ensure that new buildings are protected from local drainage problems.
 - ___ d. Enter 15 points if you regulate erosion and soil loss from construction sites or other land disturbances during construction.
 - ___ e. Enter 25 points if you have regulations that require new developments to include in the design of their stormwater management facilities appropriate "best management practices" that will improve the quality of surface water. These provisions must be permanently incorporated into the development's facilities.
- ___ Enter the total of a through e. Enter this value in the blank after "450" on page 48.

454 Application Documentation You must attach the following documentation to this page of your application.

- ___ A copy of the appropriate pages from the ordinance, law or other legally enforceable regulations, with the sections marked to show the credit requested.

The ISO/CRS Specialist will explain what additional materials will be needed during the verification visit and for your annual recertification.

Include the name, title, and phone number of the person responsible for the stormwater management program: _____

REPETITIVE LOSS REQUIREMENTS

Community: _____

501 The Repetitive Loss List As noted on page 5, you must check with the FEMA Regional Office to see if your community has any repetitive loss properties. A repetitive loss property has had two or more claims of at least \$1,000 paid by the NFIP over a 10-year period since 1978. If you have one or more such properties, ask FEMA or your ISO/CRS Specialist to send you a set of Repetitive Loss Update Worksheets, AW-501.

_____ There are no repetitive loss properties in our community. (You have no additional requirements and may skip the next page.)

NOTE: *IF YOU HAVE ONE OR MORE REPETITIVE LOSS PROPERTIES, YOU MUST COMPLETE AND SUBMIT THIS PAGE AND THE DOCUMENTATION LISTED BELOW. YOU MUST ALSO REVIEW THE CURRENT LIST EACH TIME YOUR COMMUNITY HAS ITS 3- OR 5-YEAR CYCLE VERIFICATION VISIT.*

Review the Repetitive Loss Update Worksheets for accuracy. Follow the instructions that come with them. For example, your worksheets could include properties that have been acquired and removed from the floodplain or properties that are in another community and the insurance records have the wrong NFIP community number.

If you have one or more repetitive loss properties, you must check one of the following:

_____ Attached are updated copies of FEMA's Repetitive Loss Update Worksheets (AW-501),
OR

_____ We have no changes to FEMA's worksheets. All of the properties listed are in our community and will continue to be subject to repetitive flooding.

502 Repetitive Loss Category The result of your review under Section 501 is an UPDATED repetitive loss list. Enter the number of properties on your updated list: _____. For CRS purposes, there are three categories of repetitive loss communities based on the number of properties remaining on the updated repetitive loss list (i.e., after the updates have been reported and accepted by FEMA). Check the one that applies to your community:

- _____ 1. Category A: A community with no repetitive loss properties. A Category A community has no special requirements except to submit information needed to update the Repetitive Loss Update Worksheets.
- _____ 2. Category B: A community with at least one, but fewer than 10, repetitive loss properties. A Category B community must review and describe its repetitive loss problem and undertake an outreach project as explained in Section 503.
- _____ 3. Category C: A community with 10 or more repetitive loss properties. A Category C community must do the same things as a Category B community AND prepare a floodplain management plan or an area analysis for its repetitive loss area(s) as explained in Activity 510 (Floodplain Management Planning).

503 REPETITIVE LOSS AREAS OUTREACH PROJECT

Community: _____

If you are a Category B or C community, you must attach the following documentation to this page of your application. The ISO/CRS Specialist will explain what additional materials will be needed during the verification visit and for your annual recertification. Check each section that applies:

- ___ a. A description of the causes of the repetitive loss flooding. This may be a brief paragraph for each area.
- ___ b. A map identifying the repetitive loss AREAS. Those areas include the properties on the updated Repetitive Loss Update Worksheets and adjacent properties with similar flooding conditions. See the instructions on the next two pages.
- ___ c. A list of the addresses of all properties in the repetitive loss area(s) with insurable buildings on them.
- ___ d. The number of buildings in the repetitive loss area(s).
- ___ e. An outreach project must be sent to each property in your repetitive loss AREAS every year. The outreach project must advise the recipient of four things:
 - (1) that the property is in or near an area subject to flooding,
 - (2) property protection measures appropriate for the flood situation,
 - (3) sources of financial assistance for property protection measures, and
 - (4) basic facts about flood insurance.

The project must be sent to all properties with buildings on them in the areas identified under 503.a, not just the properties on FEMA's list. This can be documented by:

- ___ 1. Attaching a copy of the annual outreach project, or
- ___ 2. Your annual outreach project to floodplain properties (see Section 331.b on page 16) can fulfill this requirement, provided that (1) it reaches all the properties in your repetitive loss areas, and (2) it covers the four topics listed above (see the example on the next two pages).

A copy of your annual outreach project will be sent to the ISO/CRS Specialist each year, usually with your annual recertification.

IF YOU ARE A CATEGORY C COMMUNITY, YOU MUST ALSO PREPARE A FLOODPLAIN MANAGEMENT PLAN FOR THE REPETITIVE LOSS AREAS MAPPED FOR SECTION 503.a AS EXPLAINED UNDER ACTIVITY 510 (FLOODPLAIN MANAGEMENT PLANNING). A floodplain management plan that covers all of your flood problem areas will meet this requirement and will yield more credit than one that covers only the repetitive loss area(s).

503.b Preparing a Repetitive Loss Area Map

The community must plot all of the properties on FEMA's repetitive loss list and define all repetitive loss areas. In some cases, such as those in which the address consists of a rural route or box number, a property will be unplotable. However, local officials can often identify a property by the name of the insured, especially if the last flood was recent. All that is needed is for the general area of the property to be located, e.g., the 400 block of a street.

The community then plots its repetitive loss AREAS. The repetitive loss areas must include buildings on FEMA's list and nearby buildings that were subject to the same flood hazard.

503.c Repetitive Loss Area Addresses

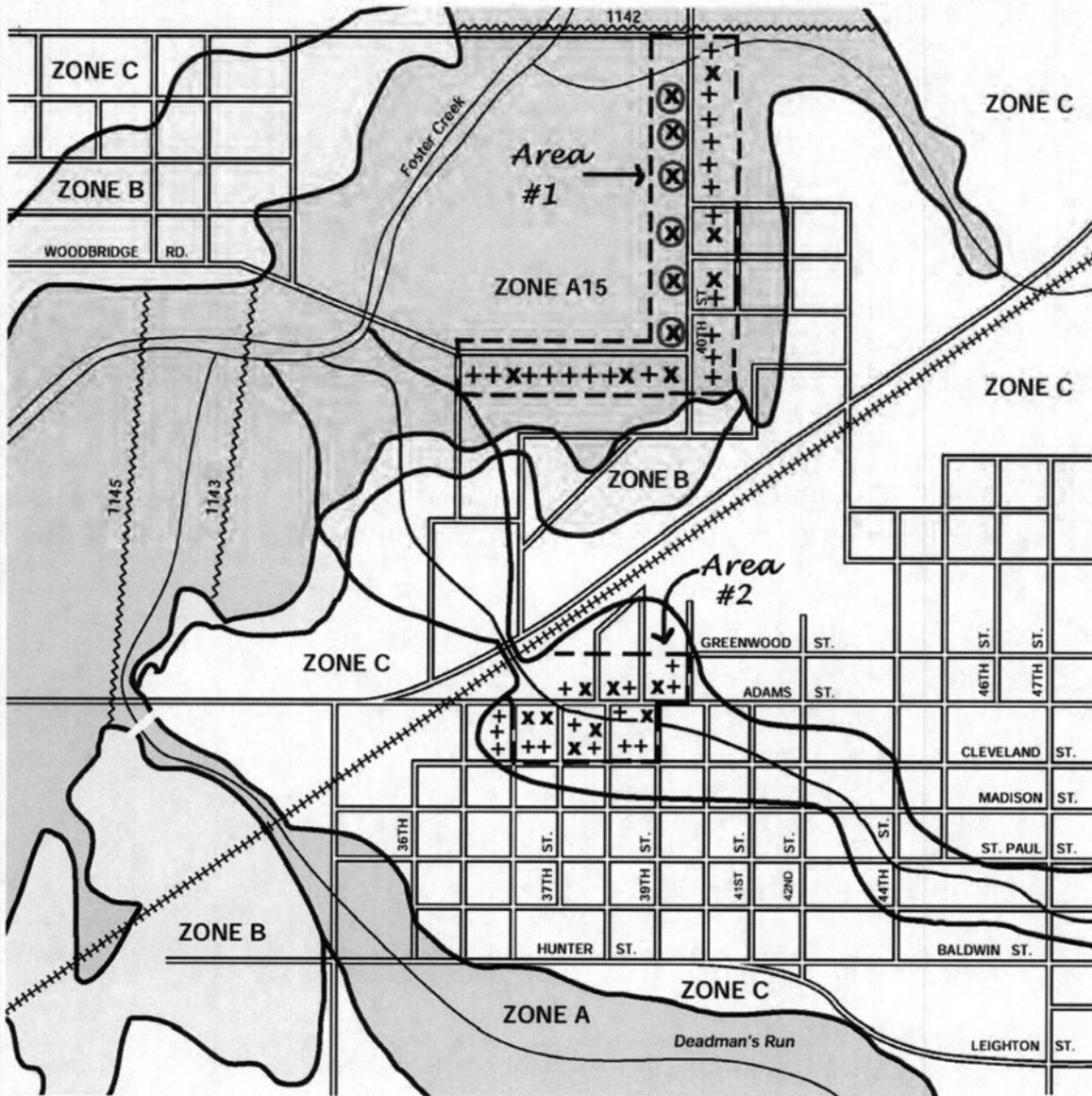
After the repetitive loss AREAS are identified, the community must prepare an address list of all improved parcels in those areas. An improved parcel is one with an INSURABLE BUILDING on it. For CRS purposes, an insurable building is a walled and roofed structure, principally above ground and affixed to a permanent site. The term includes a manufactured (mobile) home on a foundation. "Walled and roofed" means that a building has two or more rigid exterior walls in place and is adequately anchored. "Principally above ground" means that at least 51% of the actual cash value of the building is above ground. The term is the same as "structure" in the NFIP regulations (44 CFR 59.1). The address list has two purposes: it will be used for the outreach project, and it will determine the number of buildings in the community's repetitive loss areas.

Example (See map next page.) Floodville received its repetitive loss list from FEMA. Twenty properties were listed and the CRS Coordinator was able to plot the location of each. The map shows that the City has two repetitive loss areas.

Area #1: Twelve of the properties had been flooded by ice jam floods in the late 1980s and early 1990s. The Coordinator drew a repetitive loss area boundary around an area that has been flooded by Foster Creek ice jams almost every other year. Six of the listed properties were purchased, two under FEMA's Hazard Mitigation Grant Program in 1996. The City's Foster Creek Park was expanded to the east to include the newly vacated lots. However, there are still 25 buildings remaining in Area #1 that have repeatedly been flooded. The Coordinator has their addresses.

Area #2: The other eight properties are in an area that has been flooded several times because of a railroad culvert that is too small. The culvert was properly sized when built 50 years ago, but new development upstream has increased runoff and recent storms have caused floods. The City had the area studied (and is applying for CRS credit for the study). A total of 22 buildings in Area #2 have been flooded and the City has recorded their addresses.

Note: If a community maintains data on its repetitive loss properties, it must be remembered that such information is subject to the Privacy Act. Information such as the names of people and addresses of properties that have received repetitive flood insurance claims and the amounts of such claims may not be released to the public. Such information should be marked "For internal use only. Protected by the Privacy Act." Generic information, such as total claim payments for an area or data not connected to a particular property may be made public.



Repetitive Loss Area Map

- X = Property on FEMA's repetitive loss property list
- ⊗ = Property on FEMA's list that has been purchased and removed.
- + = Property in repetitive loss area, not on FEMA's list
- ⊖ = Repetitive loss area

Note: this map contains information from flood insurance claims that is protected by the Privacy Act. It is for internal use only.

*City of Floodville
City Hall
Floodville, ST 98765*

Resident
3301 Adams St.
Floodville, ST 98765

Dear Resident

You have received this letter because your property is in an area that has been flooded several times. When it was built over 50 years ago, our drainage system of ditches and culverts could handle all but the largest storms. Since then, urban development in and upstream of Floodville has increased the amount of stormwater runoff. Now, heavy rains overload the system more often. As a result, your area floods on an average of every 3 – 4 years.

The City of Floodville is concerned about repetitive flooding and has an active program to help you protect yourself and your property from future flooding. We are seeking funding support to construct reservoirs upstream of your area and to increase the downstream floodwater carrying capacity.

Meanwhile, here are some things you can do:

- 1 Check with the Building Department: (555-1234) on the extent of past flooding in your area. Department staff can tell you about the causes of repetitive flooding, what the City is doing about it, and what would be an appropriate flood protection level. City staff can visit your property to discuss flood protection alternatives.
- 2 Prepare for flooding by doing the following:
 - Know the flood safety guidance on the last page of this letter.
 - Know how to shut off the electricity and gas to your house when a flood comes.
 - Make a list of emergency numbers and identify a safe place to go to.
 - Make a household inventory, especially of basement contents.
 - Put insurance policies, valuable papers, medicine, etc. in a safe place.
 - Collect and put cleaning supplies, camera, waterproof boots, etc. in a handy place.
 - Develop a disaster response plan – See the Red Cross' website: www.redcross.org/services/disaster/ for a copy of the brochure "Your Family Disaster Plan"
 - Get a copy of *Repairing Your Flooded Home*. We have copies at the Public Works Department or it can be found on the Red Cross' website, too.

503.e Example Outreach Project to a Repetitive Loss Area, Page 1

3. Consider some permanent flood protection measures:

- Mark your fuse or breaker box to show the circuits to the floodable areas. Turning off the power to the basement can reduce property damage and save lives.
- Consider elevating your house above flood levels. This was done on St. Mary's Road near 40th Street. In 1998, the Foster Creek flood went under these houses without damaging them.
- Check your building for water entry points. These can be basement windows, the basement stairwell, doors, and dryer vents. These can be protected with low walls or temporary shields.
- Install a floor drain plug, standpipe, overhead sewer, or sewer backup valve to prevent sewer backup flooding.
- More information can be found in *Homeowner's Guide to Retrofitting: Six Ways to Protect Your House from Flooding*. Copies are in the Floodville Public Library or at www.fema.gov/hazards/floods/lib312.shtml
- Note that some flood protection measures may need a building permit and others may not be safe for your type of building, so be sure to talk to the Building Department.

5. Talk to the Building Department for information on financial assistance:

- The City administers a flood protection rebate program that will pay 25% of approved projects, up to a total of \$2,500. This program has funded low floodwalls, overhead sewers, sewer backup valves, and relocation of utilities to higher levels.
- If you are interested in elevating your building above the flood level or selling it to the City, we may apply for a Federal grant to cover 75% of the cost.
- Get a flood insurance policy – it will help pay for repairs after a flood and, in some cases, it will help pay the costs of elevating a substantially damaged building.

6. Get a flood insurance policy

- Homeowner's insurance policies do not cover damage from floods. However, because Floodville participates in the National Flood Insurance Program, you can purchase a separate flood insurance policy. This insurance is backed by the Federal government and is available to everyone, even for properties that have been flooded. Because Floodville participates in the Community Rating System, you will receive a reduction in the insurance premium.
- Because your area is not mapped as a Special Flood Hazard Area, you may qualify for a Preferred Risk Policy, which has special low premium.
- Some people have purchased flood insurance because it was required by the bank when they got a mortgage or home improvement loan. Usually these policies just cover the building's structure and not the contents. During the kind of flooding that happens in your area, there is usually more damage to the furniture and contents than there is to the structure. Be sure you have contents coverage.
- Don't wait for the next flood to buy insurance protection. There is a 30-day waiting period before National Flood Insurance Program coverage takes effect.
- Contact your insurance agent for more information on rates and coverage.

503.e Example Outreach Project to a Repetitive Loss Area, Page 2

510 FLOODPLAIN MANAGEMENT PLANNING

The CRS provides credit for preparing, adopting, implementing, evaluating, and updating a comprehensive floodplain management plan. The CRS does not specify what activities a plan must recommend, but it credits plans that have been prepared according to a standard 10-step planning process.

In 2001, FEMA promulgated hazard mitigation planning regulations pursuant to the Disaster Mitigation Act of 2000 (44 *CFR* 201.6). The 10-step CRS process is consistent with those regulations, which identify four essential parts to mitigation planning. The 10 steps are organized in the table below with the four mitigation planning requirements.

Disaster Mitigation Act Planning Regulations (44 <i>CFR</i> 201.6)	CRS Planning Steps	Maximum points
Planning process		
201.6(c)(1)	1. Organize	10
201.6(b)(1)	2. Involve the public	85
201.6(b)(2) & (3)	3. Coordinate	25
Risk assessment		
201.6(c)(2)(i)	4. Assess the hazard	20
201.6(c)(2)(ii) & (iii)	5. Assess the problem	35
Mitigation strategy		
201.6(c)(3)(i)	6. Set goals	2
201.6(c)(3)(ii)	7. Review possible activities	30
201.6(c)(3)(iii)	8. Draft an action plan	70
Plan maintenance		
201.6(c)(5)	9. Adopt the plan	2
201.6(c)(4)	10. Implement, evaluate, and revise	15
	Total	294

The 10-step planning process is explained in more detail in Section 511.a of the *Coordinator's Manual* and *Example Plans* (see page 52). An alternative approach is to conduct an analysis of each building in the community's repetitive loss area(s) and prepare an "area analysis" for each area following a five-step process (see Section 511.b of the *Coordinator's Manual*).

A Category C repetitive loss community **MUST** prepare a floodplain management plan or an area analysis that covers at least all of its repetitive loss areas (see pages 33–34). Both floodplain management plans and area analyses are covered in the *Coordinator's Manual*.

514 Application Documentation You must attach the following documentation to this page of your application. The ISO/CRS Specialist will explain what additional materials will be needed during the verification visit and for your annual recertification.

- ___ a. A copy of the floodplain management or hazard mitigation plan or area analyses.

520 ACQUISITION AND RELOCATION

Community: _____

Credit is provided for acquiring, relocating, or otherwise clearing buildings out of the floodplain. This activity credits any approach as long as an insurable building is removed from the path of flooding. Credit is not provided for structural flood control projects that result in revisions to floodplain boundaries (but see Activity 530 for credit for structural flood control projects). Acquisition and relocation credit is provided only if the property qualifies for preserved open space (i.e., the property would meet the credit criteria for vacant lots under Activity 420 (Open Space Preservation)).

CRS credit is provided only for acquisition or relocation projects undertaken after the date of your community's initial FIRM. Credit is provided only if the lot is still vacant, even if a new building was built to flood protection standards. Credit is provided only for removing the main building on a lot, not for removing garages, sheds, or other accessory structures.

521 Credit Points

- ___ a. Enter 5 points for each building your community has acquired, relocated, or otherwise cleared from your SFHA since your initial FIRM date. Do not count properties on your FEMA repetitive loss list.
- ___ b. Enter 10 points for each building on FEMA's repetitive loss list (see page 33) that has been acquired, relocated, or otherwise cleared. These buildings do not have to be in the SFHA.
- ___ Enter the total of a and b. Enter this value in the blank after "520" on page 48. If the value is more than 100, enter 100.

524 Application Documentation No attachments are submitted with your application. The ISO/CRS Specialist will explain what additional materials will be needed during the verification visit and for your annual recertification. You must have the following items available for the verification visit:

- ___ a. A map showing all parcels where buildings have been demolished or relocated since the effective date of the FIRM.
- ___ b. Documentation that shows that each site credited also qualifies for credit as preserved open space under Activity 420 (Open Space Preservation).
- ___ c. A count or estimate of the total number of buildings remaining in your SFHA. For the purposes of this activity, accessory structures, such as garages or sheds, are not counted.
- ___ d. Real estate or permit records that document the date each building was removed.

530 FLOOD PROTECTION

Community: _____

Credit is provided for protecting buildings from flood damage through either of two methods:

- Retrofitting the buildings so that they suffer no or minimal damage when flooded. Credited retrofitting methods include:
 - Elevating buildings above flood levels,
 - Dry floodproofing,
 - Wet floodproofing, and
 - Protecting basements from sewer backup.
- Constructing small flood control projects that keep flood waters from reaching the buildings or lower the level of flood waters. Credited methods include:
 - Barriers, including levees, berms, and floodwalls;
 - Channel modifications, including enlarging bridges and culverts;
 - Diversions;
 - Storm sewer improvements, including enclosing open channels; and
 - Small reservoirs, including retention and detention basins.

The following techniques are *NOT* credited under this activity:

- Projects that protect to less than the 25-year flood level;
- Projects not legally permitted or that have an adverse impact on the environment;
- Retrofitting projects that require human intervention or are in high hazard area;
- Structural flood control projects owned AND operated by a federal agency;
- Structural flood control projects not designed by a licensed professional engineer;
- Levees or floodwalls that protect more than one property (such levees are covered under Activity 620 (Levee Safety)); and
- Dams that do not meet dam safety requirements.

531 Credit Points

_____ Enter 4 points for each building in your SFHA that has been protected from flooding since your initial FIRM date. Do not count buildings on FEMA's repetitive loss list. Use the following criteria:

- An accessory structure such as a garage or shed is not counted as a building.
- Replacing a pre-FIRM building with a new building is not counted.
- Projects implemented in order to meet a minimum requirement of the NFIP (e.g., elevating a substantially damaged house) are not credited by the CRS.
- Count only buildings in the SFHA. If a project resulted in a new map that removed a building from the SFHA, it is not counted.

_____ Using the same criteria, enter 8 points for each protected building that is also on FEMA's repetitive loss list or is considered a critical facility.

Do not count more than a total of 20 buildings under both criteria.

_____ Enter the total of the above. Enter this value in the blank after "530" on page 48.

534 Application Documentation No attachments are submitted with your application. The ISO/CRS Specialist will explain what additional materials will be needed during the verification visit and for your annual recertification.

540 DRAINAGE SYSTEM MAINTENANCE

Under this activity, a community receives credit for defining its drainage system, inspecting it, removing debris, correcting drainage problem sites, and regulating dumping in the system.

For the purposes of this activity, a community's drainage system consists of all natural and human-made watercourses, conduits, and storage basins that must be maintained in order to prevent flood damage to buildings (including repetitive loss properties) from smaller, more frequent storms. In some communities, this will include streets, roadside ditches, underground storm sewers, and inlets, as well as open channels and detention and retention basins. The defined drainage system must also cover those areas having repetitive loss properties (see page 33), where the cause of the losses was due to local drainage problems or smaller, more frequent storms.

Your channel and basin debris removal program (Section 541.a) must be documented with written procedures, which must cover five points:

1. **Identification of who is responsible:** Typically, this is the public works department. This section should include other agencies that are responsible for certain parts of the drainage system (e.g., a drainage district (responsible for larger canals) or the state highway department (responsible for highway bridges and culverts)). The community is still responsible for providing the materials needed to verify the program.
2. A **description and map of the community's drainage system**, the areas covered by the program, and a description of the types of channels (e.g., natural or human-made). These descriptions are only needed for the developed portions of the community. The description must include a map of all open channels and storage basins in the developed area and show which ones are subject to the maintenance program. The drainage maintenance staff must have access to the property to conduct inspections and to perform the maintenance unless the community has the legal authority to order the owners to correct the problems.
3. The **procedures for inspection**, including when regular inspections are conducted and how soon inspections are conducted after a complaint or a storm. If you are applying for credit under 541.a.2 for identifying specific problem sites and inspecting and maintaining them differently or more frequently, then those sites and the inspection procedures also need to be included in the procedures.
4. The **debris removal procedures**, including how soon after an inspection an area must be cleared and what can and cannot be removed. The procedures may be different for different streams. For example, they may call for the public works department to remove downed trees and underbrush from human-made ditches but to leave them in parks or natural areas. Simply stating that "problems are corrected" or "debris is removed" is not an adequate description of what actions are to be taken for the different types of materials that may be found.
5. The **forms or records** that are used for the inspections and follow up maintenance.

Examples of drainage maintenance procedures can be found in *CRS Credit for Drainage System Maintenance* (see page 51).

540 DRAINAGE SYSTEM MAINTENANCE

Community: _____

541 Credit Points

a. Channel and basin debris removal

- ___ 1. Enter 100 points if your drainage maintenance program includes all the following:
- (a) An inspection is conducted at least once each year,
 - (b) An inspection is conducted after each major storm,
 - (c) Inspections are conducted in response to citizens complaints, and
 - (d) Action is taken after an inspection identifies a need for maintenance.
- ___ 2. Enter 25 points if your program identifies specific problem sites that are inspected and maintained differently or more frequently than other parts of the drainage system.
- ___ 3. Enter 20 points if you have an ongoing program, such as a capital improvements plan, to eliminate or correct problem sites or to construct low maintenance channels or other facilities. There is no credit for this item if the community does not spend money on a regular basis on such improvement projects (a one-time-only project is not credited).
- ___ b. Enter 15 points if you have regulations that prohibit dumping in the drainage system. Enter 30 if you have the regulations and if your outreach project to the community, credited under Activity 330, covers the topic of drainage system maintenance
- ___ Enter the total. Enter this value in the blank after "540" on page 48.

544 Application Documentation You must attach the following documentation to this page of your application. The ISO/CRS Specialist will explain what additional materials will be needed during the verification visit and for your annual recertification. Check each section that applies:

- ___ a. Your drainage system inspection and maintenance procedures. See the previous page for guidelines. Each of the five points on page 40 must be marked in the procedures you submit.
- ___ b. [Required if you are applying for credit under Section 541.a.3] Excerpts of the capital improvements program or other documentation that shows the community (or other drainage maintenance agency) has an ongoing program to reduce drainage maintenance problems.
- ___ c. [If you are applying for credit under Section 541.b] A copy of your stream dumping ordinance or law.

You must have the following items available for the verification visit. Check that you will have these available:

- ___ f. Inspection forms or other documentation that demonstrate that the inspections and maintenance were performed. This documentation must be the same as that described in your procedures (see Section 5 on the previous page).

610 FLOOD WARNING PROGRAM

Credit is provided for a program that provides timely identification of impending flood threats, disseminates warnings to appropriate floodplain occupants, and coordinates flood response activities. Your community must have a flood threat recognition system that identifies an impending flood in order to receive credit under this activity. A separate publication, *CRS Credit for Flood Warning Programs*, provides an example of a community program and application documentation (see page 51).

Here is a summary of the four parts to the credit for this activity and their prerequisites:

- a. **Flood threat recognition system.** This system tells emergency management officials that a flood is coming. Examples of creditable systems include river stage reports from the National Weather Service, reports from the National Hurricane Center, or a locally developed system, such as an IFLOWS or ALERT system. The system must meet the following prerequisites: (1) the notice must be generated by meteorologic and/or hydrologic data, (2) the system must be able to forecast specific flood conditions for at least one specific location in your community, and (3) it must be regularly maintained and tested at least annually.
- b. **Emergency warning dissemination.** A warning can be disseminated to the public via sirens, mobile public address system, telephones, radio, or other means. The warning procedures must meet the following prerequisites: (1) You must receive credit for the flood threat recognition system in Section 613.a; (2) Your community must have adopted an emergency response plan and the warning procedures must be in that plan or in appendices or procedures adopted or developed as part of that plan; (3) The warning must be disseminated in ways that can reach people in a timely manner, including during heavy storms or at night. If the warning lead time is under 12 hours, it is not sufficient to rely solely on radio and television announcements; (4) The warning dissemination equipment and procedures must be tested at least annually; and (5) Your community must conduct an annual outreach project such as those credited under Activity 330 (Outreach Projects), Sections 331.a or b. The project must cover the topics of flood warning and flood safety (topics 3 and 4). The project must reach at least 90% of the target audience.
- c. **Other response efforts.** Your flood response plan specifies other steps to be implemented when a flood warning is issued, such as when and which streets to close, when to order an evacuation, when and what city equipment should be moved to high ground, etc. This effort must meet the following prerequisites: (1) You must receive credit for Sections 613.a and b; and (2) Your community must conduct at least one exercise of the plan each year.
- d. **Critical facilities planning.** Your community warns and coordinates with critical facilities that are affected by flooding. This effort must meet the following prerequisites: (1) You must receive credit for Sections 613.a and b; and (2) Your community must update the information on critical facilities at least annually.

If your community experienced a flood that damaged more than 10 buildings, caused more than \$50,000 in property damage, or caused the death of one or more persons, you must submit an evaluation report that describes the performance of the warning program with your annual CRS recertification. The report must describe how the program operated in response to the flood and any improvements that may be needed.

610 FLOOD WARNING PROGRAM

Community: _____

611 Credit Points

- ___ a. Enter 20 points if your community has a flood threat recognition system that meets the criteria specified in Section 610.a on the previous page.
- ___ b. Enter 20 points if your community disseminates emergency warnings according to procedures that meet the criteria specified in Section 610.b on the previous page.
- ___ c. Enter 15 points if your flood response plan specifies other flood response efforts and meets the criteria specified in Section 610.c on the previous page.
- ___ d. Enter 10 points if your community coordinates with critical facilities and this effort meets the criteria specified in Section 610.d on the previous page.
- ___ e. Enter 25 points if your community has been designated as a StormReady or a TsunamiReady community by the National Weather Service and you have credit under 611.a. For more information, see <http://www.nws.noaa.gov/stormready/>.
- ___ Enter the total of a through e. Enter this value in the blank after "610" on page 48.

614 Application Documentation You must attach the following documentation to your application. The ISO/CRS Specialist will explain what additional materials will be needed during the verification visit and for your annual recertification. Check each section that applies:

- ___ a. A description of your community's flood threat recognition system. The following items must be included and the margins must be marked so these items can be located by the reviewer: (1) A description of the flood hazard; (2) A description of the areas affected by flooding and the impact of flooding on those areas; (3) A description of the system used to recognize and evaluate an impending flood; and (4) Flood warning lead times for each body of water covered by the program.
- ___ b. [If you are applying for credit under Sections 611.b through d]:
 - ___ 1. Documentation that the flood response plan has been formally adopted by your community's governing board.
 - ___ 2. Copies of those portions of the plan or other documents demonstrating that the credit is appropriate. The credited section names or numbers must be marked in the margins (e.g., "critical facilities" or "611.d").
 - ___ 3. A copy of the outreach project to the community or to floodplain properties that covers flood warning and safety.
- ___ c. A map of all your floodplains that shows the areas covered by your warning program.

The office responsible for the flood warning program will be asked to complete a questionnaire on the community's program to facilitate verification of this activity. Include the name, title, and phone number of the person responsible for the flood warning program:

620 LEVEE SAFETY

Community: _____

This activity provides credit to communities protected by levees that are properly maintained and operated but are not high enough to meet the criteria for mapping base flood levees. A community may receive this credit PROVIDED that the levee is NOT shown on the community's FIRM as protecting to the base flood. There is no credit under this activity if the area protected by the levee is designated as an AO, A99, AR, B, C, or X Zone or an AE or A numbered zone with the base flood elevation lower than on the water side of the levee.

621 Credit Points For this credit, the following conditions must be met:

- a. The levee's flood protection level must be above the 25-year protection level. The flood protection level can be determined in one of two ways: (1) it may be determined by the U.S. Army Corps of Engineers or other federal agency that has inspected the levee; or (2) in the absence of a determination by a federal agency with jurisdiction, the levee's flood protection level is 3 feet below the lowest point of the crown.
- b. The levee must have been constructed before January 1, 1991.
- c. You must have a levee emergency plan that specifies what to do at various flood stages. Actions that must be included are (1) periodic patrols of the structure; (2) closing openings that are structural parts of the system (sandbagging is not acceptable); (3) warning local emergency officials when the flood reaches within 4 feet of the crown of the levee; (4) monthly communications checks with local emergency officials; (5) annual inspections of emergency equipment and stockpiles; and (6) annual drills.
- d. Each year, your community must notify properties protected by the levee of the residual flood hazard.

_____ If your community has at least five insurable buildings protected by a qualifying levee, enter 20 points. Enter this value in the blank after "620" on page 48. The ISO/CRS Specialist will calculate the verified score based on the levee protection level, the number of buildings protected, and the total number of buildings in your SFHA.

624 Application Documentation You must attach the following documentation to this page of your application. The ISO/CRS Specialist will explain what additional materials will be needed during the verification visit and for your annual recertification. Check each section that applies:

- _____ a. EITHER: (1) a statement signed by the U.S. Army Corps of Engineers or other federal agency with jurisdiction that has inspected the levee that states the levee protection level and provides the date of construction; OR (2) a certification by a licensed professional engineer that states that the levee or floodwall meets all the NFIP levee recognition requirements (44 *CFR* 65.10) except for height (65.10(b)(1)) (these are reprinted in the *Coordinator's Manual*), provides the date of construction, and provides the protection elevation and the flood recurrence interval for that elevation. Data sources and calculations must be included.
- _____ b. A copy of the community's levee emergency plan.
- _____ c. A copy of the officially adopted levee maintenance plan.
- _____ d. A map showing the area the levee protects.

630 DAM SAFETY

Community: _____

This activity provides credit for any community in a state with a dam safety program that has submitted the necessary documentation of its program to FEMA.

631 Credit Points

_____ a. Enter the credit points for your state's dam safety program that you obtained from your FEMA Regional Office (see item 4 on page 5). Prerequisite: if your community owns or operates a dam, it must meet your state's dam safety standards.

_____ b. Enter 10 points if your community has a dam failure emergency response plan or dam failure annex to your emergency response plan that includes:

- Notification procedures for occasions when a dam appears to be threatened by high water or possible failure,
- A map with flood elevations and flood arrival times for the areas that will be affected by a dam failure,
- Annual exercises and post-exercise evaluations used to revise the plan,
- Annual reports from the dam operators on their safety and operational status, and
- Monthly communication checks with the dam operators.

_____ Enter an additional 10 points if your dam failure emergency response plan also includes at least three methods of warning affected residents of an imminent flood.

_____ Enter an additional 10 points if your dam failure emergency response plan also includes evacuation routes, warning procedures for critical facilities, and annual outreach projects that notify residents of the hazards and appropriate safety measures.

_____ Enter the total of the above. Enter this value in the blank after "630" on page 48.

634 Application Documentation

No documentation is needed for your state's dam safety program under Section 631.a.

_____ [If you are applying for credit under Section 631.b] The dam failure portions of the community's emergency response plan, marked to show the items for which credit is requested.

The ISO/CRS Specialist will explain what additional materials will be needed during the verification visit and for your annual recertification. The office responsible for the dam failure portions of the community's emergency response plan will be asked to complete a questionnaire on the community's program to facilitate verification of this activity.

720 COMMUNITY TOTAL POINTS

Community: _____

____ 711.a. Enter your community's growth adjustment factor that you obtained from your ISO/CRS Specialist (see item 5 on page 5). Enter this number in each blank in the second column below, after the "x." This may increase the credit points for the mapping and regulatory activities in the 400 series for communities in growing areas.

Enter each activity's value in the blank after the activity's number. If you did not apply for an activity, enter zero in the blank. In the 400 series, multiply the first column by the second column (growth adjustment) to arrive at the values in the third column.

		310	_____	
		320	_____	
		330	_____	
		340	_____	
		350	_____	
		360	_____	
410	_____ x _____	=	_____	
420	_____ x _____	=	_____	
430	_____ x _____	=	_____	
430LD	_____ x _____	=	_____	
440	_____ x _____	=	_____	
450	_____ x _____	=	_____	
		510	_____	
		520	_____	
		530	_____	
		540	_____	
		610	_____	
		620	_____	
		630	_____	

Enter the total of the above: _____

You need 500 points to receive a Class 9 CRS classification. You should apply for more than 500 points in case some points are lost during verification. If the total of your activity points is less than 500, you need to apply for additional activities or your application may be returned.

APPENDIX A. FEMA REGIONAL OFFICES

NOTE: The name and telephone number of the State NFIP Coordinator can be obtained from these offices. The names and telephone numbers of the ISO/CRS Specialists are found in Appendix C.

REGION I

Connecticut, Maine, Massachusetts,
New Hampshire, Rhode Island, Vermont

FEMA Region I
99 High St., 6th Floor
Boston, MA 02110
(617) 832-4612
Fax: (617) 956-7574

REGION II

New Jersey, New York, Puerto Rico, Virgin Islands

FEMA Region II
26 Federal Plaza, Rm. 1307
New York, NY 10278-0002
(212) 680-3620
Fax: (212) 680-3602

REGION III

Delaware, District of Columbia, Maryland,
Pennsylvania, Virginia, West Virginia

FEMA Region III
615 Chestnut St.
One Independence Mall, 6th Floor
Philadelphia, PA 19106-4404
(215) 931-5512
Fax: (215) 931-5501

REGION IV

Alabama, Florida, Georgia, Kentucky, Mississippi,
North Carolina, South Carolina, Tennessee

FEMA Region IV
3003 Chamblee Tucker Rd.
Atlanta, GA 30341
(770) 220-5400
Fax: (770) 220-5440

REGION V

Illinois, Indiana, Michigan, Minnesota,
Ohio, Wisconsin

FEMA Region V
536 South Clark St., 6th Floor
Chicago IL 60635
(312) 408-5500
Fax: (312) 408-5551

REGION VI

Arkansas, Louisiana, New Mexico,
Oklahoma, Texas

FEMA Region VI
FRC 800 N. Loop 288
Denton, TX 76209
(940) 898-5127
Fax: (940) 898-5195

REGION VII

Iowa, Kansas, Missouri, Nebraska

FEMA Region VII
2323 Grand Blvd., Suite 900
Kansas City, MO 64108-2670
(816) 283-7002
Fax: (816) 283-7018

REGION VIII

Colorado, Montana, North Dakota, South Dakota,
Utah, Wyoming

FEMA Region VIII
Federal Center, Bldg. 710
Box 25267
Denver, CO 80225-0267
(303) 235-4830
Fax: (303) 235-4849

REGION IX

Arizona, California, Hawaii, Nevada

FEMA Region IX
1111 Broadway, Suite 1200
Oakland, CA 94169
(510) 627-7184
Fax: (510) 627-7147

REGION X

Alaska, Idaho, Oregon, Washington

FEMA Region X
Federal Regional Center
130 228th St., S.W.
Bothell, WA 98021-9796
(425) 487-4678
Fax: (425) 487-4613

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APPENDIX B. PUBLICATIONS

Except as noted, the following documents are available at no cost. The end of this appendix includes two order forms.

General References on the Community Rating System (CRS)

CRS Coordinator's Manual, 2007. 300+ pages. Includes the current *Schedule and Commentary*. The *CRS Coordinator's Manual* is the primary document used by communities for the Community Rating System. It includes detailed discussion of credits provided for various floodplain management activities and instructions on the calculation of credit. The *CRS Coordinator's Manual* is used to verify CRS credit and for modifications of a community's CRS credit for a better classification.

CRS Activity Worksheets, 2007, 55 pages. The worksheets are used to calculate the verified activity scores and to submit modifications.

The National Flood Insurance Program's Community Rating System. These are several color brochures that summarize the CRS for distribution to elected officials, residents, and others who want an overview of the program.

"Computerized Calculations for the Community Rating System," 2007. A stand-alone program for IBM-compatible personal computers (on a compact disk) that guides data entry and calculates credit points. A copy of the user's guide is included. This software prints worksheets that may be used for submitting modifications as an alternative to the paper Activity Worksheets.

CRS Record-Keeping Guidance, 2007. Guidance on keeping track of records and annual actions such as outreach projects for CRS credit. The guide includes sample forms.

References on Specific Activities

"Computerized Format for FEMA Elevation Certificates," 2007. A program for entering and retrieving data from FEMA elevation certificates. Meets the requirements for credit for elevation certificates in computerized format under Activity 310 of the CRS. Requires an IBM-compatible PC and a compact disk drive.

CRS Credit for Dam Safety, 2006. 35 pages. A discussion of state and local dam safety programs credited under Activity 630 (Dam Safety) in the *CRS Coordinator's Manual*, with examples.

CRS Credit for Drainage System Maintenance, 2006. 80 pages. A discussion of the credit under Activity 540 (Drainage System Maintenance) in the *CRS Coordinator's Manual*, with examples.

CRS Credit for Flood Warning Programs, 2006. 50 pages. A discussion of the credit under Activity 610 (Flood Warning Program) in the *CRS Coordinator's Manual*, with examples.

CRS Credit for Outreach Projects, 2006. 80 pages. A discussion of the credit under Activity 330 (Outreach Projects) in the *CRS Coordinator's Manual*, with examples.

CRS Credit for Higher Regulatory Standards, 2006. 60 pages. A discussion of the credit under Activity 430 (Higher Regulatory Standards) in the *CRS Coordinator's Manual*, with examples.

CRS Credit for Stormwater Management, 2007. 70 pages. A discussion of the credit under Activity 450 (Stormwater Management) in the *CRS Coordinator's Manual*, with examples.

Example Plans, 2007. 100 pages. A discussion of credit for Floodplain Management Planning (Section 510 in the *CRS Coordinator's Manual*), with examples.

“National Flood Mitigation Data Collection Tool,” 2005. Developed by FEMA to gather information related to risk, building construction, and costs to help choose appropriate mitigation measures for a floodprone property.

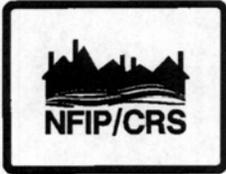
References on Special Flood-Related Hazards

The following references cover the special flood-related hazards. They must be used by communities wishing to apply for CRS credit for management of the seven special hazard areas. They include worksheets needed for special hazards credit.

Special Hazards Supplement to the CRS Coordinator's Manual

CRS Credit for Management of Coastal Erosion Hazards

CRS Credit for Management of Tsunami Hazards.



Community Rating System Publications

The following publications can be obtained free by folding and mailing this form (to the address on the back) or faxing it to 317-848-3578. If you want more than one copy, call (317) 848-2898. All of the "General and Application" and "Specific Activities" publications are available for downloading from FEMA's website, <http://training.fema.gov/emiweb/CRS/index.htm>, or on an IBM-compatible compact disk.

___ Check here if you prefer a paper copy of individual documents instead of the CD.

General and Application

- ___ *CRS Coordinator's Manual*
- ___ *CRS Activity Worksheets*
- ___ *CRS Application*
- ___ *The National Flood Insurance Program's Community Rating System* (color brochures)
- ___ *CRS Record Keeping Guidance*

Specific Activities

- ___ *CRS Credit for Drainage System Maintenance*
- ___ *CRS Credit for Dam Safety*
- ___ *CRS Credit for Flood Warning Programs*
- ___ *CRS Credit for Outreach Projects*
- ___ *CRS Credit for Higher Regulatory Standards*
- ___ *CRS Credit for Stormwater Management*
- ___ *Example Plans*

Software

- ___ "Computerized Calculations for the Community Rating System" (IBM-compatible compact disk)
- ___ "Computerized Format for FEMA Elevation Certificates" (IBM-compatible compact disk)
- ___ "National Flood Mitigation Data Collection Tool"

Special Hazards

- ___ *Special Hazards Supplement to the CRS Coordinator's Manual*
- ___ *CRS Credit for Management of Coastal Erosion Hazards*
- ___ *CRS Credit for Management of Tsunami Hazards*

Please send these publications to (please specify a street address, not a post office box):

Name: _____

Address: _____

City: _____ State: _____ Zip: _____

Community Name: _____

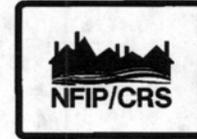
Stamp

Flood Publications
NFIP/CRS
P.O. Box 501016
Indianapolis, IN 46250-1016

[Fold, staple or tape, and mail]



**Federal Emergency Management Agency
Community Rating System Publications**



The following publications are available free by faxing this form to (301) 362-5335. If you want more than one copy, call 1-800-480-2520. Each publication was written for a target audience:

GP - general public E - engineers and architects O - planners and permit officials

Libraries are encouraged to order only those publications noted with a "GP." Items noted with an asterisk can also be found on FEMA's website: <http://www.FEMA.gov>.

Documents on flood maps and studies

- ___ GP *How to Use a Flood Map to Protect Your Property*, FEMA-258, 1995.
- ___ E, O **Managing Floodplain Development in Approximate Zone A Areas*, FEMA-265, 1995.
- ___ E **Flood Insurance Study Guidelines and Specifications for Study Contractors*, FEMA-37, 1999.

Documents on flood insurance

- ___ GP **Answers to Questions about the National Flood Insurance Program*, FEMA-387, 2001.
- ___ GP **Mandatory Purchase of Flood Insurance Guidelines*, FEMA-186, September 1999.

Documents on protecting a building

- ___ GP **Repairing Your Flooded Home*, FEMA-234, 1992.
- ___ GP **Homeowner's Guide to Retrofitting*, FEMA-312, 1998.
- ___ GP **Above the Flood: Elevating Your Floodprone House*, FEMA-347, 2000.
- ___ GP **Elevated Residential Structures*, FEMA-54, 1984.
- ___ GP *Coastal Construction Manual*, FEMA-55, 2000.
- ___ GP **Manufactured Home Installation in Flood Hazard Areas*, FEMA-85, 1985.
- ___ GP **Floodproofing Nonresidential Structures*, FEMA-102, 1986.
- ___ GP *Design Manual for Retrofitting Flood-prone Residential Structures*, FEMA-114, 1986.
- ___ E, O **Protecting Building Utilities from Flood Damage*, FEMA-102, 1986.
- ___ E **Engineering Principles and Practices for Retrofitting Flood Prone Residential Buildings*, FEMA-259, 1995.
- ___ O **Answers to Questions about Substantially Damaged Buildings*, FEMA-213, 1991
- ___ GP **Mitigation of Flood and Erosion Damage to Residential Buildings in Coastal Areas*, FEMA-257, 1994.

Documents on community floodplain management or flood hazard mitigation

- ___ GP *A Unified National Program for Floodplain Management*, FEMA-248, 1994.
- ___ GP **Design Guidelines for Flood Damage Reduction*, FEMA-15, 1981.
- ___ O **Reducing Losses in High Risk Flood Hazard Areas—A Guidebook for Local Officials*, FEMA-116, 1987.
- ___ GP,O **Planning for a Sustainable Future: The Link Between Hazard Mitigation and Livability*, FEMA-364, 2000.

Documents on natural and beneficial floodplain functions

- ___ GP, O *Protecting Floodplain Resources, A Guidebook for Communities*, FEMA-268, 1995

Please send these publications to (please specify a street address, not a post office box):

Name: _____

Address: _____

City: _____ State: _____ Zip: _____

Community Name: _____ NFIP Number: _____
(if applicable) (if applicable)

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APPENDIX C. ISO/CRS SPECIALISTS

Alabama – Sherry Harper	Montana – Kerry Redente
Alaska – Linda Ryan	Nebraska – Kerry Redente
Arizona - Ron Mielnicki	Nevada - Ron Mielnicki
Arkansas – Janine Ellington	New Hampshire - Jimmy Chin
California – Ron Mielnicki (S), Dave Arkens (N)	New Jersey – Tom Brett
Colorado – Kerry Redente	New Mexico – Kerry Redente
Connecticut - Jimmy Chin	New York (Long Island) – Jimmy Chin
Delaware – Tom Brett	New York (Upstate) – David Van Troost
Florida - Gabe Gambrell, Sherry Harper, Sue Hopfensperger, Heidi Liles, Lori Hudson	North Carolina – Mandy Todd
Georgia – David Van Troost	North Dakota – Kerry Redente
Hawaii – Ron Mielnicki	Ohio – Jimmy Chin
Idaho – Linda Ryan	Oklahoma – Janine Ellington
Illinois – Scott Cofoid	Oregon – Dave Arkens
Indiana – Scott Cofoid	Pennsylvania - Tom Brett
Iowa – Kerry Redente	Rhode Island - Jimmy Chin
Kansas – Kerry Redente	South Carolina – David Van Troost
Kentucky – Sherry Harper	South Dakota - Kerry Redente
Louisiana – Sherry Harper	Tennessee – Sherry Harper
Maine - Jimmy Chin	Texas - Janine Ellington
Maryland - Tom Brett	Utah – Kerry Redente
Massachusetts - Jimmy Chin	Vermont - Jimmy Chin
Michigan - Scott Cofoid	Virginia - Tom Brett
Minnesota - Scott Cofoid	Washington – Linda Ryan
Mississippi – Sherry Harper	West Virginia - Tom Brett
Missouri – Kerry Redente	Wisconsin – Scott Cofoid
	Wyoming – Kerry Redente

Telephone numbers are for both voice and fax.

David Arkens
2312 Tulane Ave.
Central Point, OR 97502
541/664-9966
dmarkens@iso.com

Tom Brett
1327 Old Meadow Road
Pittsburgh, PA 15241
412/221-4679
tbrett@iso.com

Jimmy Chin
6 Stedman Street - #1
Brookline, MA 02446
617/734-9424
jchin@iso.com

Scott Cofoid
1126 Schuyler Street
Peru, IL 61354
815/220-1002
scofoid@iso.com

Janine Ellington
614-C S. Business IH35
#28H
New Braunfels, TX 78130
830/899-6422
jellington@iso.com

Gabe Gambrill
125 Colombard Court
Ponte Vedra Beach, FL
32082
904/280-1268
hgambrill@iso.com

Sherry Harper
2382 Susan Drive
Crestview, FL 32536
850/682-1998
sharper@iso.com

Sue Hopfensperger
636 Cashiers Dr.
West Palm Beach, FL
33413
561/543-1122
shopfensperger@iso.com

Lori Hudson
14320 Salem Church Road
Dover, FL 33527
813/215-8074
lhudson@iso.com

Heidi Liles
282 West Sabal Palm Place
Longwood, FL 32779
407/774-7494
hliles@iso.com

Ron Mielnicki
P.O. Box 2819
2375 W. Willow Breeze Rd.
Chino Valley, AZ 86323
928/636-5969
rmielnicki@iso.com

Kerry Redente
12500 County Rd. 258
Salida, CO 81201
719/539-6501
kredente@iso.com

Linda Ryan
270 Bluebird Lane
Tillamook, OR 97141
503/842-0029
lryan@iso.com

Mandy Todd
1993 Meadowood Lane
Longs, SC 29568
843/399-5127
ktodd@iso.com

David Van Troost
340 So. Pearl St.
Canandaigua, NY 14424
585/394-3815
dvanthroost@iso.com

A community interested in more information on obtaining flood insurance premium credits through the Community Rating System (CRS) should have the *CRS Coordinator's Manual*. It and other publications on the CRS are available free from:

Flood Publications
NFIP/CRS
P.O. Box 501016
Indianapolis, IN 46250-1016
(317) 848-2898
Fax: (317) 848-3578
NFIPCRS@ISO.com

The Emergency Management Institute (EMI) is a FEMA training center located in Emmitsburg, Maryland. It offers five-day courses on:

- The Community Rating System
- Digital Hazard Data
- Managing Floodplain Development through the National Flood Insurance Program
- Retrofitting Floodprone Residential Buildings
- Residential Coastal Construction.

As noted on pages 25 and 29, CRS credit is provided for graduating from the last two courses. Stipends to cover travel, registration, and rooms are usually available from FEMA. For more information, call EMI at 1-800-238-3358 or your state emergency management agency's training office.

There are also home study courses on these and other topics. They can be reviewed on the EMI website, <http://training.fema.gov/EMIWeb/EMICourses/>. You can enroll in these independent study courses on line, too.